

EDITION 2016

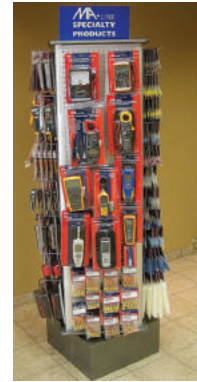
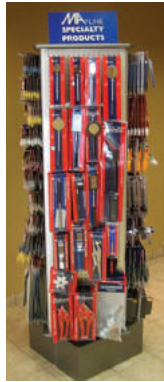


**SPECIALTY PRODUCTS FOR THE HVAC & R INDUSTRY**

**FULL-LINE  
PRODUCT  
CATALOG**

**2016**

**DON'T FORGET TO INQUIRE ABOUT OUR SPINNING FLOOR DISPLAY RACKS  
OR OUR COUNTER DISPLAY RACKS!**



**MA-LINE PRODUCTS ARE FOR LICENSED AND PROFESSIONAL TRADESPEOPLE ONLY**

### TERMS AND CONDITIONS

MA-LINE ITEMS WILL NOT BE ACCEPTED BACK FOR CREDIT OR REPLACEMENT WITHOUT AN AUTHORIZED RETURN GOODS NUMBER. A CREDIT WILL **NOT** BE ISSUED UNLESS THE RETURN IS ACCOMPANIED BY A MA-LINE INVOICE OR PACKING SLIP. A MATERIAL CREDIT WILL BE ISSUED. REFUND CHECKS ARE NOT AVAILABLE.

ALL DISCREPANCIES **MUST** BE REPORTED WITHIN 24 HOURS OF RECEIPT.

PRICING DISKS ARE AVAILABLE IN EXCEL FORMAT

PAYMENT TERMS: NET 30 DAYS

FREIGHT PREPAID TERMS: \$1500.00

PRICES AND TERMS ARE SUBJECT TO CHANGE WITHOUT NOTICE DUE TO THE FLUCTUATION IN THE METALS MARKET

### **WEBSITE:**

<http://www.ma-line.com>

### **MAILING ADDRESS:**

P.O. BOX 866 ARLINGTON HEIGHTS, IL 60006-0866 USA

### **SHIPPING ADDRESS:**

1050 EAST ADDISON COURT ARLINGTON HEIGHTS, IL 60005-4796 USA

# DESIGN YOUR OWN RACK

Purchase **APPROVED ELIGIBLE HANGING PRODUCT** and you can request a MA-LINE Spinning Display Rack. Our Display Rack includes: a base, 4 pegboard panels, hooks, a MA-LINE sign, and re-order cards. Your commitment is simply to hang only **MA-Line Products** on the rack.

**ELIGIBLE HANGING PRODUCT** includes MA-LINE products that are designed to hang on the MA-LINE Rack. MA-Line products that do **not** hang on the rack would not count toward the requirement. For example: Inspection Mirrors are eligible but Clear Vinyl Tubing is not packaged to hang therefore is **not** eligible toward the requirement. **CALL US TODAY AND ASK FOR DETAILS!**

## ASSORTED METERS FOR ALL PURPOSES



MA-3268C-6      MA-IR9PEN      MA-12818

## THERMOMETERS ASSORTED TYPES AVAILBLE

DIAL  
DIGITAL



MA-RT819



MA-RT900



MA-PDT392B

## SERVICE TOOLS



MA-QP400

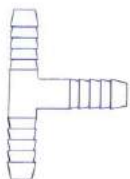


MA-49317



MA-FB2

## VARIETY OF FITTINGS



NYLON FITTINGS  
ELBOWS  
ADAPTORS  
TEES  
BUSHINGS....



AF1200

R  
A  
C  
K  
  
D  
I  
M  
E  
N  
S  
I  
O  
N  
S



79"H  
X  
20"W  
X  
20"D  
APPROX.

## SPINNING DISPLAY RACK MA06007-1R

D  
I  
M  
E  
N  
S  
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O  
N  
S



20"H  
X  
24"W  
X  
9"D  
APPROX.

## COUNTER DISPLAY RACK CR-RACK

## INSPECTION MIRRORS VARIETY OF SHAPE & SIZES AVAILABLE



MA-149

MA-IM24

MA-142A

## FLASHLIGHTS HEADLAMPS & WORKLIGHTS ALSO AVAILABLE



MA-FL6278



MA-FL460

## ASSORTED TERMINALS

SOLDERLESS  
HI-TEMP



MA02726-1

RINGS



MA02825-1



MA02823-1

QUICK  
DISCONNECTS

INSULATED  
NON-INSULATED



MA02773-1

SPADES

## WIRE TIES/ WIRE CONNECTORS (ASSORTED SIZES AVAILABLE)



WIRE  
TIES



WIRE  
CONNECTORS

KNIVES

HAND TOOLS

TEST LEADS



**MA-33C**  
**PALM SIZE DIGITAL**  
**MULTI-METER**

INCLUDES :  
MA-DMTL1, MA-DMTP, CASE,  
MANUAL & (1) 9V BATTERY



**MA-MY69**  
**AUTO-RANGING**  
**DIGITAL**  
**MULTI – METER**

INCLUDES :  
MA-DMTL1, MA-DMTK, CASE,  
MANUAL & (1) 9V BATTERY



**MA-12700A**  
**MEGOHMMETER**  
**AUTO-RANGING**  
**INSULATION TESTER**

INCLUDES:  
TEST LEADS, CASE, MANUAL  
& (6) AA BATTERIES



**MA-12817B**  
**DIGITAL**  
**MULTI-METER**  
**WITH TEMPERATURE**

INCLUDES:  
MA-DMTL1, MA-DMTK, CASE,  
MANUAL, (1) 9V BATTERY

MECHANICAL  
DOORS TO  
PREVENT  
WRONG  
HOOK-UP



**MA-12827**  
**COMPACT DIGITAL**  
**MULTI-METER**

INCLUDES :  
MA-DMTL1, MA-DMTKA, CASE,  
MANUAL & (1) 9V BATTERY



**MA-12837**  
**AC/DC DIGITAL**  
**MULTI-METER WITH**  
**AUTO SELECTION**

INCLUDES:  
MA-DMTL1, CASE, MANUAL  
& (1) 9V BATTERY



**MA-12829**  
**AUTO-RANGING**  
**DIGITAL**  
**MULTI-METER**

INCLUDES:  
MA-DMTL1, MA-DMTK1, CASE,  
MANUAL & (1) 9V BATTERY



**MA-12818**  
**DIGITAL**  
**MULTI-METER**

INCLUDES:  
MA-DMTL1, MA-DMTP, CASE,  
MANUAL & (1) 9V BATTERY

MECHANICAL  
DOORS TO  
PREVENT  
WRONG  
HOOK-UP

FUNCTION	MA-33C	MA-MY69	MA-12700A	MA-12817B	MA-12827	MA-12837	MA-12829	MA-12818
DCV	200mV, 2000mV, 20V, 200V, 500V	400mV - 1000V	0.1mV	200mV, 2V, 20V, 200V, 1000V	1000V	600V	1000V	200mV, 2V, 20V, 200V, 1000V
ACV (50/60Hz)	200V, 500V	400mV - 750V	100V, 250V, 500V, 1000V	200mV, 2V, 20V, 200V, 700V	1000V	600V	1000V	2V, 20V, 200V, 700V
DCA	2000µA, 20mA, 200mA, 10A	400uA - 10A		2mA, 20mA, 200mA, 10A	10A		10A	2mA, 200mA, 10A
ACA		400uA - 10A		2mA, 20mA, 200mA, 10A	10A		10A	20mA, 200mA, 10A
RESISTANCE	200Ω, 2000Ω, 20kΩ, 200kΩ, 20MΩ	400Ω - 40MΩ	1MΩ - 20GΩ	200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ, 20MΩ, 200MΩ	40MΩ	60MΩ	40MΩ	200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ, 20MΩ, 200MΩ
TEMPERATURE	-40F TO 1832F (-40C TO 1000C)	-4F - 1400F (-20C - 750C)		-40F TO 1832F (-40C TO 1000C)	-58F TO 1832F (-50C TO 1000C)		-58F TO 1832F (-50C TO 1000C)	-20F TO 1832F (-29C TO 1000C)
CAPACITANCE		4nF - 200uF		2nF, 20nF, 200nF, 2uF, 200uF	200uF	30mF	100uF	20nF, 200nF, 20µF, 2000µF
FREQUENCY		100Hz - 10MHz		20kHz	10MHz	100kHz	10MHz	2000kHz
DUTY CYCLE		.1% - 99.9%			99.9%	99.9%	99.9%	
DIODE TEST		*				*		
TRANSISTOR TEST		*						
CONTINUITY		*	*			*		



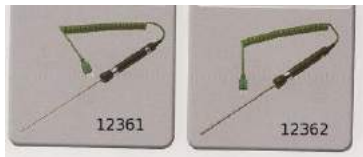
**MA-DM1**  
**DIGITAL MULTI-METER**  
 INCLUDES :  
 MA-DMTL, CASE, MANUAL & BATTERIES

**MA-DMT3**  
**DIGITAL MULTI-METER**  
**WITH TEMPERATURE**  
 INCLUDES:  
 MA-DMTL, MA-DMTP, CASE, MANUAL & BATTERIES

FUNCTION	MA-DM1	MA-DMT3
DCV	200mV, 2V, 20V, 200V, 1000V	200mV, 2V, 20V, 200V, 1000V
ACV (50/60Hz)	200V (750V)	200V (750V)
DCA	200µA, 2000µA, 20mA, 200mA, 10A	200µA, 2000µA, 20mA, 200mA, 10A
OHM	200Ω, 2000Ω, 20KΩ, 200KΩ, 2000KΩ	200Ω, 2000Ω, 20KΩ, 200KΩ, 2000KΩ
TEMPERATURE	NO	-58F TO 2498F (-50C TO 1370C)
DIODE TEST	Test Current 1.6mA: Voltage 2.8V	Test Current 1.6mA: Voltage 2.8V
TRANSISTOR TEST	0-1000 hFE of PNP or NPN transistors	0-1000 hFE of PNP or NPN transistors
TEST SIGNAL		50Hz test signal appears between VΩmA and COM jacks
AUDIBLE CONTINUITY		Red lead to VΩmA and COM jacks Black lead to COM



**MA-DMTL**  
**TEST LEADS**



**MA-12361**  
**IMMERSION PROBE**  
**MA-12362**  
**AIR PROBE**



**MA-DMTL1**  
**PROTECTIVE COVER**  
**TEST LEADS**



**MA-DMTP**  
**TEMPERATURE**  
**PROBE**



**MA-DMTK**  
**K-PROBE**



**MA-DMTKA**  
**ADAPTOR FOR**  
**THE MA-DMTK**



**MA-DMTK1**  
**K-PROBE WITH**  
**ADAPTOR**

FUNCTION	MA-12814	MA-12816A	MA-12823
DCV	1V, 10V, 50V, 250V, 500V	0.1V, 0.5V, 2.5V, 10V, 50V, 250V, 1000V	75V
ACV (50/60Hz)	1V, 10V, 50V, 250V, 500V	10V, 50V, 250V, 1000V	150V, 300V, 750V
DCA	500µA, 50mA, 250mA	50µA, 2.5mA, 25mA, .25A, 10A	
ACA			6A, 15A, 150A, 600A
OHM	Rx 1k (Center 5K)		
TEMPERATURE			-4F TO 300F (-20C TO 150C)
RESISTANCE		x1, x10, x100, x1K, x10K	0-2kΩ, 0-200kΩ
CONTINUITY			
DECIBEL AC		10V, 50V, 250V	
ICEO		x1, x10	
hFE		x10	
DIODE		x1K, x10, x1	

**MA-12814**  
**ANALOG MULTI-METER**  
 UNIT SIZE: 3-1/2" X 2-1/4"  
 INCLUDES :  
 MA-DMTL4, MANUAL & (1) AA BATTERY



**MA-12816A**  
**ANALOG MULTI-METER**  
 UNIT SIZE: 5-1/2" X 3-3/4"  
 INCLUDES:  
 MA-DMTL, MANUAL, (1) 9V BATTERY & (2) AA BATTERIES

**MA-12823**  
**ANALOG CLAMP-ON**  
**METER**  
**WITH TEMPERATURE**  
 INCLUDES:  
 MA-DMTL, CASE, MANUAL & (2) AA BATTERIES





**MA-600CFA**  
**ECONOMY**  
**AUTO-RANGING**  
**CLAMP-ON METER**  
 JAW OPENING: 1-1/8"  
**INCLUDES:**  
 MA-DMTL1, MA-DMTK, CASE,  
 MANUAL & (1) 9V BATTERY



6/CASE OR  
 1/PKG

**MA-3268C-6**  
**MINI AUTO-RANGING**  
**CLAMP-ON METER**  
 JAW OPENING: 7/8"  
**INCLUDES:**  
 TEST LEADS, CASE, MANUAL &  
 (2) AAA BATTERIES



**MA-12826A**  
**HVAC DIGITAL**  
**CLAMP-ON METER**  
 JAW OPENING : 3/4"  
**INCLUDES :**  
 MA-DMTL1, MA-DMTP, CASE,  
 MANUAL & (2) AAA BATTERIES

FLAME SAFE  
 GUARD  
 CIRCUITS  
 WITH MAGNET  
  
 MICROAMPS



**MA-12813**  
**DELUXE DIGITAL**  
**CLAMP-ON**  
**METER**  
 JAW OPENING : 1-1/2"  
**INCLUDES :**  
 MA-DMTL1, MA-DMTP,  
 CASE, MANUAL & (1) 9V  
 BATTERY



**MA-821**  
**DIGITAL**  
**CLAMP-ON METER**  
 JAW OPENING: 1-1/4"  
**INCLUDES:**  
 MA-DMTL, CASE, MANUAL  
 & (2) AAA BATTERIES



**MA-823**  
**DIGITAL CLAMP-ON**  
**METER**  
**WITH TEMPERATURE**  
 JAW OPENING: 1-1/4"  
**INCLUDES:**  
 MA-DMTL1, MA-DMTK1, CASE,  
 MANUAL & (2) AAA BATTERIES



**MA-12822A**  
**1000 AMP AC CURRENT**  
**AUTO-RANGING LOW**  
**TEMPERATURE**  
**CLAMP-ON METER**  
 JAW OPENING: 2-1/4"  
**INCLUDES:**  
 MA-DMTL1, MA-DMTK,  
 CASE, MANUAL & (1) 9V BATTERY

FUNCTION	MA-600CF	MA-3268C-6	MA-12813	MA-821	MA-823	MA-12822A	MA-12826A
DCV	200mV, 20V, 20V, 200V, 600V	200mV - 600V	600V	600V	40mV - 600V	400mV, 4V, 40V, 400V, 700V	600V
ACV	2V, 20V, 200V, 600V	2V - 600V	600V	600V	4V - 600V	4V, 40V, 400V, 1000V	600V
DCA			200A, 600A			400A, 1000A	4000uF
ACA	2A, 20A, 200A, 600A	2A - 400A	200A, 600A	2A, 20A, 200A, 600A	4A - 600A	400A, 1000A	400A, 1000A
RESISTANCE	200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ, 20MΩ	200Ω - 20MΩ	2000Ω	20k - 20MΩ	400Ω, 4kΩ, 40kΩ, 400kΩ, 4MΩ, 40MΩ		400MΩ
TEMP.	-38F TO 1750F (-38C TO 950C)	-4F to 1400F (-20C to 750C)	-4F TO 2498F (-20C TO 1370C)		32F TO 752F (0 - 400C)	-58F TO 1832F (-50C TO 1000C)	-58F TO 2372F (-50C TO 1300C)
OHM						400, 4K, 40K, 400K, 4M, 40M	
CAPACITANCE					40nF, 400nF, 4uF, 100uF	40nF, 400nF, 4uF, 40uF, 100uF	100uF
FREQUENCY			50/60Hz		10HZ - 10MHZ	40, 400, 4K, 40K, 400K, 4MHZ	150KHz
CONTINUITY		*	*	*		*	*
DIODE TEST				*	*	*	*



**MA-12353**  
**AC CURRENT**  
**CLAMP-ON**  
**ADAPTOR**  
 JAW OPENING: 1/2"  
 RANGE: 200A (AC)  
 INCLUDES: TEST LEADS



**MA-12356**  
**CLAMP-ON PROBE**  
**K-TYPE**  
**THERMOMETER**  
 JAW OPENING 1-1/4"  
 TEMP:  
 -40F TO 1100F (-40C TO 590C)



**MA-12355B**  
**CLAMP-ON PROBE**  
**K-TYPE**  
**THERMOMETER**  
 JAW OPENING 1-3/8"  
 TEMP:  
 -40F TO 392F (-40C TO 200C)  
 10' LEAD



**MA-12357A**  
**STRAP-ON PROBE**  
**K-TYPE**  
**THERMOMETER**  
 TEMP:  
 -4F TO 300F (-20C TO 149C)



**MA-12358**  
**AC/DC CURRENT**  
**CLAMP-ON**  
**ADAPTOR**  
 JAW OPENING: 1-1/8"  
 RANGE: 40 TO 400A (AC/DC)  
 NON-CONTACT VOLTAGE:  
 50 TO 600 VAC  
 INCLUDES:  
 TEST LEADS, CASE &  
 (2) AAA BATTERIES



**AIR PRESSURE, HUMIDITY &**  
**TEMPERATURE DATA LOGGER**  
**MA-DLSN71**

FUNCTION	MA-DLSN7
ACV	
ACA	
AIR PRESSURE	300 TO 1100hPA
TEMPERATURE	-31F TO 176F (-35C TO 80C)
HUMIDITY	0 TO 100%RH
READING MEMORY	31,998
MEASURING RATE	2 SEC TO 24HR
SOFTWARE	WINDOWS XP/ VISTA/ WINDOWS 7 & 8
BATTERY	(1) 3.6V LITHIUM

**MA-MHG-2**  
**DIFFERENTIAL**  
**PRESSURE GAUGE**  
**0 - 2.0 INCHES OF**  
**WATER COLUMN**



**PRESSURE RATING:**  
 15 PSI(1.03 BAR)  
**AMBIENT TEMPERATURE RANGE:**  
 20F TO 140F (-70C TO 60C)



**MA-010669**  
**ENVIRONMENTAL KIT**  
**INCLUDES:**  
**(1) MA-AN84A – (1) MA-12838A –**  
**1) MA-16531B**

**MA-SND80**  
**SOUND LEVEL**  
**METER**

**LEVEL RANGE:**  
 LOA = 35-100db  
**INCLUDES:**  
 CASE, MANUAL & (1) 9V  
 BATTERY



TEMP.	32F TO 122F (0 TO 50C)
CFM (CFM=ft <sup>3</sup> /min)	0-999.900
Ft./Min.	196-4900
M/S	1.00-25.00
Km/h	3.6-90.0
MPH	2.24-56.0
knots	1.94-48.5

**MA-AN84A**  
**DIGITAL MINI ANEMOMETER (CFM)**  
**WITH MAGNET**  
**INCLUDES: CASE, MANUAL, & (1) 9V BATTERY**

TEMP.	14F TO 140F (-10C TO 60C)
CFM (CFM=ft <sup>3</sup> /min)	0-999.900
Ft./Min.	119-5900
M/S	.60-30.00
Km/h	2.2-108.00
MPH	1.4-67.0
knots	1.2-58.0

**MA-12843B**  
**DIGITAL ANEMOMETER (CFM) WITH**  
**FLEXIBLE NECK**  
**INCLUDES: CASE, MANUAL & (1) 9V BATTERY**



-55.40 TO +55.40IN  
 OF  
 WATER COLUMN

inH2O	±55.40"
psi	±2
mbar	±137.8
kPa	±13.79
inHg	±0.407
mmHg	±103.4
ozin <sup>2</sup>	±32.00
ftH2O	±4.612
cmH2O	±140.6
kgcm <sup>2</sup>	±.140
bar	±.137

**MA-12838A**  
**MINI DIGITAL DUAL DIFFERENTIAL**  
**MANOMETER WITH MAGNET**  
**INCLUDES: FLEXIBLE TUBING, 1/8" MPT X 1/8" BARB ACCESS**  
**FITTING, CASE, MANUAL & (1) 9V BATTERY**

inH2O	±55.40"
psi	±2
mbar	±137.8
kPa	±13.79
inHg	±0.407
mmHg	±103.4
ozin <sup>2</sup>	±32.00
ftH2O	±4.612
cmH2O	±140.6
kgcm <sup>2</sup>	±.140
bar	±.137

**MA-12835B**  
**DIGITAL DUAL DIFFERENTIAL**  
**MANOMETER WITH MAGNET**  
**INCLUDES: FLEXIBLE TUBING, 1/8" MPT X 1/8" BARB**  
**ACCESS FITTING, CASE, MANUAL & (1) 9V BATTERY**



**MA-16531B**  
**DIGITAL**  
**PSYCHROMETER**  
**WITH WET BULB**  
**AND DEW POINT**  
**WITH MAGNET**

**INCLUDES:**  
 CASE, MANUAL, & (1) 9V BATTERY

FUNCTION	MA-16531B	MA-16533
HUMIDITY	0 TO 100% RH	0 TO 100% RH
TYPE K		-58F TO 2501F (-50C TO 1372C)
NTC		32F TO 140F (0 TO 60C)
DEW POINT	-22F TO 212 (-30C TO 100C)	-22F TO 199F (-30C TO 100C)
WET BULB	32F TO 170F (0 TO 80C)	32F TO 176F (0 TO 80C)
TEMPERATURE	-22F TO 212F (-30C TO 100C)	-30F TO 199F (-30C TO 100C)

**MA-16533**  
**DIAGNOSTIC**  
**PSYCHROMETER**  
**TARGETS SUPER**  
**HEAT &**  
**EVAPORATOR**  
**EXIT**  
**TEMPERATURE**

**INCLUDES:**  
 MA-DMTK, CASE, MANUAL, & (1) 9V BATTERY







**MA-12830A**  
**CARBON MONOXIDE**  
**DETECTOR**

0 TO 1000 PPM

**INCLUDES:**  
CASE, MANUAL &  
(1) 9V BATTERY

**MA-12830A-S**  
**SENSOR ONLY**

**MA-CO801**  
**CARBON MONOXIDE**  
**DETECTOR**

**TEMPERATURE:**  
-4F TO 122F (-20C TO 50C)  
0 TO 1000 PPM

**INCLUDES:**  
CASE, MANUAL &  
(6) AAA BATTERIES



NOMINAL VOLTAGE	40V TO 690V AC
FREQUENCY	2 TO 400Hz

THIS UNIT DETECTS THE ROTARY FIELD OF THREE PHASE SYSTEMS.

**MA-12701**  
**DIGITAL PHASE**  
**ROTATION INDICATOR**  
**INCLUDES: TEST LEADS, CASE & MANUAL**

NOMINAL VOLTAGE	1V TP 400V AC
NOMINAL VOLTAGE PHASE INDICATION	120V TO 400V AC
FREQUENCY	2 TO 400Hz

THIS UNIT DETERMINES MOTOR-ROTATION DIRECTION AND DETECTS THE ROTARY FIELD OF THREE PHASE SYSTEMS.

**MA-12702**  
**MOTOR & PHASE ROTATION INDICATOR**  
**INCLUDES: TEST LEADS, CASE & MANUAL**



RANGE	RESOLUTION
200pF	0.1pF
2nF	1pF
20nF	10pF
200nF	100pF
2µF	1nF
200µF	10nF
200µF	100nF
2000µF	1µF
20mF	10µF

**INCLUDES:**  
CASE, MANUAL &  
(1) 9V BATTERY

**MA-12815A**  
**DIGITAL**  
**CAPACITOR TESTER**

WATTS	0-2000W, 6000W
AC VOLTAGE (45-60HZ)	0-200V, 600V
DCV	0-200V, 1000V
INPUT VOLTAGE/CURRENT	0 TO 600ACV, 1 TO 10ACA
OVERLOAD PROTECTION	600V
INPUT IMPEDANCE	1MΩ

**INCLUDES:**  
MA-DMTL1, CASE, MANUAL &  
(1) 9V BATTERY

**MA-12821**  
**WATT METER**  
FOR SINGLE PHASE APPLICATIONS ONLY



**INCLUDES:**  
TEST LEADS,  
CASE, MANUAL  
&  
(2) AA  
BATTERIES

**MA-12819**  
**OPEN JAW CURRENT**  
**AND VOLTAGE METER**  
DC/AC VOLTAGE & AC CURRENT

FUNCTION	RANGE
DC VOLTAGE	600V
AC VOLTAGE	600V
AC CURRENT	200A
RESISTANCE	240MΩ
CAPACITANCE	200µF
FREQUENCY	9,999MHz
DUTY CYCLE	0.1% - 99.9%
CONTINUITY BUTTON	*
DIODE TEST CURRENT	0.3mA Typical

**MA-12842A**  
**PHOTO**  
**NON-CONTACT**  
**TACHOMETER**

2.5 TO 99,999 RPM

**INCLUDES:**  
CASE, MANUAL & (4) AA BATTERIES

**MA-12844**  
**REFLECTIVE**  
**TAPE STRIPS**

IDEAL FOR MEASURING RPM ON MOTORS, GEARS, PULLEYS, COMPRESSORS AND MUCH MORE





**MA-7339**  
**PEN PROBE STYLE DIGITAL MULTI-METER**

NOMINAL VOLTAGE RANGE :  
12-600V AC/DC  
INDICATION : 100-600V AC  
TEST : 3 PHASE F WIRE SYSTEM, AC 50/60Hz  
CONTINUITY : 0-1MΩ

**INCLUDES :**  
MANUAL & (2) AAA BATTERIES

**MA-CGD383**  
**COMBUSTIBLE GAS DETECTOR**

GASOLINE/PROPANE/  
NATURAL GAS/  
FUEL OIL DETECTION

**INCLUDES:**  
SMALL JAR OF LEAK CHECK,  
HARD CARRYING CASE, MANUAL  
& (4) AA BATTERIES



**MA-EM3213A**  
**PEN PROBE STYLE AUTO-RANGING DIGITAL MULTI-METER WITH CAPACITANCE**



VOLTAGE DC	200m,2V,20V,200V, 600V
VOLTAGE AC	2V,20V,200V, 600V
CURRENT DC	20, 200mA
CURRENT AC	20, 200mA
RESISTANCE	4KΩ,40KΩ, 400KΩ, 4MΩ
CAPACITANCE	40n,400n,4μ,40μ, 100μF
DIODE TEST	1.5V/.mA
CONTINUITY	*

**INCLUDES:**  
MANUAL &  
(1) CR2032 (3V) BATTERY

**MA-12845A**  
**MICROWAVE LEAK DETECTOR**

CALIBRATED: 2450MHZ  
RANGE: 0-9.99 mW/cm<sup>2</sup>  
WARNING VALUE: 5.0mW/cm<sup>2</sup>

**INCLUDES:**  
CASE, MANUAL & (1) 9V BATTERY

The units LED will flash and alarm will sound when detecting leak above 5mW/cm<sup>2</sup>.



**MA-MMD3EA**  
**LCD MOISTURE INDICATOR FOR WOOD, DRYWALL OR CONCRETE**

**INCLUDES:**  
REPLACEABLE TEST PROBE PINS,  
MANUAL & (1) LR44 BATTERY

MEASURES MOISTURE  
FROM 0 TO 100%



**MA-EM3215**  
**AUTO-RANGING PROBE STYLE DIGITAL MULTI-METER**



VOLTAGE DC	200m,2V,20V,200V, 600V
VOLTAGE AC	2V,20V,200V, 600V
CURRENT DC	20, 200mA
CURRENT AC	20, 200mA
RESISTANCE	200,2k,20k,200k,2M, 20MΩ
DIODE TEST	*

**INCLUDES:**  
MANUAL & (1) 9V BATTERY

**MA-7409**  
**LASER TAPE MEASURE**  
MEASURE DISTANCE, HEIGHT, AREA AND VOLUME

**INCLUDES:**  
CASE, MANUAL & (1) 9V BATTERY

MEASUREMENT RANGE:  
2FT TO 50FT  
(0.6 TO 15M)  
APPROXIMATELY



**MA-S3003**  
**POWER METAL/STUD SENSOR**

Electronically locates cables, gas and  
hoists and wall studs. Helps prevent accidents when drilling or sawing.  
Senses the presence of main power without touching live wires.





**VIDEO BORESCOPE  
WITH CASE**

**MA-VID-1** 3' TUBE LENGTH

**MA-VID-2** 3' TUBE LENGTH

**PLUS 10' EXTENSION**

WATER RESISTANT IP67 CAMERA HEAD:  
OUTER DIA. 3.93" WITH TWO DIMMABLE LEDS

LENS: F# 2.8

VIEWABLE OF ANGLE: 54°

FOCAL DISTANCE: 1-1/4" TO 2-1/4"

2.4" TFT LCD: 480 X 234 RESOLUTION

3 BUTTON OPERATION WITH UP/DOWN KEYS

PRESS UP/DOWN KEYS SIMULTANOUSLY TO  
ROTATE PICTURE 180°

**INCLUDES:** CASE, MANUAL  
& (4) AA BATTERIES

RANGE	RESOLUTION
COLOR MOSAIC	RGB BAYER PATTERN
VIDEO FORMAT	NTSC COMPOSITE VIDEO
CAMERA ILLUMINATION	2 LEDS, WHITE
METAL TUBE LENGTH	35- 3/4"
DIAMETER OF CAMERA HEAD	OUTER DIAMETER 3.93"

**INCLUDES THE FOLLOWING ACCESSORIES:**  
HOOK FOR RECOVERING PARTS  
MAGNET FOR RETRIEVING METALLIC PARTS  
MIRROR FOR SIDE VIEWING

**STAINLESS STEEL TELESCOPIC  
MIRRORS**



**MA-SM6**

1-1/4" X 2" RECTANGLE  
EXTENDS TO 27"

**MA-SM7**

2" X 3-3/4" RECTANGLE  
EXTENDS TO 27"

**MA-SM8**

3-3/4" ROUND  
EXTENDS TO 27"



**MA-IM24  
RECTANGLE  
TELESCOPIC  
INSPECTION  
MIRROR WITH 2 LEDS**



ADJUSTS TO ANY ANGLE  
MIRROR SIZE: 2" X 3-1/4"  
LENGTH: 11-2/5"  
EXTENDS TO: 34-1/2"

**INCLUDES:**  
(2) CR2032 BATTERIES

STAINLESS STEEL SHAFT  
WITH VINYL GRIP HANDLE

**TELESCOPIC INSPECTION MIRRORS**



MA-142A/ MA-142MA  
MA-143A/MA-143M

MA-157A

MA-149

**MA-142A**

2-1/4" ROUND MIRROR EXTENDS TO 20"

**MA-142MA**

2-1/4" ROUND MIRROR MAGNIFIED INSPECTION  
MIRROR EXTENDS TO 27"

**MA-143A**

1-1/4" ROUND MIRROR EXTENDS TO 25"

**MA-143M**

1-1/4" ROUND MIRROR MAGNIFIED INSPECTION  
MIRROR EXTENDS TO 25"

**MA-149**

2-1/8" X 3-1/2" RECTANGULAR MIRROR  
EXTENDS TO 20"

**MA-157A**

1" X 2" OVAL MIRROR EXTENDS TO 25"

**MA-IM30  
ROUND TELESCOPIC  
INSPECTION MIRROR  
WITH 2 LEDS**



ADJUSTS TO ANY ANGLE  
MIRROR SIZE: 3"  
LENGTH: 11-1/8"  
EXTENDS TO: 34-1/4"

**INCLUDES:**  
(1) CR2032 BATTERY

STAINLESS STEEL SHAFT  
WITH VINYL GRIP HANDLE

**REPLACEMENT GLASS**

\*\*MIRROR ONLY\*\*

**MA-142-1**  
2-1/4" ROUND

**MA-149-1**

2-1/8" X 3-1/2" RECTANGLE

**MA-157-1**  
1" X 2" OVAL



**MA-16501 & MA-16513**  
HIGH & LOW  
TEMPERATURE  
INFRARED  
THERMOMETER



**MA-16509B**  
MINI INFRARED  
THERMOMETER



**MA-IR9PEN**  
POCKET  
INFRARED  
THERMOMETER



**MA-16551**  
INFRARED  
THERMOMETER



**MA-16505A**  
INFRARED  
THERMOMETER  
K TYPE PROBE



**MA-16506**  
INFRARED  
THERMOMETER  
WITH DUAL LASER  
TARGETING



**MA-IRT203B**  
SHIRT  
POCKET LASER  
THERMOMETER



**MA-16C81**  
COLOR INFRARED  
THERMOMETER



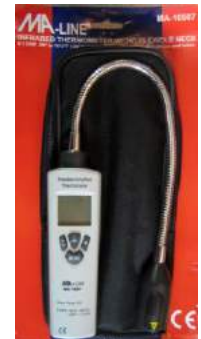
SETTING OR  
READING  
TEMP.



TEMP.  
REACHES  
BELOW SET  
TEMP.



TEMP.  
REACHES  
ABOVE SET  
TEMP.



**MA-16507**  
INFRARED  
THERMOMETER  
WITH 16"  
FLEXIBLE NECK

FUNCTION	MA-IR9PEN	MA-16C81	MA-16501	MA-16505A	MA-16506	MA-16507	MA-16509B	MA-16513	MA-16551	MA-IRT203B
TEMP. F/C	-27F ~ 932F (-33C ~ 500C)	-36F ~ 968F (-38C ~ 520C)	-58F ~ 1832F (-50C ~ 1000C)	-58F ~ 1472F (-50C ~ 800C)	-58F ~ 1202F (-50C ~ 650C)	-58F ~ 1112F (-50C ~ 600C)	-58F ~ 1022F (-50C ~ 550C)	-58F ~ 932F (-50C ~ 500C)	50F ~ 1900F (-45C ~ 1035C)	-58F ~ 518F (-50C ~ 270C)
K-PROBE				-58F ~ 1472F (-50C ~ 800C)						
RATIO	9:1	8:1	12:1	12:1	12:1	8:1	10:1	12:1	50:1	6:1
EMISSIONITY			.95 FIXED	.10 TO 1.0 ADJ.	.1 TO 1.0 ADJ.			.95 FIXED	.10 TO 1.0 ADJ.	
F/C SWITCHABLE	*	*	*	*	*	*	*	*	*	*
MAX/MIN/ DIF/AVG RECORD	*			*					*	
DATA HOLD			*	*	*	*	*	*	*	*
BACKLIGHT	*	*	*	*	*	*	*	*	*	*
AUTO SHUT OFF		*	*	*	*	*	*	*		*
HIGH/LOW ALARM				*					*	
BATTERY	(1)AA	(2) AAA	(1) 9V	(1) 9V	(1) 9V	(1) 9V	(1) 9V	(1) 9V	(1) 9V	
CASE		*	*	*	*	*	*	*	*	*



**MA-DMT123**  
**DUAL PROBE DIGITAL THERMOMETER**

TEMPERATURE RANGE:  
-328F TO 2498F (-200C TO 1370C)

F/C SWITCHABLE  
4" LCD DUAL DISPLAY  
RELATIVE FUNCTIONS, MIN, MAX, AVG, HOLD

**INCLUDES:**  
(2) MA-DMTK, CASE, MANUAL &  
(1) 9V BATTERY

**GREAT FOR SUPER HEAT**

**MA-DMT123KIT**  
**DUAL PROBE DIGITAL THERMOMETER KIT (SUPER HEAT KIT)**

**INCLUDES:**  
1) MA-DMT123  
2) K-TYPE PROBES  
2) MA-12355B WITH 10' LEADS



**MA-16532**  
**2 IN 1 DIGITAL HUMIDITY AND TEMPERATURE METER**

TEMPERATURE RANGE:  
-4F TO 140F (-20C TO 60C)  
HUMIDITY: 0 TO 100% RH  
F/C SWITCHABLE  
MIN, MAX, DATA HOLD FUNCTION  
DUAL LCD DISPLAY – AUTO POWER OFF – BACKLIGHT BUTTON

**INCLUDES:**  
CASE, MANUAL & (1) 9V BATTERY



**MA-RT900A**  
**HAND HELD DIGITAL THERMOMETER**

TEMPERATURE RANGE:  
-58F TO 392F (-50C TO 200C)  
F/C SWITCHABLE  
WIDE MEASUREMENT RANGE  
MIN/MAX TEMPERATURE MEMORY  
DATA HOLD FUNCTION  
STAINLESS STEEL PROBE  
MAGNET ON BACK & FOLDING STAND  
NEVER NEEDS TO BE CALIBRATED

**INCLUDES:**  
(1) AAA BATTERY

**DIGITAL THERMOMETER**  
**180 DEGREE ROTATING HEAD**

TEMPERATURE RANGE:  
-58F TO 302F (-50C TO 150C)  
ON/OFF SWITCH AND AUTOMATIC SHUT OFF AFTER 10 MIN.  
IT'S UNIQUE FEATURE IS THE 180° ROTATING HEAD

**INCLUDES:**  
(1) 1.5V BATTERY

**MA-RT340** WITH 5" STEM  
**MA-RT340LS** WITH 8" STEM



**MA-RT343**  
**ROTARY PROBE POCKET DIGITAL THERMOMETER**

TEMPERATURE RANGE:  
-58F TO 392F (-50C TO 200C)  
F/C SWITCHABLE  
WIDE MEASUREMENT RANGE  
MIN/MAX TEMPERATURE MEMORY  
DATA HOLD FUNCTION  
STAINLESS STEEL PROBE – 4-1/2"  
ROTARY PROBE DESIGN  
HIGH/LOW TEMPERATURE ALARM SETTING  
FOR USE IN FOOD PROCESSING, REFRIGERATION, LABORATORY & GREENHOUSE

**INCLUDES:**  
(1) AAA BATTERY



**MA-RT330**  
**DIGITAL THERMOMETER**  
ANTI-ROLLING DESIGN

**INCLUDES:**  
(1) 1.5V BATTERY



TEMPERATURE RANGE:  
-58F TO 302F (-50C TO 150C)  
F/C SWITCHABLE  
ON/OFF SWITCH  
AUTOMATIC SHUT OFF AFTER 10 MIN.

**MA-RT335**  
**DIGITAL THERMOMETER**  
ANTI-ROLLING OVAL DESIGN

**INCLUDES:**  
(2) 1.5V BATTERY



TEMPERATURE RANGE:  
-58F TO 392F (-53C TO 200C)  
F/C SWITCHABLE  
ON/OFF SWITCH



**TEMP. RANGE:**  
-40F TO 392F (-40C TO 200C)

**INCLUDES:**  
(1) 1.5V BATTERY

**MA-PDT392B (1/PKG.)**  
**DIGITAL POCKET THERMOMETER**  
**MA-PDT392B-12 (12/CS)**  
**DIGITAL POCKET THERMOMETER**

F/C SWITCHABLE - STAINLESS STEEL STEM - ON/OFF SWITCH -  
AUTO OFF - HIGH/LOW TEMPERATURE RECALL -  
DATA HOLD - WATER RESISTANCE



**INCLUDES:**  
(1) 1.5V BATTERY

**TEMP. RANGE:**  
-40F TO 392F  
(-40C TO 200C)

**MA-RT818**  
**DIGITAL POCKET THERMOMETER**  
**WITH LARGE DISPLAY**

F/C SWITCHABLE - STAINLESS STEEL STEM - ON/OFF SWITCH -  
AUTO OFF - HIGH/LOW TEMPERATURE RECALL -  
DATA HOLD - WATER RESISTANCE



**ADJUSTABLE POCKET**  
**THERMOMETERS**  
WITH CASE AND 5" STEM

**MA-PT160** (12/CASE)

**MA-PT160B** (1/PKG)

1" DIAL -40F TO 160F

**MA-PT220** (12/CASE)

**MA-PT220B** (1/PKG)

1" DIAL 0 TO 220F

**MA-PT550** (12/CASE)

1" DIAL 50F TO 550F

**MA-PT70C** (12/CASE)

1" DIAL -40C TO 70C

**MA-PT110C** (12/CASE)

1" DIAL -10C TO 110C

**MA-PT138160** (12/CASE)

1-3/8" DIAL -40F TO 160F

**MA-PT138220** (12/CASE)

1-3/8" DIAL 0 TO 220F

**MA-PT134160** (1/PKG)

1-3/4" DIAL -40F TO 160F

**MA-PT134220** (1/PKG)

1-3/4" DIAL 0 TO 220F



**INCLUDES:**  
(1) AAA BATTERY

**TEMP. RANGE:**  
32F TO 122F (0 TO 50C)  
**HUMIDITY:**  
20% TO 95% RH

**MA-RT819**  
**BIG DIGIT PEN SHAPE**  
**HYGRO THERMOMETER**

F/C SWITCHABLE - MAX/MIN READING MEMORY -  
DUAL DISPLAY FOR TEMPERATURE & HUMIDITY

**MA-ST200**  
**PIPING THERMOMETER**

**TEMPERATURE RANGE:**  
-50F TO 250F (-40C TO 120C)

2 DIAL SPRING MOUNTED OR  
SURFACE THERMOMETER

DESIGNED TO MEASURE SURFACE  
TEMPERATURES OF PIPES,  
CYLINDERS, SPINDLES, ETC. BETWEEN  
3/4"OD TO 6"OD

**KIT INCLUDES:**  
2 CLASP AND 3 DIFFERENT SIZES OF  
HIGHLY RESILIENT STAINLESS STEEL



**POCKET STICK THERMOMETER**



**MA-PS120** -40F TO 160F (12/CTN)

**MA-PS220** 0F TO 220F (12/CTN)

FAHRENHEIT SCALE - 5" IN LENGTH - SPIRIT FILLED



INCLUDES:  
(1) AA  
BATTERY

**MA-1660A**  
**FREEZER ALERT**  
ALARM SOUNDS WHEN FOOD  
STARTS TO DEFROST  
112" TEMP. PROBE



**MA-ETP110**  
**HUMIDITY ALARM**  
MEASURES TEMPERATURE,  
RELATIVE HUMIDITY, AND DEW  
POINT

TEMP. RANGE:  
14F TO 140F (-10C TO 60C)  
HUMIDITY: 20% TO 95%  
DEW POINT:  
-20.2F TO 138.2F (-29C TO 59C)

(2) AAA BATTERIES NOT INCLUDED

**MA-1665C**  
**FLOOD  
ALERT**

DETECTS WATER  
OVERFLOW.  
112" SENSOR  
CABLE  
INCLUDES:  
(1) AA BATTERY



**MA-BDIOT**

INDOOR TEMP: -4F TO 122F (-20C TO 50C)  
OUTDOOR TEMP: -4F TO 122F (-20C TO 50C)

**MA-BDHTR**

INDOOR TEMP: -58F TO 158F (-50C TO 70C)  
OUTDOOR TEMP: -58F TO 158F (-20C TO 70C)  
HUMIDITY: 20% TO 90%

**INDOOR/OUTDOOR  
THERMOMETER WITH CLOCK**

INSTANT F/C SWITCH – WALL MOUNT OR  
TABLE DESIGN – TIME, DATE DISPLAY &  
ALARM – 12/24 HOURS SYSTEM CLOCK

INCLUDES:  
(1) AAA BATTERY

**MA-RT1**  
**REFRIG./FREEZER THERM.**

TEMPERATURE RANGE:  
-20F TO 80F (-30C TO 30C)

**MA-OVN1**  
**OVEN THERMOMETER**

TEMPERATURE RANGE:  
100F TO 550F (-50C TO 300C)



**MA-SUT45**  
**STICK-UP THERMOMETER**

TEMPERATURE RANGE:  
-20F TO 120F (-30C TO 50C)



**MA-1001S**  
**SOLAR HORIZONTAL  
THERMOMETERS**

TEMPERATURE RANGE:  
-58F TO 302F (50C TO 150C)

F/C SWITCHABLE – 48" CAPILLARY –  
1-1/2" X 1/2" DISPLAY

**MA-HRFT1**  
**HORIZONTAL  
REFRIG./FREEZER THERM.**

TEMPERATURE RANGE:  
-40F TO 80F (-40C TO 30C)



**MA-RT8101**  
**SOLAR POWERED DIGITAL  
THERMOMETER**

TEMPERATURE RANGE:  
INTERNAL SENSOR:  
32F TO 122F (0 TO 500C)  
EXTERNAL SENSOR:  
-58F TO 158F (-50 TO 70C)

F/C SWITCHABLE - MAX/MIN MEMORY

**MA-RT8100**  
**FRIDGE/FREEZER  
THERMOMETER  
WITH ALARM**

TEMPERATURE RANGE:  
-40F TO 158F (-40C TO 70C)

F/C SWITCHABLE – ALARM – DUAL  
DISPLAY – MIN/MAX MEMORY –  
MAGNET, DESK STAND  
& TWO SUCTIONS CUPS



INCLUDES: (2) AAA  
BATTERIES



**REMOTE READING  
SOLAR  
THERMOMETERS**

TEMPERATURE RANGE:  
-58F TO 302F (-50C TO 150C)

F/C SWITCHABLE  
ALL STAINLESS STEEL CASE

**MA-2001S** 2" DIAL, FRONT FLANGE, W/48" CAPILLARY  
**MA-2002S** 2" DIAL, BACK FLANGE, W/48" CAPILLARY  
**MA-2003S** 2" DIAL U-CLAMP, W/48" CAPILLARY

**REMOTE READING  
VAPOR TENSION  
THERMOMETERS**

TEMPERATURE RANGE:  
-40F TO 60F (-40C TO 15C)

ALL STAINLESS STEEL CASE

**MA-50ABF** 2" DIAL, BACK FLANGE, W/60" CAPILLARY  
**MA-60A** 2-1/2" DIAL, STRAP MOUNT, W/60" CAPILLARY  
**MA-60AFF** 2-1/2" DIAL, FRONT FLANGE, W/60" CAPILLARY





**CLEAR VINYL TUBING**

- MA-CVT316**  
3/16"ID X 100'
- MA-CVT14**  
1/4"ID X 100'
- MA-CVT38**  
3/8"ID X 100'
- MA-CVT12**  
1/2"ID X 100'

- MA-CVT58**  
5/8"ID X 100'
- MA-CVT34**  
3/4"ID X 100'
- MA-CVT78**  
7/8"ID X 50'
- MA-CVT1**  
1"ID X 50'

**HEAVY DUTY BRAIDED TUBING**

- MA-HDT316**  
3/16"ID X 50'
- MA-HDT14**  
1/4"ID X 50'
- MA-HDT38**  
3/8"ID X 50'
- MA-HDT12**  
1/2"ID X 50'



- MA-HDT58**  
5/8"ID X 50'
- MA-HDT34**  
3/4"ID X 50'
- MA-HDT78**  
7/8"ID X 50'
- MA-HDT1**  
1"ID X 50'

**MA-PT14 POLYETHYLENE TUBING**

- 1/4"OD X 100'
- MA-PT38**  
3/8"OD X 100'
- MA-PT516**  
5/16"OD X 100'

**HEAT SHRINK TUBING**



**RUBBER DRAIN LINE ELBOWS**

- MA-38RUEL** 3/8" I.D.
- MA-34RUEL** 3/4" I.D.



FOR QUICK DISCONNECT AND RECONNECT OF DRAIN LINE

- MA00478-1** ASSORTED 3/16", 1/4" & 3/8" (8/PK)
  - MA00479-1** ASSORTED 1/2", 3/4" & 1" (5/PK)
  - MA00480-1** ASSORTED 1/16" THRU 1" (7/PK)
  - MA03383-1** 1/8" (10/PK)
  - MA03385-1** 3/16" (8/PK)
  - MA03387-1** 1/4" (7/PK)
  - MA03389-1** 3/8" (10/PK)
  - MA03391-1** 1/2" (5/PK)
  - MA03393-1** 3/4" (4/PK)
  - MA03394-1** 1" (3/PK)
- \*\* TUBING IS 4" IN LENGTH

**PILOT LIGHT (BREAKAWAY) FITTINGS**

- 181SP-02** 1/8"    **181SP-04** 1/4"
- 181SP-03** 3/16"    **181SP-06** 3/8"



Nut with breakaway sleeve screws into gas control valves for furnaces, water heaters, etc. Fittings are sold individually.

**5' SQUARE BLACK NEOPRENE TUBING**

**MA-SNAT316-5 BLACK NEOPRENE AIR TUBING**

- MA-NAT18-5** 1/8"ID X 5'
- MA-NAT316-5** 3/16"ID X 5'
- MA-NAT316** 3/16"ID X 100'



**ALUMINUM TUBING 5' KIT**  
INCLUDES FITTINGS

- MA-AT14-5** 1/4"    **MA-AT316-5** 3/16"
- MA-AT18-5** 1/8"    **MA-AT38-5** 3/8"



**50' COILS ALUMINUM TUBING**  
WITHOUT FITTINGS

- MA-AT18** 1/8"OD    **MA-AT38** 3/8"OD
- MA-AT316** 3/16"OD    **MA-AT716** 7/16"OD
- MA-AT14** 1/4"OD    **MA-AT12** 1/2"OD
- MA-AT516** 5/16"OD    **MA-AT58** 5/8"OD

ASTM: B483  
ALLOY: 3003  
WALL THICKNESS: .035

**FLEXOGEN GARDEN HOSE**

- MA-GH25**  
5/8"ID GREY 25' LONG
- MA-GH50**  
5/8"ID GREY 50' LONG



**INSULATED SPRAY NOZZLE**  
6 SPRAY PATTERNS

- MA-572A**  
SOAKER, SHOWER, CONE, FLAT, MIST AND JET
- MA-W455**  
HOSE WASHERS (10/PK)



**RED SILICONE RUBBER TUBING**

- MA-SRT18-5** 1/8"ID X 5/16"OD
- MA-SRT316-5** 3/16"ID X 5/16"OD
- MA-SRT14-5** 1/4"ID X 3/8"OD

5' LENGTH



**COMBO-HEX CLAMP**

3/8" HEX HEAD COLLARED SCREW  
ZINC-PLATED CARBON STEEL SCREW  
300 STAINLESS BAND & HOUSING

10/BOX - SOLD PER BOX

- MA-5406BX** SIZE 06, 1/2" TO 7/8" DIA.
- MA-5408BX** SIZE 08, 9/16" TO 1" DIA.
- MA-5410BX** SIZE 10, 11/16" TO 1-1/16" DIA.
- MA-5412BX** SIZE 12, 11/16" TO 1-1/4" DIA.
- MA-5416BX** SIZE 16, 13/16" TO 1-1/2" DIA.
- MA-5420BX** SIZE 20, 13/16" TO 1-3/4" DIA.
- MA-5428BX** SIZE 28, 1-5/16" TO 2-1/4" DIA.
- MA-5432BX** SIZE 32, 1-9/16" TO 2-1/2" DIA.
- MA-56188** SIZE 188, 11" TO 12" DIA.

MICRO CLAMPS



COMBO CLAMPS

**MICRO GEAR HOSE CLAMP**

1/4" HEX HEAD  
ZINC-PLATED CARBON STEEL SCREW  
300 STAINLESS BAND & HOUSING  
TINY BUT TOUGH

10/BOX - SOLD PER BOX

- MA-6202BX** SIZE 04, 1/4" TO 5/8" DIA.
- MA-6203BX** SIZE 06, 5/16" TO 7/8" DIA.
- MA-6204BX** SIZE 12, 3/4" TO 1-1/4" DIA.
- MA-6205BX** SIZE 16, 13/16" TO 1-1/2" DIA.
- MA-6206BX** SIZE 20, 7/8" TO 1-3/4" DIA.

**HANGING WIRE**

HWA = TENSILE STRENGTH - 60,000 - 75,000  
HWG = TENSILE STRENGTH - 95,000 - 115,000

18 GAUGE

- MA-HWA02** 2LB. BLACK ANNEALED WIRE
- MA-HWA05** 5LB. BLACK ANNEALED WIRE
- MA-HWG02** 2LB. GALVANIZED WIRE
- MA-HWG05** 5LB. GALVANIZED WIRE



**PERFORATED STRAPS**

20 GAUGE

- MA-GF1** 3/4" X 10' GALVANIZED
- MA-GF-50** 3/4" X 50' GALVANIZED
- MA-GF-100** 3/4" X 100' GALVANIZED
- MA-CF1** 3/4" X 10' COPPER
- MA-CF-50** 3/4" X 50' COPPER
- MA-CF-100** 3/4" X 100' COPPER



**1-HOLE PIPE CLAMPS**

HANGING THINWALL CONDUIT  
GALVANIZED

- MA-DT12** 1/2" ID (100/PKG)
- MA-DT34** 3/4" ID (100/PKG)
- MA-DT1** 1" ID (50/PKG)
- MA-DT114** 1-1/4" ID (25/PKG)
- MA-DT112** 1-1/2" ID (25/PKG)
- MA-DT2** 2" ID (25/PKG)
- MA-10DT12** 1/2" ID (10/PKG)
- MA-10DT34** 3/4" ID (10/PKG)
- MA-5DT1** 1" ID (5/PKG)
- MA-5DT114** 1-1/4" ID (5/PKG)
- MA-5DT112** 1-1/2" ID (5/PKG)



**2-HOLE TUBING CLAMPS**

HANGING THINWALL CONDUIT

- MA-BT12** 1/2" ID (250/PKG)
- MA-BT34** 3/4" ID (200/PKG)
- MA-BT1** 1" ID (100/PKG)
- MA-BT114** 1-1/4" ID (50/PKG)
- MA-BT112** 1-1/2" ID (50/PKG)
- MA-BT2** 2" ID (25/PKG)

GALVANIZED



HANGING COPPER TUBING

- MA-BC14** 1/4" ID (500/PKG)
- MA-BC38** 3/8" ID (500/PKG)
- MA-BC12** 1/2" ID (250/PKG)
- MA-BC34** 3/4" ID (150/PKG)
- MA-BC1** 1" ID (100/PKG)
- MA-BC114** 1-1/4" ID (50/PKG)
- MA-BC112** 1-1/2" ID (50/PKG)
- MA-BC2** 2" ID (25/PKG)

COPPER



**PLASTIC HANGING STRAP**

- MA-PH50** 3/4" X 50'
  - MA-PH100** 3/4" X 100'
- USED AS PIPE HANGER, DUCT HANGER,  
TUBING STRAP AND UTILITY STRAP

**J-HOOKS 20 GAUGE**



25 PER BAG

- MA-J1500** 1-1/2" DRAIN PIPE HOLDER
- MA-J2000** 2" DRAIN PIPE HOLDER
- MA-J3000** 3" DRAIN PIPE HOLDER
- MA-J4000** 4" DRAIN PIPE HOLDER
- MA-SH1500** 1-1/2" SWIVEL ADJ. HANGER
- MA-SH2000** 2" SWIVEL ADJ. HANGER
- MA-SH3000** 3" SWIVEL ADJ. HANGER
- MA-SH4000** 4" SWIVEL ADJ. HANGER

The hangers hold pipe firmly and it eliminates noise from vibrating pipes. Includes nails to prevent soldering and eliminates hanger/pipe corrosion and electrolysis. The SH series has a rotating feature to hang pipe on an angle.

**CONDUIT PIPE CLAMPS WITH BOLTS**

- MA-K12** 1/2" ID (100/PKG)
- MA-K34** 3/4" ID (100/PKG)
- MA-K1** 1" ID (100/PKG)
- MA-K114** 1-1/4" ID (100/PKG)
- MA-K112** 1-1/2" ID (100/PKG)
- MA-K2** 2" ID (50/PKG)
- MA-K212** 2-1/2" ID (50/PKG)
- MA-K3** 3" ID (25/PKG)

HANGING  
CONDUIT  
OR  
IRON PIPE



**WIRE PIPE HANGERS**

HANGING BLACK IRON PIPE

- MA-NW124** 1/2" X 4"
- MA-NW126** 1/2" X 6"
- MA-NW128** 1/2" X 8"
- MA-NW1210** 1/2" X 10"
- MA-NW344** 3/4" X 4"
- MA-NW346** 3/4" X 6"
- MA-NW348** 3/4" X 8"
- MA-NW3410** 3/4" X 10"
- MA-NW16** 1" X 6"
- MA-NW18** 1" X 8"
- MA-NW110** 1" X 10"
- MA-NW1146** 1-1/4" X 6"
- MA-NW1148** 1-1/4" X 8"
- MA-NW11410** 1-1/4" X 10"
- MA-NW1126** 1-1/2" X 6"
- MA-NW1128** 1-1/2" X 8"
- MA-NW11210** 1-1/2" X 10"

9 GAUGE WIRE  
50/BOX



HANGING COPPER TUBE

- MA-NW124-C** 1/2" X 4"
- MA-NW126-C** 1/2" X 6"
- MA-NW128-C** 1/2" X 8"
- MA-NW344-C** 3/4" X 4"
- MA-NW346-C** 3/4" X 6"
- MA-NW348-C** 3/4" X 8"
- MA-NW16-C** 1" X 6"
- MA-NW18-C** 1" X 8"
- MA-NW1146-C** 1-1/4" X 6"
- MA-NW1148-C** 1-1/4" X 8"
- MA-NW1126-C** 1-1/2" X 6"
- MA-NW1128-C** 1-1/2" X 8"

**BUSS FUSES  
DUAL ELEMENT  
TIME DELAY, 250V,  
CLASS RK5 FUSES**

PART #	AMP	PKG
MA-FRNR1	1	10
MA-FRNR1.25	1.25	10
MA-FRNR1.6	1.6	10
MA-FRNR2	2	10
MA-FRNR2.5	2.5	10
MA-FRNR3.2	3.2	10
MA-FRNR4	4	10
MA-FRNR5	5	10
MA-FRNR6.25	6.25	10
MA-FRNR8	8	10
MA-FRNR10	10	10
MA-FRNR12	12	10
MA-FRNR15	15	10
MA-FRNR20	20	10
MA-FRNR25	25	10
MA-FRNR30	30	10
MA-FRNR35	35	10
MA-FRNR40	40	10
MA-FRNR45	45	10
MA-FRNR50	50	10
MA-FRNR60	60	10
MA-FRNR70	70	5
MA-FRNR80	80	5
MA-FRNR90	90	5
MA-FRNR100	100	5
MA-FRNR110	110	1
MA-FRNR125	125	1
MA-FRNR150	150	1
MA-FRNR175	175	1
MA-FRNR200	200	1
MA-FRNR225	225	1

**BUSS FUSES  
DUAL ELEMENT  
TIME DELAY, 600V,  
CLASS RK5 FUSES**

PART #	AMP	PKG
MA-FRSR1	1	10
MA-FRSR1.25	1.25	10
MA-FRSR1.6	1.6	10
MA-FRSR2	2	10
MA-FRSR2.5	2.5	10
MA-FRSR3.2	3.2	10
MA-FRSR4	4	10
MA-FRSR5	5	10
MA-FRSR6.25	6.25	10
MA-FRSR8	8	10
MA-FRSR10	10	10
MA-FRSR12	12	10
MA-FRSR15	15	10
MA-FRSR20	20	10
MA-FRSR25	25	10
MA-FRSR30	30	10
MA-FRSR35	35	10
MA-FRSR40	40	10
MA-FRSR45	45	10
MA-FRSR50	50	10
MA-FRSR60	60	10
MA-FRSR70	70	5
MA-FRSR80	80	5
MA-FRSR90	90	5
MA-FRSR100	100	5
MA-FRSR110	110	1
MA-FRSR125	125	1
MA-FRSR150	150	1
MA-FRSR175	175	1
MA-FRSR200	200	1
MA-FRSR225	225	1

**BUSS HEATING  
& A/C FUSES  
TIME DELAY, 250V  
CURRENT LIMITING,  
CLASS RK5,  
UL LISTED,  
CSA CERTIFIED**

PART #	AMP	PKG
MA-ECNR3.2	3.2	10
MA-ECNR5	5	10
MA-ECNR6.25	6.25	10
MA-ECNR10	10	10
MA-ECNR15	15	10
MA-ECNR20	20	10
MA-ECNR25	25	10
MA-ECNR30	30	10
MA-ECNR35	35	10
MA-ECNR40	40	10
MA-ECNR45	45	10
MA-ECNR50	50	10
MA-ECNR60	60	10
MA-ECNR70	70	5
MA-ECNR80	80	5
MA-ECNR100	100	5
MA-ECNR125	125	1
MA-ECNR200	200	1

**BUSS HEATING  
& A/C FUSES  
TIME DELAY, 600V  
CURRENT LIMITING,  
CLASS RK5,  
UL LISTED,  
CSA CERTIFIED**

PART #	AMP	PKG
MA-ECSR10	10	10
MA-ECSR15	15	10
MA-ECSR20	20	10
MA-ECSR25	25	10
MA-ECSR30	30	10
MA-ECSR35	35	10
MA-ECSR40	40	10
MA-ECSR45	45	10
MA-ECSR50	50	10
MA-ECSR60	60	10
MA-ECSR70	70	5
MA-ECSR80	80	5
MA-ECSR90	90	5
MA-ECSR100	100	5
MA-ECSR125	125	5
MA-ECSR150	150	1
MA-ECSR200	200	1

**FRNR & FRSR  
SERIES**



**ECNR & ECSR  
SERIES**



**BUSS ONE TIME FUSE  
250 VOLT**

PART #	AMP	PKG	PART #	AMP	PKG
MA-NON1	1	10	MA-NON45	45	10
MA-NON3	3	10	MA-NON50	50	10
MA-NON6	6	10	MA-NON60	60	10
MA-NON10	10	10	MA-NON70	70	5
MA-NON15	15	10	MA-NON80	80	5
MA-NON20	20	10	MA-NON100	100	5
MA-NON25	25	10	MA-NON150	150	1
MA-NON30	30	10	MA-NON175	175	1
MA-NON35	35	10	MA-NON200	200	1
MA-NON40	40	10			



**BUSS T PLUG FUSES  
TIME DELAY, 250 VOLT**

PART #	AMP	PKG	PART #	AMP	PKG
MA-T1A	1	4	MA-T61/4A	6.25	4
MA-T11/4A	1.25	4	MA-T7A	7	4
MA-T16A	1.6	4	MA-T8A	8	4
MA-T2A	2	4	MA-T10A	10	4
MA-T21/2A	2.5	4	MA-T12A	12	4
MA-T32A	3.2	4	MA-T15A	15	4
MA-T4A	4	4	MA-T20A	20	4
MA-T5A	5	4	MA-T25A	25	4
			MA-T30A	30	4



**BUSS S PLUG FUSES TIME DELAY, 250 VOLT**

PART #	AMP	PKG	PART #	AMP	PKG
MA-S1A	1	4	MA-S6A	6	4
MA-S11/4A	1.25	4	MA-S61/4A	6.25	4
MA-S16A	1.6	4	MA-S8A	8	4
MA-S2A	2	4	MA-S10A	10	4
MA-S21/2A	2.5	4	MA-S12A	12	4
MA-S32	3.2	4	MA-S15A	15	4
MA-S4A	4	4	MA-S20A	20	4
MA-S5A	5	4	MA-S25A	25	4
			MA-S31A	30	4



**BUSS SL & TL PLUG FUSES  
TIME DELAY, 250 VOLT**

PART #	AMP	PKG	PART #	AMP	PKG
MA-SL15A	15	4	MA-TL15A	15	4
MA-SL20A	20	4	MA-TL20A	20	4
MA-SL25A	25	4	MA-TL25A	25	4
MA-SL30A	30	4	MA-TL30A	30	4



**TYPE S  
FUSE  
ADAPTOR**

PART #	AMP	PKG	PART #	AMP	PKG
MA-16SA	1.6	4	MA-30SA	30	4
MA-21/2SA	2.5	4			
MA-32SA	3.2	4			
MA-61/4SA	6.25	4			
MA-15SA	15	4			
MA-20SA	20	4			

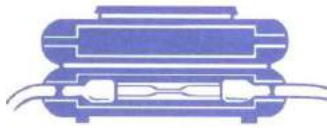


**BUSS W PLUG FUSES  
TIME DELAY, 250 VOLT**

PART #	AMP	PKG	PART #	AMP	PKG
MA-W3A	3	4	MA-W8A	8	4
MA-W5A	5	4	MA-W10A	10	4
MA-W6A	6	4			



**IN LINE FUSE HOLDER**



- MA00014-1** (2/PKG)  
18 GAUGE WITH 15 AMP FUSE
- MA00030-1** (2/PKG)  
12 GAUGE WITH 30 AMP FUSE

**1/4" X 1-1/4" CERAMIC FUSES**  
UL LISTED,  
CSA CERTIFICATION



PART #	AMP	VOLT	PKG
MA-ABC-1	1	250	5
MA-ABC-2	2	250	5
MA-ABC-3	3	250	5
MA-ABC-5	5	250	5
MA-ABC-6	6	250	5
MA-ABC-8	8	250	5
MA-ABC-10	10	250	5
MA-ABC-12	12	250	5
MA-ABC-15	15	250	5
MA-ABC-20	20	250	5
MA-ABC-30	30	250	5

**BLADE – TYPE FUSES**  
FAST ACTING  
32V, DC, UL LISTED



PART #	AMP	VOLT	PKG
MA-ATC2	2	32	5
MA-ATC3	3	32	5
MA-ATC4	4	32	5
MA-ATC5	5	32	5
MA-ATC7.5	7.5	32	5
MA-ATC10	10	32	5
MA-ATC15	15	32	5
MA-ATC20	20	32	5
MA-ATC25	25	32	5
MA-ATC30	30	32	5

**FUSE REDUCERS**

- MA-263-R** FOR CLASS R FUSES  
250V, FUSE SIZE 30A  
DESIRED SIZE 60A
- MA-263** FOR CLASS H & K FUSES  
250V, FUSE SIZE 30A  
DESIRED SIZE 60A
- MA-213** FUSE REDUCER



**TIME DELAYS**

- MA-30301** DELAY ON MAKE
- MA-30303** DELAY ON BREAK

**BUSSMANN BOX-COVER UNITS**



Fuse Holder and Switch units provide both protection for the motor and the switch for turning the device on and off

10/BOX  
PRICE PER PIECE

- MA-SSU** COVER FOR 2-1/4" HANDY BOX
- MA-SSW** COVER FOR 2-3/4" SWITCH BOX
- MA-SSX** COVER FOR 4" OCTAGON BOX)
- MA-SSY** COVER FOR 4" SQUARE BOX
- MA-SRU** COVER FOR 2-1/4" HANDY BOX
- MA-SRY** COVER FOR 4" SQUARE BOX

Fuse Holder and Plug-In Receptacle units provide convenient and unique protection for devices permanently connected to a circuit where switch control is desired. The grounding type Plug-In Receptacle uses either ordinary 2-prong attachment plug caps, a 2-prong parallel polarized cap with (1) wide prong, or a 3-prong grounding type cap. These units are intended for use on maximum 3/4HP and 125V

**1/4" X 1-1/4" GLASS FUSES**

TIME DELAY, 250V/32V  
CSA CERTIFICATION

PART #	AMP	VOLT	PKG	PART #	AMP	VOLT	PKG
MA-MDL-1/4	1/4	250	5	MA-MDL-5	5	250	5
MA-MDL-1/2	1/2	250	5	MA-MDL-6	6	250	5
MA-MDL-3/4	3/4	250	5	MA-MDL-7	7	250	5
MA-MDL-1	1	250	5	MA-MDL-8	8	250	5
MA-MDL-1-1/4	1-1/4	250	5	MA-MDL-10	10	32	5
MA-MDL-2	2	250	5	MA-MDL-15	15	32	5
MA-MDL-2-1/2	2-1/2	250	5	MA-MDL-20	20	32	5
MA-MDL-3	3	250	5	MA-MDL-25	25	32	5
MA-MDL-3.2	3-2/10	250	5	MA-MDL-30	30	32	5
MA-MDL-4	4	250	5				

**CLASS G FUSE**

TIME DELAY, 480V  
UL LISTED, CSA CERTIFIED

PART #	AMP	VOLT	PKG	PART #	AMP	VOLT	PKG
MA-SC10	10	480	10	MA-SC35	35	480	10
MA-SC15	15	480	10	MA-SC40	40	480	10
MA-SC20	20	480	10	MA-SC45	45	480	10
MA-SC25	25	480	10	MA-SC50	50	480	10
MA-SC30	30	480	10	MA-SC60	60	480	10

**FUSE PULLER MA-7519**

OVERALL LENGTH 7"  
1/2" DIA & 3/8" DIA.  
CARTRIDGE TYPE FUSES  
0 TO 200A, 250V



**1/4" X 1-1/4" GLASS FUSES**  
UL LISTED,  
CSA CERTIFICATION

PART #	AMP	VOLT	PKG
MA-AGC-1/32	1/32	250	5
MA-AGC-1/4	1/4	250	5
MA-AGC-1/2	1/2	250	5
MA-AGC-3/4	3/4	250	5
MA-AGC-1	1	250	5
MA-AGC-1-1/4	1-1/4	250	5
MA-AGC-1-1/2	1-1/2	250	5
MA-AGC-2	2	250	5
MA-AGC-2-1/2	2-1/2	250	5
MA-AGC-3	3	250	5
MA-AGC-4	4	250	5
MA-AGC-5	5	250	5
MA-AGC-6	6	250	5
MA-AGC-7	7	250	5
MA-AGC-8	8	250	5
MA-AGC-9	9	250	5
MA-AGC-10	10	250	5
MA-AGC-15	15	250	5
MA-AGC-20	20	250	5
MA-AGC-25	25	250	5
MA-AGC-30	30	250	5

**1/32" X 1-1/2" SUPPLEMENTARY FUSES**

TIME DELAY, 250V/500V  
UL LISTED, CSA CERTIFIED

PART #	AMP	VOLT	PKG
MA-FNM10	10	250	10
MA-FNM12	12	250	10
MA-FNM15	15	250	10
MA-FNM20	20	250	10
MA-FNM25	25	250	10
MA-FNM30	30	250	10
MA-FNM35	35	250	10
MA-FNM40	40	250	10
MA-FNQ10	10	500	10
MA-FNQ12	12	500	10
MA-FNQ15	15	500	10
MA-FNQ20	20	500	10
MA-FNQ25	25	500	10
MA-FNQ30	30	500	10





**WORLD SOURCE A/C  
METAL DISCONNECTS**  
UL & CUL LISTED

240 VAC, SINGLE PHASE, NEMA TYPE 3R,  
OUTDOOR ENCLOSURE

12 PER CASE - SOLD PER CASE

- MA-WSFD30A**      **MA-WSNFD60A**  
30A, FUSED                  60A, NON-FUSED
- MA-WSFD60A**  
60A, FUSED



**A/C WHIPS**

ASSEMBLED WITH UL APPROVED COMPONENTS      KIT COMES WITH 2 REDUCING WASHERS

METAL FITTINGS:

- MA-4012W**  
1/2" X 4' #10 THHN WIRE  
FITTINGS: 1 STRAIGHT + 1 90
- MA-6012W**  
1/2" X 6' #10 THHN WIRE  
FITTINGS: 1 STRAIGHT + 1 90
- MA-4034W**  
3/4" X 4' #8 THHN WIRE  
FITTINGS: 1 STRAIGHT + 1 90
- MA-6034W**  
3/4" X 6' #8 THHN WIRE  
FITTINGS: 1 STRAIGHT + 1 90

PLASTIC FITTINGS:

- MA-P4012W**  
1/2" X 4' #10 THHN WIRE  
FITTINGS: 1 STRAIGHT + 1 90
- MA-P6012W**  
1/2" X 6' #10 THHN WIRE  
FITTINGS: 1 STRAIGHT + 1 90
- MA-P4034W**  
3/4" X 4' #8 THHN WIRE  
FITTINGS: 1 STRAIGHT + 1 90
- MA-P6034W**  
3/4" X 6' #8 THHN WIRE  
FITTINGS: 1 STRAIGHT + 1 90

**A/C DISCONNECTS  
WITH GFI OUTLET**

1/CASE - SOLD PER CASE

**MA-UO65P010**



**LIQUID TIGHT FITTINGS**

METALLIC AND NON-METALLIC

METALLIC STRAIGHT  
CONNECTOR

- MA-E50A** 1/2" (10/BOX)
- MA-4E50A** 1/2" (4/PKG)
- MA-E75** 3/4" (25/BOX)
- MA-4E75** 3/4" (4/PKG)
- MA-E100** 1" (5/PKG)
- MA-LT125** 1-1/4" (5/PKG)
- MA-LT150** 1-1/2" (2/PKG)

METALLIC 90 DEGREE  
ELBOW

- MA-E5090A** 1/2" (10/BOX)
- MA-4E5090A** 1/2" (4/PKG)
- MA-E7590** 3/4" (25/BOX)
- MA-4E7590** 3/4" (4/PKG)
- MA-E10090** 1" (5/BOX)
- MA-E12590** 1-1/4" (2/BOX)
- MA-E15090** 1-1/2" (2/BOX)



NON-METALLIC  
STRAIGHT CONNECTOR

- MA-LC43D** 1/2" SCREW ON (10/BOX)
- MA-4LC43D** 1/2" SCREW ON (4/PKG)
- MA-LC43E** 3/4" SCREW ON (10/BOX)
- MA-4LC43E** 3/4" SCREW ON (4/PKG)
- MA-NMLT50** 1/2" 2 PIECE
- MA-4NMLT50** 1/2" 2 PIECE (4/PKG)
- MA-NMLT75** 3/4" 2 PIECE
- MA-4NMLT75** 3/4" 2 PIECE (4/PKG)

NON-METALLIC  
90 DEGREE ELBOW

- MA-LC20D** 1/2" SCREW ON (10/BOX)
- MA-4LC20D** 1/2" SCREW ON (4/PKG)
- MA-LC20E** 3/4" SCREW ON (10/BOX)
- MA-4LC20E** 3/4" SCREW ON (4/PKG)
- MA-NMLT9050** 1/2" 2 PIECE
- MA-4NMLT9050** 1/2" 2 PIECE (4/PKG)
- MA-NMLT9075** 3/4" 2 PIECE
- MA-4NMLT9075** 3/4" 2 PIECE (4/PKG)



**3 PHASE DISCONNECTS**

240 VAC, THREE PHASE, NEMA TYPE 3R,  
OUTDOOR ENCLOSURE

1/CASE - SOLD PER CASE

- MA-60NF3**      **MA-30F3**  
60A, NON-FUSED      30A, FUSED
- MA-60F3**      60A, FUSED

UL & CSL LISTED

**"EXTRA-BOOST"  
HARD START KITS**

These units can increase starting torque from 300% to over 600% depending on the model used. They can be used on room A/C, all residential and commercial PSC A/C units and heat pumps. They can be used on units rated from 4,000 to 120,000 BTU's and they can be used on 120 through 288 VAC units. All models are UL recognized and are for low voltage and hard starting compressors. All units contain a start capacitor and relay for extra starting torque. Installs in seconds across run capacitor terminals.

Voltage: 120 230 Residential/Commercial



- MA-XP5** BTU 4,000-60,000
- MA-XP6** BTU 4,000-120,000
- MA-XP8** BTU 4,000-120,000

**NSA'S FURNACE  
MOUNTING BLOCK**

**MA-68150**

PATENT #  
8,262,054, 8,882,075  
& D465022



**HEAT PUMP STANDS**

- MA-HP3** 3" 1 PIECE
- MA-HP6** 6" 1 PIECE

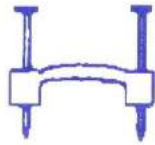


- MA-HP3-2P** 3" 2 PIECE
- MA-HP6-2P** 6" 2 PIECE

**MA-EXT4**  
4" EXTENSION FOR  
2 PIECES HEAT  
PUMP STANDS

- MA-E2PL-1** 1/2" WIDE 100/PKG  
2-NAIL STRAPS FITS 2 - 3 #12 NM  
CABLE, OR 2 #12 UF CABLE
- MA-E3PL-1** 3/4" WIDE 100/PKG  
2-NAIL STRAPS FITS 2 #8 NM & UF  
CABLE, OR 3 #12 UF CABLE
- MA-E2PL25** 1/2" WIDE 25/PKG  
2-NAIL STRAPS FITS 2 - 3 #12 NM  
CABLE, OR 2 #12 UF CABLE
- MA-E3PL25** 3/4" WIDE 25/PKG  
2-NAIL STRAPS FITS 2 #8 NM & UF  
CABLE, OR 3 #12 UF CABLE

**CABLE STRAPS**



2 NAIL STRAP

**FITTINGS FOR BX-FLEXIBLE METAL CONDUIT**

**STEEL & ALUMINUM FLEX, AC & MC CABLE**

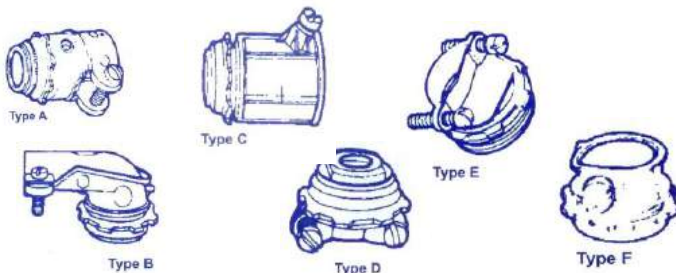
- MA-E42-1** 1/2" STRAIGHT SQUEEZE CONN.(TYPE A) 25/PKG.
- MA-E42-2** 3/4" STRAIGHT SQUEEZE CONN.(TYPE A) 25/PKG.
- MA-E42-3** 1" STRAIGHT SQUEEZE CONN.(TYPE A) 10/PKG.
- MA-E42-4** 1-1/4" STRAIGHT SQUEEZE CONN.(TYPE A) 10/PKG.
- MA-E42-5** 1-1/2" STRAIGHT SQUEEZE CONN.(TYPE A) 5/PKG.
- MA-E110** 3/8" 90 DEGREE SET SCREW CONN.(TYPE B) 50/PKG.
- MA-E110-1** 1/2" 90 DEGREE SET SCREW CONN.(TYPE B) 25/PKG.
- MA-E110-2** 3/4" 90 DEGREE SET SCREW CONN.(TYPE B) 15/PKG.
- MA-E110-3** 1" 90 DEGREE SET SCREW CONN.(TYPE B) 10/PKG.
- MA-E110-4** 1-1/4" 90 DEGREE SET SCREW CONN.(TYPE B) 5/PKG.
- MA-E110-5** 1-1/2" 90 DEGREE SET SCREW CONN.(TYPE B) 1/PKG.
- MA-E57** 3/8" COMBINATION CONNECTOR (TYPE D) 100/PKG.
- MA-4E421** 1/2" STRAIGHT SQUEEZE CONN. (TYPE A) 4/PKG.
- MA-4E422** 3/4" STRAIGHT SQUEEZE CONN. (TYPE B) 4/PKG.
- MA-4E110** 3/8" 90 DEGREE SET SCREW CONN.(TYPE B) 4/PKG.
- MA-4E1101** 1/2" 90 DEGREE SET SCREW CONN.(TYPE B) 4/PKG.
- MA-4E1102** 3/4" 90 DEGREE SET SCREW CONN.(TYPE B) 4/PKG.
- MA-4E57** 3/8" COMBINATION CONNECTOR (TYPE D) 4/PKG.

**NM CABLE**

- MA-E104A** 3/4" CABLE CONNECTOR (TYPE E) 50/PKG.
- MA-E105** 1" CABLE CONNECTOR (TYPE E) 25/PKG.
- MA-E106** 1-1/4" CABLE CONNECTOR (TYPE E) 10/PKG.
- MA-E107** 1-1/2" CABLE CONNECTOR (TYPE E) 10/PKG.
- MA-E51** 3/8" ROMEX CONNECTOR (TYPE E) 100/PKG
- MA-4E104A** 3/4" CABLE CONNECTOR (TYPE E) 4/PKG.
- MA-4E51** 3/8" ROMEX CONNECTOR (TYPE E) 4/PKG

**FLEX, MC & AC CABLE**

- MA-E58** 3/8" SET SCREW CONNECTOR (TYPE F) 100/PKG.
- MA-E48** 1/2" SET SCREW CONNECTOR (TYPE F) 25/PKG.
- MA-4E58** 3/8" SET SCREW CONNECTOR (TYPE F) 4/PKG.
- MA-4E48** 1/2" SET SCREW CONNECTOR (TYPE F) 4/PKG.



**FLEXIBLE CONDUIT**

TYPE ULC – UL APPROVED ONLY

- MA-10050** 1/2" X 100'
- MA-10075** 3/4" X 100'
- MA-10010** 1" X 100'



**LIQUID TIGHT**

NON-METALLIC CONDUIT  
U.L. AND CSA APPROVED

- MA-15005** 1/2" X 100'
- MA-15007** 3/4" X 100'
- MA-15008** 1" X 100'



UV (SUNLIGHT) RESISTANT

**FLEXIBLE CONDUIT**

LIQUID TIGHT  
TYPE EFC-NON-UL

- MA-20050** 1/2" X 100'
- MA-20075** 3/4" X 100'
- MA-20010** 1" X 100'



MEETS JIC REQUIREMENTS  
DOES NOT CONTAIN CONTINUOUS COPPER GROUND.

ALUMINUM (GREENFIELD)

- MA-30038** 3/8" X 100'
- MA-30050** 1/2" X 100'
- MA-30075** 3/4" X 100'

**FLEXIBLE  
CONDUIT**

ALUMINUM AND STEEL

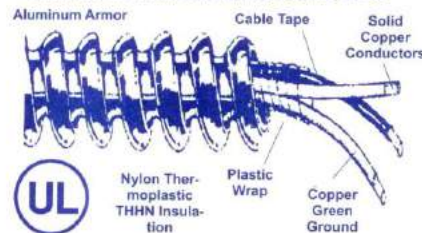
STEEL (GREENFIELD)

- MA-40038** 3/8" X 100'
- MA-40050** 1/2" X 100'
- MA-40075** 3/4" X 100'



**TYPE MC  
ALUMINUM CLAD CABLE**

WITH INSULATED GREEN GROUND WIRE



- MA-MC42C**  
14/2 – 100'
- MA-MC22C**  
12/2 – 100'
- MA-MC43C**  
14/3 – 100'
- MA-MC23C**  
12/3 – 100'

MA-LINE TYPE MC CABLE IS USED IN COMMERCIAL, INDUSTRIAL AND UTILITY APPLICATIONS WHERE SPACE AND EASE OF INSTALLATION IS CRITICAL. MC CABLE HANDLES POWER SERVICE, LIGHTING, CONTROL AND SIGNAL CIRCUITS. MAY BE USED IN CABLE TRAYS, APPROVED RACEWAYS, OR AS AN OPEN RUN OF CABLE. MADE OF ALUMINUM INTERLOCKED ARMOR, SOLID COPPER CONDUCTORS.

600 VOLTS – THHN CONDUCTORS WITH GREEN INSULATED GROUND.  
MEETS U.L. 1569.

**ANTI-SHORT  
BUSHINGS**

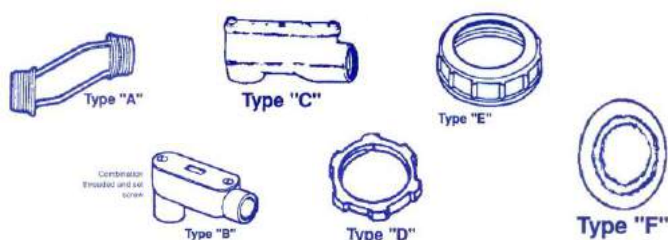
FOR FLEX – AC – MC CABLE



- MA-E0PL** FITS CABLE SIZE: 14/2, 14/3, 12/2  
TRADE SIZE: 5/16" 100/PKG
- MA-E1PL** FITS CABLE SIZE: 14/4, 12/3, 6/1, 4/1  
TRADE SIZE: 3/8" 100/PKG
- MA-E2PL** FITS CABLE SIZE: 12/4, 10/2, 10/3, 2/1  
TRADE SIZE: 7/16" 50/PKG
- MA-E3PL** FITS CABLE SIZE: 10/4, 8/2, 8/3, 1/1  
TRADE SIZE: 1/2" 50/PKG
- MA-E4PL** FITS CABLE SIZE: 8/4, 6/2, 6/3, 6/4, 4/2, 4/3  
TRADE SIZE: 3/4" 10/PKG

**FITTINGS FOR RIGID CONDUIT**

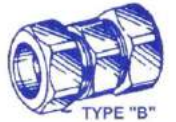
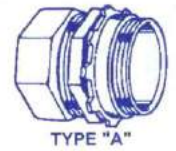
- MA-E376** 1/2" OFFSET NIPPLES (TYPE A) 20/PKG.
- MA-E377** 3/4" OFFSET NIPPLES (TYPE A) 10/PKG.
- MA-E378** 1" OFFSET NIPPLES (TYPE A) 10/PKG.
- MA-E379** 1-1/4" OFFSET NIPPLES (TYPE A) 10/PKG.
- MA-E380** 1-1/2" OFFSET NIPPLES (TYPE A) 10/PKG.
- MA-E96-1CG** 1/2" LB TYPE THREADED OVAL CONDUIT BODY WITH COVER AND GASKET (TYPE B) 10/PKG.
- MA-E96-2CG** 3/4" LB TYPE THREADED OVAL CONDUIT BODY WITH COVER AND GASKET (TYPE B) 10/PKG.
- MA-E96-4CG** 1-1/4" LB TYPE THREADED OVAL CONDUIT BODY WITH COVER AND GASKET (TYPE B) 2/PKG.
- MA-E96-5CG** 1-1/2" LB TYPE THREADED OVAL CONDUIT BODY WITH COVER AND GASKET (TYPE B) 2/PKG.
- MA-E900** 1/2" SLB SERVICE ENTRANCE ELBOW (TYPE C) 10/PKG.
- MA-E901** 3/4" SLB SERVICE ENTRANCE ELBOW (TYPE C) 10/PKG.
- MA-E902** 1" SLB SERVICE ENTRANCE ELBOW (TYPE C) 5/PKG.
- MA-E903** 1-1/4" SLB SERVICE ENTRANCE ELBOW (TYPE C) 5/PKG.
- MA-E904** 1-1/2" SLB SERVICE ENTRANCE ELBOW (TYPE C) 2/PKG.
- MA-E59** 1/2" CONDUIT LOCKNUTS FULLY REVERSIBLE (TYPE D) 200/PKG.
- MA-E80** 3/4" CONDUIT LOCKNUTS FULLY REVERSIBLE (TYPE D) 100/PKG.
- MA-E81** 1" CONDUIT LOCKNUTS FULLY REVERSIBLE (TYPE D) 100/PKG.
- MA-E82** 1-1/4" CONDUIT LOCKNUTS FULLY REVERSIBLE (TYPE D) 50/PKG.
- MA-E83** 1-1/2" CONDUIT LOCKNUTS FULLY REVERSIBLE (TYPE D) 50/PKG.
- MA-4E59** 1/2" CONDUIT LOCKNUTS FULLY REVERSIBLE (TYPE D) 4/PKG.
- MA-25E59** 1/2" CONDUIT LOCKNUTS FULLY REVERSIBLE (TYPE D) 25/PKG.
- MA-25E80** 3/4" CONDUIT LOCKNUTS FULLY REVERSIBLE (TYPE D) 25/PKG.
- MA-E52PL** 1/2" PLASTIC INSULATED BUSHING (TYPE E) 100/PKG.
- MA-E60PL** 3/4" PLASTIC INSULATED BUSHING (TYPE E) 100/PKG.
- MA-E61PL** 1" PLASTIC INSULATED BUSHING (TYPE E) 50/PKG.
- MA-E65PL** 1-1/4" PLASTIC INSULATED BUSHING (TYPE E) 25/PKG.
- MA-E69PL** 1-1/2" PLASTIC INSULATED BUSHING (TYPE E) 25/PKG.
- MA-E298-21** 3/4" X 1/2" REDUCING WASHER (TYPE F) 250/PKG.
- MA-E298-31** 1" X 1/2" REDUCING WASHER (TYPE F) 100/PKG.
- MA-E298-32** 1" X 3/4" REDUCING WASHER (TYPE F) 100/PKG.
- MA-E298-41** 1-1/4" X 1/2" REDUCING WASHER (TYPE F) 200/PKG.
- MA-E298-42** 1-1/4" X 3/4" REDUCING WASHER (TYPE F) 200/PKG.
- MA-E298-43** 1-1/4" X 1" REDUCING WASHER (TYPE F) 200/PKG.
- MA-E298-51** 1-1/2" X 1/2" REDUCING WASHER (TYPE F) 100/PKG.
- MA-E298-52** 1-1/2" X 3/4" REDUCING WASHER (TYPE F) 100/PKG.
- MA-E298-53** 1-1/2" X 1" REDUCING WASHER (TYPE F) 100/PKG.
- MA-E298-54** 1-1/2" X 1-1/4" REDUCING WASHER (TYPE F) 100/PKG.
- MA-25E29821** 3/4" X 1/2" REDUCING WASHER (TYPE F) 25/PKG.
- MA-25E29831** 1" X 1/2" REDUCING WASHER (TYPE F) 25/PKG.
- MA-25E29832** 1" X 3/4" REDUCING WASHER (TYPE F) 25/PKG.



**FITTINGS FOR THINWALL CONDUIT (EMT)**

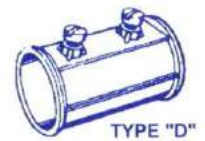
**COMPRESSION TYPE – RAIN TIGHT**

- MA-E21** 1/2" CONNECTOR (TYPE A) 50/PKG.
- MA-E23** 3/4" CONNECTOR (TYPE A) 25/PKG.
- MA-E25** 1" CONNECTOR (TYPE A) 15/PKG.
- MA-E27** 1-1/4" CONNECTOR (TYPE A) 5/PKG.
- MA-E29** 1-1/2" CONNECTOR (TYPE A) 10/PKG.
- MA-E22** 1/2" CONNECTOR (TYPE B) 50/PKG.
- MA-E24** 3/4" CONNECTOR (TYPE B) 25/PKG.
- MA-E26** 1" CONNECTOR (TYPE B) 15/PKG.
- MA-E28** 1-1/4" CONNECTOR (TYPE B) 10/PKG.
- MA-E30** 1-1/2" CONNECTOR (TYPE B) 10/PKG.
- MA-4E21** 1/2" CONNECTOR (TYPE A) 4/PKG.
- MA-4E23** 3/4" CONNECTOR (TYPE A) 4/PKG.
- MA-4E22** 1/2" CONNECTOR (TYPE B) 4/PKG.
- MA-4E24** 3/4" CONNECTOR (TYPE B) 4/PKG.



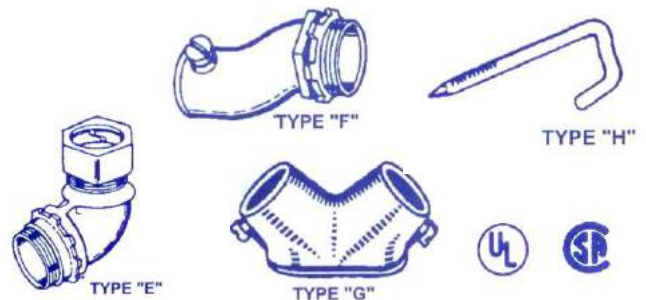
**SET SCREW TYPE – CONCRETE TIGHT**

- MA-E121** 1/2" CONNECTOR (TYPE C) 50/PKG.
- MA-E123** 3/4" CONNECTOR (TYPE C) 25/PKG.
- MA-E125** 1" CONNECTOR (TYPE C) 20/PKG.
- MA-E127** 1-1/4" CONNECTOR (TYPE C) 5/PKG.
- MA-E129** 1-1/2" CONNECTOR (TYPE C) 10/PKG.
- MA-E122** 1/2" COUPLING (TYPE D) 50/PKG.
- MA-E124** 3/4" COUPLING (TYPE D) 25/PKG.
- MA-E126** 1" COUPLING (TYPE D) 15/PKG.
- MA-E128** 1-1/4" COUPLING (TYPE D) 20/PKG.
- MA-E130** 1-1/2" COUPLING (TYPE D) 10/PKG.
- MA-4E121** 1/2" CONNECTOR (TYPE C) 4/PKG.
- MA-4E123** 3/4" CONNECTOR (TYPE C) 4/PKG.
- MA-4E122** 1/2" COUPLING (TYPE D) 4/PKG.
- MA-4E124** 3/4" COUPLING (TYPE D) 4/PKG.



**CONNECTORS, ELBOWS & STRAPS**

- MA-E2390-2** 3/4" 90 DEG. EMT CONNECTOR (TYPE E) 20/PKG
- MA-E37-1** 1/2" OFFSET CONNECTOR EMT TO BOX (TYPE F) 20/PKG
- MA-E37-2** 3/4" OFFSET CONNECTOR EMT TO BOX (TYPE F) 20/PKG
- MA-E37-3** 1" OFFSET CONNECTOR EMT TO BOX (TYPE F) 20/PKG
- MA-E144-1** 1/2" EMT PULL ELBOWS (TYPE G) 10/PKG
- MA-E144-2** 3/4" EMT PULL ELBOWS (TYPE G) 5/PKG
- MA-2E1441** 1/2" EMT PULL ELBOWS (TYPE G) 2/PKG
- MA-2E1442** 3/4" EMT PULL ELBOWS (TYPE G) 2/PKG
- MA-E55** 1/2" STEEL DRIVE STRAPS (TYPE H) 100/PKG
- MA-E7S** 3/4" STEEL DRIVE STRAPS (TYPE H) 100/PKG
- MA-E10S** 1" STEEL DRIVE STRAPS (TYPE H) 100/PKG





**MA-SVOM18**  
18MM/.75"  
SOLENOID VALVE  
OPERATING MAGNET

**CAP AND REPLACEMENT VALVE CORES**

PRICE PER PACKAGE

**AF2000** (10/PKG)

**AF2000BX** (100/PKG)

1/4"SAE GASKET SEAL CAP  
W/CORE REMOVER

**AF2100** (5/PKG) **AF2100-25** (25/PKG) **AF2100-100** (100/PKG)  
1/4" VALVE CORE



**COPPER TUBE EXTENSIONS  
WITH 1/4" FITTING**



5/PKG-PRICE/PKG	50/PKG-PRICE/PKG
<b>AF1000</b> 1/8"OD	<b>AF1000-50</b> 1/8"OD
<b>AF1100</b> 3/16"OD	<b>AF1100-50</b> 3/16"OD
<b>AF1200</b> 1/4"OD	<b>AF1200-50</b> 1/4"OD
<b>AF1300</b> 5/16"OD	<b>AF1300-50</b> 5/16"OD
<b>AF1400</b> 3/8"OD	<b>AF1400-50</b> 3/8"OD

**VALVE CORE TOOL**

**AF2200-M** (1/PKG)  
INCLUDES 6 CORES



**COPPER TUBE EXTENSIONS  
WITH MULTI-STEPS**



**AF1500** (3/PKG) **AF1500-50** (50/PKG)  
1/8"OD, 3/16", 1/4" AND 5/16"ODF MULTI STEPS  
**AF1600** (3/PKG) **AF1600-50** (50/PKG)  
3/16"OD X 1/8"ID, 1/4" AND 3/8"ODF MULTI STEPS

PRICE PER PACKAGE

**COPPER SOLDER TEES  
WITH 1/4" MALE FLARE**

<b>AF3134</b> (3/PKG)	<b>AF3140</b> (1/PKG)
1/4"ODS X 5/16"ODF	5/8"ODS
<b>AF3135</b> (3/PKG)	<b>AF3142</b> (1/PKG)
5/16"ODS X 3/8"ODF	3/4"ODS
<b>AF3136</b> (3/PKG)	<b>AF3144</b> (1/PKG)
3/8"ODS X 1/2"ODF	7/8"ODS
<b>AF3138</b> (3/PKG)	<b>AF3148</b> (1/PKG)
1/2"ODS	1-1/8"ODS



PRICE PER PACKAGE

**SWIVEL FLARE CONNECTION**



**AF1700** (3/PKG) **AF1700-50** (50/PKG)  
1/4"FE SAE SWIVEL NUT ON BRANCH  
**AF1800** (3/PKG) **AF1800-50** (50/PKG)  
1/4"FE SAE SWIVEL NUT ON RUN

PRICE PER PACKAGE

**MULTI-STEP BRASS BODY**



**AF1900** (3/PKG) **AF1900-50** (50/PKG)  
1/8"OD X 3/16", 1/4", OR 5/16"ODF STEPS

PRICE PER PACKAGE

**REFRIGERANT RETENTION  
CONTROL VALVE**



MA-33008	
MA-33005	<b>MA-33002</b> 1/4"FLF X 1/4"FLM <b>MA-33005</b> 5/16"FLF X 5/16"FLM
MA-33002	<b>MA-33008</b> 5/16"FLF X 1/4"FLM

**D109** (2/PKG) INLET: 1/4" OUTLET: 1/4"  
3/4" X 8-1/2" NON-DIRECTIONAL DRIER

**D110** (2/PKG) INLET: 1/4" OUTLET: 1/4"  
3/4" X 8-3/4" DIRECTIONAL FUSED ENDS  
DRIER

**D111** (2/PKG) INLET: 1/4" OUTLET: 1/4" OR CAP  
1" X 8-3/4" DIRECTIONAL CHARGING DRIER

**D112** (2/PKG) INLET: 5/16" OUTLET: 5/16"  
1" X 10-3/4" DIRECTIONAL STEP DOWN DRIER

**D113** (2/PKG) INLET: (2)1/4" OUTLET: 1/4"  
1" X 8-3/4" DIRECTIONAL DOUBLE INLET DRIER

**D114** (2/PKG) INLET: MULTIPLE OUTLET: 1/4"  
1" X 9" DIRECTIONAL FUSED ENDS DRIER

**D115** (2/PKG) INLET: 1/4"ID, 1/4"OD & 1/4" FLARE OUTLET: 1/4"  
3/4" X 9" DIRECTIONAL CHARGING DRIER  
PRICE PER PACKAGE

**COPPER SPUN  
DRIERS**  
DRIERS CONTAIN XH-9  
DESICCANT



**COPPER TUBE  
EXTENSIONS  
WITH 5/16" FITTING**



5/16" MALE FLARE –  
COPPER EXTENSION 2" LONG  
PRICE PER PACKAGE

**AF11516** 3/16"ODS X 1/4"ODF (3/PKG)  
**AF12516** 1/4"ODS X 5/16"ODF (3/PKG)  
**AF13516** 5/16"ODS X 3/8"ODF (3/PKG)



**ADJUSTABLE  
LINE TAP VALVE**

**MA-V1** 1/4", 5/16", & 3/8" OD  
**MA-V2** 1/2" & 5/8" OD

**MA-19173**

**5/16" ADAPTOR  
FOR R-410 SYSTEMS**



**4 IN 1 VACUUM/CHARGE  
VALVE AND CORE TOOL**

**MA-18975**  
1/4" WITH SIDE PORT  
**MA-18985**  
5/16" WITH SIDE PORT





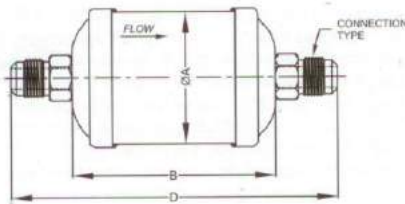
**LIQUID LINE FILTER DRIER  
DCH SERIES  
(SOLID CORE TYPE)**

**INTERNAL  
ASSEMBLY  
CORE TYPE**

**MAXIMUM WORKING  
PRESSURE  
45 BAR (653 PSIG)**

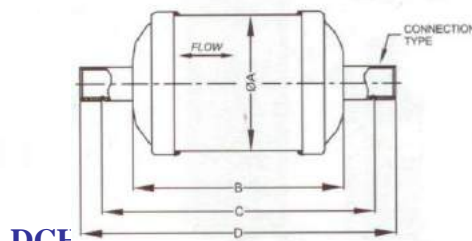
**SAE TYPE CONNECTION  
NICKEL PLATED  
STEEL**

**ODS TYPE CONNECTION  
COPPER**



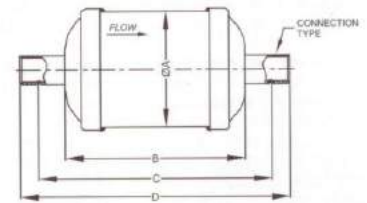
**DCH DRIER WITH SAE  
CONNECTION  
DIMENSIONS**

**DRAWING 1**



**DCH ODS  
CONNECTION DIMENSIONS**

**DRAWING 2**



**DCH DRIER WITH ODS  
CONNECTION  
DIMENSIONS**

**DRAWING 3**

**DCH052F**

1/4" **SAE** LIQUID LINE FILTER DRIER  
1/4" **SAE** CONNECTION,  
4.88" OVERALL LENGTH

**DRAWING 1**

**DCHBF083S**

3/8" **ODS** LIQUID LINE FILTER DRIER  
**BI-FLOW**, 3/8" **ODS** CONNECTION,  
5.78" OVERALL LENGTH

**DCHBF163S**

3/8" **ODS** LIQUID LINE FILTER DRIER  
**BI-FLOW**, 3/8" **ODS** CONNECTION,  
6.57" OVERALL LENGTH

**DRAWING 2**

**DCH032S**

1/4" **ODS** LIQUID LINE FILTER DRIER  
1/4" **ODS** CONNECTION,  
4.61" OVERALL LENGTH

**DCH033S**

3/8" **ODS** LIQUID LINE FILTER DRIER  
3/8" **ODS** CONNECTION,  
4.61" OVERALL LENGTH

**DRAWING 3**

**DCH052S**

1/4" **ODS** LIQUID LINE FILTER DRIER  
1/4" **ODS** CONNECTION,  
5.04" OVERALL LENGTH

**DCH053S**

3/8" **ODS** LIQUID LINE FILTER DRIER  
3/8" **ODS** CONNECTION,  
5.04" OVERALL LENGTH

**DCH082S**

1/4" **ODS** LIQUID LINE FILTER DRIER  
1/4" **ODS** CONNECTION,  
5.86" OVERALL LENGTH

**DCH083S**

3/8" **ODS** LIQUID LINE FILTER DRIER  
3/8" **ODS** CONNECTION,  
5.86" OVERALL LENGTH

**DCH163S**

3/8" **ODS** LIQUID LINE FILTER DRIER  
3/8" **ODS** CONNECTION,  
6.77" OVERALL LENGTH

**DCH164S**

1/2" **ODS** LIQUID LINE FILTER DRIER  
1/2" **ODS** CONNECTION,  
6.77" OVERALL LENGTH

**DCH165S**

5/8" **ODS** LIQUID LINE FILTER DRIER  
35/8" **ODS** CONNECTION,  
6.77" OVERALL LENGTH

**DRAWING 3**

**DCH303S**

3/8" **ODS** LIQUID LINE FILTER DRIER  
3/8" **ODS** CONNECTION,  
9.45" OVERALL LENGTH

**DCH304S**

1/2" **ODS** LIQUID LINE FILTER DRIER  
1/2" **ODS** CONNECTION,  
9.45" OVERALL LENGTH

**DCH305S**

5/8" **ODS** LIQUID LINE FILTER DRIER  
5/8" **ODS** CONNECTION,  
9.45" OVERALL LENGTH

**DCH306S**

3/4" **ODS** LIQUID LINE FILTER DRIER  
3/4" **ODS** CONNECTION,  
9.45" OVERALL LENGTH

**DCH307S**

7/8" **ODS** LIQUID LINE FILTER DRIER  
7/8" **ODS** CONNECTION,  
10.39" OVERALL LENGTH
















**DCH309S**

1-1/8" **ODS** LIQUID LINE FILTER DRIER  
1-1/8" **ODS** CONNECTION,  
10.39" OVERALL LENGTH

**DRAWING 3**



MALLEABLE BLACK IRON PIPE FITTINGS

PART #	DESCRIPTION	PKG.		PART #	DESCRIPTION	PKG.
MA-12U	1/2" UNION	50		MA-12T	1/2" TEE	60
MA-34U	3/4" UNION	35			MA-34T	3/4" TEE
MA-1U	1" UNION	20			MA-1T	1" TEE
MA-12CPLG	1/2" COUPLING	120			MA-341212T	3/4" X 1/2" X 1/2" TEE
MA-34CPLG	3/4" COUPLING	75			MA-343412T	3/4" X 3/4" X 1/2" TEE
MA-1CPLG	1" COUPLING	50			MA-1238BG	1/2" X 3/8" HEX BUSHING
MA-3412CPLG	3/4" X 1/2" RED. COUPLING	90			MA-3412BG	3/4" X 1/2" HEX BUSHING
MA-112CPLG	1" X 1/2" RED. COUPLING	30			MA-112BG	1" X 1/2" HEX BUSHING
MA-134CPLG	1" X 3/4" RED. COUPLING	50			MA-134BG	1" X 3/4" HEX BUSHING
MA-1290EL	1/2" 90 DEGREE ELBOW	100			MA-12CAP	1/2" CAP
MA-3490EL	3/4" 90 DEGREE ELBOW	35			MA-34CAP	3/4" CAP
MA-190EL	1" 90 DEGREE ELBOW	30			MA-1CAP	1" CAP
MA-1245EL	1/2" 45 DEGREE ELBOW	100			MA-12PLG	1/2" PLUG
MA-3445EL	3/4" 45 DEGREE ELBOW	60			MA-34PLG	3/4" PLUG
MA-145EL	1" 45 DEGREE ELBOW	30			MA-1PLG	1" PLUG
MA-1290STEL	1/2" 90 DEG. STR. ELBOW	90		SPECIFICATIONS:		
MA-3490STEL	3/4" 90 DEG. STR. ELBOW	35	MATERIAL: ASTM A-197			
MA-190STEL	1" 90 DEG. STR. ELBOW	30	DIMENSIONS: ANSI B16.3 & ANSI B16.14			
			THREADS: ANSI B1.20.1			

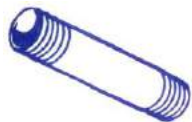


PLASTIC NIPPLE TRAYS

- MA-T1005 1/2" NIPPLE TRAY
- MA-T1007 3/4" NIPPLE TRAY
- MA-T1010 1" NIPPLE TRAY
- MA-T1057 1/2" & 3/4" NIPPLE TRAY

CARDBOARD NIPPLE TRAYS WITH ASSORTED NIPPLES

- MA-1266T 1/2" (66 PCS) 6EA. OF CLOSE TO 6"
- MA-3466T 3/4" (66 PCS) 6EA. OF CLOSE TO 6"
- MA-0160T 1" (60 PCS) 6EA. OF CLOSE TO 6"



WELDED STEEL BLACK IRON PIPE NIPPLES

PIPE NIPPLES MEET THE ASTM A733 SPECIFICATIONS

PART #	DESCRIPTION	PKG.	PART #	DESCRIPTION	PKG.	PART #	DESCRIPTION	PKG.
MA-BN12CL	1/2" X CL-1-1/8"	25	MA-BN34CL	3/4" X CL-1-3/8"	25	MA-BN1CL	1" X CL-1-1/2"	25
MA-BN12112	1/2" X 1-1/2"	25	MA-BN34112	3/4" X 1-1/2"	25	MA-BN12	1" X 2"	25
MA-BN122	1/2" X 2"	25	MA-BN342	3/4" X 2"	25	MA-BN1212	1" X 2-1/2"	25
MA-BN12212	1/2" X 2-1/2"	25	MA-BN34212	3/4" X 2-1/2"	25	MA-BN13	1" X 3"	25
MA-BN123	1/2" X 3"	25	MA-BN343	3/4" X 3"	25	MA-BN1312	1" X 3-1/2"	25
MA-BN12312	1/2" X 3-1/2"	25	MA-BN34312	3/4" X 3-1/2"	25	MA-BN14	1" X 4"	25
MA-BN124	1/2" X 4"	25	MA-BN344	3/4" X 4"	25	MA-BN1412	1" X 4-1/2"	25
MA-BN12412	1/2" X 4-1/2"	25	MA-BN34412	3/4" X 4-1/2"	25	MA-BN15	1" X 5"	25
MA-BN125	1/2" X 5"	25	MA-BN345	3/4" X 5"	25	MA-BN1512	1" X 5-1/2"	25
MA-BN12512	1/2" X 5-1/2"	25	MA-BN34512	3/4" X 5-1/2"	25	MA-BN16	1" X 6"	25
MA-BN126	1/2" X 6"	25	MA-BN346	3/4" X 6"	25	MA-BP112	1" X 12"	1
MA-BP1212	1/2" X 12"	1	MA-BP3412	3/4" X 12"	1	MA-BP118	1" X 18"	1
MA-BP1218	1/2" X 18"	1	MA-BP3418	3/4" X 18"	1	MA-BP124	1" X 24"	1
MA-BP1224	1/2" X 24"	1	MA-BP3424	3/4" X 24"	1	MA-BP130	1" X 30"	1
MA-BP1230	1/2" X 30"	1	MA-BP3430	3/4" X 30"	1	MA-BP136	1" X 36"	1
MA-BP1236	1/2" X 36"	1	MA-BP3436	3/4" X 36"	1	MA-BP148	1" X 48"	1
MA-BP1248	1/2" X 48"	1	MA-BP3448	3/4" X 48"	1	MA-BP160	1" X 60"	1
MA-BP1260	1/2" X 60"	1	MA-BP3460	3/4" X 60"	1			

**SCHEDULE 40 PVC FITTINGS**



PART #	DESCRIPTION	PKG.	TYPE
MA-30105	COUPLING 1/2" SLIP X SLIP	100	A
MA-30107	COUPLING 3/4" SLIP X SLIP	50	A
MA-30110	COUPLING 1" SLIP X SLIP	50	A
MA-30605	ELBOW 45 1/2" SLIP X SLIP	50	B
MA-30607	ELBOW 45 3/4" SLIP X SLIP	50	B
MA-30610	ELBOW 45 1" SLIP X SLIP	50	B
MA-30705	ELBOW 90 1/2" SLIP X SLIP	50	C
MA-30707	ELBOW 90 3/4" SLIP X SLIP	50	C
MA-30710	ELBOW 90 1" SLIP X SLIP	50	C
MA-31318	1/2" CLEAN OUT TEE	1	L
MA-31348	3/4" CLEAN OUT TEE	1	L
MA-31405	TEE 1/2" SLIP X SLIP X SLIP	50	D
MA-31407	TEE 3/4" SLIP X SLIP X SLIP	50	D
MA-31410	TEE 1" SLIP X SLIP X SLIP	50	D
MA-30305	ADAPTOR 1/2" SLIP X FPT	100	E
MA-30307	ADAPTOR 3/4" SLIP X FPT	50	E
MA-30311	ADAPTOR 1" SLIP X FPT	50	E
MA-30357	REDUCING FPT ADAPTOR 1/2" SLIP X 3/4" FPT	50	F
MA-30405	ADAPTOR 1/2" SLIP X MPT	100	G
MA-30407	ADAPTOR 3/4" SLIP X MPT	50	G
MA-30410	ADAPTOR 1" SLIP X MPT	50	G
MA-30457	REDUCING MPT ADAPTOR 1/2" SLIP X 3/4" MPT	50	H
MA-30155	CAP 1/2" SLIP	100	I
MA-30157	CAP 3/4" SLIP	50	I
MA-30158	CAP 1" SLIP	50	I
MA-448007	CAP 3/4" FPT	100	I

PART #	DESCRIPTION	PKG.	TYPE
MA-450007	PLUG 3/4" MPT	50	
MA-30275	REDUCING BUSHING 3/4" SLIP X 1/2" SLIP	100	J
MA-437131	REDUCING BUSHING 1" SLIP X 3/4" SLIP	100	J
MA-436074	REDUCING MPT ADAPTOR 3/4" SLIP X 1/2" MPT	100	H
MA-32905	STREET ELBOW 90 1/2" SLIP	50	M
MA-32907	STREET ELBOW 90 3/4" SLIP	50	M
MA-409010	STREET ELBOW 90 1" SLIP	50	M
MA-33905	ELBOW 90 1/2" SLIP X FPT	50	K
MA-33907	ELBOW 90 3/4" SLIP X FPT	50	K
MA-33910	ELBOW 90 1" SLIP X FPT	50	K
MA-401020	TEE 2" SLIP X SLIP X SLIP	25	D
MA-407074	ELBOW 90 3/4" FPT X 1/2" SLIP	50	K
MA-410005	STREET ELBOW 90 1/2" MPT X 1/2" SLIP	50	M
MA-410007	STREET ELBOW 90 3/4" MPT X 3/4" SLIP	50	M
MA-410010	STREET ELBOW 90 1" MPT X 1" SLIP	50	M
MA-410101	STREET ELBOW 90 3/4" MPT X 1/2" SLIP	50	M
MA-457005	UNION 1/2" SLIP X SLIP	10	N
MA-457007	UNION 3/4" SLIP X SLIP	10	N
MA-457010	UNION 1" SLIP X SLIP	10	N
MA-457012	UNION 1-1/4" SLIP X SLIP	5	N
MA-457015	UNION 1-1/2" SLIP X SLIP	5	N
MA-457020	UNION 2" SLIP X SLIP	2	N

PART #	DESCRIPTION	PKG.	TYPE
MA-70115	COUPLING 1-1/2"	100	A
MA-70120	COUPLING 2"	100	A
MA-429025	COUPLING 2-1/2" SCH 40	10	A
MA-70130	COUPLING 3"	60	A
MA-D100040	COUPLING 4"	25	A
MA-70121	RED. COUPLING 2" X 1-1/2"	25	B
MA-70132	RED. COUPLING 3" X 2"	20	B
MA-D102420	RED. COUPLING 4" X 2"	10	B
MA-D102422	RED. COUPLING 4" X 3"	10	B
MA-70116	REPAIR COUPLING 1-1/2"	25	C
MA-70122	REPAIR COUPLING 2"	25	C
MA-70133	REPAIR COUPLING 3"	10	C
MA-D130040	REPAIR COUPLING 4"	5	C
MA-70151	CAP SCH. 40 1-1/2"	25	D
MA-70152	CAP SCH. 40 2"	25	D
MA-447025	CAP SCH. 40 2-1/2"	10	D
MA-70153	CAP SCH. 40 3"	10	D
MA-447040	CAP SCH. 40 4"	5	D
MA-72815	90 DEG. ELBOW 1-1/2"	100	E
MA-72820	90 DEG. ELBOW 2"	50	E
MA-406025	90 DEG. ELBOW SCH 40 2-1/2"	10	E
MA-72830	90 DEG. ELBOW 3"	25	E
MA-D300040	90 DEG. ELBOW 3"	10	E
MA-70615	45 DEG. ELBOW 1-1/2"	100	H
MA-70620	45 DEG. ELBOW 2"	50	H
MA-417025	45 DEG. ELBOW 2-1/2" SCH 40	10	H
MA-70630	45 DEG. ELBOW 3"	20	H

**SCHEDULE 40 PVC-DWV FITTINGS**



PART #	DESCRIPTION	PKG.	TYPE
MA-D321040	45 DEG. ELBOW 4"	100	H
MA-73815	90 DEGREE LONG SWEEP ELBOW 1-1/2"	50	F
MA-73820	90 DEGREE LONG SWEEP ELBOW 2"	25	F
MA-73830	90 DEGREE LONG SWEEP ELBOW 3"	10	F
MA-D304040	90 DEGREE LONG SWEEP ELBOW 4"	5	F
MA-71115	TEE 1-1/2"	100	G
MA-71120	TEE 2"	35	G
MA-401025	TEE SCH. 40 2-1/2"	10	G
MA-71130	TEE 3"	30	G
MA-D400040	TEE 4"	5	G
MA-70221	BUSHING SCH. 40 2" X 1-1/2"	50	I
MA-437292	BUSHING SCH. 40 2-1/2" X 2"	10	I
MA-70231	BUSHING SCH. 40 3" X 1-1/2"	30	I
MA-70232	BUSHING 3" X 2"	30	I
MA-437339	BUSHING SCH. 40 3" X 2-1/2"	10	I
MA-D309015	LONG SWP. STR. ELB. 1-1/2"	10	
MA-D309020	LONG SWP. STR. ELB. 2"	25	
MA-D309030	LONG SWP. STR. ELB. 3"	20	
MA-D323015	45 DEG. STR. ELB. 1-1/2"	100	
MA-D323020	45 DEG. STR. ELB. 2"	50	
MA-D323030	45 DEG. STR. ELB. 3"	20	
MA-207013	NIPPLE TBE SCH. 80 3/4" X CL 50		
MA-207030	NIPPLE TBE SCH. 80 3/4" X 3"	50	

**FERNCO FLEXIBLE COUPLINGS**

CI = CAST IRON  
 PL = PLASTIC  
 ST = STEEL  
 C = COPPER  
 L = LEAD



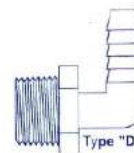
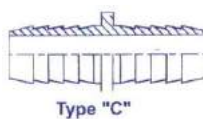
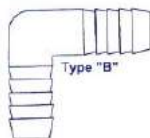
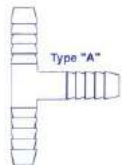
- MA-1056-075**  
3/4" CI/PL/C/ST/L TO 3/4" & 1" CI/PL/C/ST/L
- MA-1056-100**  
1" CI/PL/C/ST/L TO 1-1/4" CI/PL/C/ST/L
- MA-1056-22**  
2" CI/PL/C/ST/L TO 2" CI/PL/C/ST/L
- MA-1056-33**  
3" CI/PL/C/ST/L TO 3" CI/PL/C/ST/L
- MA-1056-44**  
4" CI/PL/C/ST/L TO 4" CI/PL/C/ST/L
- MA-1056-32**  
3" CI/PL/C/ST/L TO 2" CI/PL/C/ST/L

PART #	DESCRIPTION	PKG.	TYPE
<b>MA-22263</b>	ELBOW 1/4"B X 1/4"MPT	5	D
<b>MA-22263-25</b>	ELBOW 1/4"B X 1/4"MPT	25	D
<b>MA-22263-50</b>	ELBOW 1/4"B X 1/4"MPT	50	D
<b>MA-22263-100</b>	ELBOW 1/4"B X 1/4"MPT	100	D
<b>MA-22264</b>	ELBOW 1/4"B X 3/8"MPT	4	D
<b>MA-22264-25</b>	ELBOW 1/4"B X 3/8"MPT	25	D
<b>MA-22264-50</b>	ELBOW 1/4"B X 3/8"MPT	50	D
<b>MA-22264-100</b>	ELBOW 1/4"B X 3/8"MPT	100	D
<b>MA-22112</b>	ELBOW 3/8"B X 3/8"MPT	4	D
<b>MA-22112-25</b>	ELBOW 3/8"B X 3/8"MPT	25	D
<b>MA-22112-50</b>	ELBOW 3/8"B X 3/8"MPT	50	D
<b>MA-22112-100</b>	ELBOW 3/8"B X 3/8"MPT	100	D
<b>MA-22113</b>	ELBOW 3/8"B X 1/2"MPT	4	D
<b>MA-22113-25</b>	ELBOW 3/8"B X 1/2"MPT	25	D
<b>MA-22113-50</b>	ELBOW 3/8"B X 1/2"MPT	50	D
<b>MA-22113-100</b>	ELBOW 3/8"B X 1/2"MPT	100	D
<b>MA-22114</b>	ELBOW 3/8"B X 3/4"MPT	4	D
<b>MA-22114-25</b>	ELBOW 3/8"B X 3/4"MPT	25	D
<b>MA-22114-50</b>	ELBOW 3/8"B X 3/4"MPT	50	D
<b>MA-22114-100</b>	ELBOW 3/8"B X 3/4"MPT	100	D
<b>MA-22116</b>	ELBOW 1/2"B X 1/2"MPT	4	D
<b>MA-22116-25</b>	ELBOW 1/2"B X 1/2"MPT	25	D
<b>MA-22116-50</b>	ELBOW 1/2"B X 1/2"MPT	50	D
<b>MA-22116-100</b>	ELBOW 1/2"B X 1/2"MPT	100	D
<b>MA-22117</b>	ELBOW 1/2"B X 3/4"MPT	4	D
<b>MA-22117-25</b>	ELBOW 1/2"B X 3/4"MPT	25	D
<b>MA-22117-50</b>	ELBOW 1/2"B X 3/4"MPT	50	D
<b>MA-22117-100</b>	ELBOW 1/2"B X 3/4"MPT	100	D
<b>MA-22120</b>	ELBOW 5/8"B X 3/4"MPT	4	D
<b>MA-22120-25</b>	ELBOW 5/8"B X 3/4"MPT	25	D
<b>MA-22120-50</b>	ELBOW 5/8"B X 3/4"MPT	50	D
<b>MA-22120-100</b>	ELBOW 5/8"B X 3/4"MPT	100	D
<b>MA-22122</b>	ELBOW 3/4"B X 3/4"MPT	4	D
<b>MA-22122-25</b>	ELBOW 3/4"B X 3/4"MPT	25	D
<b>MA-22122-50</b>	ELBOW 3/4"B X 3/4"MPT	50	D
<b>MA-22122-100</b>	ELBOW 3/4"B X 3/4"MPT	100	D
<b>MA-12052</b>	BUSHING 1/2"MPT X 3/8"FPT	4	E
<b>MA-12052-25</b>	BUSHING 1/2"MPT X 3/8"FPT	25	E
<b>MA-12052-50</b>	BUSHING 1/2"MPT X 3/8"FPT	50	E
<b>MA-12052-100</b>	BUSHING 1/2"MPT X 3/8"FPT	100	E
<b>MA-12053</b>	BUSHING 3/4"MPT X 1/2"FPT	4	E
<b>MA-12053-25</b>	BUSHING 3/4"MPT X 1/2"FPT	25	E
<b>MA-12053-50</b>	BUSHING 3/4"MPT X 1/2"FPT	50	E
<b>MA-12053-100</b>	BUSHING 3/4"MPT X 1/2"FPT	100	E
<b>MA-12054</b>	BUSHING 1"MPT X 3/4"FPT	4	E
<b>MA-12054-25</b>	BUSHING 1"MPT X 3/4"FPT	25	E
<b>MA-12054-50</b>	BUSHING 1"MPT X 3/4"FPT	50	E
<b>MA-12054-100</b>	BUSHING 1"MPT X 3/4"FPT	100	E
<b>MA-12055</b>	BUSHING 1-1/4"MPT X 1"FPT	1	E
<b>MA-12056</b>	BUSHING 1-1/2"MPT X 1-1/4"FPT	1	E
<b>MA-12057</b>	BUSHING 2"MPT X 1-1/2"FPT	1	E

**NYLON FITTINGS**

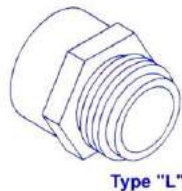
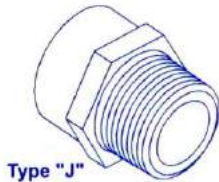
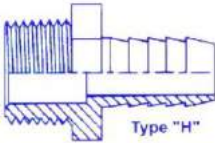
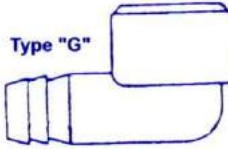
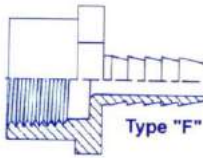
PART #	DESCRIPTION	PKG.	TYPE
<b>MA-22157</b>	TEE 1/4" BARB	5	A
<b>MA-22157-25</b>	TEE 1/4" BARB	25	A
<b>MA-22157-50</b>	TEE 1/4" BARB	50	A
<b>MA-22157-100</b>	TEE 1/4" BARB	100	A
<b>MA-22159</b>	TEE 3/8" BARB	5	A
<b>MA-22159-25</b>	TEE 3/8" BARB	25	A
<b>MA-22159-50</b>	TEE 3/8" BARB	50	A
<b>MA-22159-100</b>	TEE 3/8" BARB	100	A
<b>MA-22160</b>	TEE 1/2" BARB	4	A
<b>MA-22160-25</b>	TEE 1/2" BARB	25	A
<b>MA-22160-50</b>	TEE 1/2" BARB	50	A
<b>MA-22160-100</b>	TEE 1/2" BARB	100	A
<b>MA-22161</b>	TEE 5/8" BARB	4	A
<b>MA-22161-25</b>	TEE 5/8" BARB	25	A
<b>MA-22161-50</b>	TEE 5/8" BARB	50	A
<b>MA-22161-100</b>	TEE 5/8" BARB	100	A
<b>MA-22286</b>	TEE 3/4" BARB	4	A
<b>MA-22286-25</b>	TEE 3/4" BARB	25	A
<b>MA-22286-50</b>	TEE 3/4" BARB	50	A
<b>MA-22286-100</b>	TEE 3/4" BARB	100	A
<b>MA-22151</b>	ELBOW 1/4" BARB	5	B
<b>MA-22151-25</b>	ELBOW 1/4" BARB	25	B
<b>MA-22151-50</b>	ELBOW 1/4" BARB	50	B
<b>MA-22151-100</b>	ELBOW 1/4" BARB	100	B
<b>MA-22152</b>	ELBOW 3/8" BARB	5	B
<b>MA-22152-25</b>	ELBOW 3/8" BARB	25	B
<b>MA-22152-50</b>	ELBOW 3/8" BARB	50	B
<b>MA-22152-100</b>	ELBOW 3/8" BARB	100	B
<b>MA-22153</b>	ELBOW 1/2" BARB	4	B
<b>MA-22153-25</b>	ELBOW 1/2" BARB	25	B
<b>MA-22153-50</b>	ELBOW 1/2" BARB	50	B
<b>MA-22153-100</b>	ELBOW 1/2" BARB	100	B
<b>MA-22154</b>	ELBOW 5/8" BARB	4	B
<b>MA-22154-25</b>	ELBOW 5/8" BARB	25	B
<b>MA-22154-50</b>	ELBOW 5/8" BARB	50	B
<b>MA-22154-100</b>	ELBOW 5/8" BARB	100	B
<b>MA-22192</b>	ELBOW 3/4" BARB	3	B
<b>MA-22192-25</b>	ELBOW 3/4" BARB	25	B
<b>MA-22192-50</b>	ELBOW 3/4" BARB	50	B
<b>MA-22192-100</b>	ELBOW 3/4" BARB	100	B

PART #	DESCRIPTION	PKG.	TYPE
<b>MA-22031</b>	CONNECTOR 1/4"BARB	5	C
<b>MA-22031-25</b>	CONNECTOR 1/4"BARB	25	C
<b>MA-22031-50</b>	CONNECTOR 1/4"BARB	50	C
<b>MA-22031-100</b>	CONNECTOR 1/4"BARB	100	C
<b>MA-12032</b>	CONNECTOR 3/8"BARB	5	C
<b>MA-12032-25</b>	CONNECTOR 3/8"BARB	25	C
<b>MA-12032-50</b>	CONNECTOR 3/8"BARB	50	C
<b>MA-12032-100</b>	CONNECTOR 3/8"BARB	100	C
<b>MA-12033</b>	CONNECTOR 1/2"BARB	4	C
<b>MA-12033-25</b>	CONNECTOR 1/2"BARB	25	C
<b>MA-12033-50</b>	CONNECTOR 1/2"BARB	50	C
<b>MA-12033-100</b>	CONNECTOR 1/2"BARB	100	C
<b>MA-12034</b>	CONNECTOR 5/8"BARB	4	C
<b>MA-12034-25</b>	CONNECTOR 5/8"BARB	25	C
<b>MA-12034-50</b>	CONNECTOR 5/8"BARB	50	C
<b>MA-12034-100</b>	CONNECTOR 5/8"BARB	100	C
<b>MA-12035</b>	CONNECTOR 3/4"BARB	3	C
<b>MA-12035-25</b>	CONNECTOR 3/4"BARB	25	C
<b>MA-12035-50</b>	CONNECTOR 3/4"BARB	50	C
<b>MA-12035-100</b>	CONNECTOR 3/4"BARB	100	C



PART #	DESCRIPTION	PKG.	TYPE
MA-22182	ADAPTOR 1/2"B X 1/2" FPT	4	F
MA-22182-25	ADAPTOR 1/2"B X 1/2" FPT	25	F
MA-22182-50	ADAPTOR 1/2"B X 1/2" FPT	50	F
MA-22182-100	ADAPTOR 1/2"B X 1/2" FPT	100	F
MA-22185	ADAPTOR 1/2"B X 3/4" FPT	4	F
MA-22185-25	ADAPTOR 1/2"B X 3/4" FPT	25	F
MA-22185-50	ADAPTOR 1/2"B X 3/4" FPT	50	F
MA-22185-100	ADAPTOR 1/2"B X 3/4" FPT	100	F
MA-22186	ADAPTOR 5/8"B X 3/4" FPT	4	F
MA-22186-25	ADAPTOR 5/8"B X 3/4" FPT	25	F
MA-22186-50	ADAPTOR 5/8"B X 3/4" FPT	50	F
MA-22186-100	ADAPTOR 5/8"B X 3/4" FPT	100	F
MA-22187	ADAPTOR 3/4"B X 3/4" FPT	4	F
MA-22187-25	ADAPTOR 3/4"B X 3/4" FPT	25	F
MA-22187-50	ADAPTOR 3/4"B X 3/4" FPT	50	F
MA-22187-100	ADAPTOR 3/4"B X 3/4" FPT	100	F
MA-22065	ELBOW 1/2"B X 3/4" FPT	4	G
MA-22065-25	ELBOW 1/2"B X 3/4" FPT	25	G
MA-22065-50	ELBOW 1/2"B X 3/4" FPT	50	G
MA-22065-100	ELBOW 1/2"B X 3/4" FPT	100	G
MA-22064	ELBOW 5/8"B X 3/4" FPT	4	G
MA-22064-25	ELBOW 5/8"B X 3/4" FPT	25	G
MA-22064-50	ELBOW 5/8"B X 3/4" FPT	50	G
MA-22064-100	ELBOW 5/8"B X 3/4" FPT	100	G
MA-22066	ELBOW 3/4"B X 3/4" FPT	4	G
MA-22066-25	ELBOW 3/4"B X 3/4" FPT	25	G
MA-22066-50	ELBOW 3/4"B X 3/4" FPT	50	G
MA-22066-100	ELBOW 3/4"B X 3/4" FPT	100	G
MA-22002	ADAPTOR 1/4"B X 1/4" MPT	10	H
MA-22002-25	ADAPTOR 1/4"B X 1/4" MPT	25	H
MA-22002-50	ADAPTOR 1/4"B X 1/4" MPT	50	H
MA-22002-100	ADAPTOR 1/4"B X 1/4" MPT	100	H
MA-22003	ADAPTOR 1/4"B X 3/8" MPT	10	H
MA-22003-25	ADAPTOR 1/4"B X 3/8" MPT	25	H
MA-22003-50	ADAPTOR 1/4"B X 3/8" MPT	50	H
MA-22003-100	ADAPTOR 1/4"B X 3/8" MPT	100	H
MA-22005	ADAPTOR 3/8"B X 3/8" MPT	10	H
MA-22005-25	ADAPTOR 3/8"B X 3/8" MPT	25	H
MA-22005-50	ADAPTOR 3/8"B X 3/8" MPT	50	H
MA-22005-100	ADAPTOR 3/8"B X 3/8" MPT	100	H
MA-22006	ADAPTOR 3/8"B X 1/2" MPT	8	H
MA-22006-25	ADAPTOR 3/8"B X 1/2" MPT	25	H
MA-22006-50	ADAPTOR 3/8"B X 1/2" MPT	50	H
MA-22006-100	ADAPTOR 3/8"B X 1/2" MPT	100	H
MA-22007	ADAPTOR 1/2"B X 3/8" MPT	8	H
MA-22007-25	ADAPTOR 1/2"B X 3/8" MPT	25	H
MA-22007-50	ADAPTOR 1/2"B X 3/8" MPT	50	H
MA-22007-100	ADAPTOR 1/2"B X 3/8" MPT	100	H
MA-22009	ADAPTOR 1/2"B X 1/2" MPT	6	H
MA-22009-25	ADAPTOR 1/2"B X 1/2" MPT	25	H
MA-22009-50	ADAPTOR 1/2"B X 1/2" MPT	50	H
MA-22009-100	ADAPTOR 1/2"B X 1/2" MPT	100	H
MA-22013	ADAPTOR 3/8"B X 3/4" MPT	4	H
MA-22013-25	ADAPTOR 3/8"B X 3/4" MPT	25	H
MA-22013-50	ADAPTOR 3/8"B X 3/4" MPT	50	H
MA-22013-100	ADAPTOR 3/8"B X 3/4" MPT	100	H
MA-22010	ADAPTOR 1/2"B X 3/4" MPT	4	H
MA-22010-25	ADAPTOR 1/2"B X 3/4" MPT	25	H

**NYLON FITTINGS**



PART #	DESCRIPTION	PKG.	TYPE
MA-22010-50	ADAPTOR 1/2"B X 3/4" MPT	50	H
MA-22010-100	ADAPTOR 1/2"B X 3/4" MPT	100	H
MA-22012	ADAPTOR 5/8"B X 3/4" MPT	4	H
MA-22012-25	ADAPTOR 5/8"B X 3/4" MPT	25	H
MA-22012-50	ADAPTOR 5/8"B X 3/4" MPT	50	H
MA-22012-100	ADAPTOR 5/8"B X 3/4" MPT	100	H
MA-22014	ADAPTOR 3/4"B X 3/4" MPT	4	H
MA-22014-25	ADAPTOR 3/4"B X 3/4" MPT	25	H
MA-22014-50	ADAPTOR 3/4"B X 3/4" MPT	50	H
MA-22014-100	ADAPTOR 3/4"B X 3/4" MPT	100	H
MA-12010	ADAPTOR 3/4"MGHT X 3/4" FPT	4	K
MA-12010-25	ADAPTOR 3/4"MGHT X 3/4" FPT	25	K
MA-12010-50	ADAPTOR 3/4"MGHT X 3/4" FPT	50	K
MA-12010-100	ADAPTOR 3/4"MGHT X 3/4" FPT	100	K
MA-12004	ADAPTOR 3/4"MGHT X 3/4" MPT	4	I
MA-12004-25	ADAPTOR 3/4"MGHT X 3/4" MPT	25	I
MA-12004-50	ADAPTOR 3/4"MGHT X 3/4" MPT	50	I
MA-12004-100	ADAPTOR 3/4"MGHT X 3/4" MPT	100	I
MA-12060	ADAPTOR 3/4"MGHT X 3/4" FGHT	3	K
MA-12060-25	ADAPTOR 3/4"MGHT X 3/4" FGHT	25	K
MA-12060-50	ADAPTOR 3/4"MGHT X 3/4" FGHT	50	K
MA-12060-100	ADAPTOR 3/4"MGHT X 3/4" FGHT	100	K
MA-22048	ADAPTOR 3/4"FGHT X 5/8"B	4	L
MA-22048-25	ADAPTOR 3/4"FGHT X 5/8"B	25	L
MA-22048-50	ADAPTOR 3/4"FGHT X 5/8"B	50	L
MA-22048-100	ADAPTOR 3/4"FGHT X 5/8"B	100	L
MA-22049	ADAPTOR 3/4"FGHT X 3/4"B	4	L
MA-22049-25	ADAPTOR 3/4"FGHT X 3/4"B	25	L
MA-22049-50	ADAPTOR 3/4"FGHT X 3/4"B	50	L
MA-22049-100	ADAPTOR 3/4"FGHT X 3/4"B	100	L
MA-12013	ADAPTOR 3/4"MPT X 3/4"FGHT	4	J
MA-12013-25	ADAPTOR 3/4"MPT X 3/4"FGHT	25	J
MA-12013-50	ADAPTOR 3/4"MPT X 3/4"FGHT	50	J
MA-12013-100	ADAPTOR 3/4"MPT X 3/4"FGHT	100	J
MA-22289	TEE 3/4" X 1/2" X 1/2" BARB	4	A
MA-22289-25	TEE 3/4" X 1/2" X 1/2" BARB	25	A
MA-22289-50	TEE 3/4" X 1/2" X 1/2" BARB	50	A
MA-22289-100	TEE 3/4" X 1/2" X 1/2" BARB	100	A
MA-22290	TEE 1/2"MPT X 1/2"B X 1/2" B	4	
MA-22290-25	TEE 1/2"MPT X 1/2"B X 1/2" B	25	
MA-22290-50	TEE 1/2"MPT X 1/2"B X 1/2" B	50	
MA-22290-100	TEE 1/2"MPT X 1/2"B X 1/2" B	100	
MA-TN5044	NIPPLE 1/4"MPT X 1/4"MPT	4	O
MA-TN5044-25	NIPPLE 1/4"MPT X 1/4"MPT	25	O
MA-TN5044-50	NIPPLE 1/4"MPT X 1/4"MPT	50	O
MA-TN5044-100	NIPPLE 1/4"MPT X 1/4"MPT	100	O
MA-TN5066	NIPPLE 3/8"MPT X 3/8"MPT	4	O
MA-TN5066-25	NIPPLE 3/8"MPT X 3/8"MPT	25	O
MA-TN5066-50	NIPPLE 3/8"MPT X 3/8"MPT	50	O
MA-TN5066-100	NIPPLE 3/8"MPT X 3/8"MPT	100	O
MA-TN5088	NIPPLE 1/2"MPT X 1/2"MPT	4	O
MA-TN5088-25	NIPPLE 1/2"MPT X 1/2"MPT	25	O
MA-TN5088-50	NIPPLE 1/2"MPT X 1/2"MPT	50	O
MA-TN5088-100	NIPPLE 1/2"MPT X 1/2"MPT	100	O
MA-TN51212	NIPPLE 3/4"MPT X 3/4"MPT	4	O
MA-TN51212-25	NIPPLE 3/4"MPT X 3/4"MPT	25	O
MA-TN51212-50	NIPPLE 3/4"MPT X 3/4"MPT	50	O
MA-TN51212-100	NIPPLE 3/4"MPT X 3/4"MPT	100	O

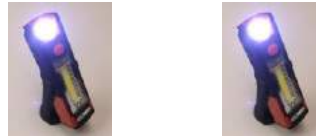
**DO NOT LOOK DIRECTLY INTO THE LIGHTS**



**1W LED FLASHLIGHT & 3W COB WORKLIGHT**

**MA-FL296C**

**DO NOT LOOK DIRECTLY INTO THE LIGHTS**



**1W LED FLASHLIGHT & 3W COB WORKLIGHT**

**180° ADJ. HEAD  
STRONG MAGNET ON BASE WITH HANGING HOOK**

**MA-FL6287**

**DO NOT LOOK DIRECTLY INTO THE LIGHTS**

**1W LED FLASHLIGHT & 3W COB WORKLIGHT**

**90° ADJ. HEAD**

**COB SECTION SLIDES UP/DOWN TO CONTROL AMOUNT OF LIGHTING  
INCLUDES STRONG MAGNET ON BASE & RING TO HANG UP**



**MA-FL6278**



**MA-FL3A**

**3 LED EXTENDABLE FLASHLIGHT WITH FLEXIBLE NECK**

**INCLUDES: (4) LR44**



**DO NOT LOOK DIRECTLY INTO THE LIGHTS**

**DISPLAY CARTON OF 12**

**MA-FL3A-12**



**DO NOT LOOK DIRECTLY INTO THE LIGHTS**

**MA-HML7**

**7 LED HEAD LAMP**

**3 POSITIONS 1-3-7 LED**

**INCLUDES:**

**(3) AAA BATTERIES**



**MA-FL3-M MIRROR ONLY ATTACHMENT FOR MA-FL3A**



**DO NOT LOOK DIRECTLY INTO THE LIGHTS**

**MA-PBL1 BAT LIGHT**



**MATERIAL: ANODIZED ALUMINUM WITH RUBBER COVER**

**3 FUNCTIONS: HIGH, LOW & TACTICAL STROBE**

**INCLUDES: (3) AA BATTERIES**

**DO NOT LOOK DIRECTLY INTO THE LIGHTS**

**MA-UVFL15-1**



**10 LED WHITE FLASHLIGHT  
5 UV LED-1 LASER AND COMPASS**

**INCLUDES: (3) AAA BATTERIES**

**INDUSTRIAL GRADE BATTERIES**

**MA-ALD D ALKALINE  
6/PKG - 72/CASE**

**MA-ALC C ALKALINE  
6/PKG - 72/CASE**

**MA-ALAA AA ALKALINE  
8/PKG - 96/CASE**

**MA-ALAAA AAA ALKALINE  
8/PKG - 96/CASE**

**MA-AL9V 9V ALKALINE  
6/PKG - 72/CASE**

**MA-303/357RB LR44  
1/PKG**



**MAGNA-LITE**



**MA-1001**

**(12/CTN)**

**MAGNA-LITE JR**



**MA-2001**

**(1/PKG)**

**MAGNA-LITE SR.**





**MAGNETIC 180 DEGREE ADJUSTABLE METAL WORKLIGHT WITH 25' CORD**

**MA-748325A**

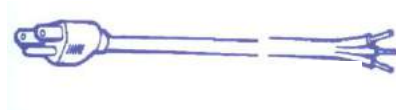
**TROUBLE LIGHT WITH SWITCH & OUTLET**

**MA-71493**  
25'16/3 SJT WITH METAL GUARD SWITCH & OUTLET TROUBLE LIGHT

**MA-70343**  
50'16/3 SJT WITH METAL GUARD SWITCH & OUTLET TROUBLE LIGHT



**REPLACEMENT POWER SUPPLY CORDS**



**MA-09857** 6' 14/3 BLACK 3 CONDUCTOR SJE00W, 125V, 15 AMP RATING

**MA-09858** 9' 14/3 BLACK 3 CONDUCTOR SJE00W, 125V, 15 AMP RATING

**MA-09709** 9' 16/3 BLACK 3 CONDUCTOR SJTW, 125V, 13 AMP RATING

**LIGHT BULBS**

GENERAL SERVICE BULBS

**MA-4101** 40 WATT (4/PKG)

**MA-4102** 60 WATT (4/PKG)

**MA-4104** 100 WATT (4/PKG)

**MA-4540** 150 WATT (1/PKG)

ROUGH SERVICE BULBS

**MA-4430** 50 WATT (6/PKG)

**MA-4429** 60 WATT (6/PKG)

**MA-4431** 75 WATT (6/PKG)

**MA-4433** 150 WATT (6/PKG)



**SOLD PER CASE**

TOUGHSKIN COATED SHATTER-PROOF BULBS

**MA-4401** 50 WATT (4/PKG)

**MA-4402** 60 WATT (4/PKG)

**MA-4404** 100 WATT (4/PKG)

**ALL-WEATHER EXTENSION CORDS**



**MA-73093** 50 FT. 12/3 SJEOW (6/CASE)

**MA-74213** 100 FT. 12/3 SJEOW (4/CASE)

**MA-60743** 50 FT. 12/3 SJTW (6/CASE)

**MA-72023** 100 FT. 12/3 SJTW (4/CASE)

**MA-70474** 25 FT. 14/3 SJTW (12/CASE)

**MA-63493** 50 FT. 14/3 SJTW (6/CASE)

**MA-61623** 100 FT. 14/3 SJTW (6/CASE)

**MA-65093** 25 FT. 16/3 SJTW (12/CASE)

**MA-63223** 50 FT. 16/3 SJTW (12/CASE)

**MA-67363** 100 FT. 16/3 SJTW (6/CASE)

**HANDI-TAP 3-OUTLET EXTENSION CORDS**

ORANGE



**MA-72314** 2 FT. 12/3 STW, 15A

**MA-71354** 25 FT. 12/3 SJTW, 15A

**MA-72744** 50 FT. 12/3 SJTW, 15A

**MA-62044** 100 FT. 12/3 SJTW, 15A

**MA-61834** 25 FT. 14/3 SJTW, 15A

**MA-60954** 50 FT. 14/3 SJTW, 15A

**MA-70204** 100 FT. 14/3 SJTW, 15A

**AIR CONDITIONING EXTENSION CORDS**

MEETS OSHA SPECIFICATIONS!



**MA-03532** 6 FT. 14/3 BEIGE, SPT3, RIGHT ANGLE, MALE PLUG, 15A-125V (24/CASE)

**MA-03533** 9 FT. 14/3 BEIGE, SPT3, RIGHT ANGLE, MALE PLUG, 15A-125V (18/CASE)

**CIRCUIT AND VOLTAGE TESTERS**

**MA-8202A** LOW VOLTAGE TESTER 5-50V AC/DC, TWIN LEAD CIRCUIT TESTER WITH ALLIGATOR CLIPS

**MA-8203** 4 WAY TESTER FOR AC/DC VOLTAGES 110, 220, 277 AND 440 WITH POCKET CLIP

**MA-8201** COMBINATION CIRCUIT TESTER AND SCREWDRIVER FOR 80-250V AC/DC WITH POCKET CLIP

**MA-8205** GFI RECEPTACLE TESTER



MA-8202A



MA-8201



MA-8203



MA-8205

**VOLTAGE PROBE & CONTINUITY TESTER**

**MA-8206A**



**VOLTAGE TESTER**

**MA-7321**



TEST RANGE: 80-300V AC/DC, 50-60HZ

**SOLENOID VOLTAGE TESTER**

**MA-8207**



TEST RANGE: AC: 120-240-480-600V  
DC: 120-240-600V



**TEST LEAD WITH START SWITCH**

**MA-69523**

**VOLTAGE TESTER AND LED FLASHLIGHT**  
24 TO 1000VAC

**MA-49858A**



**ALLIGATOR AND BATTERY CLIPS**



MA03090-1  
MA03093-1  
MA03096-2



MA02933-1  
MA02936-1



MA03092-1

- MA02933-1** NON-INSULATED SMALL (8/PKG)
- MA02936-1** NON-INSULATED MEDIUM (6/PKG)
- MA03090-1** 2 BLACK & 2 RED INSULATED BOOTS - SMALL (4/PKG)
- MA03092-1** CABLE CLAMP STYLE CLIP - 2 BLACK AND 2 RED (4/PKG)
- MA03093-1** BLACK & RED INSULATED BOOTS - LARGE (4/PKG)
- MA03096-2** JUMBO BATTERY CLIPS WITH 1 BLACK AND 1 RED BOOT

**COMPRESSOR LEADS**



- MA02984-2** 8" COMPRESSOR LEADS
- MA02984-3** 18" COMPRESSOR LEADS
- MA02985-2** 8" COMPRESSOR LEADS WITH RINGS
- MA02985-3** 18" COMPRESSOR LEADS WITH RINGS

**TEST LEAD ADAPTORS**

**MA02987-2** 1 BLACK AND 1 RED ADAPTORS 6" LENGTH (2/PKG)



**TEST LEADS AND ADAPTORS**



MA02991-3



MA05031-2



MA-32831  
MA-32832

- MA02991-3** 14 AWG, 24" LONG LEADS
- MA05031-2** 18 AWG, 10EA. 18" LONG TEST LEADS
- MA-32831** 2' FEMALE CORD ADAPTER
- MA-32832** 6' MALE CORD ADAPTER

**RELAY/OVERLOAD COMBINATION**

**MA-IC13**  
1/4 & 1/3 HP, 120V, 50/60HZ  
**MA-IC15**  
1/8, 1/6, 1/5 HP 120V, 50/60HZ



- FEATURES:**
- BUILT IN MOUNTING CLIP
  - MOUNTS IN ANY POSITION
  - PREWIRED FOR FAST AND SIMPLE INSTALLATION
  - CAN BE USED WITH IN A CAPACITOR OR NON-CAPACITOR APPLICATION.



**MA-CL1**  
**CAPILLARY TUBE**  
**CUTTER**



**MA-VTC1**  
**VINYL TUBING CUTTER**  
CUTS VINYL TUBING, PVC PIPE AND  
RUBBER TUBING

**HOLE SAW**  
**KITS**



**MA-NS1000**  
6PC SAW KIT  
3/4", 7/8", 1-1/8", 1-1/2", 1-3/4" & 2-1/4"  
PLUS MA-NS1 & MA-NS2 ARBORS

**MA-NS2000**  
9PC SAW KIT  
3/4", 7/8", 1-1/8",  
1-3/8", 1-1/2", 1-3/4", 2", 2-1/4" & 2-1/2"  
PLUS MA-NS1, MA-NS2 & MA-NS3  
ARBORS & PILOT DRILL

REPLACEMENT SAWS, ARBORS & EXTENSIONS

**MA-NS1** 7/16" HEX SHANK ARBOR 9/16" TO 1-1/8" HOLE SAWS  
1/2" X 20 THREAD

**MA-NS2** 7/16" HEX SHANK ARBOR 1-1/4" TO 6" HOLE SAWS  
5/8" X 18 THREAD

BI METAL HOLE SAW

- MA-NS12** 3/4"    **MA-NS14** 7/8"    **MA-NS16** 1"  
**MA-NS18** 1-1/8"    **MA-NS22** 1-3/8"    **MA-NS24** 1-1/2"  
**MA-NS26** 1-5/8"    **MA-NS28** 1-3/4"    **MA-NS32** 2"  
**MA-NS36** 2-1/4"    **MA-NS40** 2-1/2"  
**MA-NSPD1** 1/4" X 4" PILOT DRILL



**DEBURRING TOOLS**

**MA-49310**  
DELUXE DE-BURRING TOOL

**MA-49311A**  
REPLACEMENT BLADES FOR  
THE MA-49310



**MA-49316**  
ALL METAL DE-BURRING  
TOOL WITH FIXED BLADE



**MA-49317**  
**INNER/OUTER STEEL REAMER**  
CAPACITY: 1/8" TO 1-5/8" OD

**TORQUE AND HEX KEY SETS**

**MA-88057** 7PC. TORQUE FOLD UP SET  
T10, T15, T20, T25, T27, T30 & T40

**MA-88081** 8PC. HEX KEY FOLD UP SET  
.050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64" & 5/32"

**MA-88091** 9PC. HEX KEY FOLD UP SET  
5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32" & 1/4"

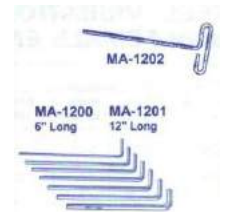
**MA-1200** 7PC HEX KEY SET - 6" LONG  
3/32", 5/64", 1/8", 5/32", 3/16", 7/32" & 1/4"

**MA-1201** 7PC HEX KEY SET  
12" LONG - 3/32", 5/64", 1/8", 5/32",  
3/16", 7/32" & 1/4"

**MA-1202** 8PC T-HANDLE HEX  
WRENCH SET - 9" LONG - 3/32",  
7/64", 1/8", 9/64", 5/32", 3/16", 7/32" & 1/4"



MA-88057  
MA-88081  
MA-88091



MA-1200  
6" Long    MA-1201  
12" Long

**3PC OFFSET**  
**SCREWDRIVER**  
**SET**

**MA-70059P**



**8PC**  
**SCREWDRIVER**  
**SET**

4 SLOTTED - 4 PHILLIPS

**MA-AP8SD**



**MA-9358-12**  
**6 IN 1 HEAVY DUTY**  
**RUBBER GRIP**  
**SCREWDRIVER**

12/CASE - PRICE PER EACH



**MULTI-BIT &**  
**DRIVER KIT**

**MA-290**  
29PC TOOL KIT  
ASSORTED BITS WITH DRIVER  
& EXTENSION



**MA-49318**

**6 IN 1 SWAGING TOOL**  
3/16", 1/4", 5/16", 3/8", 1/2" & 5/8" OD TUBING





**QUICK CHANGE  
DRILL ADAPTOR**  
**MA03500-2**

**QUICK CHANGE  
ADAPTOR KIT**  
**MA-72066**

**KIT INCLUDES: 24 pc. Assorted Bits**  
Plastic Carrying Case  
1 Quick Change Adaptor  
1 Bit Holder  
4 Phillips Bits: #1, (2) #2 & #3 - 1" long  
3 Slotted Bits: 6-8, 8-10 & 10-12 - 1" long  
2 Torque Bits: T15, T20 - 1" long  
3 Square Head Bits: S1, S2 & S3 - 1" long  
5 Hex Head Bits: 3/32", 1/8", 5/32", 3/16", & 7/32" - 1" long  
7 Drill Bits: 1/16", 3/32", 1/8", 5/32", 3/16", 7/32" & 1/4"  
1 Hex Extension: 1" long  
4 Phillips Bits: #2 - 2" long



**13PC DRILL SET**  
1/16" - 1/4" IN ROUND CASE  
**MA-147B**

**QUICK CHANGE CHUCK DRILL BITS**

- MA03505-2** 1/16" HEX SHANK
- MA03506-2** 3/32" HEX SHANK
- MA03507-2** 1/8" HEX SHANK
- MA03508-2** 5/32" HEX SHANK
- MA03509-2** 3/16" HEX SHANK
- MA03510-2** 1/4" HEX SHANK



**FIN COMBS**

- MA-MFC1**  
ALL METAL FIN COMB
- MA-MFC2**  
METAL FIN COMB  
WITH HANDLE
- MA-MFC3**  
6 IN 1 FIN COMBS  
8, 9, 10, 12, 14, & 15 FINS/INCH



MA-MFC1 MA-MFC3  
MA-MFC2

**30" LONG CONDENSER  
CLEANING TOOL**

**MA-0230**



**HUB PULLER**  
PULLS OFF FAN BLADES AND  
BLOWER WHEELS

**MA-FB2**



**ADJUSTABLE WRENCHES**

- MA-WR6** 6"
- MA-WR8** 8"
- MA-WR10** 10"
- MA-WR12** 12"
- MA-WR681012** 6", 8", 10" & 12"



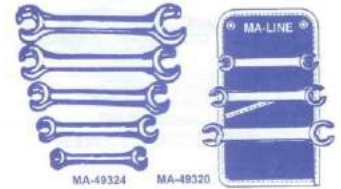
**MA-60609**  
**HEX KEY ADAPTOR**  
**MA-60610**  
**HEX KEY ADAPTOR WITH  
STRAIGHT WRENCH**  
**MA-60613**

- STRAIGHT WRENCH**  
1/4" & 3/16" AND 3/8" & 5/16"  
(ALSO AVAILABLE **MA-60613-25** 25/PKG)
- MA-60616**  
**OFFSET WRENCH**  
1/4" & 3/16" AND 3/8" & 5/16"  
(ALSO AVAILABLE **MA-60616-25** 25/PKG)



**FLARE WRENCH SET**

- MA-49320** 3 PC SET  
3/8" X 7/16", 1/2" X 9/16"  
& 5/8" X 11/16"
- MA-49324** 5 PC SET  
1/4" X 5/16", 3/8" X 7/16",  
1/2" X 9/16", 5/8" X 11/16" & 3/4" X 7/8"



**REPLACEMENT WRENCHES**

- MA-49330** 1/4" X 5/16"
- MA-49331** 3/8" X 7/16"
- MA-49332** 1/2" X 9/16"
- MA-49333** 5/8" X 11/16"
- MA-49334** 3/4" X 7/8"

STEEL

- MA-70090**  
8" HEAVY DUTY
- MA-70091**  
10" HEAVY DUTY
- MA-70093**  
14" HEAVY DUTY
- MA-70094**  
18" HEAVY DUTY
- MA-70095**  
24" HEAVY DUTY

ALUMINUM

- MA-70097**  
12" ALUMINUM
- MA-70098**  
14" ALUMINUM
- MA-70099**  
18" ALUMINUM
- MA-70100**  
24" ALUMINUM

PIPE  
WRENCHES





**MA-RRWBK REVERSIBLE RATCHET WRENCH BIT KIT**

KIT INCLUDES: POLISHED FINISH  
 5-1/2" SQUARE OPENING, TOP END: 1/4" & 3/16" BOTTOM END: 5/16" & 3/8" STRAIGHT  
 5-1/2" SQUARE OPENING, TOP END: 1/4" & 3/16" BOTTOM END: 5/16" & 3/8" OFFSET  
 6-3/4" HEX OPENING: 1/2" & 9/16" SQUARE OPENING: 1/4" & 3/16" STRAIGHT  
 ADAPTER: 2-1/4" - 1/4" SQUARE X 3/16" HEX  
 ADAPTER: 2-1/4" - 1/4" SQUARE X 5/16" HEX

**FLEXIBLE RATCHET WRENCH SET**

**MA-FWP7**

U.S. STANDARD SIZE

- MA-FWP1/4 - 1/4"
- MA-FWP1/2 - 1/2"
- MA-FWP5/16 - 5/16"
- MA-FWP3/8 - 3/8"
- MA-FWP5/8 - 5/8"
- MA-FWP7/16 - 7/16"
- MA-FWP9/16 - 9/16"

REPLACEMENT WRENCHES

**MA-FWP7-MET**

METRIC SIZE

- MA-FWP6MM - 6MM
- MA-FWP8MM - 8MM
- MA-FWP10MM - 10MM
- MA-FWP11MM - 11MM
- MA-FWP13MM - 13MM
- MA-FWP14MM - 14MM
- MA-FWP16MM - 16MM

REPLACEMENT WRENCHES



**MA-SOC19 19 PC. RATCHETING SOCKET SET**

U.S. STANDARD SIZE

INCLUDES: 1/4" & 3/8"

- 1 PC. 3/8" DR. REV. RATCHET HANDLE
- 1 PC. 3/8" DR. EXTENSION BAR 3"
- 1 PC. 1/4" (M) X 3/8" (F) ADAPTOR
- 1 PC. 3/8" DR. SPARK PLUG SOCKET 5/8"
- 1 PC. 1/4" DR. SPINNER HANDLE 6"
- 11 PCS. 1/4" DR. SOCKETS 5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", 15/32" AND 1/2"
- 3 PCS. 3/8" DR. SOCKETS 1/2", 9/16" AND 11/16"



**MA-SOC19-MET - METRIC SIZE - INCLUDES: 6.35mm & 10mm**

- 1 PC. 10mm DR. REVERSIBLE RATCHET HANDLE - 1 PC. 10mm DR. EXTENSION BAR 75mm - 1 PC. 6.35mm (M) X 10mm (F) ADAPTOR - 1 PC. 10mm DR. SPARK PLUG SOCKET 16mm - 1 PC. 6.35mm DR. SPINNER HANDLE 150mm - 11 PCS. 6.35mm DR. SOCKETS 4mm, 4.5mm, 5mm, 5.5mm, 6mm, 7mm, 8mm, 9mm, 10mm, 11mm and 12mm - 3 PCS. 10mm DR. SOCKETS 13mm, 14mm and 17mm

**7PC NUT DRIVER SET**

**MA-9355**

REPLACEMENT DRIVERS

- MA-9306 3/16"
- MA-9308 1/4"
- MA-9310 5/16"
- MA-9311 11/32"



REPLACEMENT DRIVERS

- MA-9312 3/8"
- MA-9314 7/16"
- MA-9316 1/2"

HOLLOW SHAFTS

**MA-NDK16 16 PC. HEX MANGNETIC NUT DRIVER KIT**

INCLUDES:

- 1/4" X 1-3/4", 2-9/16", 4" AND 6"
- 5/16" X 1-3/4", 2-9/16", 4" AND 6"
- 3/8" X 1-3/4"

- 6PCS. SCREWDRIVER BITS SLOTTED 1/4" HEX - 2" LONG 3/16", 7/32" & 9/32"
- PHILLIPS 1/4" HEX - 2" LONG OPT, 1PT & 2PT

1PC. QUICK CHANGE ADAPTOR



**"QUICK-PIERCE" REFRIGERANT RECOVERY TOOL**

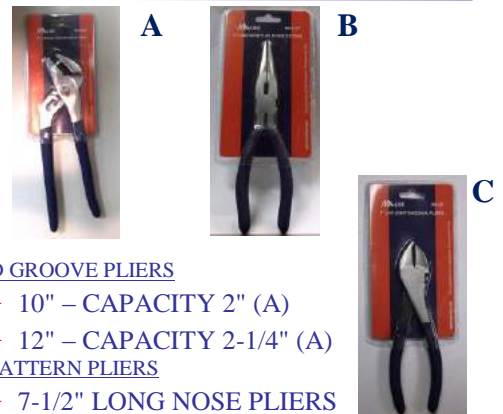
- MA-QP400 RECOVERY TOOL
- MA-QP400-12 PIERCING TIP REPLACEMENT (1/PKG)
- MA-QP400G GASKET ONLY REPLACEMENT (1/PKG)



**LOCKING PINCH-OFF TOOL MA-1RR**



**PLIERS**



TONGUE AND GROOVE PLIERS

- MA-430G 10" - CAPACITY 2" (A)
- MA-440G 12" - CAPACITY 2-1/4" (A)
- STANDARD PATTERN PLIERS
- MA-317G 7-1/2" LONG NOSE PLIERS WITH SIDE CUTTER (B)
- MA-337 7" LAP JOINT DIAGONAL PLIER (C)

**MA-FRBS8 8PC. FOLDING RATCHET BIT SET**

- 1PC. FOLDING RATCHET BIT DRIVER
- 1PC. 1/4" QUICK CHUCK BIT ADAPTOR
- 6PC. 25MM BITS 2 SLOTTED - 2 PHILLIPS 2 TORX



**MA03200-2 CRIMPING TOOL**



**MA03203-2 DELUXE WIRE STRIPPER & CUTTER**





**MA-MT53**  
**PLIERS PLUS**  
MULTIFUNCTIONAL TOOL  
(PICTURE SHOWN TO THE LEFT)

**MA-MT62**  
**MINI-POCKET**  
**MULTI-TOOL**

**STAINLESS STEEL**  
**POCKET KNIVES**

**MA-KVS007A**  
2" BLADE,  
3" CLOSED SMOOTH BLADE  
**MA-KVS008A**  
2" BLADE,  
3" CLOSED SERRATED BLADE



**FOLDING**  
**UTILITY KNIFE**  
**MA-301C**

**INCLUDES:**  
(3) ADDITIONAL  
REPLACEMENT BLADES



**MA-202**  
**DELUXE UTILITY CUTTER**  
**MA-202RB**  
**REPLACEMENT BLADES**

**FOLDING KNIFE WITH**  
**SMOOTH/SERRATED**  
**BLADE**

**MA-AP890**



**DUCTBOARD KNIFE & SHEATH**  
STAINLESS STEEL 2 SIDED KNIFE

**MA-KN74HD**  
1 SIDE SMOOTH \* 1 SIDE SERRATED

**SCRAPER & PUTTY KNIVES**



MA-72433

**MA-72433** MA-72439  
1" GASKET SCRAPER  
**MA-72439**  
1-1/4" CHISEL  
SCRAPER  
**MA-72435**  
1-1/4" PUTTY KNIFE  
**MA-72437**



MA-72435  
MA-72437



**SURGICAL**  
**STAINLESS STEEL**  
**POCKET KNIFE**  
WITH HARDWOOD HANDLE  
**MA-KC710**



**POCKET LEVELS**

**MA-8400**  
ALUMINUM 5"  
POCKET LEVEL



**MA-8401**  
PLASTIC 5" POCKET LEVEL



MA-8408

**MA-8408**  
MAGNETIC PVC 9"  
POCKET LEVEL

**SCREW**  
**STARTERS**  
WITH MAGNET



**MA-171** PHILLIPS HEAD 6" NYLON HANDLE  
**MA-174** SLOTTED HEAD 3" ALUMINUM HANDLE  
**MA-174D** PHILLIPS HEAD 3" ALUMINUM HANDLE  
**MA-175D** PHILLIPS HEAD 6" ALUMINUM HANDLE  
**MA-176E** SLOTTED HEAD 9" NYLON HANDLE

MA-16N, MA-32N AND MA-64N ARE A SYNTHESAL PRODUCT AND HAS A COMPOSITION OF REINFORCED CELLULOSE AND LATENT CURE SYSTEM NITRILE BUTADIENE FOR USE UP TO 350F (180C)



**GASKET MATERIAL**

**MA-16N** 1/16" NON ASBESTOS  
**MA-32N** 1/32" NON ASBESTOS  
**MA-64N** 1/64" NON ASBESTOS

**MA-16RR** 1/16" NON ASBESTOS  
TEMP. -20F TO 120F, RED RUBBER 24" X 36"  
SMOOTH FINISH

**SPECIALTY**  
**TOOLS**



MA-186



MA-159A

**MA-114** FLEXIBLE MECHANICAL FINGERS 17-1/2" LONG  
**MA-159A** DELUXE MAGNETIC TOOL WITH SWIVEL HEAD,  
PICKS UP TO 10LBS & EXTENDS TO 32"

**MA-186** SCRIBE (DUAL END)  
**MA-185** TELESCOPIC FURNACE  
LIGHTER



MA-185

MA-114

**SNIPS**

OFFSET SNIPS



TINNER SNIPS



AVIATION SNIPS

- MA-70250** CUTS LEFT (RED) AVIATION SNIPS
- MA-70251** CUTS RIGHT (GREEN)
- MA-70252** CUTS STRAIGHT (YELLOW)

OFFSET SNIPS

- MA-70253** CUTS LEFT
- MA-70254** CUTS RIGHT

TINNER SNIPS

- MA-70255** 7" LONG CUTS 1-3/4"
- MA-70256** 10" LONG CUTS 2-1/2"
- MA-70257** 12-1/2" LONG CUTS 3"

**AVIATION SNIPS:** Our 10" Aviation Snips from MA-Line meet Federal specifications ANSI/ASME B107-16-1985. They have blades that are made from drop forged AISI-6150 chrome vanadium steel, with serrated blade edges that have been induction hardened. They are rated to cut up to 1.2mm cold rolled steel or .7mm AISI-304 stainless steel.

**OFFSET SNIPS:** Our Offset Snips have vinyl plastic handle guard grips. The offset blades keep hand above metal, eliminates interference with metal being cut. Cuts up to 1-1/2".

**TINNER SNIPS:** Our Tinner Snips have a straight pattern that is recommended when a powerful snip and a straight cut is desired. Our snips have polished blades and baked enamel handles.

**STEEL CALIPERS**



**MA-71801P** STEEL CALIPER

The inexpensive and easy-to-use caliper from the MA-Line is made of all steel. Designed to measure in both inches and centimeters. Made to measure thickness or gauge of any type of metal as well as the ID or the OD of tubing or fittings



**MA-71802P** 6" DIAL CALIPER

The all stainless steel construction, shockproof unit measures in standard and metric. It comes with a deluxe storage case.



**MA-71803P** DIGITAL CALIPER

The Deluxe Digital Electronic Caliper represents the latest in technology at an economical price. The unit will measure in standard inches or metric. It comes with a deluxe storage case to protect this valuable instrument. The LED display is designed to measure at the speed of 60"/second or 1.5m/second. Also has a serial output for interface with a host computer or printer.

**HACKSAWS**



- MA-70-14JR** JUNIOR HACKSAW WITH BLADE
- MA-71-132R** BLADE ONLY FOR MA-70-14JR
- MA-132A** MINI-HACKSAW WITH BLADE

REPLACEMENT BLADES

- MA-AA45E** 12" HACKSAW BLADE,18TPI (10/PKG)
- MA-AA46V** 12" HACKSAW BLADE,24TPI (10/PKG)
- MA-AA47R** 12" HACKSAW BLADE,32TPI (10/PKG)

**TAPE MEASURES**

- MA0126-12** 1/2" X 12' WITH LOCK
- MA0127-16** 3/4" X 16' WITH LOCK
- MA0128-25** 1" X 25' WITH LOCK
- MA0129-30** 1" X 30' WITH LOCK



**REEL TAPE**

- MA0130-50** 3/8" X 50'
- MA0131-100** 3/8" X 100'

**WIRE PVC CUTTER/SAW**



- MA-PVC27** 27"
- MA-PVC42** 42"

These PVC Cutters are an easy, inexpensive and convenient way to cut PVC pipe. They come in two different lengths. The MA-PVC27 is for smaller size PVC pipe while the MA-PVC42 is for the larger (4" and up) size PVC pipe.



**PVC PIPE CUTTERS**

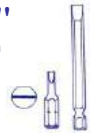
- MA-S25** CUTS UP TO 1"
- MA-L42** CUTS UP TO 1-1/4"
- MA-L50** CUTS UP TO 2"

- MA-S25RB** REPLACEMENT BLADE FOR MA-S25
- MA-L42RB** REPLACEMENT BLADE FOR MA-L42
- MA-L50RB** REPLACEMENT BLADE FOR MA-L50



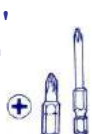
**MA-MGT1**  
MAGNETIC PARTS TRAY ROUND

**SLOTTED 1/4" HEX INSERT**



- 1" LENGTH  
**MA-9601** 1/8" (3/PKG)  
**MA-9602** 3/16" (3/PKG)  
**MA-9603** 7/32" (3/PKG)  
**MA-9604** 9/32" (3/PKG)  
2" LENGTH  
**MA-9605** 3/16" (2/PKG)  
**MA-9606** 7/32" (2/PKG)  
**MA-9607** 9/32" (2/PKG)  
2-3/4" LENGTH  
**MA-9608** 3/16" (2/PKG)  
**MA-9609** 7/32" (2/PKG)  
**MA-9610** 9/32" (2/PKG)  
ASSORTMENT 2" LENGTH  
**MA03542-2** 3/16", 7/32" & 9/32" (3/PKG)

**PHILLIPS 1/4" HEX INSERT**



- 1" LENGTH  
**MA-9611** 0 PT (3/PKG)  
**MA-9612** 1 PT (3/PKG)  
**MA-9613** 2 PT (3/PKG)  
**MA-9614** 3 PT (3/PKG)  
2" LENGTH  
**MA-9615** 0 PT (2/PKG)  
**MA-9616** 1 PT (2/PKG)  
**MA-9617** 2 PT (2/PKG)  
**MA-9618** 3 PT (2/PKG)  
2-3/4" LENGTH  
**MA-9619** 1 PT (2/PKG)  
**MA-9620** 2 PT (2/PKG)  
**MA-9621** 3 PT (2/PKG)  
ASSORTMENT 2" LENGTH  
**MA03543-2** 1, 2, 3 PT (3/PKG)

**DOUBLE WAY**  
2/PKG

- MA-9658** 1X4MM  
**MA-9659** 2X5MM  
**MA-9660** 2.5X5MM  
**MA-9661** 3X6MM



**PLATED SHEET METAL SCREWS**



HEX WASHER HEAD SELF DRILLING UNSLOTTED SCREWS

- MA03758-1** 8 X 1/2" (20/BAG)  
**MA03759-1** 8 X 3/4" (18/BAG)  
**MA03760-1** 8 X 1" (16/BAG)  
**MA03761-1** 10 X 1/2" (14/BAG)  
**MA03762-1** 10 X 3/4" (12/BAG)  
**MA03763-1** 10 X 1" (10/BAG)  
 BAGS – 100 PCS  
**MA03758-2** 8 X 1/2"  
**MA03759-2** 8 X 3/4"  
**MA03760-2** 8 X 1"  
**MA03761-2** 10 X 1/2"  
**MA03762-2** 10 X 3/4"  
**MA03763-2** 10 X 1"  
 TUBS – 500 PCS  
**MA03758-3** 8 X 1/2"  
**MA03759-3** 8 X 3/4"  
**MA03760-3** 8 X 1"  
**MA03761-3** 10 X 1/2"  
**MA03762-3** 10 X 3/4"  
**MA03763-3** 10 X 1"

HEX WASHER HEAD FAST PENETRATING HEAD SLOTTED SCREWS

- BAGS – 100 PCS  
**MA03414-2** 7 X 1/2"  
**MA03415-2** 8 X 1/2"  
**MA03416-2** 8 X 3/4"  
**MA03417-2** 10 X 1/2"  
**MA03565-2** 8 X 1"  
**MA03566-2** 10 X 3/4"  
**MA03567-2** 10 X 1"  
 TUBS – 500 PCS  
**MA03565-3** 8 X 1"  
**MA03567-3** 10 X 1"  
 TUBS – 1000 PCS  
**MA03414-4** 7 X 1/2"  
**MA03415-4** 8 X 1/2"  
**MA03416-4** 8 X 3/4"  
**MA03417-4** 10 X 1/2"  
**MA03566-4** 10 X 3/4"



**MA-MGT2**  
MAGNETIC PARTS TRAY RECTANGULAR

**TORQ 1/4" HEX INSERT**



- 1" LENGTH  
**MA-9622** T-10 (3/PKG)  
**MA-9623** T-15 (3/PKG)  
**MA-9624** T-20 (3/PKG)  
**MA-9625** T-25 (3/PKG)  
**MA-9626** T-30 (3/PKG)  
**MA-9627** T-40 (3/PKG)  
2" LENGTH  
**MA-9628** T-10 (2/PKG)  
**MA-9629** T-15 (2/PKG)  
**MA-9630** T-20 (2/PKG)  
**MA-9631** T-25 (2/PKG)  
**MA-9632** T-30 (2/PKG)  
**MA-9633** T-40 (2/PKG)

**MAGNETIC CHUCKS**

1-5/8" LENGTH FOR ELECTRIC DRILLS AND POWER SCREWDRIVERS

- MA03539-2** 1/4"  
**MA03540-2** 5/16"  
**MA03541-2** 3/8"  
**MA09353-2** 1/4" & 5/16"  
**MA09354-2** 1/4", 5/16" & 3/8"

2-9/16" LENGTH

- MA03544-2** 1/4"  
**MA03545-2** 5/16"  
**MA03546-2** 3/8"



POINT OF PURCHASE DISPLAY CARD  
24 PCS. PER CARD

- MA03539-24** 1/4" X 1-5/8"  
**MA03540-24** 5/16" X 1-5/8"  
**MA03541-24** 3/8" X 1-5/8"

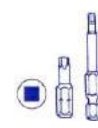
**MA0353940-MX**

(12) 1/4" X 1-5/8" & (12) 5/16" X 1-5/8"

POINT OF PURCHASE DISPLAY CARD FOR COUNTER TOP OR HANG ON RACK



- |                                     |                            |                            |
|-------------------------------------|----------------------------|----------------------------|
| <b>ROBERTSON</b><br>1/4" HEX INSERT | <u>1" LENGTH – (3/PKG)</u> | <u>2" LENGTH – (2/PKG)</u> |
|                                     | <b>MA-9650</b> 1/16"       | <b>MA-9654</b> 1/16"       |
|                                     | <b>MA-9651</b> 3/32"       | <b>MA-9655</b> 3/32"       |
|                                     | <b>MA-9652</b> 1/8"        | <b>MA-9656</b> 1/8"        |
|                                     | <b>MA-9653</b> 9/64"       | <b>MA-9657</b> 9/64"       |

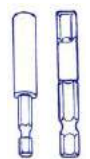


**TAMPER-PROOF TORQ 1/4" HEX INSERT**



- 1" LENGTH  
**MA-9634** T-10 (3/PKG)  
**MA-9635** T-15 (3/PKG)  
**MA-9636** T-20 (3/PKG)  
**MA-9637** T-25 (3/PKG)  
**MA-9638** T-30 (3/PKG)  
**MA-9639** T-40 (3/PKG)  
2" LENGTH  
**MA-9640** T-10 (2/PKG)  
**MA-9641** T-15 (2/PKG)  
**MA-9642** T-20 (2/PKG)  
**MA-9643** T-25 (2/PKG)  
**MA-9644** T-30 (2/PKG)  
**MA-9645** T-40 (2/PKG)

**MAGNETIC BIT HOLDER 1/4" HEX DRIVE**

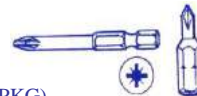


1" LENGTH – (1/PKG)

- MA-9662** 2-1/2"  
**MA-9663** 3"  
**MA-9664** 1/4" X 1/4"  
**MA-9665** 1/4" X 3/8"

**POZIDRIVE 1/4" HEX INSERT**

- 1" LENGTH – (3/PKG)      2" LENGTH – (2/PKG)  
**MA-9646** 1 PT      **MA-9648** 1 PT  
**MA-9647** 2 PT      **MA-9649** 2 PT





**MA-13025**

**BLACK & RED TOOL BAG  
WITH RUBBER BASE**

MADE OF STRONG 600D POLYESTER  
MATERIAL

RUBBER BOTTOM FOR EXTRA PROTECTION  
INCLUDES SHOULDER STRAP AND HANDLE  
10 INSIDE POCKETS - 14 POCKETS & 2 LOOPS  
SURROUNDING BAG OUTSIDE  
DIMENSIONS: 16"L X 8"W X 13"H



**MA-BP001**

**HEAVY DUTY BACK PACK  
WITH RUBBER BASE**

MADE OF STRONG 600D POLYESTER  
MATERIAL

RUBBER BOTTOM FOR EXTRA PROTECTION  
CARRYING HANDLE INCLUDES TWO STRAPS  
TACKED DOWN WITH RIVETS FOR  
REINFORCEMENT  
INCLUDES ZIPPER LOCK FOR MAIN  
COMPARTMENT  
SEPARATED TOOL WALL IN MAIN  
COMPARTMENT



**CARRY ALL  
BLACK NYLON  
POUCH**

**MA-MC123**

12"L X 6"W X 2"D



**EXECUTIVE TOOL CASE**

**MA-5TCA**

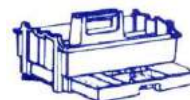
FOR LIGHT WEIGHT TOOLS

**PLASTIC TOOL  
& TOTE CASES**

**MA-303** TOOL BOX WITH LIFT  
TRAY 15-3/8" X 7-3/4" X 4-1/4"

**MA-311** TOTE MORE TOOL BOX  
14-3/4" X 8-1/8" X 6-7/8"

**MA-651** 20" TOOL BOX-DEEP BOTTOM  
WITH LIFT TRAY 20-1/4" X 10-7/8" X 9-1/4"



- (1) PLASTIC CARRYING CASE
- (4) EXTRA-STRENGTH NON-ASPRIN TABLETS
- (2) IBUPROFEN TABLETS
- (2) ASPRIN TABLETS
- (12) ANTESEPTIC CLEANSING WIPES (STING FREE)
- (8) ALCHOL CLEANSING PADS
- (4) ANTIBIOTIC OINTMENT PACKS
- (1) BURN RELIEF PACK
- (1) EMERGENCY BLANKET 38" X 60"
- (1) INSTANT COLD COMPRESS
- (5) BUTTERFLY WOUND CLOSURES
- (1) BURN RELIEF GEL PACKS
- (1) FIRST AID TAPE ROLL 1/2" X 5 YDS.
- (1) FINGER SLPINT
- (50) PLASTIC BANDAGES 3/4" X 3"
- (10) FABRIC BANDAGES 3/4" X 3"
- (20) PLASTIC BANDAGES 1" X 3"

**ALL PURPOSE  
FIRST AID KIT  
MA-FA134  
200 PC FIRST AID KIT**



- (20) JUNIOR ADHESIVE PLASTIC BANDAGES 3/8" X 1-1/2"
- (8) KNUCKLE FABRIC BANDAGES
- (8) FINGERTIP FABRIC BANDAGES
- (1) ELBOW & KNEE PLASTIC BANDAGE 2" X 4"
- (12) SPOT BANDAGES 7/8" X 7/8"
- (2) GAUZE DRESSING PADS 3" X 3"
- (10) GAUZE DRESSING PADS 2" X 2"
- (1) TRAUMA PAD 5"X 9"
- (1) STERILE EYE PAD
- (1) AMERICAN MEDICAL ASSOC. FIRST AID GUIDE
- (1) PLASTIC TWEEZERS
- (10) COTTON-TIPPED APPLICATORS 3"
- (2) LATEX-FREE EXAM QUALITY VINYL GLOVES

**BOOT/SHOE  
COVERS**

**MA-73532** BLUE SHOE COVERS FITS SIZES 6-12 (150 PAIRS PER CASE)



DOES NOT OFFER RESPIRATORY PROTECTION



**NON-TOXIC  
PARTICLE &  
DUST MASK**

**MA-7300**  
(50 MASKS PER BOX)

**MAX-FLOW™  
COMBINATION OIL PUMP**

**MA-77940**

FEATURES:

- SUCTION TRANSFER HOSE INCLUDED
- CONNECTS TO BOTTOM OF UNIT TO PUMP OIL FROM EQUIPMENT QUICKLY AND EFFICIENTLY
- REMOVE OIL FOR RECOVERY AND CONVERSION
- ADDS OIL TO EXISTING SYSTEMS



**BLUE NITRILE  
DISPOSABLE POWDERED  
GLOVES**

100 GLOVES PER BOX

- MA-8646M** MEDIUM
- MA-8646L** LARGE
- MA-8646XL** EXTRA LARGE



**GREASE, GREASE GUNS, FITTINGS  
TOOLS AND ACCESSORIES**



MA-11315



MA-11302



MA-11354



MA-30132



MA-30200

**MA-11315** MULTI-PURPOSE GREASE 14OZ. (10/CS) SOLD BY THE CASE - PRICE PER EACH

**MA-11302** MULTI-PURPOSE GREASE 3.5OZ. (2/BAG) SOLD BY THE PKG - PRICE PER PKG

**MA-11354** WHITE LITHIUM GREASE 14OZ. (10/CS) SOLD BY THE CASE PRICE PER EACH

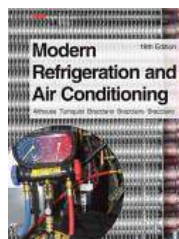
**MA-30132** MINI-GREASE GUN KIT

**MA-30200** HEAVY DUTY GREASE GUN

**MA-05028** COUPLER

**MA-10214** 12" GREASE HOSE

**MA-10218** 18" GREASE HOSE



**MODERN REFRIGERATION  
& AIR CONDITIONING BOOK**  
LATEST EDITION IN HARD COVER

**MA-340-5**

MODERN REFRIGERATION & AIR  
CONDITIONING



**GREY SMOKE CARTRIDGES**

**1A** 30 SEC/4000 CU.FT. (12/PKG)

**2B** 1 MIN/8000 CU. FT. (12/PKG)

**3C** 3 MIN/40,000 CU. FT. (12/PKG)

**WHITE SMOKE CARTRIDGES**

**MA-SC150CF** 45 SEC/150 CU. FT. (10/PKG)

**MA-SC600CF** 90 SEC/600 CU. FT. (10/PKG)

**MA-SC1200CF** 4 MIN/1200 CU. FT. (5/PKG)

**MA-SC5000CF** 5 MIN/2500 CU. FT. (5/PKG)



**DEFROST THERMOSTATS**  
ML SERIES



- 32745** 45 TEMP (F) OPEN 45 CLOSE 25
- 32750** 50 TEMP (F) OPEN 50 CLOSE 30
- 32755** 55 TEMP (F) OPEN 55 CLOSE 35
- 32760** 60 TEMP (F) OPEN 60 CLOSE 40
- 32770** 70 TEMP (F) OPEN 70 CLOSE 50
- 32780** 80 TEMP (F) OPEN 80 CLOSE 30
- 32790** 90 TEMP (F) OPEN 90 CLOSE 35

- 33329** LOW PSI OPEN 5 RESET 20
- 33330** LOW PSI OPEN 10 RESET 20
- 33362** LOW PSI OPEN 20 RESET 50
- 33363** LOW PSI OPEN 20 RESET 80
- 33364** LOW PSI OPEN 40 RESET 90
- 33353** HIGH PSI OPEN 200 RESET 150
- 33354** HIGH PSI OPEN 250 RESET 150
- 33355** HIGH PSI OPEN 300 RESET 200
- 33356** HIGH PSI OPEN 350 RESET 250
- 33357** HIGH PSI OPEN 400 RESET 200
- 33358** HIGH PSI OPEN 400 RESET 300
- 33359** HIGH PSI OPEN 450 RESET 250

**MINI PRESSURE SWITCHES**



**MA-LINE CLASS 2 TRANSFORMERS**



MA-TX402



MA-TX405



MA-TX501



MA-TX502



MA-TX779

PART #	REPLACES	CONNECTION TYPE	PRIMARY VOLTAGE	SECONDARY VOLTAGE	OUTPUT RATING	MOUNTING STYLE
<b>MA-TX202</b>	620-202	NOT UL	120	24	20VA	PLUG-IN
<b>MA-TX205</b>	50351	WIRE LEAD	120	24	20VA	FOOT
<b>MA-TX402</b>	50333	WIRE LEAD	120/208/240	2.5, 12, 24	48VA	MULTI
<b>MA-TX403</b>	50302	WIRE LEAD	120	24	40VA	MULTI
<b>MA-TX404</b>	50303	WIRE LEAD	208/240	24	40VA	MULTI
<b>MA-TX405</b>	50352	WIRE LEAD	120	24	40VA	FOOT
<b>MA-TX406</b>	50353	WIRE LEAD	208/240	24	40VA	FOOT
<b>MA-TX407</b>	50304	WIRE LEAD	120/208/240	24	40VA	MULTI
<b>MA-TX482</b>	50354	WIRE LEAD	120/208/240	24	40VA	FOOT
<b>MA-TX501</b>	620-501	TERMINAL	120/208/240	28	50VA	UNIVERSAL CONNECTION WITH TERMINAL BOARD
<b>MA-TX502</b>	50314	WIRE LEAD	120/208/240	24	50VA	MULTI
<b>MA-TX775</b>	50320	WIRE LEAD	120/208/240/480 WITH FUSE	24	75VA	FOOT
<b>MA-TX779</b>	50321	WIRE LEAD	120/208/240/480 WITH CIRCUIT BREAKER	24	75VA	FOOT
<b>MA-TX100</b>	N/A	WIRE LEAD	120/208/240/480 WITH CIRCUIT BREAKER	24	100VA	FOOT

**ANTI-VIBRATION PADS**



ALL RUBBER

- MA-002RR** 2" X 2" X 3/8" 48/BOX
- MA-003RR** 3" X 3" X 3/8" 24/BOX
- MA-004RR** 4" X 4" X 3/8" 24/BOX
- MA-006RR** 6" X 6" X 3/8" 24/BOX
- MA-012RR** 12" X 12" X 3/8" 12/BOX
- MA-018RR** 18" X 18" X 3/8" 6/BOX



NATURAL RUBBER

81 SQUARES PER SHEET PRICE PER SHEET  
**MA-181834** 18" X 18" X 3/4" 6/BOX



CORK AND RUBBER

- MA-002CR** 2" X 2" X 7/8" 48/BOX
- MA-003CR** 3" X 3" X 7/8" 36/BOX
- MA-004CR** 4" X 4" X 7/8" 24/BOX
- MA-006CR** 6" X 6" X 7/8" 12/BOX
- MA-012CR** 12" X 12" X 7/8" 6/BOX
- MA-018CR** 18" X 18" X 7/8" 6/BOX

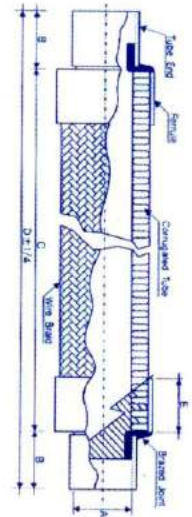


**WORLD SOURCE VIBRATION ELIMINATORS (IMPORT)**

**STAINLESS STEEL VIBRATION ELIMINATORS WITH FEMALE COPPER ENDS**



PART NUMBER	ACTUAL OD OF COPPER TUBING (IN.)	A (ID.)	DIMENSION (INCHES)				MAX WORKING PRESSURE (PSIG.)	BURST PRESSURE (PSIG.)
			B (+/- 1/8")	C (+/- 1/8")	D (+/- 1/4")	E (+/- 1/16")		
<b>VE140D</b>	1/4	1/4	3/4	6-5/8	8-1/16	1/2	500	2500
<b>VE380D</b>	3/8	3/8	13/16	6-15/16	8-9/16	1/2	500	2500
<b>VE120D</b>	1/2	1/2	7/8	7-1/4	9	1/2	500	2500
<b>VE580D</b>	5/8	5/8	15/16	8	9-7/8	11/16	500	2500
<b>VE340D</b>	3/4	3/4	1-1/4	8-1/16	10-9/16	11/16	500	2500
<b>VE780D</b>	7/8	7/8	1-7/16	9-1/8	12	13/16	500	2500
<b>VE1180D</b>	1-1/8	1-1/8	1-13/16	9-7/16	13-1/16	13/16	500	2500
<b>VE1380D</b>	1-3/8	1-3/8	2	11-1/2	15-9/16	7/8	500	2500
<b>VE1580D</b>	1-5/8	1-5/8	2-1/4	12-3/8	16-7/8	15/16	500	2500
<b>VE2180D</b>	2-1/8	2-1/8	2-3/4	15-3/16	20-5/8	15/16	390	1950
<b>VE2580D</b>	2-5/8	2-5/8	3-1/8	18-1/16	24-5/16	1-1/4	340	1700
<b>VE3180D</b>	3-1/8	3-1/8	3-7-16	20	26-15/16	1- 1/2	300	1500
<b>VE3580D</b>	3-5/8	3-5/8	4-1/8	24	32-3/16	1-9/16	175	525
<b>VE4180D</b>	4-1/8	4-1/8	4-7/16	24	32-15/16	1-9/16	175	525



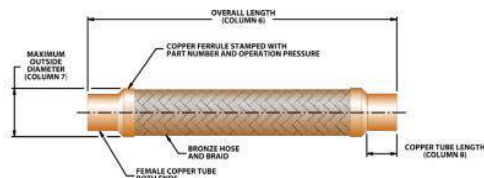
**ANACONDA/UNIVERSAL VIBRATION ELIMINATORS**

BRONZE WITH FEMALE ENDS PART NUMBER	TO FIT COPPER TUBE		FLEX. HOSE ID (IN.)	H(+/-) 1/4 (IN.)	DIMENSIONS			MAX. OPERATING PRESSURE PSI
	ACTUAL O.D. (IN.)	NOM. (IN.)			A MAX. (IN.)	B MAX. (IN.)	E(+/-) 1/8 (IN.)	
<b>1418FZ</b>	1/4	1/8	1/4	7-1/2	9/16	5/8	1/2	700
<b>5614FZ</b>	3/8	1/4	5/16	8-1/4	11/16	3/4	5/8	700
<b>3838FZ</b>	1/2	3/8	3/8	9	3/4	7/8	3/4	500
<b>1212FY</b>	5/8	1/2	1/2	9-3/4	1	1-1/8	7/8	450
<b>1258FY</b>	3/4	5/8	1/2	10	1	1-1/8	1	450
<b>3458FY</b>	3/4	5/8	3/4	11-1/4	1-3/8	1-1/2	1-1/8	450
<b>3434FY</b>	7/8	3/4	3/4	11-1/2	1-3/8	1-1/2	1-1/4	450
<b>1010FY</b>	1-1/8	1	1	13	1-5/8	1-7/8	1-1/2	450
<b>5454FY</b>	1-3/8	1-1/4	1-1/4	14-3/4	2-1/8	2-1/4	1-5/8	500

STAINLESS STEEL WITH FEMALE ENDS PART NUMBER	TO FIT COPPER TUBE		FLEX. HOSE ID (IN.)	H(+/-) 1/4 (IN.)	DIMENSIONS			MAX. OPERATING PRESSURE PSI
	ACTUAL O.D. (IN.)	NOM. (IN.)			A MAX. (IN.)	B MAX. (IN.)	E(+/-) 1/8 (IN.)	
<b>6464FS</b>	1-5/8	1-1/2	1-1/2	17	2-1/4	2-3/8	2	400
<b>2020FS</b>	2-1/8	2	2	20	3-1/8	3-1/4	2-1/2	360
<b>5252FS</b>	2-5/8	2-1/2	2-1/2	24	3-3/4	3-7/8	3	300
<b>3030FS</b>	3-1/8	3	3	27	4-3/8	4-1/2	3-1/2	300
<b>7272FS</b>	3-5/8	3-1/2	3-1/2	23	4-5/8	4-15/16	3-3/16	150
<b>4040FS</b>	4-1/8	4	4	25	5-5/16	5-3/4	4-3/8	150
<b>5050FS</b>	5-1/8	5	5	27-1/2	6-1/4	---	5-1/2	150
<b>6060FS</b>	6-1/8	6	6	33	7-1/4	---	6-1/2	150
<b>8080FS</b>	8-1/8	8	8	42-1/2	9-1/2	---	7	150

**WORLD SOURCE AND ANACONDA VIBRATION ELIMINATORS ARE SUITABLE FOR**  
 R12 – R22 – R23 – R125  
 R134A – R401A –R401B  
 R402A – R402B – R404A  
 R407A – R407B – R407C  
 R408A – R409A – R410A  
 R410B – R412A – R502  
 R507 – R508 – R509



**COLD-CLIMATE  
TIES**

ALL WEATHER APPLICATIONS  
EXTENDED UV SUNLIGHT PROTECTION  
FOR INSTALLATIONS DOWN TO -4°F/-20°C

**EXTREME PERFORMANCE IN COLD WEATHER APPLICATIONS  
CHILL OUT WITH COLD-CLIMATE TIES**



PART NUMBER	LENGTH	TENSILE	WIDTH	THICKNESS	COLOR	QTY
MA-CCT7	7"	50#	0.18	0.054	UV BLACK	100
MA-CCT11	11"	50#	0.18	0.054	UV BLACK	100
MA-CCT14	14"	50#	0.18	0.054	UV BLACK	100
MA-CCT15	15"	**120	**0.298	**0.069	UV BLACK	100
MA-CCT7-K	7"	50#	0.18	0.054	UV BLACK	1000
MA-CCT11-K	11"	50#	0.18	0.054	UV BLACK	1000
MA-CCT14-K	14"	50#	0.18	0.054	UV BLACK	1000
MA-CCT15-K	15"	**120	**0.298	**0.069	UV BLACK	1000

**PLENUM RATED  
WIRE TIES**



**CONTINUOUS OPERATING TEMPERATURE:**  
MIN: -4°F MAX: 185°F/MIN: -40°C MAX: 85°C

**TENSIL STRENGTH AT 73°F ASTM D-638:**  
12,000

**UL FLAME RATING:**  
94V-2

**GAMMA RADIATION RESISTANCE:**  
1 X 10RADS

**\*RoHS COMPLIANT                      \*UL LISTED**  
**MEETS UL2043 FOR USE IN PLENUM AIR HANDLING SPACES.**

PART NUMBER	LENGTH	TENSILE	WIDTH	THICKNESS	COLOR	QTY
MA-PLT4	4"	18#	0.096	0.035	BURGUNDY	100
MA-PLT7	7"	50#	0.18	0.054	BURGUNDY	100
MA-PLT11	11"	50#	0.18	0.054	BURGUNDY	100
MA-PLT14	14"	50#	0.18	0.054	BURGUNDY	100
MA-PLT4-K	4"	18#	0.096	0.035	BURGUNDY	1000
MA-PLT7-K	7"	50#	0.18	0.054	BURGUNDY	1000
MA-PLT11-K	11"	50#	0.18	0.054	BURGUNDY	1000
MA-PLT14-K	14"	50#	0.18	0.054	BURGUNDY	1000

**ASSORTED WIRE TIE JARS**

- MA-WTJ1** COLOR WIRE TIE (600 PCS)  
4" (50) RED & (50) BLACK  
5-1/2" (50) WHITE & (50) BLACK  
7-1/2" (50) WHITE, (50) BLACK, (50) RED & (50) BLUE  
11" (75) WHITE & (75) BLACK 14-1/2" (50) WHITE
- MA-650N** NATURAL WIRE TIES (650 PCS)  
4" (300), 7-1/2" (300) & 11" (50)
- MA-650B** BLACK WIRE TIES (650 PCS)  
4" (300), 7-1/2" (300) & 11" (50)



**WIRE TIE MOUNTING PAD**

**MA03765-1**  
1" X 1" FLEXIBLE BASE  
(10/PKG)



**NATURAL WIRE TIES**

PART #	LENGTH	BUNDLE DIA.	PKG.
<b>MA02043-1</b>	4" & 7-1/2"	ASSORT.	30
<b>MA02044-1</b>	11" & 14"	ASSORT.	30
<b>MA02045-1</b>	4" & 14"	ASSORT.	30
<b>MA02046-1</b>	4", 5-1/2" & 7-1/2"	ASSORT.	27
<b>MA03171-1</b>	4"	1/16" TO 3/4"	36
<b>MA03172-2</b>	4"	1/16" TO 3/4"	100
<b>MA03174-1</b>	5-1/2"	1/16" TO 1-1/2"	34
<b>MA03175-2</b>	5-1/2"	1/16" TO 1-1/2"	100
<b>MA03177-1</b>	7-1/2"	1/16" TO 1-3/4"	30
<b>MA03178-2</b>	7-1/2"	1/16" TO 1-3/4"	100
<b>MA03180-1</b>	11"	1/16" TO 3"	14
<b>MA03181-2</b>	11"	1/16" TO 3"	50
<b>MA03183-1</b>	14"	1/16" TO 4"	10
<b>MA03184-2</b>	14"	1/16" TO 4"	50
<b>MA03185-1</b>	17"	1/16" TO 4-1/2"	10
<b>MA03188-2</b>	17"	1/16" TO 4-1/2"	50



**50# TENSILE STRENGTH**  
7-1/2"  
11"  
14"  
17"

**BLACK WIRE TIES**

PART #	LENGTH	BUNDLE DIA.	PKG.
<b>MA04702-2B</b>	4"	1/16" TO 3/4"	100
<b>MA04704-2B</b>	5-1/2"	1/16" TO 1-1/2"	100
<b>MA04706-2B</b>	7-1/2"	1/16" TO 1-3/4"	100
<b>MA04708-2B</b>	11"	1/16" TO 3"	50
<b>MA04710-2B</b>	14"	1/16" TO 4"	50
<b>MA04712-2B</b>	17"	1/16" TO 4-1/2"	50

**NATURAL SCREWDOWN WIRE TIES**

PART #	LENGTH	BUNDLE DIA.	PKG.
<b>MA03189-1</b>	5-1/2"	1/16" TO 1-1/2"	13
<b>MA03190-2</b>	5-1/2"	1/16" TO 1-1/2"	100
<b>MA03192-1</b>	7-1/2"	1/16" TO 1-3/4"	10
<b>MA03193-2</b>	7-1/2"	1/16" TO 1-3/4"	100
<b>MA03195-1</b>	11"	1/16" TO 3"	7
<b>MA03196-2</b>	11"	1/16" TO 3"	50
<b>MA03198-1</b>	14"	1/16" TO 4"	6
<b>MA03199-2</b>	14"	1/16" TO 4"	50



**BLACK SCREWDOWN WIRE TIES**

PART #	LENGTH	BUNDLE DIA.	PKG.
<b>MA04793-2B</b>	7-1/2"	1/16" TO 1-3/4"	100
<b>MA04796-2B</b>	11"	1/16" TO 3"	50
<b>MA04799-2B</b>	14"	1/16" TO 4"	50

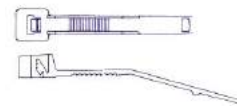


**DUCT TIES**

- MA021120-2** 24" NATURAL 175 LBS FOR 6" DUCT
- MA036175-2** 36" NATURAL 175 LBS FOR 11" DUCT
- MA048175-2** 48" NATURAL 175 LBS FOR 14" DUCT
- MA021120-2B** 24" BLACK 175 LBS FOR 6" DUCT
- MA036175-2B** 36" BLACK 175 LBS FOR 11" DUCT
- MA048175-2B** 48" BLACK 175 LBS FOR 14" DUCT

**ASSORTED WIRE TIES MA-LINE PACKS**

- MA-PAK-1**  
**250 NATURAL WIRE TIES**  
4" (100), 7-1/2" (100) & 11" (50)
- MA-PAK-2**  
**300 NATURAL & BLACK WIRE TIES**  
NATURAL: 4" (50), 7-1/2" (50), 11" (50) & 14" (25)  
BLACK: 7-1/2" (50), 11" (50) & 14" (25)
- MA-PAK-3**  
**450 BLACK WIRE TIES**  
5-1/2" (200), 7-1/2" (200) & 11" (50)



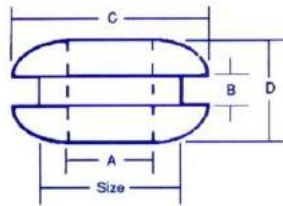
**WIRE TIE GUNS**



- MA05007-2**  
**LIGHTWEIGHT PLASTIC FOR SMALL WIRE TIES**
- MA05008-2**  
**HEAVY DUTY METAL FOR LARGE WIRE TIES**

IDEAL FOR TENSIONING AND FOR CUTTING – DURABLE, LIGHTWEIGHT GUN HANDLES WIRE TIES UP TO 50LB LOOP STRENGTH. HEAVY DUTY GUN HANDLES 120-175 POUND.

VINYL GROMMETS



SIZE	A	B	C	D
1/4"	1/8"	1/16"	11/32"	3/16"
5/16"	3/16"	1/16"	7/16"	7/32"
3/8"	1/4"	1/16"	9/16"	1/4"
7/16"	5/16"	1/16"	5/8"	1/4"
1/2"	3/8"	1/16"	5/8"	1/4"
5/8"	1/2"	1/16"	13/16"	9/32"
21/32"	25/64"	1/8"	27/32"	3/8"
7/8"	5/8"	1/16"	1-1/8"	9/32"
1"	11/16"	1/16"	15/16"	3/8"

PART #	DESCRIPTION	PKG
<b>MA00151-1</b>	1/4", 5/16", 3/8"	40
<b>MA00152-1</b>	7/16", 1/2", 5/8"	20
<b>MA00153-1</b>	21/32", 7/8", 1"	10
<b>MA00154-1</b>	1/4" THRU 1"	25
<b>MA03161-1</b>	1/4"	40
<b>MA03162-1</b>	5/16"	40
<b>MA03163-1</b>	3/8"	35
<b>MA03164-1</b>	7/16"	35
<b>MA03165-1</b>	1/2"	30
<b>MA03166-1</b>	5/8"	25
<b>MA03167-1</b>	21/32"	15

PART #	DESCRIPTION	PKG
<b>MA03168-1</b>	7/8"	15
<b>MA03169-1</b>	1"	5
<b>MA03161-2</b>	1/4"	100
<b>MA03162-2</b>	5/16"	100
<b>MA03163-2</b>	3/8"	100
<b>MA03164-2</b>	7/16"	100
<b>MA03165-2</b>	1/2"	100
<b>MA03166-2</b>	5/8"	100
<b>MA03167-2</b>	21/32"	100
<b>MA03168-2</b>	7/8"	100
<b>MA03169-2</b>	1"	100



1/8" THRU 9/16" =  
3/8" WIDE  
  
5/8" THRU 1" =  
1/2" WIDE

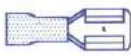
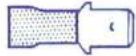
NYLON CABLE CLAMPS

PART #	DESCRIPTION	PKG	PART #	DESCRIPTION	PKG	PART #	DESCRIPTION	PKG
<b>MA00036-1</b>	CLAMPS, GROMMETS & WIRE TIES	40	<b>MA03149-1</b>	1/8"	35	<b>MA03149-2</b>	1/8"	100
<b>MA00098-1</b>	1/8", 3/8", 7/16"	30	<b>MA03150-1</b>	3/16"	35	<b>MA03150-2</b>	3/16"	100
<b>MA00099-1</b>	5/16", 3/8", 7/16"	25	<b>MA03151-1</b>	1/4"	25	<b>MA03151-2</b>	1/4"	100
<b>MA00100-1</b>	1/2", 9/16", 5/8"	25	<b>MA03152-1</b>	5/16"	25	<b>MA03152-2</b>	5/16"	100
<b>MA00101-1</b>	3/4", 1"	10	<b>MA03153-1</b>	3/8"	25	<b>MA03153-2</b>	3/8"	100
<b>MA00102-1</b>	1/8" THRU 1"	25	<b>MA03154-1</b>	7/16"	15	<b>MA03154-2</b>	7/16"	100
			<b>MA03155-1</b>	1/2"	15	<b>MA03155-2</b>	1/2"	100
			<b>MA03156-1</b>	9/16"	15	<b>MA03156-2</b>	9/16"	100
			<b>MA03157-1</b>	5/8"	15	<b>MA03157-2</b>	5/8"	100
			<b>MA03158-1</b>	3/4"	10	<b>MA03158-2</b>	3/4"	100
			<b>MA03159-1</b>	1"	10	<b>MA03159-2</b>	1"	100

MA02526-1

**QUICK DISCONNECTS  
FLARED  
VINYL INSULATED**

MA02598-2



PART #	RANGE	TAB	PKG	PART #	RANGE	TAB	PKG
MA02013-1	ASSORT	-	20	MA02598-2	16-14 F	250	100
MA02526-1	16-14M	250	20	MA02619-2	12-10 F	250	100
MA02586-1	22-18 F	250	20	MA03013-2	22-18 F	250	100
MA02587-1	22-18M	250	20	MA03016-2	22-18 F	187	100
MA02588-1	16-14 F	250	20	MA03019-2	16-14 F	187	100
MA02589-1	12-10 F	250	15	MA03022-2	16-14M	250	100
MA02590-1	12-10M	250	15	MA03023-2	12-10M	250	100
MA03015-1	22-18 F	187	20	MA03029-2	16-14M	187	100
MA03018-1	16-14 F	187	20				
MA03028-1	16-14M	187	20				

**SPADES-FLARED VINYL INSULATED**

PART #	RANGE	STUB	PKG	TYPE	PART #	RANGE	STUB	PKG	TYPE
MA02585-1	16-14	6	20	B	MA01042-1	22-18	8	20	A
MA02977-2	16-14	6	100	B	MA01042-2	22-18	8	100	A
MA02544-1	16-14	8	20	B	MA01043-1	16-14	8	20	A
MA02597-2	16-14	8	100	B	MA01043-2	16-14	8	100	A
MA02541-1	16-14	10	20	B	MA01046-1	12-10	10	15	A
MA02978-2	16-14	10	100	B	MA01046-2	12-10	10	100	A
MA02980-1	12-10	6	15	B					
MA02547-1	12-10	8	15	B					
MA02982-2	12-10	8	100	B					
MA02543-1	12-10	10	15	B					
MA02983-2	12-10	10	100	B					
MA02583-1	22-18	6	20	B					
MA02971-2	22-18	6	100	B					
MA02973-1	22-18	8	20	B					
MA02974-2	22-18	8	100	B					
MA02584-1	22-18	10	20	B					
MA02975-2	22-18	10	100	B					



TYPE A



TYPE B

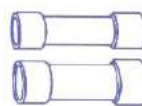
**FLARED VINYL INSULATED  
RINGS**



PART #	RANGE	STUD	PKG	PART #	RANGE	STUD	PKG
MA02536-1	16-14	6	20	MA02956-1	16-14	3/8	15
MA02537-1	16-14	8	20	MA02960-1	12-10	6	15
MA02528-1	16-14	10	20	MA02962-2	12-10	8	100
MA02532-1	16-14	1/4	15	MA02969-1	12-10	1/2	5
MA02581-1	12-10	8	15	MA02620-2	16-14	8	100
MA02530-1	12-10	10	15	MA02621-2	16-14	10	100
MA02534-1	12-10	1/4	10	MA02622-2	12-10	10	100
MA02577-1	22-18	6	20	MA02623-2	12-10	1/4	100
MA02581-1	22-18	8	20	MA02939-2	22-18	6	100
MA02579-1	22-18	10	20	MA02940-2	22-18	8	100
MA02580-1	22-18	1/4	15	MA02942-2	22-18	10	100
MA02944-2	22-18	1/4	100	MA02968-1	12-10	3/8	15
MA02951-2	16-14	6	100	MA02968-2	12-10	3/8	100
MA02952-2	16-14	1/4	100	MA02969-2	12-10	1/2	100
MA02955-1	16-14	5/16	15	MA02066-1	6	1/4	15
MA02955-2	16-14	5/16	100	MA02066-2	6	1/4	100

**BUTT SPLICE CONNECTORS**

PART #	RANGE	PKG	PART #	RANGE	PKG
MA02014-1	ASSORT	17	MA02816-1	22-18	20
MA02521-1	16-14	20	MA02818-1	16-14	35
MA02522-1	12-10	15	MA02820-1	12-10	35
MA02591-1	22-18	20	MA03790-2	22-18	100
MA02596-2	16-14	100	MA03791-2	16-14	100
MA03011-2	22-18	100	MA03792-2	12-10	100
MA03012-2	12-10	100			

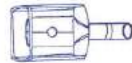


FLARED -VINYL  
INSULATED



NON-INSULATED

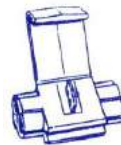
**QUICK DISCONNECTS  
FULLY INSULATED**



PART #	RANGE	TAB	PKG	PART #	RANGE	TAB	PKG
MA03465-1	22-18MF	250	10	MA03467-2	22-18F	250	100
MA03466-1	16-14MF	250	10	MA03469-2	22-18M	250	100
MA03467-1	22-18 F	250	10	MA03471-2	16-14F	250	100
MA03469-1	22-18M	250	10	MA03473-2	16-14M	250	100
MA03471-1	16-14 F	250	10	MA03475-2	12-10F	250	100
MA03473-1	16-14M	250	10	MA03477-2	12-10M	250	100
MA03475-1	12-10F	250	10				
MA03477-1	12-10M	250	10				

**SPECIAL DEVICE IN-LINE SPLICES**

MA03063-1 IN-LINE 18-14  
BLUE (8/PKG)  
MA01066-1 T-TAP/MALE ASSORTMENT  
KIT/250 TAB/BLUE (8/PKG)



MA03063-1



MA01066-1

**SPECIAL DEVICE  
DISCONNECTS**

PART #	RANGE	TAB	PKG
MA02109-1	16-14	250 INSUL.	10
MA02911-2	16-14	250 INSUL.	100
MA02595-1	-	250	15
MA02898-2	-	250	100
MA02896-1	-	250	10
MA02896-2	-	250	100
MA02903-1	-	250	10
MA02904-2	-	250	100
MA02906-1	-	250	10
MA02907-2	-	250	100
MA03042-1	-	250	5
MA03349-1	-	250/10STUD	10
MA01029-1	12-10	250	10
MA01029-2	12-10	250	100
MA01023-1	-	250	10
MA01023-2	-	250	100



MA02896-1 MA02906-1  
MA02896-2 MA02907-2



MA02109-1 MA02903-1  
MA02911-2 MA02904-2



MA01023-1 MA02595-1  
MA01023-2 MA02898-2



MA03042-1 MA03349-1



MA01029-1  
MA01029-2

**CLOSED END CONNECTORS**

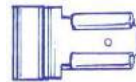
PART#	WIRE RANGE	DIMENSIONS	PKG
MA02548-1	16-14	7/8"	10
MA02549-1	22-18	5/8"	15
MA02551-1	12-10	5/8"	10
MA03033-2	22-18	5/8"	100
MA03034-2	12-10	5/8"	100
MA03035-2	16-14	7/8"	100



**COMPRESSOR  
NON-INSULATED**



PART #	RANGE	TAB	PKG	PART #	RANGE	TAB	PKG
MA03360-1	20-14	187	10	MA03343-1	12-8	250	5
MA03361-2	20-14	187	50	MA03344-2	12-8	250	50
				MA03344-3	12-8	250	100
				MA01130-1	16-14	250	10
				MA01130-2	16-14	250	100



**FLAG DISCONNECT  
NON-INSULATED**

PART #	RANGE	TAB	PKG	PART #	RANGE	TAB	PKG
MA02592-1	16-14F	250	30	MA02618-2	16-14F	250	100
MA03395-1	12-10F	250	15	MA02894-2	16-14F	187	100
MA02894-1	16-14F	187	20	MA03395-2	12-10F	250	100



**RINGS-SPADES-DISCONNECTS  
NON-INSULATED**

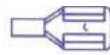


MA02726-1 MA02773-1

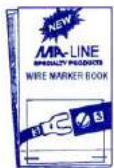
PART #	RANGE	STUD	PKG	PART #	RANGE	STUD	PKG
<b>RINGS</b>				<b>SPADES</b>			
MA02707-2	22-10	6	100	MA02762-2	22-18	6	100
MA02724-2	16-14	6	100	MA02770-1	16-14	6	35
MA02726-1	16-14	8	35	MA02771-2	16-14	6	100
MA02727-2	16-14	8	100	MA02773-1	16-14	8	35
MA02729-1	16-14	10	35	MA02774-2	16-14	8	100
MA02729-2	16-14	10	100	MA02776-1	16-14	10	35
MA02744-1	12-10	8	25	MA02777-2	16-14	10	100
MA02745-2	12-10	8	100	MA02779-1	12-10	6	25
MA02746-1	12-10	10	25	MA02780-2	12-10	6	100
MA02747-2	12-10	10	100	MA02782-1	12-10	8	25
MA02749-1	12-10	1/4	20	MA02783-2	12-10	8	100
MA01123-1	8	10	5	MA02785-1	12-10	10	25
MA01124-1	8	1/4	5	MA02786-2	12-10	10	100

**DISCONNECTS**

MA02821-1	22-18F	110	20	MA02837-2	22-18M	250	100
MA02822-2	22-18F	110	100	MA02839-1	16-14M	250	35
MA02823-1	22-18F	250	35	MA02840-2	16-14M	250	100
MA02824-2	22-18F	250	100	MA02842-1	12-10M	250	35
MA02825-1	16-14F	250	35	MA02843-2	12-10M	250	100
MA02826-2	16-14F	250	100				
MA02827-1	12-10F	250	30				
MA02828-2	12-10F	250	100				
MA02830-1	22-18F	187	35				
MA02833-1	16-14F	187	35				
MA02834-2	16-14F	187	100				



MA02823-1 MA02825-1



**WIRE MARKER IDENTIFICATION  
TAPE DISPENSER/BOOKS**

MA02152-2 10-PAGE WIRE MARKER BOOK  
#1 THROUGH #45 (1/PKG)  
MA02153-2 10-PAGE WIRE MARKER BOOK  
A-Z, 0-15, +, - and / (1/PKG)

MA02148-2 DISPENSER W/TAPE 0-9 (1/PKG)  
MA02149-2 REPLACEMENT ROLLS 0-4 (1/PKG)  
MA02150-2 REPLACEMENT ROLLS 5-9 (1/PKG)  
MA02151-2 REPLACEMENT ROLLS 0-9 (1/PKG)



**MA-LINE "MARK-IT"**

TOUGH VINYL MARKERS WITH ACRYLIC  
ADHESIVE.  
SERVICE TEMP. -50F TO 200F (-45C TO 90C)  
DISPENSER PROTECTS UNUSED LABELS



**MA-6182 - MA-6187**  
UL RECOGNIZED FOR 20AMP  
(250v COMMERCIAL EQUIP.)  
FITS SAME SPACE AS A 15AMP STRIP  
MAX WIRE SIZE 14 TERMINAL WIDTH 7/8" SCREW SIZE 6

**MA-6192 - MA-6197**  
UL RECOGNIZED FOR 30AMP  
(800v COMMERCIAL EQUIP.)  
MAX WIRE SIZE 12 TERMINAL WIDTH 1-5/16" SCREW SIZE 8

**90 DEGREE  
DISCONNECT  
WITH SCREW**



PART #	TAB	PKG
MA03775-1	.250	5
MA03775-2	.250	100

**HIGH TEMPERATURE NON INSULATED  
SOLDERLESS TERMINALS**

MA02127-1

MA03798-1

MA02881-1

MA02880-1

MA03362-1

PART # RANGE STUD PKG

MA02127-1	16-14	.250	4
MA02127-2	16-14	.250	100

**RINGS**

MA02065-1	8	1/4	15
MA02065-2	8	1/4	100
MA02142-1	8	1/4	20
MA02142-2	8	1/4	100
MA03771-1	22-18	6	30
MA03772-1	22-18	10	30
MA03773-1	16-14	6	30
MA02860-1	16-14	10	30
MA02861-2	16-14	10	100
MA02869-1	12-10	10	20
MA02870-2	12-10	10	100
MA02872-1	12-10	1/4	15
MA02873-2	12-10	1/4	100
MA03774-1	16-14	1/4	20
MA03778-2	22-18	6	100
MA03779-2	22-18	10	100
MA03780-2	16-14	6	100
MA03781-2	16-14	1/4	100

**DISCONNECTS**

MA02875-1	16-14F	250	20
MA02876-2	16-14F	250	100
MA02881-1	12-10F	250	20

PART # RANGE STUD PKG

**DISCONNECTS CON'T**

MA02882-2	12-10F	250	100
MA03362-1	16-14	250	20
FLAG			
MA03363-2	16-14	250	100
FLAG			
MA03798-1	12-10	250	20
FLAG			
MA03798-2	12-10	250	100
FLAG			
MA03776-1	16-14F	187	20
MA03782-2	16-14F	187	100
MA03783-2	22-18	187	100
FEMALE			
MA03784-1	22-18	187	20
MALE			
MA03784-2	22-18	187	100
MALE			
MA03785-1	18-14M	250	15
SPADE			
MA03785-2	18-14M	250	100
SPADE			
MA03793-1	22-10	10	25
SPADE			
MA03793-2	22-10	10	100
SPADE			
MA03794-2	16-14	10	100
SPADE			

**TERMINAL BLOCKS & JUMPERS**

MA-6182 DOUBLE ROW 4 TERMINAL 20AMP BLOCK 2.2" LONG	MA-6192 DOUBLE ROW 4 TERMINAL 30AMP BLOCK 3.2" LONG
MA-6183 DOUBLE ROW 6 TERMINAL 20AMP BLOCK 2.9" LONG	MA-6193 DOUBLE ROW 6 TERMINAL 30AMP BLOCK 4.3" LONG
MA-6184 DOUBLE ROW 8 TERMINAL 20AMP BLOCK 3.7" LONG	MA-6194 DOUBLE ROW 8 TERMINAL 30AMP BLOCK 5.5" LONG
MA-6185 DOUBLE ROW 10 TERMINAL 20AMP BLOCK 4.4" LONG	MA-6195 DOUBLE ROW 10 TERMINAL 30AMP BLOCK 6.6" LONG
MA-6186 DOUBLE ROW 12 TERMINAL 20AMP BLOCK 5.2" LONG	MA-6196 DOUBLE ROW 12 TERMINAL 30AMP BLOCK 7.7" LONG
MA-6187 DOUBLE ROW 14 TERMINAL 20AMP BLOCK 5.9" LONG	MA-6197 DOUBLE ROW 14 TERMINAL 30AMP BLOCK 8.8" LONG
MA-6188 JUMPER FOR 20AMP TERMINAL BLOCK (10/PKG)	MA-6198 JUMPER FOR 30AMP TERMINAL BLOCK (10/PKG)

**MA01018-1** (25/BAG)  
**MA01018-2** (50/BAG)  
**MA01018-3** (100/BAG)  
**MA01018BX** (100/BOX)  
**MA01018P** (500/TUB)  
 GREY



**“TWIST ON”  
 SPRING GRIP  
 WIRE  
 CONNECTOR**

**MA01019-1** (20/BAG)  
**MA01019-2** (50/BAG)  
**MA01019-3** (100/BAG)  
**MA01019BX** (100/BOX)  
**MA01019P** (500/TUB)  
 BLUE

**MA01020-1** (15/BAG)  
**MA01020-2** (50/BAG)  
**MA01020-3** (100/BAG)  
**MA01020BX** (100/BOX)  
**MA01020P** (250/TUB)  
 ORANGE

**MA01021-1** (10/BAG)  
**MA01021-2** (50/BAG)  
**MA01021-3** (100/BAG)  
**MA01021BX** (100/BOX)  
**MA01021P** (250/TUB)  
 YELLOW

**MA01022-1** (5/BAG)  
**MA01022-2** (50/BAG)  
**MA01022-3** (100/BAG)  
**MA01022BX** (100/BOX)  
**MA01022P** (100/TUB)  
 RED

**GREY:** NO. 22 THRU 14 AWG  
 MIN: 1PC. #20 AWG & 1PC. #22 AWG  
 MAX: 2PCS. #16

**BLUE:** NO. 22 THRU 14 AWG  
 MIN: 1PC. #18 AWG & 1PC. #22 AWG  
 MAX: 3PCS. #16

**ORANGE:** NO. 22 THRU 14 AWG  
 MIN: 1PC. #18 AWG & 1 PC. #20 AWG  
 MAX: 3PCS. #16 AWG & 1PC. #18 AWG

**YELLOW:** NO. 18 THRU 10 AWG  
 MIN: 3PCS. #18 AWG  
 MAX: 3PCS. #12 AWG

**RED:** NO. 18 THRU 8 AWG  
 MIN: 2PCS. #14 AWG  
 MAX: 2PCS. #10 AWG & 2PCS. #12 AWG.

**GREY:** NO. 22 THRU 14 AWG  
 MIN: 1PC. #20 AWG & 1PC. #22 AWG  
 MAX: 2PCS. #16

**BLUE:** NO. 22 THRU 14 AWG  
 MIN: 1PC. #18 AWG & 1PC. #22 AWG  
 MAX: 3PCS. #16

**YELLOW:** NO. 18 THRU 10 AWG  
 MIN: 3PCS. #18 AWG  
 MAX: 3PCS. #12 AWG

**RED:** NO. 18 THRU 8 AWG  
 MIN: 2PCS. #14 AWG  
 MAX: 2PCS. #10 AWG & 2PCS. #12 AWG.

**WINGED WIRE CONNECTORS**

**MA10606-1** (5/BAG)      **MA10602-1** (15/BAG)  
**MA10606-2** (50/BAG)    **MA10602-2** (100/BAG)  
**MA10606BX** (50/BOX)    **MA10602BX** (100/BOX)  
 GREY                              YELLOW

**MA10608-1** (5/BAG)      **MA10604-1** (10/BAG)  
**MA10608-2** (50/BAG)    **MA10604-2** (100/BAG)  
**MA10608BX** (50/BOX)    **MA10604BX** (100/BOX)  
 BLUE                              RED

**TAN WINGED WIRE CONNECTORS**

IN A PLASTIC TUB WITH HANDLE  
 WIRE SIZE: 22-8

**MA04132-1** (25/BAG)  
**MA04233-2** (120/TUB)



**PORCELAIN WIRE CONNECTOR**

SMALL =  
 2X18GA, 3X18GA OR 4X20GA

MEDIUM =  
 3X18GA, 4X18GA OR 5X20GA

LARGE =  
 2X14GA, 5X18GA OR 6X20GA

MAX. TEMP. RATING  
 UP TO 1800F (982C)

**MA01164-1**  
 SMALL (15/PKG)  
**MA01164C-2**  
 SMALL (100/PKG)  
**MA01165-1**  
 MEDIUM (10/PKG)  
**MA01165C-2**  
 MEDIUM (100/PKG)  
**MA01166-1**  
 LARGE (10/PKG)  
**MA01166C-2**  
 LARGE (100/PKG)

**240 PIECES ASSORTED WIRE CONNECTORS**

IN A PLASTIC TUB WITH HANDLE  
**MA06295P**

**110 PIECES ASSORTED WINGED WIRE CONNECTORS**

IN A PLASTIC TUB WITH HANDLE  
**MA10610P**

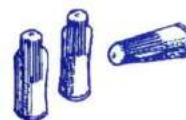


**WIRE CONNECTOR ASSORTMENT**



**MA03751-2** (50 ASSORTED PCS)  
 BLUE, RED, YELLOW & ORANGE  
 IN A PLASTIC STORAGE BOX

**MA06295-2** (44 ASSORTED PCS)  
 GREY, BLUE, RED, YELLOW &  
 ORANGE IN A REUSABLE BAG



**SOFT WIRE CONNECTORS**

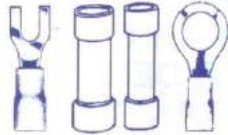
SPECIAL DEVICES  
 SCOTCHLOCKS®

**MA03075-1** (10/BAG)      **MA03077-1** (5/BAG)  
**MA03076-2** (50/BAG)    **MA03373-2** (25/BAG)  
 RED/YELLOW: 16-10/18-12    BLUE/GREY:12-6/14-8

**SMALL ASSORTMENT KITS - INSULATED**

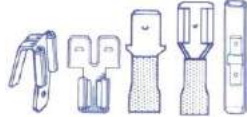
ASSORTED RING & BUTT CONNECTORS (14/PKG)

- MA02012-1**  
 3PCS. 12-10 BUTT CONN.  
 3PCS. 12-10 #10 STUD SPADES  
 4PCS. 12-10 #10 STUD RINGS  
 2PCS. 12-10 #8 STUD RINGS  
 2PCS. 12-10 1/4" STUD RINGS



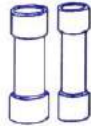
ASSORTED QUICK DISCONNECTS (20/PKG)

- MA02013-1**  
 2PCS. EA. 12-10F, 16-14F, 22-18F .250 TAB  
 2PCS. EA. 12-10M, 16-14M, 22-18M .250 TAB  
 2PCS. 3 WAY ADAPTOR .250 TAB  
 2PCS. PIN TYPE MALE  
 4PCS. .250 SPECIAL DEVICES



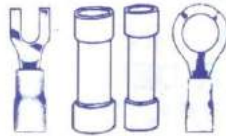
ASSORTED BUTT CONNECTORS (17/PKG)

- MA02014-1**  
 8PCS. 16-14  
 6PCS. 22-10  
 3PCS. 12-10



ASSORTED RINGS, SPADES, & CONNECTORS (20/PKG)

- MA02015-1**  
 2PCS. EA. 22-18, 16-14 & 12-10 BUTT CONN.  
 2PCS. EA. 12-10 & 16-14 #10 STUD SPADES  
 2PCS. EA. 12-10 & 16-14 #10 STUD RINGS  
 2PCS. 16-14 #6 STUD RINGS  
 2PCS. 22-18 #10 STUD RINGS  
 2PCS. 22-18 #6 STUD RINGS



MA03754-2

**MA03754-2 (60 PCS)  
SPECIAL NUT KIT**

6-32, 8-32, 10-24 & 1/4-20

**MA03756-2 (90 PCS)  
NYLON INSERT  
LOCK NUT KIT**

6-32, 8-32, 10-24, 10-32, 1/4-20 & 5/16-18



MA03756-2



MA03750-2

**MA03750-2 (50 PCS)  
SET SCREW KIT**

6-32X1/4, 8-32X1/4, 8-32X3/4,  
 10-24X1/4, 10-32X1/4, 10-32X3/4,  
 1/4-20X3/8 & 5/16-18X3/8

**MA03757-2 (60 PCS)  
SHEET METAL SCREW KIT**

8X1/2, 8X3/4, 10X1/2, 10X1



MA03757-2



MA03752-2

**MA03752-2 (40 PCS)  
SOLDERLESS  
TERMINAL KIT INSULATED**

**MA03802-2 (24 PCS)  
SOLDERLESS LG. GAUGE  
TERMINAL KIT  
NON-INSULATED**



MA03802-2

**PLASTIC STORAGE  
BOXES**

- MA-3600**  
 18 COMPARTMENT BOX  
**MA-3612**  
 12 COMPARTMENT BOX



**175PC.  
TERMINAL KIT  
(STORED IN PLASTIC BOX)**

**MA02652-2**

TO SERVICE A/C,  
REFRIGERATION, AND  
COOLING UNITS

18 ITEMS = 175 ASSORTED PIECES

- 10 pcs. Insulated Q/D: Female, Blue: 16-14
- 7 pcs. Insulated Q/D: Female, Yellow: 12-10
- 7 pcs. Insulated Rings: Yellow: 12-10, 1/4" Stud
- 7 pcs. Insulated Rings: Yellow: 12-10, 8 Stud
- 10 pcs. Insulated Rings: Blue: 16-14, 10 Stud
- 10 pcs. Insulated Rings: Blue: 16-14, 8 Stud
- 10 pcs. Insulated Q/D: Male, Blue: 16-14
- 11 pcs. Butt Connector: Red: 22-18
- 10 pcs. Butt Connector: Blue: 16-14
- 7 pcs. Butt Connector: Yellow: 12-10
- 10 pcs. Insulated Spade: Blue: 16-14, 10 Stud
- 10 pcs. Insulated Spade: Blue: 16-14, 8 Stud
- 16 pcs. Non-Insulated Flag: 16-14
- 16 pcs. Non-Insulated Piggy Back: 16-14
- 8 pcs. Non-Insulated Compressor Terminal: 16-14
- 15 pcs. Closed-End Connector: 16-14x8, 12-10x7
- 9 pcs. Wire Connector: Orange (4) Yellow (5)
- 3 pcs. Wire Connector: Red



**201PC.  
DELUXE  
TERMINAL KIT  
(STORED IN A METAL BOX)**

**MA02653-2**

201 OF THE MOST POPULAR  
ITEMS TO SERVICE A/C,  
REFRIGERATION, AND  
COOLING UNITS

21 ITEMS = 201 ASSORTED PIECES

- 20 pcs. Insulated Disconnect: 16-14F/.250 Tab
- 15 pcs. Insulated Disconnect: 12-10F/.250 Tab
- 5 pcs. Compressor Non-Insulated: 12-18/.250 Tab
- 10 pcs. Connectors and Adapters: .250 (2)M (1)F
- 10 pcs. Connectors and Adapters: .250 (1)M (1)F
- 10 pcs. Insulated Rings: 16-14, 10 Stud
- 10 pcs. Insulated Rings: 16-14, 8 Stud
- 10 pcs. Insulated Rings: 12-10, 1/4" Stud
- 10 pcs. Butt Connector: Blue: 16-14
- 10 pcs. Butt Connector: Yellow: 12-10
- 10 pcs. Butt Connector: Red: 22-18
- 10 pcs. Closed-End Connectors: 22-18
- 10 pcs. Closed-End Connectors: 12-10
- 5 pcs. Non-Insulated Flag Disconnects: 16-14F
- 10 pcs. Insulated Spade: 16-14F, 8 Stud
- 10 pcs. Insulated Disconnect: 16-14M/.250 Tab
- 10 pcs. Insulated Ring: 12-10, 8 Stud
- 10 pcs. Insulated Spade: 16-14F, 10 Stud
- 10 pcs. Wire Connector: Orange
- 5 pcs. Wire Connector: Yellow
- 1 pc. Crimping Tool

INCLUDES 50 ANCHORS & 50 COMBINATION  
PAN HEAD SCREWS

**MA-8414** 8 X 1-1/4" PLASTIC

**MA-8415** 8 X 1-1/4" METAL

**ANCHOR  
KITS**



INCLUDES DRILL BIT 100 ANCHORS &  
100 SLOTTED PAN HEAD SCREWS

**MA-8410** 3/16" X 3/4", 6-8 SLOTTED PAN HEAD SCREWS

**MA-8411** 1/4" X 1", 10-12 SLOTTED PAN HEAD SCREWS

**MA-8412** 5/16" X 1-1/2", 14-16 SLOTTED PAN HEAD SCREWS

**METAL STORAGE DRAWERS  
& SLIDE RACKS FOR MA03375-2**

**MA03375-2**

21 COMPARTMENT DRAWER  
13- 3/16" X 9-1/4" X 2"

**MA03376-2**

32 COMPARTMENT DRAWER  
18" X 12" X 3"

**MA03353-2**

2 DRAWER SLIDE RACK  
FOR MA03375-2

**MA03355-2**

4 DRAWER SLIDE RACK  
FOR MA03375-2

(SLIDE RACKS DO NOT INCLUDE DRAWERS)





UL 1015,  
600V, 105C

**MOTOR  
HOOK UP  
WIRE**



STRANDED

PART #	AWG	FT/PKG	PART #	AWG	FT/PKG
<u>RED</u>					
MA03217-2	18	35	MA03217-3	18	100
MA03218-2	16	20	MA03218-3	16	100
MA03219-2	14	15	MA03219-3	14	100
MA03220-2	12	12	MA03220-3	12	100
MA03221-2	10	8	MA03221-3	10	100
<u>BLACK</u>					
MA03222-2	18	35	MA03222-3	18	100
MA03223-2	16	20	MA03223-3	16	100
MA03224-2	14	15	MA03224-3	14	100
MA03225-2	12	12	MA03225-3	12	100
MA03226-2	10	8	MA03226-3	10	100
<u>WHITE</u>					
MA03227-2	18	35	MA03227-3	18	100
MA03228-2	16	20	MA03228-3	16	100
MA03229-2	14	15	MA03229-3	14	100
MA03230-2	12	12	MA03230-3	12	100
MA03231-2	10	8	MA03231-3	10	100
<u>GREEN</u>					
MA03232-2	18	35	MA03232-3	18	100
MA03233-2	16	20	MA03233-3	16	100
MA03234-2	14	15	MA03234-3	14	100
MA03235-2	12	12	MA03235-3	12	100
MA03236-2	10	8	MA03236-3	10	100
<u>BLUE</u>					
MA03237-2	18	35	MA03237-3	18	100
MA03238-2	16	20	MA03238-3	16	100
MA03239-2	14	15	MA03239-3	14	100
MA03240-2	12	12	MA03240-3	12	100
MA03241-2	10	8	MA03241-3	10	100

**HIGH TEMPERATURE GLASS BRAIDED  
SILICONE/RANGE WIRE**

**USED FOR** MOTOR LEADS, TRANSFORMERS, APPLIANCES, ELECTRIC OR OTHER ELECTRICAL CIRCUITS WHERE A FLEXIBLE CONDUCTOR IS REQUIRED TO OPERATE UNDER HIGH TEMPERATURE CONDITIONS AND WHERE MOISTURE IS PRESENT.

400F AND 200C MAX. TEMPERATURE – 600 MAX. VOLTAGE  
14 GAUGE UL 3071 AND 12 GAUGE UL STYLE 3074,  
CSA TYPE SEW-2

**THREE STRANDED 12 & 14 GAUGE WIRE  
RED, WHITE & BLACK**

PART #	LENGTH	PART #	LENGTH	PART #	LENGTH	PART #	LENGTH	PART #	LENGTH
<u>12 GAUGE</u>		<u>14 GAUGE</u>		<u>RED</u>		<u>BLACK</u>		<u>WHITE</u>	
MA0512G	5'	MA0514G	5'	MA0HT14R1	5'	MA0HT14B1	5'	MA0HT14W1	5'
MA01012G	10'	MA01014G	10'	MA0HT14R2	10'	MA0HT14B2	10'	MA0HT14W2	10'
MA02512G	25'	MA02514G	25'	MA0HT14R3	25'	MA0HT14B3	25'	MA0HT14W3	25'
MA05012G	50'	MA05014G	50'	MA0HT14R4	50'	MA0HT14B4	50'	MA0HT14W4	50'
				MA0HT14R5	100'	MA0HT14B5	100'	MA0HT14W5	100'

**COPPER THHN  
WIRE**

UL APPROVED  
500' SPOOLS



PART	STRANDED	PART	SOLID
<u>BLACK</u>			
MA-THHN8B	8 GAUGE	MA-THHNS-10B	10 GAUGE
MA-THHN10B	10 GAUGE	MA-THHNS-12B	12 GAUGE
MA-THHN12B	12 GAUGE	MA-THHNS-14B	14 GAUGE
MA-THHN14B	14 GAUGE	<u>RED</u>	
<u>RED</u>			
MA-THHN8R	8 GAUGE	MA-THHNS-10R	10 GAUGE
MA-THHN10R	10 GAUGE	MA-THHNS-12R	12 GAUGE
MA-THHN12R	12 GAUGE	MA-THHNS-14R	14 GAUGE
MA-THHN14R	14 GAUGE	<u>WHITE</u>	
<u>WHITE</u>			
MA-THHN8W	8 GAUGE	MA-THHNS-10W	10 GAUGE
MA-THHN10W	10 GAUGE	MA-THHNS-12W	12 GAUGE
MA-THHN12W	12 GAUGE	MA-THHNS-14W	14 GAUGE
MA-THHN14W	14 GAUGE	<u>GREEN</u>	
<u>GREEN</u>			
MA-THHN8G	8 GAUGE	MA-THHNS-10G	10 GAUGE
MA-THHN10G	10 GAUGE	MA-THHNS-12G	12 GAUGE
MA-THHN12G	12 GAUGE	MA-THHNS-14G	14 GAUGE
MA-THHN14G	14 GAUGE		

USED FOR:  
APPLIANCES  
COIL LEADS  
SWITCHBOARD PANELS  
TRANSFORMERS  
MOTOR LEADS

**3-STRANDED  
CROSS-LINKED  
POLYETHYLENE  
RANGE WIRE**

250F AND 125C MAX. TEMPERATURE – 600 MAX. VOLTAGE  
12 & 14 GAUGE UL TYPE 3173, CSA TYPE CL 1251/AWM  
SINGLE WIRE – RED, BLACK & WHITE

PART #	LENGTH	GAUGE	PART #	LENGTH	GAUGE
MA0512P	5'	12	MA0514P	5'	14
MA01012P	10'	12	MA01014P	10'	14
MA02512P	25'	12	MA02514P	25'	14
MA05012P	50'	12	MA05014P	50'	14

**SINGLE STRAND 12 GAUGE WIRE**

PART #	LENGTH	PART #	LENGTH	PART #	LENGTH
<u>RED</u>		<u>BLACK</u>		<u>WHITE</u>	
MA0HT12R1	5'	MA0HT12B1	5'	MA0HT12W1	5'
MA0HT12R2	10'	MA0HT12B2	10'	MA0HT12W2	10'
MA0HT12R3	25'	MA0HT12B3	25'	MA0HT12W3	25'
MA0HT12R4	50'	MA0HT12B4	50'	MA0HT12W4	50'
MA0HT12R5	100'	MA0HT12B5	100'	MA0HT12W5	100'

**SINGLE STRAND 14 GAUGE WIRE**

PART #	LENGTH	PART #	LENGTH	PART #	LENGTH
<u>RED</u>		<u>BLACK</u>		<u>WHITE</u>	
MA0HT14R1	5'	MA0HT14B1	5'	MA0HT14W1	5'
MA0HT14R2	10'	MA0HT14B2	10'	MA0HT14W2	10'
MA0HT14R3	25'	MA0HT14B3	25'	MA0HT14W3	25'
MA0HT14R4	50'	MA0HT14B4	50'	MA0HT14W4	50'
MA0HT14R5	100'	MA0HT14B5	100'	MA0HT14W5	100'



TYPE A

**GAS BALL VALVES**



TYPE C



TYPE D



TYPE B

ALL MODELS HAVE AGA, UL AND CSA APPROVALS  
LEVER HANDLE FORGED BRASS BALL VALVES. STANDARD PORT,  
FULL PORT, 600 PSI, W.O.G, 150 PSI SATURATED STEAM.

- MA-73101** 1/2" OD X 1/2" FPT STRAIGHT (C)
- MA-73102** 5/8" OD FLARE X 3/4" FPT (C)
- MA-73105** 3/8" FPT X 3/8" FPT (D)
- MA-73103** 1/2" FPT X 1/2" FPT (D)
- MA-73104** 3/4" FPT X 3/4" FPT (D)
- MA-73106** 1" FPT X 1" FPT (D)
- MA-73107** 1-1/4" FPT X 1-1/4" FPT  
STANDARD PORT (B)
- MA-73108** 1-1/2" FPT X 1-1/2" FPT  
STANDARD PORT (B)
- MA-73109** 2" FPT X 2" FPT STANDARD PORT (B)
- MA-73110** 1-1/4" FPT X 1-1/4" FPT FULL PORT (A)
- MA-73111** 1-1/2" FPT X 1-1/2" FPT FULL PORT (A)
- MA-73112** 2" FPT X 2" FPT FULL PORT (A)

3/8" I.D. TUBE - 1/2" FIP X 1/2" MIP

- MA-CSSD54-12** 12" LONG
- MA-CSSD54-18** 18" LONG
- MA-CSSD54-24** 24" LONG
- MA-CSSD54-36** 36" LONG
- MA-CSSD54-48** 48" LONG
- MA-CSSD54-60** 60" LONG
- MA-CSSD54-72** 72" LONG

**FLEXIBLE GAS CONNECTORS  
AGA & CGA CERTIFIED**



COATED STAINLESS STEEL

INDOOR/OUTDOOR GAS CONNECTOR FOR RESIDENTIAL AND COMMERCIAL GAS APPLIANCE

TEMPERATURE RANGE:  
-40F TO 150F

CSA APPROVED

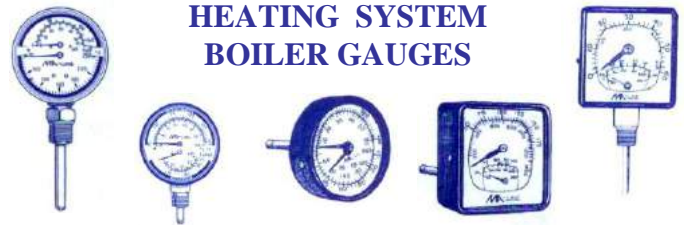
1/2" I.D. TUBE - 3/4" FIP X 3/4" MIP

- MA-CSSC21-12** 12" LONG
- MA-CSSC21-18** 18" LONG
- MA-CSSC21-24** 24" LONG
- MA-CSSC21-36** 36" LONG
- MA-CSSC21-48** 48" LONG
- MA-CSSC21-60** 60" LONG
- MA-CSSC21-72** 72" LONG

POLYMER COATING RESISTS SEA SALT, UV RAYS, HARSH CHEMICAL RESIDUE AND BUILDING PRODUCTS SUCH AS SOLDER FLUX, MURIATIC ACID, AMMONIA AND CHLORINE.

- MA-CSSC54-12** 12" LONG
- MA-CSSC54-18** 18" LONG
- MA-CSSC54-24** 24" LONG
- MA-CSSC54-36** 36" LONG
- MA-CSSC54-48** 48" LONG
- MA-CSSC54-60** 60" LONG
- MA-CSSC54-72** 72" LONG

**HEATING SYSTEM BOILER GAUGES**



- MA-10344** 1/2" NPT 0-75 PSI  
BOTTOM MOUNT, 4" SQUARE 60F TO 260F (20C TO 120C)
- MA-10345** 1/2" NPT 0-75 PSI  
BACK MOUNT, 4" SQUARE 60F TO 260F (20C TO 120C)
- MA-10346** 1/2" NPT 0-200 PSI  
BOTTOM MOUNT, 4" SQUARE 60F TO 260F (20C TO 120C)
- MA-10347** 1/2" NPT 0-200 PSI  
BACK MOUNT, 4" SQUARE 60F TO 260F (20C TO 120C)
- MA-10348** 1/2" NPT 0-55 PSI  
BOTTOM MOUNT, 3" ROUND 0-125FT. H2O, 70F TO 250F(20C TO 120C), 2" STEM
- MA-10349** 1/2" NPT 0-75 PSI  
BOTTOM MOUNT, 3" ROUND 0-170FT. H2O, 70F TO 320F(20C TO 120C), 3/4" STEM
- MA-10350** 1/4" NPT 0-75 PSI  
BACK MOUNT, 2-1/2" ROUND 60F TO 320F(20C TO 120C)

**PROTECTIVE BOOT COVERS**

- MA-49091** 2-1/2" RED
- MA-49092** 2-1/2" BLUE
- MA-49090** 2-1/2" SET
- MA-49191** 3-1/8" RED
- MA-49192** 3-1/8" BLUE
- MA-49193** 3-1/8" SET

**3/4" PRESSURE TEST GAUGE**

- MA-17255** 0-15#
- MA-17256** 0-30#
- MA-17257** 0-100#



**SANDCLOTH & PADS**



- MA-04625** ABRASIVE PADS (10/BOX)
- MA-90303** 1-1/2" X 10YRDS. SAND CLOTH
- MA-90304** 1-1/2" X 25YRDS. SAND CLOTH
- MA-90502** 1-1/2" X 5YRDS. OPEN MESH
- MA-90503** 1-1/2" X 10YRDS. OPEN MESH

**MAXICAP COVERS**



- MAXICAP3R** MAXITROL 325-3 SERIES
- MAXICAP5R** MAXITROL 325-5 SERIES
- MAXICAP7R** MAXITROL 325-7 SERIES

Put the lid on call-backs. Not only does the Maxicap prevent regulator lockup due to ice and snow blockage of the vent, it also prevents insects or build up of mud and debris from clogging the vent. No tools required. UV Safe.



**OXYGEN TANKS**

- T 002** 20 CU. FT.
- T 003** 40 CU. FT.
- T 032** 55 CU. FT.
- T 080** 80 CU. FT.
- T 125OX** 125 CU. FT.

**NITROGEN TANKS**

- T 027** 20 CU. FT.
- T 005** 40 CU. FT.
- T 076** 55 CU. FT.
- T 085** 80 CU. FT.
- T 125N** 125 CU. FT.

**ACETYLENE TANKS**

- T 019** MC TANK
- T 018** B TANK



**REFRIGERANT RECOVERY CYLINDERS**

- MA-400RC30** 30# FOR R410A
- MA-400RC50** 50# FOR R410A
- MA-400RC123** 123# FOR R410A

**CO2 TANK**

- T 0210** 5# REINSPECTED
- T 0220** 10# REINSPECTED
- T 0230** 15# REINSPECTED
- T 0240** 20# REINSPECTED



EQUIPPED WITH A LIQUID/VAPOR "Y" VALVE AND 3/4" OPENING.

**ALL TANKS ARE MADE OF STEEL & SHIPPED EMPTY**

**FLAME SHIELDS**

11" X 11-1/2"



- MA-1500** 1500F (850C)
- MA-2300** 2300F (1260C)



- MA-49116**
- 3 IN 1 12 OZ. CAN TAP**

**Y-VALVE FOR 30# AND 50# RECOVERY TANK**



- MA-563211**

**REFRIGERANT CYLINDER BAND HEATER**

**3054**

120V, heater draws 200 watts and has 135° preset thermostat

Fits 30lb and 50lb cylinders



**REFRIGERANT LABELS**

4-1/4" X 3-5/8"

**10 PACK**

- MA-SR11** OSHA ORANGE
- MA-SR12** BLACK
- MA-SR22** OSHA SAFETY GREEN
- MA-SR113** DARK PURPLE
- MA-SR114** BLUE
- MA-SR134A** LIGHT BLUE
- MA-SR401A** CORAL
- MA-SR401B** DULL ALUMINUM
- MA-SR402A** BRASS
- MA-SR402B** ERIN GREEN
- MA-SR404A** CITRUS ORANGE
- MA-SR406A** OSHA BLUE
- MA-SR407C** LIGHT BROWN
- MA-SR408A** MEDIUM PURPLE
- MA-SR409A** DESERT BEIGE
- MA-SR410A** BURGUNDY
- MA-SR417A** GREEN
- MA-SR421A** GREEN YELLOW
- MA-SR422B** MEDIUM BLUE
- MA-SR422D** (PANTONE) BLUE
- MA-SR438A** BLUE JAY
- MA-SR500** OSHA SAFETY YELLOW
- MA-SR502** VIOLET
- MA-SR507** TEAL BLUE
- MA-SHCFC123** CHROME ALUMINUM
- MA-SAB1** ALKYL BENZENE
- MA-SMO1** MINERAL OIL
- MA-SPA1** PAG OIL
- MA-SPO1** POLYOL ESTER

**50 PACK**

- MA-SR11-50** OSHA ORANGE
- MA-SR12-50** BLACK
- MA-SR22-50** OSHA SAFETY GREEN
- MA-SR113-50** DARK PURPLE
- MA-SR114-50** BLUE
- MA-SR134A-50** LIGHT BLUE
- MA-SR401A-50** CORAL
- MA-SR401B-50** DULL ALUMINUM
- MA-SR402A-50** BRASS
- MA-SR402B-50** ERIN GREEN
- MA-SR404A-50** CITRUS ORANGE
- MA-SR406A-50** OSHA BLUE
- MA-SR407C-50** LIGHT BROWN
- MA-SR408A-50** MEDIUM PURPLE
- MA-SR409A-50** DESERT BEIGE
- MA-SR410A-50** BURGUNDY
- MA-SR417A-50** GREEN
- MA-SR421A-50** GREEN YELLOW
- MA-SR422B-50** MEDIUM BLUE
- MA-SR422D-50** (PANTONE) BLUE
- MA-SR438A-50** BLUE JAY
- MA-SR500-50** OSHA SAFETY YELLOW
- MA-SR502-50** VIOLET
- MA-SR507-50** TEAL BLUE
- MA-SHCFC123-50** CHROME ALUMINUM
- MA-SAB1-50** ALKYL BENZENE
- MA-SMO1-50** MINERAL OIL
- MA-SPA1-50** PAG OIL
- MA-SPO1-50** POLYOL ESTER



**REFRIGERANT CYLINDER LIQUID LEVEL SWITCHES**

**MA-128500** DESIGNED FOR 30# & 50# WORTHINGTON AND MANCHESTER CYLINDERS ONLY. REFER TO OEM LIST BELOW.

- OEM LIST**
- NAT'L REFRIGERATION PRODUCTS (NRP)
  - PROMAX N ROBINAIR
  - THERMAL ENGINEERING
  - WATSCO N PENGUIN
  - RIDGID (RIDGE TOOL)
  - JAMESKAMM (KATY INSTRUMENTS)

**MA-152540** DESIGNED FOR 26# & 48# AMTROL CYLINDERS ONLY. -BOTH ITEMS HAVE A 3-PIN BRAD HARRISON RECEPTACLE. -80% SHUT-OFF FEATURE

**SAFE FOR DISPOSAL & EVACUATION CERTIFICATION TAGS**

**10 PACK**

- MA-SDF1** SAFE FOR DISPOSAL
- MA-SRECT** EVACUATION TAG

**50 PACK**

- MA-SRECT-50** EVACUATION TAG

A MUST FOR EVERY SERVICE CONTRACTOR WHO FIELD-SERVICES APPLIANCES AND REFRIGERATION

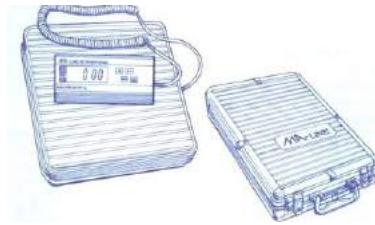


**HAND HELD  
SCALE &  
TAPE  
MEASURE**

**MA-HS50**

2-1/2" DIAL  
0-50LBS IN 1/LB INCREMENTS  
LIGHTWEIGHT

**MA-LINE DIGITAL SCALE**



CAPACITY: 0-260LBS

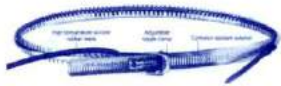
**HAND HELD  
DIGITAL  
SCALE**

**MA-49051**



LBS/KGS SWITCH  
0-50LBS  
AUTO SHUT OFF IN 2 MIN.  
ACCURACY ±2%  
INCLUDES 9V BATTERY

**CRANKCASE  
UL HEATERS CSA**



- MA-CH100** 240V, 50WATT  
MIN. 30-3/16" MAX. 37"
- MA-CH101** 240V, 54WATT  
MIN. 27-1/16" MAX. 34-1/4"
- MA-CH101-1** 208V, 54WATT  
MIN. 27-1/16" MAX. 34-1/4"
- MA-CH101-2** 120V, 54WATT  
MIN. 27-1/16" MAX. 34-1/4"
- MA-CH101-3** 480V, 54WATT  
MIN. 27-1/16" MAX. 34-1/4"
- MA-CH102** 240V, 60WATT  
MIN. 25-3/4" MAX. 32-9/16"
- MA-CH102-1** 208V, 60WATT  
MIN. 25-3/4" MAX. 32-9/16"
- MA-CH102-2** 120V, 60WATT  
MIN. 25-3/4" MAX. 32-9/16"
- MA-CH103** 240V, 45WATT  
MIN. 24-3/4" MAX. 31-9/16"
- MA-CH103-2** 120V, 45WATT  
MIN. 24-3/4" MAX. 31-9/16"
- MA-CH135** 240V, 45WATT  
MIN. 28-3/16" MAX. 35-5/8"

**MA-49052B SCALE**

**MA-49052AUS**

AUSTRALIAN POWER CORD

**MA-49052EPC**

EUROPEAN POWER CORD

99% ACCURACY – GRADUATION .01 OZ. (0.05KG) –  
PLATFORM SIZE: 10" X 10" WITH RUBBER PAD -  
POWER SUPPLY 110V, 60HZ/220V, 50HZ – AC POWER  
ADAPTOR INCLUDED – (1) 9V BATTERY INCLUDED -  
MEASURES LBS, OZ. & KGS

**ALL SCALES ARE NOT  
LEGAL FOR TENDER**

**REFRACTOMETERS**



**MA-REF700 OIL**

**MA-REF401F GLYCOL (F)**

**MA-REF401C GLYCOL (C)**

-This handheld refractometer, **MA-REF700**, is easy to use and accurately measures the mineral oil in a polyolester (POE) lubricant.

**SPECIFICATIONS:** Range 1.435-1.520nD (with 3 scales)

-The **MA-REF401F**, measures the freezing point of ethylene or propylene glycol. The two Fahrenheit non-linear scales cover -60F to 32F for ethylene glycol and propylene glycol. The resolution of the temperature scale is 10F.

-The Celsius reading, **MA-REF401C** is also available.

**UNIVERSAL DRAIN  
HEATER**

**MA-32950**

REFRIGERATION DRAIN HEATER  
PREVENTS DRAIN TUBE ICING &  
PLUGGING  
CAN BE USED ON ALL MODELS AND  
MAKES OF REFRIGERATORS



AUXILIARY CONDENSATE PANS

**MA-CP1** 28-3/4" X 33-3/4"

**MA-CP2** 17" X 39-3/4"

WATER HEATER PANS

**MA-WHP22** 20" - 22" OD DIA.

**MA-WHP24** 22" - 24" OD DIA.

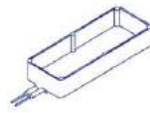
**MA-WHP26** 24" - 26" OD DIA.

**MA-WHP28** 26" - 28" OD DIA.

**MA-WHP32** 30" - 32" OD DIA.

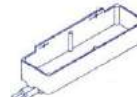
WASHING MACHINE PAN

**MA-WP1** 29" - 27" ID DIA.



10" X 4" X 2-7/8"

**CONDENSATE  
PANS**



10" X 4-1/2" X 3-3/8"

**MA-CP35-120** 38OZ. CAPACITY, 160W, 120V

**MA-CP35-240** 38OZ. CAPACITY, 160W, 220V

**MA-CP52-120** 50OZ. CAPACITY, 160W, 115V

**MA-CP52-240** 50OZ. CAPACITY, 160W, 220V

Made of die-cast aluminum, the MA-Line Condensate Evaporator Pan eliminates floor drains. The pan is self-standing and all terminals are covered with moisture proof rubber. The evaporation rate is 8 oz. per hour at 72°F room temperature. Ther units heating element is sealed in 1/4" bundyweld tubing.

**DRAIN PAN SAFETY  
SWITCH**



**MA-J100**

**SPECIFICATIONS:**  
72" WIRE LEADS, 4 AMP  
RATING, 125/250VAC,  
UL RECOGNIZED

The MA-J100 Drain Pan Safety Switch is a water-level sensing device deigned to shut down air conditioning or refrigeration, in the event of a high water accumulation in the pan or reservoir. The switch is wired closed from the factory but can be field changed to open. The switch assembly comes with 72" wire leads and installation hardware.



MA-WP1

**Hot Water Heater Pans**, made from tough, durable plastic. Easy to install and will not leak. Rustproof, one piece construction includes a 1" drain fitting.

**Washing Machine Pans**, fits under washing machine to protect floors and carpet from water overflow. Easy to install and includes a 1" drain fitting.

**PANS**

MA-WHP22

MA-WHP24

MA-WHP26

MA-WHP28

MA-WHP32





**PLASTIC "Y" STRAINERS**

"Y" Strainer especially designed for removing sediment in small flow applications. Typical uses include: beverage dispensing, beverage cooling, vending machines, power humidifiers and ice machines. FDA approved, 125lbs. corrosion free 100 mesh screen plug which is easily removed for cleaning.

**MA-S14** 1/4" FPT

**MA-S38** 3/8" FPT

**DELTRIN SLEEVE AND BRASS INSERT**



**MA-DS4** 1/4" DELTRIN SLEEVE FOR 1/4" OD PLASTIC TUBING (25/PKG)

**MA-DS6** 3/8" DELTRIN SLEEVE FOR 3/8" OD PLASTIC TUBING (25/PKG)

**MA-BI4** 1/4" BRASS INSERT 1/4" OD PLASTIC TUBING (25/PKG)

**MA-BI6** 3/8" BRASS INSERT FOR 3/8" OD PLASTIC TUBING (25/PKG)

**HEAT GUN AND HEAT GUN KIT**



**MA02525-2 HEAT GUN ONLY**

**MA02525-3 HEAT GUN KIT**

INCLUDES: HEAT GUN, SCRAPER, 3) ASSORTED SCRAPING STYLES AND 4 ASSORTED BLOWER NOZZLES

**MA02525-EUKIT**

**EUROPEAN HEAT GUN KIT**

SAME AS ABOVE WITH EUROPEAN CONTINENTAL PLUG

**THREADED ROD, NUTS & WASHERS**



THREADED ROD, PLAIN STEEL

**MA-TR14** 1/4" X 6' - 20

**MA-TR516** 5/16" X 6' - 18

**MA-TR38** 3/8" X 6' - 16

**MA-TR12** 1/2" X 6' - 13

STEEL BRIGHT ZINC PLATED HEX NUTS FOR THREADED ROD

**MA-N14** 1/4" - 20

**MA-N516** 5/16" - 18

**MA-N38** 3/8" - 16

**MA-N12** 1/2" - 13

NUTS AND WASHERS ARE 10/PKG AND PRICE PER PKG.

STEEL BRIGHT ZINC PLATED USS FLAT WASHERS FOR THREADED ROD

**MA-W14** 1/4"

**MA-W516** 5/16"

**MA-W38** 3/8"

**MA-W12** 1/2"



**ICEMAKER & HUMIDIFIER HOOK-UP KIT**



**MA-VIMK3** SELF PIERCING SADDLE VALVE MEETS NSF REQUIREMENTS

**MA-VIMK2** SELF-TAPPING SADDLE VALVE - CLAMP KIT - DOES NOT MEET NSF REQUIREMENTS

**MA-IMK1** HUMIDIFIER KIT - INCLUDES SELF PIERCING SADDLE VALVE, 25' OF 1/4" OD POLYETHYLENE TUBING.

**COPPER ICE MAKER AND HUMIDIFIER HOOK-UP KIT**



**MA-CIMK2** COPPER ICE MAKER

Meets NSF Requirements. Copper Tube Kit comes complete with 24' of copper tube and self tapping saddle valve, 1/4" x 1/8" compression x MIP connector, 1/4" compression union, 1/4" x 1/8" compression x MIP Elbow. Self-tapping valve installs on copper tube lines from 3/8" OD to 1-1/8" OD. No drilling required. Stainless steel pins prevent plug-ups and contamination.

**CARBON MONOXIDE DETECTOR**



**MA-HU1**

**HOW DO I TEST?** Remove from the sealed pack only when ready to use. If CO is present, the spot will turn gray or black. The spot will turn back to its original color when the air is clear of CO. If spot darkens after several months, replace the CO detector. Replace once per heating season. The shelf life in an unopen package is 3 years.

**HOW FAST DOES IT WORK?** (Based on 60% Relative Humidity)

CONCENTRATION	REACTION TIME
100ppm (.010%)	15-45 minutes
200ppm (.020%)	4-15 minutes
400ppm (.040%)	2-4 minutes

**NOTE:**  
Reaction time is slightly faster when damp and slightly slower when dry. Even the slightest gray color indicates a dangerous carbon monoxide level.

**EXPANDING POLYURETHANE  
FOAM SEALANT  
CLOSED CELL FOAM**



- MA-1-12X** SINGLE COMPONENT 12OZ. (12/CS)
- MA-11-12X** TWO COMPONENT 12OZ. (12/CS)

The MA-Line Seal Foam is a **single** component polyurethane foam used as an insulating sealant. Create a durable air tight seal that will minimize air infiltration, outdoor noise, pest infiltration, and the transfers of odors. When applied it reduces the risk of damage from condensation, moisture and ice buildup. It reduces air conditioning and heating cost because it provides an excellent R-Value. MA-Line Seal Foam can provide greater sealing properties compared to other types or styles of sealants. Unlike caulks and other style sealants, MA-Line Seal Foam assumes the shape of cavity and forms an air tight seal. Does not shrink and will retain sealant properties for many years to come. Product is a UL classified sealant #13655 and Ashrea 90-75 listed.

The **two** component polyurethane foam is similar to the single component foam, but acts much faster, expands more, and cures much faster. Great for spraying overhead, as it adheres very readily to duct board and sheet metal. **Each package provides 12 linear board feet or 1 cubic foot of foam.** Ozone friendly closed cell product contains no UREA formaldehyde, sets up in 45 seconds and cures within 5 minutes.

**BLACK FLASHING**



- MA-BFC** 12.8 OZ CARTRIDGE (12/CS)
- MA-BF1** 1GALLON CAN (4/CS)

ALL WEATHER-NEVER HARDENS  
MEETS FEDERAL SPECIFICATIONS #SS-C-153C

**MASTERFLASH**

SOLD PER CASE

- MA-14050** 1/4" - 2" FITS 4-1/2" X 4-1/2" BASE
- MA-14051** 1-1/4" - 3" FITS 6" X 6" BASE
- MA-14052** 1/4" - 4" FITS 8" X 8" BASE
- MA-14053** 3" - 6" FITS 10" X 10" BASE
- MA-14054** 4" - 7" FITS 11" X 11" BASE
- MA-14055** 5" - 9" FITS 12" X 12" BASE
- MA-14056** 6" - 11" FITS 14" X 14" BASE
- MA-14057** 7" - 13" FITS 17" X 17" BASE



**NO-CAULK ROOF FLASHINGS**

SOLD PER CASE

- MA-11830** 1/2"-3/4"-1" SOLAR GALVANIZED BASE
- MA-11840** 1-1/4"-1-1/2" NON-CAULK GALVANIZED BASE
- MA-11853** 2" GALVANIZED BASE
- MA-11866** 3" GALVANIZED BASE
- MA-11879** 4" GALVANIZED BASE
- MA-14012** 2" ALL-FLEXIBLE, RUBBER BASE
- MA-14025** 2-1/2" ALL-FLEXIBLE, RUBBER BASE



This exclusive one-piece construction insures a positive leakproof installation every time. The specially formulated elastomeric collar allows the vent stack plenty of room for expansion and contraction. Not designed for hot-mopped or built up roofs. The All-Flexible flashings (MA-14012 & MA-14025) are manufactured from a specially formulated elastomer material which is extremely flexible and durable. Also allows room for the vent stack to expand and contract without disrupting the seal between pipe and flashing collar.



**CAULK GUNS**

ALL STEEL



- MA-101** EZ THRUST CAULK GUN
- MA-102** HEAVY DUTY DELUXE CAULK GUN

**SILICONE CAULK  
AND HIGH TEMP.  
SILICONE CAULK**



- MA-SSC-CK** CLEAR CAULK (12/CS)
- MA-SSG-CK** GRAY CAULK (12/CS)
- MA-SSW-CK** WHITE CAULK (12/CS)
- MA-HTSS-R** RED HIGH TEMPERATURE CAULK (12/CS)

MA-Line Silicone Caulk is waterproof and weatherproof, FDA approved, permanently flexible, -60F to 450F, insulates and resealable. It meets FDA/USDA requirements for use in establishments operating under Federal Meat and Poultry Inspection Program. CFR 177.2600

MA-Line High Temperature Silicone Caulk is waterproof and weatherproof, FDA approved, permanently flexible, -84F to 500F, insulates thermally and electrically. Resealable. It meets FDA/USDA requirements for use in establishments operating under Federal Meat and Poultry Inspection Program. CFR 177.2600

**FORMULATED TO PERFORM AT TEMPERATURES RANGING FROM -84F TO 500F (-65C TO 260C) FOR CONTINUOUS OPERATION AND TO 600F FOR INTERMITTENT EXPOSURE.**

**FURNACE CEMENT**

- MA-HT1** 1 GAL. (4/CS)
- MA-HT64** 64OZ. (6CS)



ASBESTOS FREE, GRAY, HIGH HEAT CEMENT  
TEMPERATURE RATING: 0F TO 3000F

REGULAR CEMENT FOR PVC PIPE AND FITTINGS

- MA-31012** 4 OZ. CAN (24/CS)
  - MA-31013** 8 OZ. CAN (24/CS)
  - MA-31014** 16 OZ. CAN (24/CS)
  - MA-31015** 32 OZ. CAN (12/CS)
- ALL PURPOSE CEMENT FOR ABS, PVC, CPVC

**PVC CEMENT**

REGULAR

- MA-30818** 4 OZ. CAN (24/CS)
  - MA-30821** 8 OZ. CAN (24/CS)
  - MA-30834** 16 OZ. CAN (24/CS)
  - MA-30847** 32 OZ. CAN (12/CS)
- ALL WEATHER PVC CEMENT
- MA-31132** 16 OZ. CAN (24/CS)
  - MA-31133** 32 OZ. CAN (12/CS)



ALL PURPOSE CEMENT: Heavy bodied clear cement for use on ABS, PVS, PVC, or CPVC pipe & fittings. Flows freely & provides a thick layer of cement on the pipe. Exceeds ASTM D2564, D2846, D-2235 and F-493. Application temperature 40F to 100F.

REGULAR CLEAR CEMENT: For PVC pipe and fittings, up to 4" SCH 40 & up to 2" for SCH 80 potable water pressure pipe, gas conduit, drain waste & vent pipe. Application temperature 40F to 100F.

CLEAR ALL WEATHER PVC CEMENT: For PVC pipe, good in all types of weather.

**PIPE JOINT COMPOUND WITH TEFLON**

- MA-31229** 1 FL.OZ. TUBE (12/CS)
- MA-31230** 4 FL.OZ. WITH BRUSH TOP (12/CS)
- MA-31231** 8 FL.OZ. WITH BRUSH TOP (12/CS)

A white, non-hardening, non-separating Teflon paste seals all threaded connections against leakage for internal pressure. Withstands 10,000 psi at -100F to 600F and formulated for use on water steam, natural and LP gas, oil, caustics, or dilute acid lines. May be used with PVC, CPVC, ABS, Cyclocac, Polypropylene, iron, steel or copper threads. **Do not use on oxygen, fluorine, or molten metal lines.**



**PIPE JOINT COMPOUND**

- MA-31226** 1 FL.OZ. TUBE (12/CS)
- MA-31227** 4 FL.OZ. BRUSH TOP (12/CS)
- MA-31228** 8 FL.OZ. BRUSH TOP (12/CS)

A fast set non-hardening paste which lubricates and seals threaded joints. Non-toxic and may be used on water, natural gas, steam and air lines. It's perfect for applying gaskets to flanges.



- MA-322-2**  
2" X 50 YARDS (24/CASE)
- MA-322-3**  
3" X 50 YARDS (16/CASE)



**ALUMINUM FOIL TAPE**

**FEATURES:**  
DESIGNED FOR TAPING JOINTS AND SEAMS TO KEEP OUT MOISTURE AND VAPOR ON FOIL JACKETING INSULATION  
TEMPERATURE RANGE: 32F TO 302F (0C TO 150C)

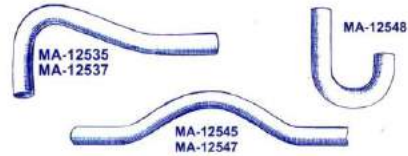
- MA-C950** (48/CASE)  
1/2" X 520"
- MA-C950-4** (4/PKG)  
1/2" X 520"



**TEFLON THREAD SEAL TAPE**

**FEATURES:**  
MA-LINE OFFERS MORE VALUE WITH OUR TEFLON BRAND, HIGH QUALITY SEAL TAPE.

- MA-12535** 1/2" PVC P-TRAP
- MA-12537** 3/4" PVC P-TRAP
- MA-12545** 1/2" PVC R-TRAP
- MA-12547** 3/4" PVC R-TRAP
- MA-12548** 3/4" PVC J-TRAP



**CONDENSATE PVC TRAPS**

- MA-C6408**  
3/4" X 60' (10/PKG)
- MA03364-2**  
3/4" X 60' (3/PKG)



**MA-LINE ELECTRICAL TAPE**

**3M PREMIUM ELECTRICAL TAPE & VINYL COLOR CODING TAPE**



- MA-C6433** SUPER 33+ BLACK/7 MIL THICKNESS
- MA-C6488** SUPER 88+ BLACK/8.5 MIL THICKNESS
- MA-C6435G** GRAY/7 MIL THICKNESS
- MA-C6435B** BLUE/7 MIL THICKNESS
- MA-C6435O** ORANGE/7 MIL THICKNESS
- MA-C6435R** RED/7 MIL THICKNESS
- MA-C6435W** WHITE/7 MIL THICKNESS
- MA-C6435Y** YELLOW/7 MIL THICKNESS
- MA-C6435GN** GREEN/7 MIL THICKNESS
- MA-C6435BR** BROWN/7 MIL THICKNESS

MADE IN USA – UL & CSA LISTED  
3/4" X 66' – UV RESISTANT  
10 ROLLS PER CARTON

**CORK TAPE**



- MA-CT1** (12/CASE)  
1/8" X 2" X 30'



**FEATURES:**  
ADHERES FIRMLY TO ALL METALS – PREVENTS CONDENSATION AND DRIPPING – CAN BE USED ON HOT OR COLD PIPES

**FOAM TAPE**



- MA-FT1** (12/CASE)  
1/8" X 2" X 30'



**FEATURES:**  
CAN BE USED ON HOT AND COLD PIPES – PREVENTS CONDENSATION AND DRIPPING – WORKS WELL AROUND VALVES AND FITTINGS

- MA-398** SILVER  
2" X 60 YARDS (24/CASE)
- MA-398BL** BLACK  
2" X 60 YARDS (24/CASE)



**DUCT TAPE**

**FEATURES:**  
INDUSTRIAL GRADE – 8 MIL THICKNESS – ADHESIVE NATURAL RUBBER



**MINI SPLIT  
CONDENSING BRACKET**  
**MA-SB35**  
18" X 33.5" X 24"  
(4) ANCHORING BOLT SCREWS  
(4) ANTI-VIBRATION PAD  
LEVELING BUBBLE  
**NOT TO EXCEED 450LBS.**



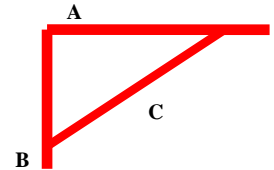
**AC MOUNTING BRACKETS**  
**MA-ACB36 (A)36" (B)16" (C) 39"**  
**MA-ACB42 (A)42" (B)16" (C) 43"**  
INCLUDES: 4 BOLTS, 4 ANCHORS AND 4 WASHERS  
MAX. LOAD: 550 POUNDS  
FINISH: POWDER COATING  
ROD STEEL: 2.78MM THICKNESS AND 3.8CM WIDTH



**MOTOR MOUNTING  
BRACKET**  
INCLUDES: GROMMETS AND EYELETS  
**MA-FM50** 5" TORSION BRACKET  
**MA-FM55** 5.5" TORSION BRACKET  
For use with direct Drive Blower Motors



Mounting Accessories



**MOTOR MOUNTING  
BRACKET**  
INCLUDES: GROMMETS AND EYELETS  
**MA-FM554A** 5-5/8" TORSION  
BRACKET WITH 4 LEGS  
For use with direct Drive Blower Motors

**MOUNTING BRACKETS**  
INCLUDES: BRACKET, SLEEVES, STEEL  
SCREWS, & RUBBER GROMMETS  
**MA60042** 5" ID -42 FRAME  
**MA60048** 5.5"-48 FRAME



**CONDENSER FAN RAIN SHIELD**

**MA61000** 1/2"ID X 6.88"OD  
**MA61056** 5/8"ID X 6.88"OD  
**MA80105** 1/2"ID X 7.00"OD

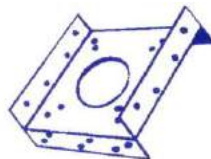


**LUG MOUNTING  
BRACKETS**

**MA80293**  
FOR 5.5" MOTORS



**RUBBER GROMMET KIT**  
**MA60049K**  
Used for 3/4" slots  
Screws & sleeves included



**RHEEM MOUNTING BRACKET**  
**MA60306K**  
Replaces cables used to mount motors on Rheem Condensing units



**MOUNTING BRACKET**  
**MA68004**  
Adjustable bracket for unit bearing motors.





**FAN BLADE PITCH GAUGE**

**MA-PG1**

**LIGHT WEIGHT, GENERAL PURPOSE REPLACEMENT PLASTIC FAN BLADES**



Our 4 and 5 blade general purpose replacement fan blades have diameters ranging from 3" to 8". They are available for 1/8", 3/16", 1/4" & 5/16" shaft sizes. The rotation is identified by color. White is CW (clockwise) rotation and grey is for CCW (counter clockwise) rotation. All are with integral hub.



**PLASTIC REPLACEMENT VENT HOOD FAN BLADES**

DIRECT REPLACEMENT FOR DUCTED AND NON-DUCTED VENT HOODS

**MA-CW665** 6-5/8" DIAMETER, CW ROTATION, PITCH 12, SHAFT SIZE 7/32", 5 BLADES

**V-BELTS MADE TO PERFORM**

3L FHP V-BELTS 3/8" TOP WIDTH 7/32" THICK  
 4L (A) V-BELTS 1/2" TOP WIDTH 11/32" THICK  
 5L (B) V-BELTS 21/32" TOP WIDTH 13/16" THICK



PART#	ROTATION	PITCH	SHAFT SIZE	#OF BLADES	DIA. INCHES
MA-CW300	CW	32	1/8"	4	3
MA-CW301	CW	32	3/16"	4	3
MA-CW401	CW	27	1/8"	5	4
MA-CCW403	CCW	27	1/8"	5	4
MA-CCW404	CCW	27	3/16"	5	4
MA-CW406	CW	35	1/8"	4	4
MA-CW501	CW	22	3/16"	5	5
MA-CW502	CW	22	1/4"	5	5
MA-CW503	CW	22	5/16"	5	5
MA-CCW504	CCW	22	3/16"	5	5
MA-CCW505	CCW	22	1/4"	5	5
MA-CCW550	CCW	22	3/16"	4	5-1/2
MA-CW601	CW	26	3/16"	4	6
MA-CCW605	CCW	24	1/4"	4	6
MA-CCW606	CCW	24	5/16"	4	6
MA-CW650	CW	24	3/16"	5	6-1/2
MA-CW652	CW	24	5/16"	5	6-1/2
MA-CW701	CW	30	1/4"	5	7
MA-CCW703	CCW	25	1/4"	5	7
MA-CW801	CW	38	1/4"	5	8
MA-CW802	CW	38	5/16"	5	8

PART #	OUTSIDE LENGTH	PART #	OUTSIDE LENGTH
MA3L310	31	MA4L230	23
MA3L320	32	MA4L240	24
MA3L330	33	MA4L250	25
MA3L340	34	MA4L260	26
MA3L350	35	MA4L270	27
MA3L360	36	MA4L280	28
MA3L370	37	MA4L290	29
MA3L380	38	MA4L300	30
MA3L390	39	MA4L310	31
MA3L400	40	MA4L320	32
MA3L410	41	MA4L330	33
MA3L420	42	MA4L340	34
MA3L430	43	MA4L350	35
MA3L440	44	MA4L360	36
MA3L450	45	MA4L370	37
MA3L460	46	MA4L380	38
MA3L470	47	MA4L390	39
MA3L480	48	MA4L400	40
		MA4L410	41
MA4L170	17	MA4L420	42
MA4L180	18	MA4L430	43
MA4L190	19	MA4L440	44
MA4L200	20	MA4L450	45
MA4L210	21	MA4L460	46
MA4L220	22	MA4L470	47

PART #	OUTSIDE LENGTH	PART #	OUTSIDE LENGTH	PART #	OUTSIDE LENGTH
MA4L480	48	MA4L720	72	MA5L510	51
MA4L490	49			MA5L520	52
MA4L500	50	MA5L290	29	MA5L530	53
MA4L510	51	MA5L300	30	MA5L540	54
MA4L520	52	MA5L310	31	MA5L550	55
MA4L530	53	MA5L320	32	MA5L560	56
MA4L540	54	MA5L330	33	MA5L570	57
MA4L550	55	MA5L340	34	MA5L580	58
MA4L560	56	MA5L350	35	MA5L590	59
MA4L570	57	MA5L360	36	MA5L600	60
MA4L580	58	MA5L370	37	MA5L610	61
MA4L590	59	MA5L380	38	MA5L620	62
MA4L600	60	MA5L390	39	MA5L630	63
MA4L610	61	MA5L400	40	MA5L640	64
MA4L620	62	MA5L410	41	MA5L650	65
MA4L630	63	MA5L420	42	MA5L660	66
MA4L640	64	MA5L430	43	MA5L670	67
MA4L650	65	MA5L440	44	MA5L680	68
MA4L660	66	MA5L450	45	MA5L690	69
MA4L670	67	MA5L460	46	MA5L700	70
MA4L680	68	MA5L470	47	MA5L710	71
MA4L690	69	MA5L480	48	MA5L720	72
MA4L700	70	MA5L490	49		
MA4L710	71	MA5L500	50		

**LOW PROFILE STYLE**

INCLUDES:  
SOLID BASE & RING BASE



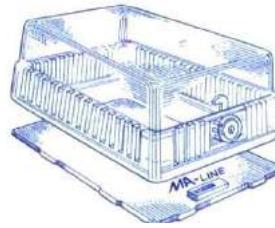
**MA-BTGDK** CLEAR PLASTIC  
**MA-BTGDB** BRONZE PLASTIC  
**MA-F336** UNIVERSAL KEY

INSIDE DIMENSIONS:  
DUAL SOLID BASE:  
4-1/4"H x 7-5/8"W  
DUAL RING BASE:  
4-1/8"H x 7-1/16"W

**THERMOSTAT COVERS**

**DELUXE SERIES**

INCLUDES:  
SOLID BASE & RING BASE



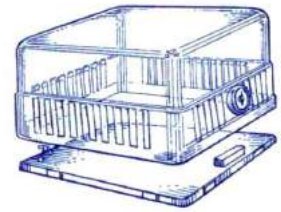
**MA-BTGRK** CLEAR PLASTIC  
**MA-F336** UNIVERSAL KEY

INSIDE DIMENSIONS:  
SOLID BASE:  
6-3/8"H x 3-1/2"W x 3"D  
RING BASE:  
6-3/8"H x 3-1/2"W x 3-1/4"D

The Deluxe Series is ideal for horizontal and vertical standard size wall thermostats.

**SMALL & COMPACT**

INCLUDES:  
SOLID BASE

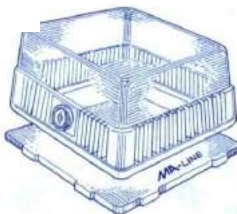


**MA-BTGEK** CLEAR PLASTIC  
**MA-F336** UNIVERSAL KEY

INSIDE DIMENSIONS:  
SOLID BASE:  
3-1/2"H x 3-7/8"W x 2-1/2"D

**MEDIUM SIZE**

**MA-BTGK**  
INCLUDES:  
SOLID & RING BASE



**MA-BTGK** CLEAR PLASTIC  
**MA-BTGKM** BEIGE METAL  
**MA-F336** UNIVERSAL KEY

INSIDE DIMENSIONS:  
SOLID BASE:  
4-3/8"H x 5-1/4"W x 3"D  
RING BASE:  
4-5/8"H x 5-1/4"W x 3-1/4"D

**UNIVERSAL SERIES**

MA-BTGUK2



MA-BTGUM  
MA-BTGUWM



**MA-BTGUK2** CLEAR PLASTIC  
INCLUDES A RING AND SOLID BASE  
**MA-BTGUM** BEIGE, METAL  
INCLUDES SOLID BASE  
**MA-BTGUWM** BEIGE, METAL  
INCLUDES RING BASE  
**MA-F336** UNIVERSAL KEY

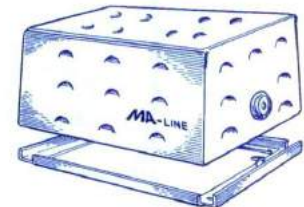
PLASTIC INSIDE DIMENSIONS:

SOLID BASE: 8-1/4"H x 5-3/8"W x 3-1/2"D  
RING BASE: 8-1/8"H x 4-5/8"W x 3-5/8"D

METAL INSIDE DIMENSIONS:

SOLID BASE: 7-1/4"H x 5-3/8"W x 3-1/2"D  
RING BASE: 6-3/4"H x 4-1/4"W x 3-9/16"D

**TAMPER PROOF SERIES**



**MA-BTG54VL** BEIGE, METAL, SOLID BASE  
**MA-BTG54VLW** BEIGE, METAL, RING BASE  
**MA-F336** UNIVERSAL KEY

INSIDE DIMENSIONS:  
SOLID BASE:  
6-1/4"H x 4-3/4"W x 3"D  
RING BASE:  
6"H x 3-13/16"W x 3-1/8"D

The Tamper Proof Series is strong and completely tamper proof. This strong thermostat cover can be mounted horizontal or vertical.

**RUBBER STRAPS**



The "EPDM Rubber Tie Down" rubber is oil, ozone and chemical resistant. It will not fade in ultraviolet light and can be used in temperatures ranging from 20°F to 120°F.



- MA-1109** 10" MAX.SAFE STRETCH 15"
- MA-1115** 15" MAX.SAFE STRETCH 22"
- MA-1122** 20" MAX.SAFE STRETCH 32"
- MA-1131** 31" MAX.SAFE STRETCH 46"
- MA-1141** 41" MAX.SAFE STRETCH 62"
- MA-76110** ASSORTED RUBBER STRAPS  
(2) 10", (3) 15", (3) 20", & (2) 31"

**NYLON STRAPS**

- MA-S30** 30"
- MA-S60** 60"
- MA-S144** 144"

**MA-RS300** 15' RATCHETING TIE DOWN STRAP



**SHOP WIPES**  
**MA-SW70C-6**  
6/CTN SOLD BY CASE  
PRICE PER EACH

75 TOWELS PER CONTAINER – NO NEED FOR WATER – SAFE FOR THE SKIN – DRIES FAST

**COLOR:** YELLOW

**TENSILE STRENGTH:**  
1/4" DIA. 1250 LBS.  
3/8" DIA. 2700 LBS.



**POLYPROPYLENE ROPE**

- MA-0360** 1/4" X 50'
- MA-0361** 1/4" X 100'
- MA-0362** 3/8" X 50'
- MA-0363** 3/8" X 100'

This 100% twisted 3 strand monofilament polypropylene has twice the strength of manila rope. Resistant to rot, abrasion, petroleum products, marine growth and most chemicals. It floats.

**SHOP TOWELS**



- MA-33350** BLUE KIMTEX TOWELS, 180 PER BOX
- MA-33570** BLUE KIMTEX TOWELS, 100 PER BOX
- MA-34790** TERI-WIPES, 125 PER BOX 180 PER BOX
- MA-41300** WORKHORSE HEAVY DUTY, 150 PER BOX
- MA-XL80-5** COTTON SHOP TOWEL (RAGS) 5 PER BAG
- MA-XL80-25** COTTON SHOP TOWEL (RAGS) 25 PER BAG

**3 PINT HAND PUMP SPRAYER**

**MA-41500**

Adjustable spray nozzle, trigger may be locked for continuous operation, chemical resistant.



**PUMP STYLE PLASTIC SPRAYERS**

- MA-00106** 1 GALLON
- MA-00205** 2 GALLON
- MA-00304** 3 GALLON

**FEATURES:**  
COMPRESSION SPRAYER  
ADJUSTABLE NOZZLE  
CORROSION RESISTANT  
DURABLE EXTENSION WAND



**TRIGGER SPAYERS**

- MA-8016**  
PINT (12/CASE)
- MA-8032**  
QUART (12/CASE)

Multi-purpose trigger Sprayer for almost any cleaning solution. An adjustable nozzle for a fine mist or solid stream. Has a durable polymer head and polyethylene bottle.



**UNIT COOLERS FOR REFRIGERATED CABINETS**

**MEDIUM TEMPERATURE – AIR DEFROST**

PART#	BTU/HR 10° T.D.	DIMENSIONS			CFM	FAN DIA.	115V MTR AMPS	CONNECTIONS			APPROX. SHIP WT.
		H.	W.	D.				INLET	SUCTION	DRAIN	
<b>MALS-55A</b>	550	5	10	14	125	5-1/4	.65	3/8 OD	1/2 OD	1/2 OD	9
<b>MALS-105A</b>	1050	5	16-1/2	14	125	5-1/4	.65	3/8 OD	1/2 OD	1/2 OD	12
<b>MALS-135A</b>	1350	5	20-1/2	14	225	(2) 5-1/4	1.30	3/8 OD	1/2 OD	1/2 OD	16
<b>MALS-190A</b>	1700	4-1/2	24	14-1/2	225	(2) 5-1/4	1.30	1/2 OD	1/2 OD	1/2 OD	21
<b>MALS-240A</b>	2400	6-5/8	24	16-1/2	300	8	.73	1/2 OD	1/2 OD	1/2 OD	24
<b>MALS-320A+</b>	3000	4-1/2	40	14-1/2	350	(3) 5-1/4	1.95	1/2 OD	1/2 OD	1/2 OD	33
<b>MALS-410A+</b>	4300	4-1/2	58-3/8	14-1/2	475	(4) 5-1/4	2.60	1/2 OD	1/2 OD	1/2 OD	44

**COATED COILS**

<b>MALS-55A-P</b>	550	5	10	14	125	5-1/4	.65	1/2 OD	1/2 OD	1/2 OD	9
<b>MALS-105A-P</b>	1050	5	16-1/2	14	125	5-1/4	.65	1/2 OD	1/2 OD	1/2 OD	12
<b>MALS-135A-P</b>	1350	5	20-1/2	14	225	(2) 5-1/4	1.30	1/2 OD	1/2 OD	1/2 OD	16
<b>MALS-190A-P</b>	1700	4-1/2	24	14-1/2	225	(2) 5-1/4	1.30	1/2 OD	1/2 OD	1/2 OD	21

**STANDARD 115/60/1 (230/60/1 OPTIONAL)**

\* Low silhouette design for maximum use of shelf area \* Textured aluminum cabinet \* Moisture-proof wiring harness \* Full-hard temper aluminum fins and seamless copper tubing \* Drain pan and bottom panel are on piece for easy servicing \* Adapts easily as a replacement unit or original equipment \* Durable poly carbonate fans and fan guards MALS-55A, MALS-105A, and MALS-135A (also applies to the coated coils) \* Aluminum fans and plated steel fan guards MALS-190A, MALS-240A, MALS-320A, and MALS-410A(also applies to the coated coils) \* Thermally protected, permanently lubricated motors \* Expansion valve mounts inside cabinet \* UL recognized – NSF approved \* + Indicates that external equalized expansion valve is recommended (external equalizer tube field installed)



**LOW TEMPERATURE – ELECTRIC DEFROST**

PART#	BTU/HR 10° T.D.	DIMENSIONS			CFM	FAN DIA.	MTR AMPS	HEATERS AMPS - WATTS	CONNECTIONS			APPROX. SHIP WT.
		H.	W.	D.					INLET	SUCTION	DRAIN	
<b>MALS-50E1</b>	500	5	10	14	125	5-1/4	.65	1.80-215	3/8 OD	1/2 OD	1/2 OD	10
<b>MALS-95E1</b>	950	5	16-1/2	14	125	5-1/4	.65	4.20-480	3/8 OD	1/2 OD	1/2 OD	13
<b>MALS-125E1</b>	1250	5	20-1/2	14	200	(2) 5-1/4	1.30	4.31-495	3/8 OD	1/2 OD	1/2 OD	17
<b>MALS-160E1</b>	1600	5	24-1/2	15	225	(2) 5-1/4	1.30	5.05-580	3/8 OD	1/2 OD	1/2 OD	19
<b>MALS-210E1+2100</b>	2100	6-5/8	24	16-1/2	300	8	.73	7.52-865	1/2 OD	1/2 OD	1/2 OD	24
<b>MALS-210E2+2100</b>	2100	6-5/8	24	16-1/2	300	8	.45	3.83-880	1/2 OD	1/2 OD	1/2 OD	24
<b>MALS-280E1+2800</b>	2800	8	30-5/8	20-3/8	400	10	.73	9.80-1125	1/2 OD	5/8 OD	5/8 MF	38
<b>MALS-280E2+2800</b>	2800	8	30-5/8	20-3/8	400	10	.45	4.90-1125	1/2 OD	5/8 OD	5/8 MF	38
<b>MALS-360E2+3600</b>	3600	7-1/2	38	18-1/4	600	(2) 8	.90	6.10-1400	1/2 OD	5/8 OD	5/8 MF	47
<b>MALS-540E2+5400</b>	5400	7-1/2	50	18-1/4	800	(3) 8	1.35	8.00-1850	1/2 OD	5/8 OD	5/8 MF	145

**E1 MODELS 115/60/1**

**E2 MODELS 230/60/1**

\* Low silhouette design for maximum use of shelf area \* High quality, easily replaceable tubular heater with moisture proof, odor free, molded neoprene sealed ends \* Positive contact between heaters and drain pan eliminates freeze-up \* Defrost termination switch and fan delay control insures defrost without overheating \* Durable polycarbonate fans and fan guards MALS-50E, MALS-95E1, MALS-125E1 and MALS-160E1 \* Aluminum fans and plated steel fan guards MALS-210E1, MALS-210E2, MALS-360E2, and MALS-540E2 \* UL recognized – NSF approved \* + Indicates external equalized expansion valve is recommended (external equalizer Tube field installed)



**MEDIUM TEMPERATURE – AIR DEFROST**

PART#	BTU/HR 10° T.D.	DIMENSIONS			CFM	FAN DIA.	MTR AMPS	CONNECTIONS			APPROX. SHIP WT.
		H.	W.	D.				INLET	SUCTION	DRAIN	
<b>MASF-105</b>	1000	9	11-3/8	14	300	8	.73	3/8 OD	3/8 OD	1/2 OD	14
<b>MASF-135</b>	1300	9	14-3/8	14	300	8	.73	3/8 OD	3/8 OD	1/2 OD	16
<b>MASF-175</b>	1700	9	17-3/8	14	300	8	.73	3/8 OD	3/8 OD	1/2 OD	18
<b>MASF-235</b>	2300	9-7/8	20-3/8	15	300	8	.73	3/8 OD	1/2 OD	1/2 OD	22
<b>MASF-305+</b>	3000	11	23-3/8	16	500	10	.75	1/2 OD	1/2 OD	1/2 OD	27
<b>MASF-105-P</b>	1000	9	11-3/8	14	300	8	.73	3/8 OD	3/8 OD	1/2 OD	14
<b>MASF-135-P</b>	1300	9	14-3/8	14	300	8	.73	3/8 OD	3/8 OD	1/2 OD	16
<b>MASF-175-P</b>	1700	9	17-3/8	14	300	8	.73	3/8 OD	3/8 OD	1/2 OD	18
<b>MASF-235-P</b>	2300	9-7/8	20-3/8	15	300	8	.73	3/8 OD	1/2 OD	1/2 OD	22
<b>MASF-305-P+3000</b>	3000	11	23-3/8	16	500	10	.75	1/2 OD	1/2 OD	1/2 OD	27

**STANDARD 115/60/1 (230/60/1 OPTIONAL)**

\* Compact unit for ceiling mounting \* Drain pan and bottom panel are one piece for easy servicing \* Tectured aluminum cabinet \* Exclusive “Off-Center” construction reduces the number of welded return bends. “Where there are no joints, there are no leaks.” \* Full-hard temper aluminum fins and seamless copper tubing \* Adapts easily as a replacement unit or original equipment \* Aluminum fans and plated steel fan guards \* Thermal protected, permanently lubricated motors \* Moisture-proof wiring harness \*Expansion valve mounts inside cabinet \* UL recognized – NSF approved \* + Indicates external equalized expansion valve is recommended (external equalizer tube field installed)



**UNIT COOLERS FOR REFRIGERATED CABINETS**

**MEDIUM TEMPERATURE – AIR DEFROST**

PART#	BTU/HR 10° T.D.	DIMENSIONS			CFM	FAN DIA.	MTR AMPS	CONNECTIONS			APPROX. SHIP WT.
		H.	W.	D.				INLET	SUCTION	DRAIN	
<b>MAMJ-40</b>	400	7	13-5/8	8	125	5-1/4	.65	3/8 OD	3/8 OD	1/2 OD	7
<b>MAMJ-70</b>	700	7	13-5/8	8	125	5-1/4	.65	3/8 OD	3/8 OD	1/2 OD	9
<b>MAMJ-90</b>	900	7	13-5/8	9	125	5-1/4	.65	3/8 OD	3/8 OD	1/2 OD	10
<b>MAMJ-120</b>	1200	7	20-5/8	9	250	(2) 5-1/4	1.30	3/8 OD	3/8 OD	1/2 OD	15
<b>COATED COILS</b>											
<b>MAMJ-40-P</b>	400	7	13-5/8	8	125	5-1/4	.65	3/8 OD	3/8 OD	1/2 OD	7
<b>MAMJ-70-P</b>	700	7	13-5/8	8	125	5-1/4	.65	3/8 OD	3/8 OD	1/2 OD	9
<b>MAMJ-90-P</b>	900	7	13-5/8	9	125	5-1/4	.65	3/8 OD	3/8 OD	1/2 OD	10
<b>MAMJ-120-P</b>	1200	7	20-5/8	9	250	(2) 5-1/4	1.30	3/8 OD	3/8 OD	1/2 OD	15



\* Compact unit for ceiling or wall mount \* Front panel and drain pan are on piece for easy servicing \* Textured aluminum cabinet \* Exclusive "Off-Center" construction reduces the number of welded return bends. "Where there are no joints, there are no leaks." \* Full-hard temper aluminum fins and seamless copper tubing \* Adapts easily as a replacement unit or original equipment \* Durable poly carbonate fans and fan guards \* Thermally protected, permanently lubricated motors \* Moisture-proof

**MEDIUM TEMPERATURE – AIR DEFROST**

PART#	BTU/HR 10° T.D.	DIMENSIONS			CFM	FAN DIA.	MTR AMPS	CONNECTIONS			APPROX. SHIP WT.
		H.	W.	D.				INLET	SUCTION	DRAIN	
<b>MATM-100</b>	1000	4-5/8	20-3/8	16	125	5-1/4	.65	3/8 OD	3/8 OD	1/2 OD	11
<b>MATM-135</b>	1350	4-5/8	20-3/8	16	250	(2) 5-1/4	1.30	3/8 OD	3/8 OD	1/2 OD	15
<b>MATM-180</b>	1800	4-5/8	20-3/8	16	250	(2) 5-1/4	1.30	3/8 OD	3/8 OD	1/2 OD	15
<b>MATM-250</b>	2500	5-5/8	20-3/8	16	300	8	.73	3/8 OD	3/8 OD	1/2 OD	16
<b>COATED COILS</b>											
<b>MATM-100-P</b>	1000	4-5/8	20-3/8	16	125	5-1/4	.65	3/8 OD	3/8 OD	1/2 OD	11
<b>MATM-135-P</b>	1350	4-5/8	20-3/8	16	250	(2) 5-1/4	1.30	3/8 OD	3/8 OD	1/2 OD	15
<b>MATM-180-P</b>	1800	4-5/8	20-3/8	16	250	(2) 5-1/4	1.30	3/8 OD	3/8 OD	1/2 OD	15
<b>MATM-250-P</b>	2500	5-5/8	20-3/8	16	300	8	.73	3/8 OD	3/8 OD	1/2 OD	16



\* Low silhouette design for maximum use of shelf area \* Two-way air discharge for maintaining uniform box temperature \* Textured aluminum cabinet \* Exclusive "Off-Center" construction reduces the number of welded joints. "Where there are no joints, there are no leaks." \* Full-hard temper aluminum fins and seamless copper tubing \* Moisture-proof wiring harness \* Adapts easily as a replacement unit or original equipment \* Durable poly carbonate fans and fan guards MATM100, MATM-135, MATM180 (also applies to the coated coils) \* Aluminum fan and plated steel fan guard MATM-250 (also applies to the coated coils) \* Thermally protected, permanently lubricated motors \* Expansion valve mounts inside cabinet \* UL Recognized – NSF approved \*

**UNIT COOLERS FOR REFRIGERATED ROOMS**

**MEDIUM TEMPERATURE – AIR DEFROST**

PART#	BTU/HR 10° T.D.	DIMENSIONS			CFM	FAN DIA.	MTR AMPS	HEATERS AMPS-WATTS	CONNECTIONS			APPROX. SHIP WT.
		H.	W.	D.					INLET	SUCTION	DRAIN	
<b>MAPLP-380</b>	3800	13-1/2	22-1/2	12-1/4	600	10	1.70		1/2 OD	5/8 OD	1 FPT	35
<b>MAPLP-500</b>	5000	13-1/2	27	12-1/4	600	10	1.70		1/2 OD	7/8 OD	1 FPT	38
<b>MAPLP-600</b>	6000	13-1/2	33	12-1/4	600	10	1.70		1/2 OD	7/8 OD	1 FPT	46
<b>MAPLP-750</b>	7500	13-1/2	38	12-1/4	1200	(2)10	3.40		1/2 OD	7/8 OD	1 FPT	55
<b>MAPLP-1000</b>	10000	13-1/2	45	12-1/4	1200	(2)10	3.40		1/2 OD	7/8 OD	1 FPT	67
<b>MAPLP-1500</b>	15000	13-1/2	63	12-1/4	1800	(3)10	5.10		1/2 OD	7/8 OD	1 FPT	90
<b>MAPLP-2000</b>	20000	13-1/2	81	12-1/4	2400	(4)10	6.80		1/2 OD	1-1/8 OD	1 FPT	120
<b>MAPLP-2500</b>	25000	13-1/2	99	12-1/4	3000	(5)10	8.50		1/2 OD	1-1/8 OD	1 FPT	155
<b>MAPLP-3000</b>	30000	13-1/2	117	12-1/4	3600	(6)10	10.20		1/2 OD	1-1/8 OD	1 FPT	180

\* For medium temperature walk-in storage rooms \* Low silhouette height of only 13-1/2" \* Flush ceiling mount \* UL Recognized – NSF approved  
 \* Removable side panel and hinged drain pan for easy servicing \* Textured aluminum cabinet \* Aluminum fins and seamless copper tubing \* Adapts easily as a replacement unit or original equipment \* Aluminum fan blades and plated steel fan guards \* Thermally protected, permanently lubricated motors \* Factory wired for convenience \* Junction box outside cabinet for up \*

**LOW TEMPERATURE – ELECTRIC DEFROST**

PART#	EVAP. SUC. TEMP. F				DIMENSIONS			CFM	FAN DIA.	MTR AMPS	HEATERS AMPS-WATTS	CONNECTIONS			APPROX. SHIP WT.
	+20°	-10°	-20°	-30°	H.	W.	D.					LIQUID	SUCTION	DRAIN	
<b>MAPLP-430E</b>	5000	4400	4300	4000	13-1/2	27	12-1/4	600	10	.45	4.48-1030	1/2 OD	5/8 OD	1 FPT	38
<b>MAPLP-640E</b>	7500	6600	6500	5900	13-1/2	38	12-1/4	1200	(2)10	.90	6.24-1435	1/2 OD	7/8 OD	1 FPT	55
<b>MAPLP-860E</b>	10000	8800	8600	7900	13-1/2	45	12-1/4	1200	(2)10	.90	7.24-1665	1/2 OD	7/8 OD	1 FPT	67
<b>MAPLP-1290E</b>	15000	13200	12900	11900	13-1/2	63	12-1/4	1800	(3)10	1.35	12.35-2840	1/2 OD	7/8 OD	1 FPT	90
<b>MAPLP-1720E</b>	20000	17600	17200	15800	13-1/2	81	12-1/4	2400	(4)10	1.80	16.41-3775	1/2 OD	1-1/8 OD	1 FPT	120
<b>MAPLP-2150E</b>	25000	22000	21500	19800	13-1/2	99	12-1/4	3000	(5)10	2.25	18.84-4330	1/2 OD	1-1/8 OD	1 FPT	155
<b>MAPLP-2580E</b>	30000	26400	25800	23700	13-1/2	117	12-1/4	3600	(6)10	2.70	21.20-4875	1/2 OD	1-1/8 OD	1 FPT	180

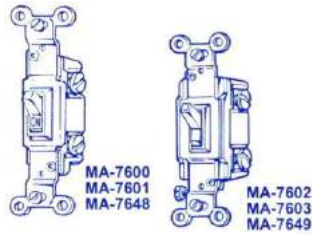
**Standard 230/60/1 External equalized expansion valve required (1/4" dia. External equalizer tube provided**

\* For low-temperature walk-in storage rooms \* Low silhouette height of only 13-1/2" \* Heaters are UL approved, moisture proof, odor and taste free, wit molded neoprene sealed ends \* Adapts easily as a replacement unit or original equipment \* Flush ceiling mount \* Serpentine tubular heating elements are evenly spaced for ideal defrosting \* Defrost termination switch and fan delay control insures defrost without over heating \* UL listed – NSF approved \*



**QUIET SWITCHES**

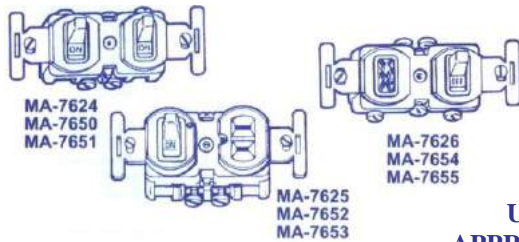
Horsepower Rated for Motor Loads  
 Rated - 15A  
 120V AC 1/2HP  
 Max. Amps - 12A  
**UL APPROVED ONLY**



SINGLE POLE, 15A, 115V  
**MA-7600** BROWN  
**MA-7601** IVORY  
**MA-7648** WHITE

THREE WAY, 15A, 115V  
**MA-7602** BROWN  
**MA-7603** IVORY  
**MA-7649** WHITE

**DUPLEX SWITCHES**



**UL APPROVED ONLY**

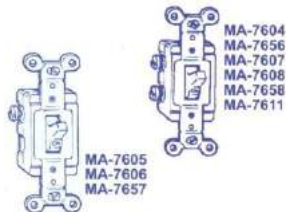
SINGLE POLE, 15A, 120-277V, AC SWITCH  
**MA-7624** IVORY **MA-7650** BROWN **MA-7651** WHITE

SINGLE POLE, 15A, 120-277V, AC SWITCH, 2P 3W GROUNDING 15A, 125 RECEPTACLE  
**MA-7625** IVORY **MA-7652** BROWN **MA-7653TR** WHITE

SINGLE POLE, 15A, 120-277V, AC SWITCH, W/PILOT LIGHT 120V  
**MA-7626** IVORY **MA-7654** BROWN **MA-7655** WHITE

**HEAVY DUTY QUIET SWITCHES**

Horsepower Rated for Motor Loads  
 Rated - 120V AC - 240V AC - Max. Amps  
 15A - 1/2HP - 1HP - 12A  
 20A - 1HP - 2HP - 16A



DOUBLE POLE, 20A, 120-277V, AC SWITCH  
**MA-7604** BROWN  
**MA-7656** WHITE  
**MA-7611** IVORY

THREE WAY, 20A, 120-277V, AC SWITCH  
**MA-7607** BROWN  
**MA-7608** IVORY  
**MA-7658** WHITE

SINGLE POLE, 20A, 120-277V, AC SWITCH  
**MA-7605** BROWN **MA-7606** IVORY **MA-7657** WHITE

**DRYER AND RANGE RECEPTACLES**



**MA-7670** FLUSH MOUNT 30A, 125/250V NEMA 10-30 DRYER RECEPTACLE, BROWN, 3 PRONG  
**UL APPROVED**

**MA-7671** SURFACE MOUNT 30A, 125/250V NEMA 10-30 DRYER RECEPTACLE, BLACK, 3 PRONG  
**UL APPROVED**

**MA-7672** FLUSH MOUNT 50A, 125/250V NEMA 10-50 RANGE RECEPTACLE, BLACK, 3 PRONG  
**UL & CSA APPROVED**

**MA-7673** SURFACE MOUNT 50A, 125/250V NEMA 10-50 RANGE RECEPTACLE, BLACK, 3 PRONG  
**UL APPROVED**

**MA-1257** FLUSH MOUNT 30A, 125/250V NEMA 14-30 RECEPTACLE, BLACK, 4 PRONG  
**UL & CSA APPROVED**

**MA-1225** SURFACE MOUNT 30A, 125/250V NEMA 14-30 RECEPTACLE, BLACK, 4 PRONG  
**UL APPROVED**

**MA-1258** FLUSH MOUNT 50A, 125/250V NEMA 14-50 RECEPTACLE, BLACK, 4 PRONG  
**UL & CSA APPROVED**

**MA-1212** SURFACE MOUNT 50A, 125/250V NEMA 14-50 RECEPTACLE, BLACK, 4 PRONG  
**UL & CSA APPROVED**

**PROTECTIVE COVER**



**UL & CSA APPROVED**

**MA-7621** PLASTIC SNAP COVER FOR DUPLEX RECEPTACLE IN WET LOCATIONS

**GFI DUPLEX RECEPTACLE**



**UL APPROVED ONLY**

**MA-7518** DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUPTERS 15A, 125V, NEMA 5-15, WHITE

SINGLE POLE RATED:  
 20A AT 125VAC/ 10A AT 250VAC  
 3/4HP AT 125/250VAC

SINGLE POLE  
**MA04501-2** SP-ST  
**MA04502-2** SP-DT  
**MA04503-2** SP-DT CENTER-OFF

**TOGGLE SWITCHES**  
 ALL TOGGLE SWITCHES FURNISHED WITH SCREW TERMINALS



DOUBLE POLE RATED:  
 20A AT 125VAC/ 10A AT 250VAC  
 1.5HP AT 125/250VAC

DOUBLE POLE  
**MA04504-2** DP-ST  
**MA04505-2** DP-DT  
**MA04506-2** DP-DT CENTER OFF

### STRAIGHT BLADE RECEPTACLES

E-Z ground strap w/grounding terminal screw.  
Suitable for grounded metallic or non-metallic systems.  
Compact design provides more wiring space in outlet box.  
UL File E15058RTRT

- MA-7612** SIDE WIRE, 2P, 3W GROUNDING 15A, 125V, NEMA 5-15R, DUPLEX RECEPTACLE, BROWN **UL & CSA APPROVED**
- MA-7613** SIDE WIRE, 2P, 3W GROUNDING 15A, 125V, NEMA 5-15R, DUPLEX RECEPTACLE, IVORY **UL & CSA APPROVED**
- MA-7659** SIDE WIRE, 2P, 3W GROUNDING 15A, 125V, NEMA 5-15R, DUPLEX RECEPTACLE, WHITE **UL & CSA APPROVED**
- MA-7614** SINGLE, 15A, 125V, NEMA 5-15R, BROWN **UL APPROVED**
- MA-7615** SINGLE, 15A, 125V, NEMA 5-15R, IVORY **UL APPROVED**
- MA-7662** SINGLE, 15A, 125V, NEMA 5-15R, WHITE **UL APPROVED**
- MA-7617** SIDE WIRE, 2P, 3W GROUNDING 20A, 125V, NEMA 5-10R, DUPLEX RECEPTACLE, BROWN **UL APPROVED**
- MA-7618** SIDE WIRE, 2P, 3W GROUNDING 20A, 125V, NEMA 5-10R, DUPLEX RECEPTACLE, IVORY **UL APPROVED**
- MA-7660** SIDE WIRE, 2P, 3W GROUNDING 20A, 125V, NEMA 5-10R, DUPLEX RECEPTACLE, WHITE **UL & CSA APPROVED**
- MA-7514** E-Z WIRE & SCREW, 15A, 125V NEMA 5-15R, DUPLEX RECEPTACLE, BROWN **UL APPROVED**
- MA-7515** E-Z WIRE & SCREW, 15A, 125V NEMA 5-15R, DUPLEX RECEPTACLE, IVORY **UL APPROVED**
- MA-7661** E-Z WIRE & SCREW, 15A, 125V NEMA 5-15R, DUPLEX RECEPTACLE, WHITE **UL APPROVED**



MA-7614  
MA-7615  
MA-7662



MA-7514  
MA-7515  
MA-7661



MA-7612  
MA-7613  
MA-7659



MA-7617  
MA-7618  
MA-7660

### WALL PLATES

- MA-7630** ONE GANG TOGGLE, SMOOTH LINE, BROWN
- MA-7631** ONE GANG TOGGLE, SMOOTH LINE, IVORY
- MA-7663** ONE GANG TOGGLE, SMOOTH LINE, WHITE
- MA-7632** DUPLEX, SMOOTH LINE, BROWN
- MA-7633** DUPLEX, SMOOTH LINE, IVORY
- MA-7664** DUPLEX, SMOOTH LINE, WHITE
- MA-7634** TWO GANG TOGGLE, SMOOTH LINE, BROWN
- MA-7635** TWO GANG TOGGLE, SMOOTH LINE, IVORY
- MA-7665** TWO GANG TOGGLE, SMOOTH LINE, WHITE
- MA-7636** TOGGLE AND DUPLEX, SMOOTH LINE, BROWN
- MA-7637** TOGGLE AND DUPLEX, SMOOTH LINE, IVORY
- MA-7667** TOGGLE AND DUPLEX, SMOOTH LINE, WHITE
- MA-7668** BLANK, PLASTIC, BROWN
- MA-7669** BLANK, PLASTIC, IVORY
- MA-7674** BLANK, PLASTIC, WHITE

### STRAIGHT BLADE PLUGS, CONNECTORS, & ADAPTORS



MA-179ED



MA-7525



MA-7599



MA-7638



MA-7639

- MA-179ED** PLASTIC HANDLE PLUG 15A, 125V, 2 POLE, 2-WIRE 13/32" CORD HOLE (2/BAG) **UL & CSA APPROVED**
- MA-7525** 3 WIRE RECEPTACLE TO 3 WIRE GROUNDING OUTLET VINYL, 15A, 125V, GRAY **UL APPROVED**
- MA-7599** TRI-TAP, 15A, 125V, NEMA 1-15
- MA-7638** VINYL PLUG 20A, 125V NEMA 5-20, YELLOW **UL & CSA APPROVED**
- MA-7639** VINYL PLUG CONNECTOR 20A, 125V, NEMA 5-20, YELLOW **UL APPROVED**



MA-7640



MA-7641



MA-7642



MA-7643



MA-7644

- MA-7640** VINYL ARMORED CONNECTOR 15A, 125V, NEMA 5-15, YELLOW **UL & CSA APPROVED**
- MA-7641** VINYL ARMORED PLUG 15A, 125V, NEMA 5-15, YELLOW **UL & CSA APPROVED**
- MA-7642** VINYL ARMORED CONNECTOR 15A, 250V, NEMA 6-15, YELLOW **UL & CSA APPROVED**
- MA-7643** VINYL ARMORED PLUG 15A, 250V, NEMA 6-15, YELLOW **UL & CSA APPROVED**
- MA-7644** VINYL ARMORED PLUG 20A, 250V, NEMA 6-20, YELLOW **UL & CSA APPROVED**



MA-7645

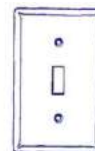


MA-7646

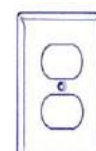


MA-7647

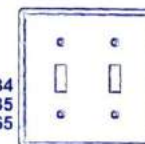
- MA-7645** VINYL ARMORED CONNECTOR 20A, 250V, NEMA 6-20, YELLOW
- MA-7646** RUBBER CONNECTOR, ROUND HANDLE CONNECTOR, 15A, 250V NEMA 5-15, BLACK **UL APPROVED**
- MA-7647** RUBBER PLUG, ROUND HANDLE CONNECTOR, 15A, 250V NEMA 5-15, BLACK **UL & CSA APPROVED**



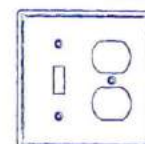
MA-7630  
MA-7631  
MA-7663



MA-7632  
MA-7633  
MA-7664



MA-7634  
MA-7635  
MA-7665



MA-7636  
MA-7637  
MA-7667



**SQUARE D  
DEFINITE PURPOSE  
CONTACTORS**

**3-POLE-LARGE FRAME**

	FULL LOAD AMPERES	COIL VAC
<b>8910DPA23V14</b>	25	24
<b>8910DPA23V02</b>	25	120
<b>8910DPA23V09</b>	25	240
<b>8910DPA33V14</b>	30	24
<b>8910DPA33V02</b>	30	120
<b>8910DPA33V09</b>	30	240
<b>8910DPA43V14</b>	40	24
<b>8910DPA43V02</b>	40	120
<b>8910DPA43V09</b>	40	240
<b>8910DPA53V14</b>	50	24
<b>8910DPA53V02</b>	50	120
<b>8910DPA53V09</b>	50	240
<b>8910DPA63V14</b>	60	24
<b>8910DPA63V02</b>	60	120
<b>8910DPA63V09</b>	60	240
<b>8910DPA73V14</b>	75	24
<b>8910DPA73V02</b>	75	120
<b>8910DPA73V09</b>	75	240
<b>8910DPA93V14</b>	90	24
<b>8910DPA93V02</b>	90	120
<b>8910DPA93V09</b>	90	240

**2-POLE-SMALL FRAME**

	FULL LOAD AMPERES	COIL VAC
<b>8910DP22V14</b>	25	24
<b>8910DP22V02</b>	25	120
<b>8910DP22V09</b>	25	240
<b>8910DP32V14</b>	30	24
<b>8910DP32V02</b>	30	120
<b>8910DP32V09</b>	30	240
<b>8910DP42V14</b>	40	24
<b>8910DP42V02</b>	40	120
<b>8910DP42V09</b>	40	240

Ideal for Heating, A/C, Refrigeration, Data Processing, and Food Service Equipment.

**Features:** UL Component Recognized, UL Listed, CSA Certified, and DPA series is CE marked.

**Specifications:** Up to 30 Ampere; Quick Connect Terminals and binder head screws for easy wiring. 40 Ampere and Larger; box lugs are standard

**WORLD SOURCE  
DEFINITE PURPOSE  
CONTACTORS**



UNIVERSAL MOUNT  
LUG TERMINAL  
WITH QUICK CONNECT

**1-POLE**

	FULL LOAD AMPERES	COIL VAC
<b>1P30A24V</b>	30	24
<b>1P40A24V</b>	40	24

**1.5 POLE**

	FULL LOAD AMPERES	COIL VAC
<b>112P30A24V</b>	30	24
<b>112P30A120V</b>	30	120
<b>112P30A240V</b>	30	240

**2-POLE**

	FULL LOAD AMPERES	COIL VAC
<b>2P20A24V</b>	20	24
<b>2P30A24V</b>	30	24
<b>2P30A120V</b>	30	120
<b>2P30A240V</b>	30	240
<b>2P40A24V</b>	40	24
<b>2P40A120V</b>	40	120
<b>2P40A240V</b>	40	240

**3-POLE**

	FULL LOAD AMPERES	COIL VAC
<b>3P30A24V</b>	30	24
<b>3P30A120V</b>	30	120
<b>3P30A240V</b>	30	240
<b>3P40A24V</b>	40	24
<b>3P40A120V</b>	40	120
<b>3P40A240V</b>	40	240
<b>3P50A24V</b>	50	24
<b>3P50A120V</b>	50	120
<b>3P50A240V</b>	50	240
<b>3P60A24V</b>	60	24
<b>3P60A120V</b>	60	120
<b>3P60A240V</b>	60	240

**SQUARE D  
CIRCUIT BREAKERS  
UL & CSA LISTED**

**HOMELINE®**

SINGLE POLE, 120/240VAC

- HOM115** 15AMP
- HOM120** 20AMP
- HOM130** 30AMP
- HOM140** 40AMP
- HOM150** 50AMP



**HOMELINE®**

DOUBLE POLE, 120/240VAC

- HOM215** 15AMP
- HOM220** 20AMP
- HOM230** 30AMP
- HOM240** 40AMP
- HOM250** 50AMP
- HOM260** 60AMP

**QO STYLE**

**WITH VISI-TRIP®**

SINGLE POLE, 120/240VAC

- QO115** 15AMP
- QO120** 20AMP
- QO130** 30AMP
- QO140** 40AMP
- QO150** 50AMP
- QO160** 60AMP



VISI-TRIP® =  
VISUAL RED INDICATOR  
IN WINDOW

**QO STYLE**

**WITH VISI-TRIP®**

DOUBLE POLE, 120/240VAC

- QO215** 15AMP
- QO220** 20AMP
- QO230** 30AMP
- QO240** 40AMP
- QO250** 50AMP
- QO260** 60AMP

VISI-TRIP® =  
VISUAL RED INDICATOR  
IN WINDOW

**SIEMENS  
CIRCUIT BREAKERS**

Compatible with American Switch, Westinghouse (Bryant), Challenger (Sylvania), Crouse-Hinds (Murray), Frank Adams, General Electric (full size only), General Switch, I-T-E Gould, Montgomery Wards and Sears.

SINGLE POLE, 120/240VAC  
COMMON TRIP

- MA-Q115** 15AMP
- MA-Q120** 20AMP
- MA-Q125** 25AMP
- MA-Q130** 30AMP
- MA-Q140** 40AMP
- MA-Q150** 50AMP
- MA-Q160** 60AMP

UL & CSA  
APPROVED



**DUAL**

SINGLE POLE, 120/240VAC

- MA-QT1515** 15-15AMP
- MA-QT1520** 15-20AMP
- MA-QT2020** 20-20AMP



**REPLACEMENTS FOR  
SQUARE D**

SINGLE POLE, 120/240VAC

- MA-D115** 15AMP
- MA-D120** 20AMP
- MA-D130** 30AMP
- MA-D140** 40AMP
- MA-D150** 50AMP
- MA-D160** 60AMP

UL & CSA  
APPROVED



DOUBLE POLE, 240VAC  
COMMON TRIP

- MA-Q215** 15AMP
- MA-Q220** 20AMP
- MA-Q225** 25AMP
- MA-Q230** 30AMP
- MA-Q240** 40AMP
- MA-Q250** 50AMP
- MA-Q260** 60AMP
- MA-Q270** 70AMP
- MA-Q280** 80AMP
- MA-Q290** 90AMP
- MA-Q2100** 100AMP
- MA-Q2125** 125AMP

**DUAL**

SINGLE POLE, 120/240VAC

- MA-QT2030** 20-30AMP
- MA-QT3030** 30-30AMP

**REPLACEMENTS FOR  
SQUARE D**

DOUBLE POLE, 120/240VAC

- MA-D215** 15AMP
- MA-D220** 20AMP
- MA-D230** 30AMP
- MA-D240** 40AMP
- MA-D250** 50AMP
- MA-D260** 60AMP



**4" SQUARE TWO DEVICE  
OUTLET BOXES**

**MA-E374** (50/PKG)

4"SQ x 1-1/2"  
WITH 1/2" KNOCKOUTS

**MA-E374D** (25/PKG)

4"SQ x 2-1/8"  
WITH 1/2" KNOCKOUTS

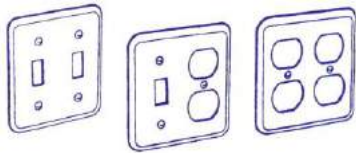


**4" COVERS FOR TWO  
DEVICE OUTLET BOXES**

**MA-E272** 2-TOGGLE SWITCHES  
(50/PKG)

**MA-E273** 1 TOGGLE SWITCH & 1  
DUPLEX RECEPTACLE (50/PKG)

**MA-E274** 2 DUPLEX  
RECEPTACLE (25/PKG)

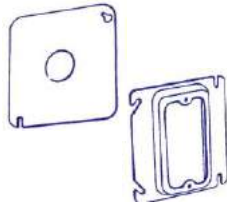
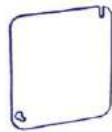


**4-11/16" COVERS  
FOR SQUARE  
OUTLET BOXES**

**MA-E584** 4-11/16" FLAT  
SQUARE BLANK COVER (25/PKG)

**MA-E590** 4-11/16" RAISED SQUARE  
SINGLE DEVICE (25/PKG)

**MA-E594** 4-11/16" FLAT SQUARE  
KNOCKOUT IN CENTER (25/PKG)



**4" SQUARE OUTLET BOX COVERS**

**MA-E554** 4" FLAT SQUARE  
BLANK COVER (50/PKG)

**MA-E560** 4" SQUARE 1/2" RAISED  
SINGLE FLUSH (50/PKG)

**MA-E564** 4" FLAT SQUARE WITH  
1/2" KNOCKOUT IN CENTER (50/PKG)

**MA-E570** 4" SQUARE 1/2" RAISED  
1 TOGGLE SWITCH (50/PKG)

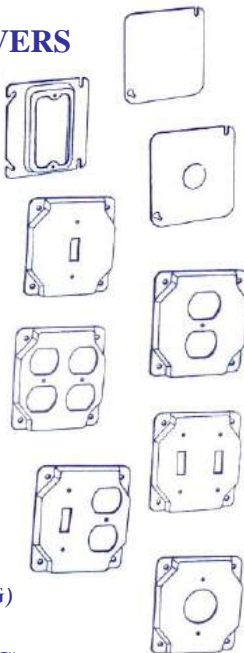
**MA-E571** 4" SQUARE 1/2" RAISED  
1 DUPLEX RECEPTACLE (50/PKG)

**MA-E572** 4" SQUARE 1/2" RAISED  
2 TOGGLE SWITCHES (50/PKG)

**MA-E573** 4" SQUARE 1/2" RAISED  
1 SWITCH & DUPLEX RECPT(50/PKG)

**MA-E574** 4" SQUARE 1/2" RAISED  
TWO DUPLEX RECEPTACLES (50/PKG)

**MA-E575** 4" SQUARE 1/2" RAISED  
SINGLE RECEPTACLE 1-13/32" (50/PKG)



**4" SQUARE  
OUTLET BOXES**

**MA-E352** 4"SQ x 1-1/4"  
(50/PKG)WITH 1/2" KNOCKOUTS

**MA-E353** 4"SQ x 1-1/2"  
(50/PKG) WITH 1/2" & 3/4" KNOCKOUTS

**MA-E353D** 4"SQ x 2-1/8"  
(50/PKG)WITH 1/2" & 3/4" KNOCKOUTS

**MA-E363D** 4-11/16"SQ x 2-1/8"  
(25/PKG) WITH 1/2" & 3/4" KNOCKOUTS



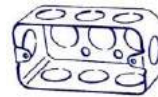
**STANDARD  
UTILITY  
BOXES**

**MA-E200** 4"L x 2-1/8"W X 1-1/2"D  
(50/PKG)WITH 1/2" KNOCKOUTS

**MA-E201** 4"L x 2-1/8"W X 1-7/8"D  
(50/PKG)WITH 1/2" KNOCKOUTS

**MA-E202** 4"L x 2-1/8"W X 2-1/8"D  
(50/PKG)WITH 1/2" KNOCKOUTS

**MA-E201-3/4** 4"L x 2-1/8"W X 1-7/8"D  
(50/PKG)WITH 3/4" KNOCKOUTS



**4" OCTAGON  
OUTLET  
BOXES**

**MA-E303** 4" x 1-1/2"  
(50/PKG)WITH 1/2" & 3/4" KNOCKOUTS

**MA-E303D** 4" x 2-1/8"  
(25/PKG)WITH 1/2" & 3/4" KNOCKOUTS

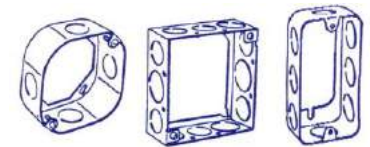


**EXTENSION RINGS**

**MA-E304EXT** 4" x 1-1/2"  
OCTAGON WITH 1/2" KNOCKOUTS  
(50/PKG)

**MA-E350EXT** 4" x 1-1/2"  
SQUARE WITH 1/2" & 3/4" KNOCKOUTS  
(50/PKG)

**MA-E200EXT** 4" x 2-1/8"  
RECTANGLE  
(50/PKG)



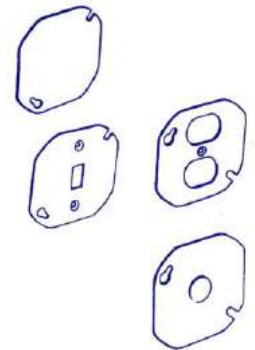
**4" OCTAGON  
OUTLET BOX  
COVERS**

**MA-E504** 4" FLAT OCTAGON  
BLANK COVER (50/PKG)

**MA-E508D** 4" OCTAGON  
DUPLEX RECEPTACLE (50/PKG)

**MA-E508T** 4" FLAT OCTAGON  
TOGGLE SWITCH (50/PKG)

**MA-E509** 4" FLAT OCTAGON  
KNOCKOUT IN CENTER (50/PKG)



**STANDARD HANDY  
BOX COVERS**

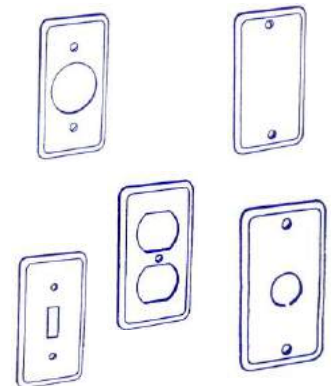
**MA-E251** 4" X 2-1/8"  
SINGLE RECEPTACLE

**MA-E252** 4" X 2-1/8"  
DUPLEX RECEPTACLE

**MA-E253** 4" X 2-1/8"  
TOGGLE SWITCH

**MA-E254** 4" X 2-1/8"  
BLANK

**MA-E255** 4" X 2-1/8"  
1-1/2" KNOCKOUT



**CONDENSER & HEAT EXCHANGER BRUSHES**



PART#		FEMALE THREADS	BRUSH LENGTH
<b>STAINLESS STEEL SINGLE SPIRAL</b>			
<b>AMA-502</b>	1/4" DIA.	8-32	3"
<b>AMA-504</b>	3/8" DIA.	12-24	4"
<b>AMA-507</b>	7/16" DIA.	12-24	4"
<b>AMA-510</b>	1/2" DIA.	12-24	4"
<b>AMA-513</b>	9/16" DIA.	12-24	4"
<b>AMA-516</b>	5/8" DIA.	12-24	4"
<b>AMA-519</b>	11/16" DIA.	12-24	4"
<b>AMA-522</b>	3/4" DIA.	12-24	4"
<b>AMA-525</b>	13/16" DIA.	12-24	4"
<b>AMA-528</b>	7/8" DIA.	12-24	4"
<b>AMA-531</b>	15/16" DIA.	12-24	4"
<b>AMA-533</b>	1" DIA.	12-24	4"
<b>BRASS WIRE SINGLE SPIRAL</b>			
<b>AMA-602</b>	1/4" DIA.	8-32	3"
<b>AMA-604</b>	3/8" DIA.	12-24	4"
<b>AMA-607</b>	7/16" DIA.	12-24	4"
<b>AMA-610</b>	1/2" DIA.	12-24	4"
<b>AMA-613</b>	9/16" DIA.	12-24	4"
<b>AMA-616</b>	5/8" DIA.	12-24	4"
<b>AMA-619</b>	11/16" DIA.	12-24	4"
<b>AMA-622</b>	3/4" DIA.	12-24	4"
<b>AMA-625</b>	13/16" DIA.	12-24	4"
<b>AMA-628</b>	7/8" DIA.	12-24	4"
<b>AMA-631</b>	15/16" DIA.	12-24	4"
<b>AMA-633</b>	1" DIA.	12-24	4"
<b>BLACK NYLON WIRE SINGLE SPIRAL</b>			
<b>AMA-702</b>	1/4" DIA.	8-32	3"
<b>AMA-704</b>	3/8" DIA.	12-24	4"
<b>AMA-707</b>	7/16" DIA.	12-24	4"
<b>AMA-710</b>	1/2" DIA.	12-24	4"
<b>AMA-713</b>	9/16" DIA.	12-24	4"
<b>AMA-716</b>	5/8" DIA.	12-24	4"
<b>AMA-719</b>	11/16" DIA.	12-24	4"
<b>AMA-722</b>	3/4" DIA.	12-24	4"
<b>AMA-725</b>	13/16" DIA.	12-24	4"
<b>AMA-728</b>	7/8" DIA.	12-24	4"
<b>AMA-731</b>	15/16" DIA.	12-24	4"
<b>AMA-733</b>	1" DIA.	12-24	4"

**AMA-044** 4' EXTENSION X .162"DIA. 8-32 MALE THREAD FOR USE WITH 1/4" AND 5/16"DIA.  
THE ITEM BELOW IS FOR CONDENSER BRUSHES



**COPPER TUBE FITTING BRUSHES**



**SINGLE SPIRAL – 2 PLY WIRE CONSTRUCTION**  
STAINLESS STEEL WIRE – SOLID PLASTIC HAND-FITTING HANDLE

<b>AMA-824</b>	1/4"OD – 1/8"ID	
<b>AMA-825</b>	3/8"OD – 1/4"ID	<b>AMA-831</b> 1-1/8"OD – 1"ID
<b>AMA-826</b>	1/2"OD – 3/8"ID	<b>AMA-832</b> 1-3/8"OD – 1-1/8"ID
<b>AMA-827</b>	5/8"OD – 1/2"ID	<b>AMA-833</b> 1-1/2"OD – 1-3/8"ID
<b>AMA-828</b>	3/4"OD – 5/8"ID	<b>AMA-834</b> 1-5/8"OD – 1-1/2"ID
<b>AMA-829</b>	7/8"OD – 3/4"ID	<b>AMA-835</b> 2-1/8"OD – 2"ID
<b>AMA-830</b>	1"OD – 7/8"ID	<b>AMA-836</b> 2-1/2"OD – 2-1/8"ID

**DOUBLE SPIRAL – 4 PLY WIRE CONSTRUCTION**  
STAINLESS STEEL WIRE – SOLID PLASTIC HAND-FITTING HANDLE

<b>AMA-924</b>	1/4"OD – 1/8"ID	<b>AMA-931</b> 1-1/8"OD – 1"ID
<b>AMA-925</b>	3/8"OD – 1/4"ID	<b>AMA-932</b> 1-3/8"OD – 1-1/8"ID
<b>AMA-926</b>	1/2"OD – 3/8"ID	<b>AMA-933</b> 1-1/2"OD – 1-3/8"ID
<b>AMA-927</b>	5/8"OD – 1/2"ID	<b>AMA-934</b> 1-5/8"OD – 1-1/2"ID
<b>AMA-928</b>	3/4"OD – 5/8"ID	<b>AMA-935</b> 2-1/8"OD – 2"ID
<b>AMA-929</b>	7/8"OD – 3/4"ID	<b>AMA-936</b> 2-1/2"OD – 2-1/8"ID
<b>AMA-930</b>	1"OD – 7/8"ID	

**OUTSIDE TUBE CLEANING BRUSHES**



<b>AMA-960</b>	1/4", 3/8", 1/2", 5/8" 3/4" and 7/8"OD – SET OF 6	<b>AMA-966</b> 5/8"OD – 1/2"ID
<b>AMA-963</b>	1/4"OD – 1/8"ID	<b>AMA-967</b> 3/4"OD – 5/8"ID
<b>AMA-964</b>	3/8"OD – 1/4"ID	<b>AMA-968</b> 7/8"OD – 3/4"ID
<b>AMA-965</b>	1/2"OD – 3/8"ID	<b>AMA-969</b> 1"OD – 7/8"ID
		<b>AMA-970</b> 1-1/8"OD – 1"ID

**FLUX/ACID BRUSHES**



FOR BRAZING AND SOLDERING

**SOLD BY THE GROSS**

<b>AMA-001</b>	3/8"
TIN HANDLE	
<b>AMA-002</b>	1/2"
TIN HANDLE	
<b>AMA-003</b>	5/8"
TIN HANDLE	

**PREPACKAGED**

<b>AMA-001-10</b>	(10/PKG) 3/8" TIN HANDLE
<b>AMA-002-10</b>	(10/PKG) 1/2" TIN HANDLE
<b>AMA-003-5</b>	(5/PKG) 5/8" TIN HANDLE
<b>AMA-007-2</b>	(2/PKG) 3/4" WOODEN HANDLE

**SOLD INDIVIDUALLY**

<b>AMA-007</b>	3/4"
WOODEN HANDLE	



<b>AMA-130</b>	4" X 1/2"DIA. HANDGRIP (ONLY)12-24 SCREW
<b>AMA-132</b>	2' EXTENSION X 5/16"DIA. 12-24 THREADS ON ONE END AND FEMALE THREAD ON THE OTHER END
<b>AMA-133</b>	3' EXTENSION FOR USE WITH 3/8" THRU 1"DIA.

THE ABOVE ITEMS ARE FOR CONDENSER BRUSHES

**CONDENSER TUBE BRUSH-SPIN-GRIT™**



Spin Grit™ utilizes the sides of its impregnated nylon filaments to increase the brush's effectiveness!

BRUSH DIA.	TUBE SIZE
1/2"	1/4" - 5/16"
3/4"	3/8" - 9/16"
1"	5/8" - 11/16"
1-1/4"	3/4" - 1"

PART#	FEMALE THREADS	MALE THREADS
<b>MA-43482</b>	1/2" DIA.	8-32
<b>MA-43484</b>	3/4" DIA.	12-24
<b>MA-43486</b>	1" DIA.	12-24
<b>MA-43488</b>	1-1/4" DIA.	12-24
<b>MA-93482</b>	1/2" DIA.	8-32
<b>MA-93484</b>	3/4" DIA.	1/4-28
<b>MA-93486</b>	1" DIA.	1/4-28
<b>MA-93488</b>	1-1/4" DIA.	1/4-28

\* Polish tube interiors without scratching \* Fits all commercial tube cleaners and rods \* Moves through tube with less effort \* Lasts up to 3 times longer than conventional brushes \*

The MA-43482 and MA-93482 use the AMA-044 Extension Rod.  
The MA-43484, MA-43486, MA-43488, MA-93484, MA-93486 and MA-93488 use the AMA-132 or the AMA-133 Extension Rod.

**NYLON TUBE BRUSHES**

15" OVERALL LENGTH  
**AMA-530** 3/4" X 3"  
**AMA-539** 1" X 4"

15" OVERALL LENGTH  
**AMA-565** 1-1/2" X 4"  
**AMA-582** 2" X 4"

**COLUMBIA BOILER BRUSH**

**AMA-348** 1-1/2" X 1" X 4"

The bristles stick out in all directions and are rough cut to a rectangular shape. It is a much lighter fill than the flat style.



**CLEANING BRUSHES**

CLEANING BRUSH 24" OVERALL LENGTH – BRUSH LENGTH 7"

**AMA-762** 2" DIA. BLACK BRISTLE  
**AMA-763** 2-1/2" DIA. SYNTHETIC BLACK HORSEHAIR  
**AMA-765** 2-1/2" DIA. BLACK HORSEHAIR – POLY MIX

DUCT/VENT 48" OVERALL LENGTH – BRUSH LENGTH 7"

**AMA-200** 2-1/8" DIA. BRASS BRISTLE  
**AMA-210** 2-1/8" DIA. STAINLESS STEEL  
**AMA-220** 2-1/8" DIA. BLACK FIBER

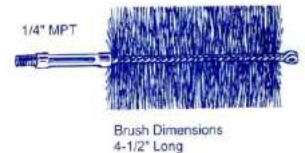
**CLOTHES DRYER VENT BRUSH**  
WITH 10' FLEXIBLE HANDLE



**AMA-410**

**FEATURES:**  
REDUCES DRYING TIME  
CONSERVES ENERGY  
LOWERS UTILITY BILLS  
PREVENTS VENT FIRES  
EXTENDS DRYER LIFE

**FLUE AND FURNACE BRUSHES**



PART#	FLUE SIZE	BRUSH DIA.	PART#	FLUE SIZE	BRUSH DIA.
<b>SINGLE SPIRAL THREADED NIPPLES</b>			<b>DOUBLE SPIRAL THREADED NIPPLES</b>		
<b>AMA-206</b>	1"	3/4"	<b>AMA-306</b>	1"	3/4"
<b>AMA-208</b>	1-1/4"	1"	<b>AMA-308</b>	1-1/4"	1"
<b>AMA-212</b>	1-1/2"	1-1/4"	<b>AMA-312</b>	1-1/2"	1-1/4"
<b>AMA-214</b>	1-3/4"	1-1/2"	<b>AMA-314</b>	1-3/4"	1-1/2"
<b>AMA-216</b>	2"	1-3/4"	<b>AMA-316</b>	2"	1-3/4"
<b>AMA-218</b>	2-1/4"	2"	<b>AMA-318</b>	2-1/4"	2"
<b>AMA-222</b>	2-1/2"	2-1/4"	<b>AMA-322</b>	2-1/2"	2-1/4"
<b>AMA-224</b>	2-3/4"	2-1/2"	<b>AMA-324</b>	2-3/4"	2-1/2"
<b>AMA-226</b>	3"	2-3/4"	<b>AMA-326</b>	3"	2-3/4"
<b>AMA-228</b>	3-1/4"	3"	<b>AMA-328</b>	3-1/4"	3"
<b>AMA-232</b>	3-1/2"	3-1/4"	<b>AMA-332</b>	3-1/2"	3-1/4"
<b>AMA-234</b>	3-1/4"	3-1/2"	<b>AMA-334</b>	3-1/4"	3-1/2"
<b>AMA-236</b>	4"	3-3/4"	<b>AMA-336</b>	4"	3-3/4"

**FLUE AND FURNACE BRUSH HANDLES & EXTENSIONS**



**AMA-1438 & AMA-1448**

**AMA-438** 4' HANDLE 1/4" FPT  
**AMA-548** 5' HANDLE 1/4" FPT  
**AMA-1438** 4' EXTENSION 1/4" MPT AT ONE END AND 1/4" FPT AT THE OTHER END  
**AMA-1448** 5' EXTENSION 1/4" MPT AT ONE END AND 1/4" FPT AT THE OTHER END



**BOILER BRUSH**

**AMA-406** EXTRA LONG HANDLE – STIFF WIRE BOILER BRUSH - BRUSH DIA. 3/4" X 4" – OVERALL LENGTH 42"

**WIRE BRUSHES**



**AMA-010** TEMPERED CARBON STEEL BRISTLES  
14" HARDWOOD CURVED HANDLE

**AMA-018** STAINLESS STEEL BRISTLES  
14" HARDWOOD CURVED HANDLE



**AMA-017** TEMPERED CARBON  
STEEL BRISTLES 10" HARDWOOD  
SHOE HANDLE



**GRILL CLEANING BRUSH  
WITH SCRAPER**

**MA-46810**  
STAINLESS STEEL BRISTLES  
WITH RUBBER GRIP

**OIL OR CHIP BRUSH**



**AMA-481**

**REFRIGERATOR COIL  
CLEANING BRUSH**



**AMA-405**

BRUSH LENGTH 15"  
WOOD HANDLE 12"  
OVERALL LENGTH 27"

**NEW PARTS CLEANING BRUSH**



**AMA-015**

POLY BRUSH MATERIAL  
OVERALL LENGTH 10-3/4"

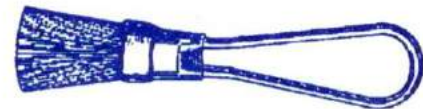
**WELDERS  
"TOOTHBRUSH"**

**MA-20534** STAINLESS STEEL BRUSH  
8" OVERALL WITH WOODEN HANDLE

**AMA-254** BRASS BRUSH  
7" OVERALL WITH WOODEN HANDLE



**STAINLESS WIRE BRUSH  
AMA-816**



**VARNISH BRUSH**



**AMA-503** 2" POLYESTER BRISTLES  
**AMA-505** 3" POLYESTER BRISTLES

**CONDENSER FIN  
WHISK BRUSH**

**AMA-026**

PLASTIC HANDLE WHISK FOR CLEANING  
CONDENSER FINS AND EVAPORATORS



**RADIATOR CLEANING BRUSH**



**AMA-020**  
BLACK HORSEHAIR  
OVERALL LENGTH 24"  
BRUSH LENGTH 9"

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33364	38	5454FY	39	AF1400-50	21	AMA-210	65	AMA-539	65	AMA-927	64
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1258FY	39	8910DP22V02	62	AF1700-50	21	AMA-222	65	AMA-607	64	AMA-933	64
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DCH053S	22	MA-004RR	38	MA01164C-2	45	MA02525-2	51	MA02729-1	44	MA02882-2	44
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DCH164S	22	MA01012P	47	MA01166C-2	45	MA02528-1	43	MA02746-1	44	MA02896-2	43
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HOM220	62	MA01020P	45	MA02043-1	41	MA02580-1	43	MA02816-1	43	MA02955-2	43
HOM230	62	MA01021-1	45	MA02044-1	44	MA02581-1	43	MA02818-1	43	MA02956-1	43
HOM240	62	MA01021-2	45	MA02045-1	44	MA02583-1	43	MA02820-1	43	MA02960-1	43
HOM250	62	MA01021-3	45	MA02046-1	41	MA02584-1	43	MA02821-1	44	MA02962-2	43
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MA03158-1	42	MA03219-2	47	MA03344-3	44	MA03509-2	31	MA03762-3	35	MA04799-2B	41
MA03158-2	42	MA03219-3	47	MA03349-1	43	MA03510-2	31	MA03763-1	35	MA048175-2	41
MA03159-1	42	MA03220-2	47	MA03353-2	46	MA-03532	28	MA03763-2	35	MA048175-2B	41
MA03159-2	42	MA03220-3	47	MA03355-2	46	MA-03533	28	MA03763-3	35	MA05007-2	41
MA03161-1	42	MA03221-2	47	MA03360-1	44	MA03539-2	35	MA03765-1	41	MA05008-2	41
MA03161-2	42	MA03221-3	47	MA03361-2	44	MA03539-24	35	MA03771-1	44	MA05012G	47
MA03162-1	42	MA03222-2	47	MA03362-1	44	MA0353940-MX	35	MA03772-1	44	MA05012P	47
MA03162-2	42	MA03222-3	47	MA03363-2	44	MA03540-2	35	MA03773-1	44	MA05014G	47
MA03163-1	42	MA03223-2	47	MA03364-2	53	MA03540-24	35	MA03774-1	44	MA05014P	47
MA03163-2	42	MA03223-3	47	MA03373-2	45	MA03541-2	35	MA03775-1	44	MA-05028	37

PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #
MA05031-2	29	MA-102	52	MA-11853	52	MA-12057	25	MA-12845A	8	MA-16551	10
MA0512G	47	MA-10214	37	MA-11866	52	MA-12060	26	MA-128500	49	MA-1660A	13
MA0512P	47	MA-10218	37	MA-11879	52	MA-12060-100	26	MA-1290EL	23	MA-1665C	13
MA0514G	47	MA-10344	48	MA-1200	30	MA-12060-25	26	MA-1290STEL	23	MA-16N	33
MA0514P	47	MA-10345	48	MA-12004	25	MA-12060-50	26	MA-12CAP	23	MA-16RR	33
MA06295-2	45	MA-10346	48	MA-12004-100	26	MA-1212	60	MA-12CPLG	23	MA-16SA	16
MA06295P	45	MA-10347	48	MA-12004-25	26	MA-1225	60	MA-12PLG	23	MA-171	33
MA09353-2	35	MA-10348	48	MA-12004-50	26	MA-12353	5	MA-12T	23	MA-17255	48
MA09354-2	35	MA-10349	48	MA-1201	30	MA-12355B	5	MA-12U	23	MA-17256	48
MA-09709	28	MA-10350	48	MA-12010	26	MA-12356	5	MA-13025	36	MA-17257	48
MA-09857	28	MA-1056-075	25	MA-12010-100	26	MA-12357A	5	MA-132A	34	MA-174	33
MA-09858	28	MA-1056-100	25	MA-12010-25	26	MA-12358	5	MA-134BG	23	MA-174D	33
MA0HT12B1	47	MA-1056-22	25	MA-12010-50	26	MA-12361	3	MA-134CPLG	23	MA-175D	33
MA0HT12B2	47	MA-1056-32	25	MA-12013	26	MA-12362	3	MA-14012	52	MA-176E	33
MA0HT12B3	47	MA-1056-33	25	MA-12013-100	26	MA-1238BG	23	MA-14025	52	MA-179ED	61
MA0HT12B4	47	MA-1056-44	25	MA-12013-25	26	MA-1245EL	23	MA-14050	52	MA-181834	38
MA0HT12B5	47	MA10602-1	45	MA-12013-50	26	MA-12535	53	MA-14051	52	MA-185	33
MA0HT12R1	47	MA10602-2	45	MA-1202	30	MA-12537	53	MA-14052	52	MA-186	33
MA0HT12R2	47	MA10602BX	45	MA-12032	25	MA-12545	53	MA-14053	52	MA-18975	21
MA0HT12R3	47	MA10604-1	45	MA-12032-100	25	MA-12547	53	MA-14054	52	MA-18985	21
MA0HT12R4	47	MA10604-2	45	MA-12032-25	25	MA-12548	53	MA-14055	52	MA-190EL	22
MA0HT12R5	47	MA10604BX	45	MA-12032-50	25	MA-1257	60	MA-14056	52	MA-190STEL	22
MA0HT12W1	47	MA10606-1	45	MA-12033	25	MA-1258	60	MA-14057	52	MA-19173	21
MA0HT12W2	47	MA10606-2	45	MA-12033-100	25	MA-1266T	23	MA-142-1	9	MA-1CAP	23
MA0HT12W3	47	MA10606BX	45	MA-12033-25	25	MA-12700A	2	MA-142A	9	MA-1CPLG	23
MA0HT12W4	47	MA10608-1	45	MA-12033-50	25	MA-12701	7	MA-142MA	9	MA-1PLG	23
MA0HT12W5	47	MA10608-2	45	MA-12034	25	MA-12702	7	MA-143A	9	MA-1RR	32
MA0HT14B1	47	MA10608BX	45	MA-12034-100	25	MA-12813	4	MA-143M	9	MA-1T	23
MA0HT14B2	47	MA10610P	45	MA-12034-25	25	MA-12814	3	MA-145EL	23	MA-1U	23
MA0HT14B3	47	MA-10DT12	15	MA-12034-50	25	MA-12815A	7	MA-147B	31	MA-2001	25
MA0HT14B4	47	MA-10DT34	15	MA-12035	25	MA-12816A	3	MA-149	9	MA-20010	19
MA0HT14B5	47	MA-1109	57	MA-12035-100	25	MA-12817B	2	MA-149-1	9	MA-2001S	13
MA0HT14R1	47	MA-11-12X	52	MA-12035-25	25	MA-12818	2	MA-1500	49	MA-2002S	13
MA0HT14R2	47	MA-1115	57	MA-12035-50	25	MA-12819	7	MA-15005	19	MA-2003S	13
MA0HT14R3	47	MA-1119	37	MA-12052	25	MA-12821	7	MA-15007	19	MA-20050	19
MA0HT14R4	47	MA-1122	57	MA-12052-100	25	MA-12822A	4	MA-15008	19	MA-20075	19
MA0HT14R5	47	MA-112BG	23	MA-12052-25	25	MA-12823	3	MA-157-1	9	MA-202	33
MA0HT14W1	47	MA-112CPLG	23	MA-12052-50	25	MA-12826A	4	MA-157A	9	MA-202RB	33
MA0HT14W2	47	MA-1-12X	52	MA-12053	25	MA-12827	2	MA-159A	33	MA-20534	66
MA0HT14W3	47	MA-11302	37	MA-12053-100	25	MA-12829	2	MA-15SA	16	MA-207013	24
MA0HT14W4	47	MA-1131	57	MA-12053-25	25	MA-12830A	7	MA-16501	10	MA-207030	24
MA0HT14W5	47	MA-11315	37	MA-12053-50	25	MA-12830A-S	7	MA-16505A	10	MA-20SA	16
MA-1001	27	MA-1132L	36	MA-12054	25	MA-12835B	6	MA-16506	10	MA-21/2SA	16
MA-10010	19	MA-11354	37	MA-12054-100	25	MA-12837	2	MA-16507	10	MA-213	17
MA-1001S	13	MA-114	33	MA-12054-25	25	MA-12838A	6	MA-16509B	10	MA-22002	26
MA-10050	19	MA-1141	57	MA-12054-50	25	MA-12842	7	MA-16531B	6	MA-22002-100	26
MA-10075	19	MA-11830	52	MA-12055	25	MA-12843B	6	MA-16532	11	MA-22002-25	26
MA-101	52	MA-11840	52	MA-12056	25	MA-12844	7	MA-16533	6	MA-22002-50	26

PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #
MA-22003	26	MA-22064	26	MA-22153	25	MA-22264	25	MA-30405	24	MA-33350	57
MA-22003-100	26	MA-22064-100	26	MA-22153-100	25	MA-22264-100	25	MA-30407	24	MA-33570	57
MA-22003-25	26	MA-22064-25	26	MA-22153-25	25	MA-22264-25	25	MA-30410	24	MA-337	32
MA-22003-50	26	MA-22064-50	26	MA-22153-50	25	MA-22264-50	25	MA-30457	24	MA-33905	24
MA-22005	26	MA-22065	26	MA-22154	25	MA-22286	25	MA-30605	24	MA-33907	24
MA-22005-100	26	MA-22065-100	26	MA-22154-100	25	MA-22286-100	25	MA-30607	24	MA-33910	24
MA-22005-25	26	MA-22065-25	26	MA-22154-25	25	MA-22286-25	25	MA-30610	24	MA-33C	2
MA-22005-50	26	MA-22065-50	26	MA-22154-50	25	MA-22286-50	25	MA-30705	24	MA-340-5	37
MA-22006	26	MA-22066	26	MA-22157	25	MA-22289	26	MA-30707	24	MA-341212T	23
MA-22006-100	26	MA-22066-100	26	MA-22157-100	25	MA-22289-100	26	MA-30710	24	MA-3412BG	23
MA-22006-25	26	MA-22066-25	26	MA-22157-25	25	MA-22289-25	26	MA-30818	52	MA-3412CPLG	23
MA-22006-50	26	MA-22066-50	26	MA-22157-50	25	MA-22289-50	26	MA-30821	52	MA-343412T	23
MA-22007	26	MA-22112	25	MA-22159	25	MA-22290	26	MA-30834	52	MA-3445EL	23
MA-22007-100	26	MA-22112-100	25	MA-22159-100	25	MA-22290-100	26	MA-30847	52	MA-3466T	23
MA-22007-25	26	MA-22112-25	25	MA-22159-25	25	MA-22290-25	26	MA-30F3	18	MA-34790	57
MA-22007-50	26	MA-22112-50	25	MA-22159-50	25	MA-22290-50	26	MA-30SA	16	MA-3490EL	23
MA-22009	26	MA-22113	25	MA-22160	25	MA-2300	49	MA-31012	52	MA-3490STEL	23
MA-22009-100	26	MA-22113-100	25	MA-22160-100	25	MA-25E29821	20	MA-31013	52	MA-34CAP	23
MA-22009-25	26	MA-22113-25	25	MA-22160-25	25	MA-25E29831	20	MA-31014	52	MA-34CPLG	23
MA-22009-50	26	MA-22113-50	25	MA-22160-50	25	MA-25E29832	20	MA-31015	52	MA-34PLG	23
MA-22010	26	MA-22114	25	MA-22161	25	MA-25E59	20	MA-311	37	MA-34RUEL	14
MA-22010-100	26	MA-22114-100	25	MA-22161-100	25	MA-25E80	20	MA-31132	52	MA-34T	23
MA-22010-25	26	MA-22114-25	25	MA-22161-25	25	MA-263	17	MA-31133	52	MA-34U	23
MA-22010-50	26	MA-22114-50	25	MA-22161-50	25	MA-263-R	17	MA-31226	53	MA-3600	46
MA-22012	26	MA-22116	25	MA-22182	26	MA-290	30	MA-31227	53	MA-3612	46
MA-22012-100	26	MA-22116-100	25	MA-22182-100	26	MA-2E1441	20	MA-31228	53	MA-38RUEL	14
MA-22012-25	26	MA-22116-25	25	MA-22182-25	26	MA-2E1442	20	MA-31229	53	MA-398	53
MA-22012-50	26	MA-22116-50	25	MA-22182-50	26	MA-30038	19	MA-31230	53	MA-398BL	53
MA-22013	26	MA-22117	25	MA-22185	26	MA-30050	19	MA-31231	53	MA3L310	55
MA-22013-100	26	MA-22117-100	25	MA-22185-100	26	MA-30075	19	MA-31318	24	MA3L320	55
MA-22013-25	26	MA-22117-25	25	MA-22185-25	26	MA-30105	24	MA-31348	24	MA3L330	55
MA-22013-50	26	MA-22117-50	25	MA-22185-50	26	MA-30107	24	MA-31405	24	MA3L340	55
MA-22014	26	MA-22120	25	MA-22186	26	MA-30110	24	MA-31407	24	MA3L350	55
MA-22014-100	26	MA-22120-100	25	MA-22186-100	26	MA-30132	37	MA-31410	24	MA3L360	55
MA-22014-25	26	MA-22120-25	25	MA-22186-25	26	MA-30155	24	MA-317G	32	MA3L370	55
MA-22014-50	26	MA-22120-50	25	MA-22186-50	26	MA-30157	24	MA-322-2	53	MA3L380	55
MA-22031	26	MA-22122	25	MA-22187	26	MA-30158	24	MA-322-3	53	MA3L390	55
MA-22031-100	26	MA-22122-100	25	MA-22187-100	26	MA-301C	33	MA-3268C-6	04	MA3L400	55
MA-22031-25	26	MA-22122-25	25	MA-22187-25	26	MA-30200	37	MA-32831	29	MA3L410	55
MA-22031-50	26	MA-22122-50	25	MA-22187-50	26	MA-30275	24	MA-32832	29	MA3L420	55
MA-22048	26	MA-22151	25	MA-22192	25	MA-303	36	MA-32905	24	MA3L430	55
MA-22048-100	26	MA-22151-100	25	MA-22192-100	25	MA-303/357RB	17	MA-32907	24	MA3L440	55
MA-22048-25	26	MA-22151-25	25	MA-22192-25	25	MA-30301	17	MA-32950	50	MA3L450	55
MA-22048-50	26	MA-22151-50	25	MA-22192-50	25	MA-30303	17	MA-32N	33	MA3L460	55
MA-22049	26	MA-22152	25	MA-22263	25	MA-30305	24	MA-32SA	16	MA3L470	55
MA-22049-100	26	MA-22152-100	25	MA-22263-100	25	MA-30307	24	MA-33002	21	MA3L480	55
MA-22049-25	26	MA-22152-25	25	MA-22263-25	25	MA-30311	24	MA-33005	21	MA-40038	19
MA-22049-50	26	MA-22152-50	25	MA-22263-50	25	MA-30357	24	MA-33008	21	MA-40050	19

PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #
MA-40075	19	MA-46810	66	MA4L170	55	MA4L650	55	MA5L510	55	MA-6184	44
MA-400RC30	49	MA-49051	50	MA4L180	55	MA4L660	55	MA5L520	55	MA-6185	44
MA-400RC50	49	MA-49052B	50	MA4L190	55	MA4L670	55	MA5L530	55	MA-6186	44
MA-401020	24	MA-49052AUS	50	MA4L200	55	MA4L680	55	MA5L540	55	MA-6187	44
MA-401025	24	MA-49052EPC	50	MA4L210	55	MA4L690	55	MA5L550	55	MA-6188	44
MA-4012W	18	MA-49090	50	MA4L220	55	MA4L700	55	MA5L560	55	MA-6192	44
MA-4034W	18	MA-49091	48	MA4L230	55	MA4L710	55	MA5L570	55	MA-6193	44
MA-406025	24	MA-49092	48	MA4L240	55	MA4L720	55	MA5L580	55	MA-6194	44
MA-407074	24	MA-49116	49	MA4L250	55	MA-4LC20D	18	MA5L590	55	MA-6195	44
MA-409010	24	MA-49191	48	MA4L260	55	MA-4LC20E	18	MA5L600	55	MA-6196	44
MA-410005	24	MA-49192	48	MA4L270	55	MA-4LC43D	18	MA5L610	55	MA-6197	44
MA-410007	24	MA-49193	48	MA4L280	55	MA-4LC43E	18	MA5L620	55	MA-6198	44
MA-410010	24	MA-49310	30	MA4L290	55	MA-4NMLT50	18	MA5L630	55	MA-6202BX	15
MA-4101	28	MA-493114	30	MA4L300	55	MA-4NMLT75	18	MA5L640	55	MA-6203BX	15
MA-410101	24	MA-49316	30	MA4L310	55	MA-4NMLT9050	18	MA5L650	55	MA-62044	28
MA-4102	28	MA-49317	30	MA4L320	55	MA-4NMLT9075	18	MA5L660	55	MA-6204BX	15
MA-4104	28	MA-49318	30	MA4L330	55	MA-50ABF	13	MA5L670	55	MA-6205BX	15
MA-41500	57	MA-49320	31	MA4L340	55	MA-5406BX	15	MA5L680	55	MA-6206BX	15
MA-417025	24	MA-49324	31	MA4L350	55	MA-5408BX	15	MA5L690	55	MA-63223	28
MA-429025	24	MA-49330	31	MA4L360	55	MA-5410BX	15	MA5L700	55	MA-63493	28
MA-430G	32	MA-49331	31	MA4L370	55	MA-5412BX	15	MA5L710	55	MA-64N	33
MA-43482	65	MA-49332	31	MA4L380	55	MA-5416BX	15	MA5L720	55	MA-65093	28
MA-43484	65	MA-49333	31	MA4L390	55	MA-5420BX	15	MA-5TCA	36	MA-650B	41
MA-43486	65	MA-49334	31	MA4L400	55	MA-5428BX	15	MA60042	54	MA-650N	41
MA-43488	65	MA-49858A	29	MA4L410	55	MA-5432BX	15	MA60048	54	MA-651	36
MA-436074	24	MA-4E104A	19	MA4L420	55	MA-56188	15	MA60049K	54	MA-67363	28
MA-437131	24	MA-4E110	19	MA4L430	55	MA-563211	49	MA-600CF	4	MA68004	54
MA-437292	24	MA-4E1101	19	MA4L440	55	MA-572A	14	MA-6012W	18	MA-68150	18
MA-437339	24	MA-4E1102	19	MA4L450	55	MA-5DT1	15	MA60306K	54	MA-69523	29
MA-4401	28	MA-4E121	20	MA4L460	55	MA-5DT112	15	MA-6034W	18	MA-70059P	30
MA-4402	28	MA-4E122	20	MA4L470	55	MA-5DT114	15	MA-60609	31	MA-70090	31
MA-4404	28	MA-4E123	20	MA4L480	55	MA5L340	55	MA-60610	31	MA-70091	31
MA-440G	32	MA-4E124	20	MA4L490	55	MA5L350	55	MA-60613	31	MA-70093	31
MA-4429	28	MA-4E21	20	MA4L500	55	MA5L360	55	MA-60613-25	31	MA-70094	31
MA-4430	28	MA-4E22	20	MA4L510	55	MA5L370	55	MA-60616	31	MA-70095	31
MA-4431	28	MA-4E23	20	MA4L520	55	MA5L380	55	MA-60616-25	31	MA-70097	31
MA-4433	28	MA-4E24	20	MA4L530	55	MA5L390	55	MA-60743	28	MA-70098	31
MA-447025	24	MA-4E421	19	MA4L540	55	MA5L400	55	MA-60954	28	MA-70099	31
MA-447040	24	MA-4E422	19	MA4L550	55	MA5L410	55	MA-60A	13	MA-70100	31
MA-448007	24	MA-4E48	19	MA4L560	55	MA5L420	55	MA-60AFF	13	MA-70115	24
MA-450007	24	MA-4E5090A	18	MA4L570	55	MA5L430	55	MA-60F3	18	MA-70116	24
MA-4540	28	MA-4E50A	18	MA4L580	55	MA5L440	55	MA-60NF3	18	MA-70120	24
MA-457005	24	MA-4E51	19	MA4L590	55	MA5L450	55	MA-61/4SA	16	MA-70121	24
MA-457007	24	MA-4E57	19	MA4L600	55	MA5L460	55	MA61000	54	MA-70122	24
MA-457010	24	MA-4E58	19	MA4L610	55	MA5L470	55	MA61056	54	MA-70130	24
MA-457012	24	MA-4E59A	20	MA4L620	55	MA5L480	55	MA-61623	28	MA-70132	24
MA-457015	24	MA-4E75	18	MA4L630	55	MA5L490	55	MA-6182	44	MA-70133	24
MA-457020	24	MA-4E7590	18	MA4L640	55	MA5L500	55	MA-6183	44	MA-70-14JR	34

PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #
MA-70151	24	MA-73108	48	MA-7637	61	MA-821	4	MA-9615	35	MA-9662	35
MA-70152	24	MA-73109	48	MA-7638	61	MA-823	4	MA-9616	35	MA-9663	35
MA-70153	24	MA-73110	48	MA-7639	61	MA-8400	33	MA-9617	35	MA-9664	35
MA-70204	28	MA-73111	48	MA-7640	61	MA-84002	51	MA-9618	35	MA-9665	35
MA-70221	24	MA-73112	48	MA-7641	61	MA-8401	33	MA-9619	35	MA-AA45E	34
MA-70231	24	MA-7321	29	MA-7642	61	MA-8408	33	MA-9620	35	MA-AA46V	34
MA-70232	24	MA-7339	8	MA-7643	61	MA-8410	46	MA-9621	35	MA-AA47R	34
MA-70250	34	MA-73532	37	MA-7644	61	MA-8411	46	MA-9622	35	MA-ABC-1	17
MA-70251	34	MA-73815	24	MA-7645	61	MA-8412	46	MA-9623	35	MA-ABC-10	17
MA-70252	34	MA-73820	24	MA-7646	61	MA-8414	46	MA-9624	35	MA-ABC-12	17
MA-70253	34	MA-73830	24	MA-7647	61	MA-8415	46	MA-9625	35	MA-ABC-15	17
MA-70254	34	MA-7409	8	MA-7648	60	MA-8646L	37	MA-9626	35	MA-ABC-2	17
MA-70255	34	MA-74213	28	MA-7649	60	MA-8646M	37	MA-9627	35	MA-ABC-20	17
MA-70256	34	MA-748325A	28	MA-7650	60	MA-8646XL	37	MA-9628	35	MA-ABC-3	17
MA-70257	34	MA-7514	61	MA-7651	60	MA-88057	30	MA-9629	35	MA-ABC-30	17
MA-70343	28	MA-7515	61	MA-7652	60	MA-88081	30	MA-9630	35	MA-ABC-5	17
MA-70474	28	MA-7518	61	MA-7653TR	60	MA-88091	30	MA-9631	35	MA-ABC-6	17
MA-70615	24	MA-7519	17	MA-7654	60	MA-90303	48	MA-9632	35	MA-ABC-8	17
MA-70620	24	MA-7525	61	MA-7655	60	MA-90304	48	MA-9633	35	MA-ACB36	54
MA-70630	24	MA-7599	61	MA-7656	60	MA-90502	48	MA-9634	35	MA-ACB42	54
MA-71115	24	MA-7600	60	MA-7657	60	MA-90503	48	MA-9635	35	MA-AGC-1	17
MA-71120	24	MA-7601	60	MA-7658	60	MA-9306	32	MA-9636	35	MA-AGC-1/2	17
MA-71130	24	MA-7602	60	MA-7659	61	MA-9308	32	MA-9637	35	MA-AGC-1/32	17
MA-71-132R	34	MA-7603	60	MA-7660	61	MA-9310	32	MA-9637	35	MA-AGC-1/4	17
MA-71493	28	MA-7604	60	MA-7661	61	MA-9311	32	MA-9638	35	MA-AGC-10	17
MA-71801P	34	MA-7605	60	MA-7662	61	MA-9312	32	MA-9639	35	MA-AGC-11/2	17
MA-71802P	34	MA-7606	60	MA-7663	61	MA-9314	32	MA-9640	35	MA-AGC-11/4	17
MA-71803P	34	MA-7607	60	MA-7664	61	MA-9316	32	MA-9641	35	MA-AGC-15	17
MA-72023	28	MA-7608	60	MA-7665	61	MA-93482	65	MA-9642	35	MA-AGC-2	17
MA-72066	31	MA-7611	60	MA-7667	61	MA-93484	65	MA-9643	35	MA-AGC-20	17
MA-72314	28	MA-76110	54	MA-7668	61	MA-93486	65	MA-9644	35	MA-AGC-25	17
MA-72433	33	MA-7612	61	MA-7669	61	MA-93488	65	MA-9645	35	MA-AGC-3	17
MA-72435	33	MA-7613	61	MA-7670	60	MA-9355	32	MA-9646	35	MA-AGC-3/4	17
MA-72437	33	MA-7614	61	MA-7671	60	MA-9358 -12	30	MA-9647	35	MA-AGC-30	17
MA-72439	33	MA-7615	61	MA-7672	60	MA-9601	35	MA-9648	35	MA-AGC-4	17
MA-72744	28	MA-7617	61	MA-7673	60	MA-9602	35	MA-9649	35	MA-AGC-5	17
MA-72815	24	MA-7618	61	MA-7674	61	MA-9603	35	MA-9650	35	MA-AGC-6	17
MA-72820	24	MA-7621	60	MA-77940	37	MA-9604	35	MA-9651	35	MA-AGC-7	17
MA-72830	24	MA-7624	60	MA80105	54	MA-9605	35	MA-9652	35	MA-AGC-8	17
MA-7300	37	MA-7625	60	MA-8016	57	MA-9606	35	MA-9653	35	MA-AGC-9	17
MA-73093	28	MA-7626	60	MA80293	54	MA-9607	35	MA-9654	35	MA-AL9V	27
MA-73101	48	MA-7630	61	MA-8032	57	MA-9608	35	MA-9655	35	MA-ALAA	27
MA-73102	48	MA-7631	61	MA-8201	28	MA-9609	35	MA-9656	35	MA-ALAAA	27
MA-73103	48	MA-7632	61	MA-8202A	28	MA-9610	35	MA-9657	35	MA-ALC	27
MA-73104	48	MA-7633	61	MA-8203	28	MA-9611	35	MA-9658	35	MA-ALD	27
MA-73105	48	MA-7634	61	MA-8205	28	MA-9612	35	MA-9659	35	MA-AN84A	6
MA-73106	48	MA-7635	61	MA-8206A	29	MA-9613	35	MA-9660	35	MA-AP132	27
MA-73107	48	MA-7636	61	MA-8207	29	MA-9614	35	MA-9661	35	MA-AP8SD	30

PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #
MA-AT12	14	MA-BN12CL	23	MA-BTG54VL	56	MA-CH101-3	50	MA-CW406	55	MA-DMTL1	3
MA-AT14	14	MA-BN13	23	MA-BTG54VLW	56	MA-CH102	50	MA-CW501	55	MA-DMTP	3
MA-AT14-5	14	MA-BN1312	23	MA-BTGDB	56	MA-CH102-1	50	MA-CW502	55	MA-DS4	51
MA-AT18	14	MA-BN14	23	MA-BTGDK	56	MA-CH102-2	50	MA-CW503	55	MA-DS6	51
MA-AT18-5	14	MA-BN1412	23	MA-BTGEK	56	MA-CH103	50	MA-CW601	55	MA-DT1	15
MA-AT316	14	MA-BN15	23	MA-BTGK	56	MA-CH103-2	50	MA-CW650	55	MA-DT112	15
MA-AT316-5	14	MA-BN1512	23	MA-BTGKM	56	MA-CH135	50	MA-CW655	55	MA-DT114	15
MA-AT38	14	MA-BN16	23	MA-BTGRK	56	MA-CIMK2	51	MA-CW665	55	MA-DT12	15
MA-AT38-5	14	MA-BN1CL	23	MA-BTGUK2	56	MA-CL1	30	MA-CSSC54-48	48	MA-DT2	15
MA-AT516	14	MA-BN34112	23	MA-BTGUM	56	MA-CO801	7	MA-CSSC54-60	48	MA-DT34	15
MA-AT58	14	MA-BN342	23	MA-BTGUWM	56	MA-CP1	50	MA-CW701	55	MA-E0PL	19
MA-AT716	14	MA-BN34212	23	MA-C6408	53	MA-CP2	50	MA-CW801	55	MA-E100	18
MA-ATC10	17	MA-BN343	23	MA-C6433	53	MA-CP35-120	50	MA-CW802	55	MA-E10090	18
MA-ATC15	17	MA-BN34312	23	MA-C6435B	53	MA-CP35-240	50	MA-D100040	24	MA-E104A	19
MA-ATC2	17	MA-BN344	23	MA-C6435BR	53	MA-CP52-120	50	MA-D102420	24	MA-E105	19
MA-ATC20	17	MA-BN34412	23	MA-C6435G	53	MA-CP52-240	50	MA-D102422	24	MA-E106	19
MA-ATC25	17	MA-BN345	23	MA-C6435GN	53	MA-CSSC21-18	48	MA-D115	62	MA-E107	19
MA-ATC3	17	MA-BN34512	23	MA-C6435O	53	MA-CSSC21-24	48	MA-D120	62	MA-E10S	20
MA-ATC30	17	MA-BN346	23	MA-C6435R	53	MA-CSSC21-36	48	MA-D120	62	MA-E110	19
MA-ATC4	17	MA-BN34CL	23	MA-C6435W	53	MA-CSSC21-48	48	MA-D130	62	MA-E110-1	19
MA-ATC5	17	MA-BP001	36	MA-C6435Y	53	MA-CSSC21-60	48	MA-D130040	24	MA-E110-2	19
MA-ATC7.5	17	MA-BP112	23	MA-C6488	53	MA-CSSC21-72	48	MA-D140	62	MA-E110-3	19
MA-BC1	15	MA-BP118	23	MA-C950	53	MA-CSSC54-12	48	MA-D150	62	MA-E110-4	19
MA-BC112	15	MA-BP1212	23	MA-C950-4	53	MA-CSSC54-18	48	MA-D160	62	MA-E110-5	19
MA-BC114	15	MA-BP1218	23	MA-CCT11	40	MA-CSSC54-24	48	MA-D215	62	MA-E121	20
MA-BC12	15	MA-BP1224	23	MA-CCT11-K	40	MA-CSSC54-36	48	MA-D220	62	MA-E122	20
MA-BC14	15	MA-BP1230	23	MA-CCT14	40	MA-CSSC54-48	48	MA-D230	62	MA-E123	20
MA-BC2	15	MA-BP1236	23	MA-CCT14-K	40	MA-CSSC54-60	48	MA-D240	62	MA-E124	20
MA-BC34	15	MA-BP124	23	MA-CCT15	40	MA-CSSC54-72	48	MA-D250	62	MA-E125	20
MA-BC38	15	MA-BP1248	23	MA-CCT15-K	40	MA-CSSD54-12	48	MA-D260	62	MA-E12590	18
MA-BDHTR	13	MA-BP1260	23	MA-CCT7	40	MA-CSSD54-18	48	MA-D300040	24	MA-E126	20
MA-BDIOT	13	MA-BP130	23	MA-CCT7-K	40	MA-CSSD54-24	48	MA-D304040	24	MA-E127	20
MA-BF1	52	MA-BP136	23	MA-CCW403	55	MA-CSSD54-36	48	MA-D309015	24	MA-E128	20
MA-BFC	52	MA-BP148	23	MA-CCW404	55	MA-CSSD54-48	48	MA-D309020	24	MA-E129	20
MA-BI4	51	MA-BP160	23	MA-CCW504	55	MA-CSSD54-60	48	MA-D309030	24	MA-E130	20
MA-BI6	51	MA-BP3412	23	MA-CCW505	55	MA-CSSD54-72	48	MA-D321040	24	MA-E144-1	20
MA-BN12	23	MA-BP3418	23	MA-CCW550	55	MA-CT1	53	MA-D323015	24	MA-E144-2	20
MA-BN12112	23	MA-BP3424	23	MA-CCW605	55	MA-CVT1	14	MA-D323020	24	MA-E15090	18
MA-BN1212	23	MA-BP3430	23	MA-CCW606	55	MA-CVT12	14	MA-D323030	24	MA-E1PL	19
MA-BN122	23	MA-BP3436	23	MA-CCW703	55	MA-CVT14	14	MA-D400040	24	MA-E200	63
MA-BN12212	23	MA-BP3448	23	MA-CF1	15	MA-CVT316	14	MA-DM1	3	MA-E200EXT	63
MA-BN123	23	MA-BP3460	23	MA-CF-100	15	MA-CVT34	14	MA-DMT123	11	MA-E201	63
MA-BN12312	23	MA-BT1	15	MA-CF-50	15	MA-CVT38	14	MA-DMT123KIT	11	MA-E201-3/4	63
MA-BN124	23	MA-BT112	15	MA-CGD383	08	MA-CVT58	14	MA-DMT3	3	MA-E202	63
MA-BN12412	23	MA-BT114	15	MA-CH100	50	MA-CVT78	14	MA-DMTK	3	MA-E21	20
MA-BN125	23	MA-BT12	15	MA-CH101	50	MA-CW300	55	MA-DMTKA	3	MA-E22	20
MA-BN12512	23	MA-BT2	15	MA-CH101-1	50	MA-CW301	55	MA-DMTK1	3	MA-E23	20
MA-BN126	23	MA-BT34	15	MA-CH101-2	50	MA-CW401	55	MA-DMTL	3	MA-E2390-2	20

PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #
MA-E24	20	MA-E3PL25	19	MA-E96-1CG	20	MA-FL3-M	27	MA-FRNR80	16	MA-HDT78	14
MA-E25	20	MA-E42-1	19	MA-E96-2CG	20	MA-FM50	54	MA-FRNR90	16	MA-HML7	27
MA-E251	63	MA-E42-2	19	MA-E96-4CG	20	MA-FM55	54	MA-FRSR1	16	MA-HP3	18
MA-E252	63	MA-E42-3	19	MA-E96-5CG	20	MA-FM554A	54	MA-FRSR1.25	16	MA-HP3-2P	18
MA-E253	63	MA-E42-4	19	MA-ECNR10	16	MA-FNM10	17	MA-FRSR1.6	16	MA-HP6	18
MA-E254	63	MA-E42-5	19	MA-ECNR100	16	MA-FNM12	17	MA-FRSR10	16	MA-HP6-2P	18
MA-E255	63	MA-E48	19	MA-ECNR125	16	MA-FNM15	17	MA-FRSR100	16	MA-HRFT1	13
MA-E26	20	MA-E4PL	19	MA-ECNR15	16	MA-FNM20	17	MA-FRSR110	16	MA-HS50	50
MA-E27	20	MA-E504	63	MA-ECNR20	16	MA-FNM25	17	MA-FRSR12	16	MA-HT1	52
MA-E272	63	MA-E508D	63	MA-ECNR200	16	MA-FNM30	17	MA-FRSR125	16	MA-HT64	52
MA-E273	63	MA-E508T	63	MA-ECNR25	16	MA-FNM35	17	MA-FRSR15	16	MA-HTSS-R	52
MA-E274	62	MA-E509	63	MA-ECNR3.2	16	MA-FNM40	17	MA-FRSR150	16	MA-HU1	51
MA-E28	20	MA-E5090A	18	MA-ECNR30	16	MA-FNQ10	17	MA-FRSR175	16	MA-HWA02	15
MA-E29	20	MA-E50A	18	MA-ECNR35	16	MA-FNQ12	17	MA-FRSR2	16	MA-HWA05	15
MA-E298-21	20	MA-E51	19	MA-ECNR40	16	MA-FNQ15	17	MA-FRSR2.5	16	MA-HWG02	15
MA-E298-31	20	MA-E52PL	20	MA-ECNR45	16	MA-FNQ20	17	MA-FRSR20	16	MA-HWG05	15
MA-E298-32	20	MA-E554	63	MA-ECNR5	16	MA-FNQ25	17	MA-FRSR200	16	MA-IC13	29
MA-E298-41	20	MA-E560	63	MA-ECNR50	16	MA-FNQ30	17	MA-FRSR225	16	MA-IC15	29
MA-E298-42	20	MA-E564	63	MA-ECNR6.25	16	MA-FRBS8	32	MA-FRSR25	16	MA-IM12	9
MA-E298-43	20	MA-E57	19	MA-ECNR60	16	MA-FRNR1	16	MA-FRSR3.2	16	MA-IM24	9
MA-E298-51	20	MA-E570	63	MA-ECNR70	16	MA-FRNR1.25	16	MA-FRSR30	16	MA-IM30	9
MA-E298-52	20	MA-E571	63	MA-ECNR80	16	MA-FRNR1.6	16	MA-FRSR35	16	MA-IMK1	51
MA-E298-53	20	MA-E572	63	MA-ECSR10	16	MA-FRNR10	16	MA-FRSR4	16	MA-IRT203B	10
MA-E298-54	20	MA-E573	63	MA-ECSR100	16	MA-FRNR100	16	MA-FRSR40	16	MA-J100	50
MA-E2PL	19	MA-E574	63	MA-ECSR125	16	MA-FRNR110	16	MA-FRSR45	16	MA-J1500	15
MA-E2PL-1	19	MA-E575	63	MA-ECSR15	16	MA-FRNR12	16	MA-FRSR5	16	MA-J2000	15
MA-E2PL25	19	MA-E58	19	MA-ECSR150	16	MA-FRNR125	16	MA-FRSR50	16	MA-J3000	15
MA-E30	20	MA-E584	63	MA-ECSR20	16	MA-FRNR15	16	MA-FRSR6.25	16	MA-J4000	15
MA-E303	63	MA-E59	20	MA-ECSR200	16	MA-FRNR150	16	MA-FRSR60	16	MA-K1	15
MA-E303D	63	MA-E590	63	MA-ECSR25	16	MA-FRNR175	16	MA-FRSR70	16	MA-K112	15
MA-E304EXT	63	MA-E594	63	MA-ECSR30	16	MA-FRNR2	16	MA-FRSR8	16	MA-K114	15
MA-E350EXT	63	MA-E5S	20	MA-ECSR35	16	MA-FRNR2.5	16	MA-FRSR80	16	MA-K12	15
MA-E352	63	MA-E60PL	20	MA-ECSR40	16	MA-FRNR20	16	MA-FRSR90	16	MA-K2	15
MA-E353	63	MA-E61PL	20	MA-ECSR45	16	MA-FRNR200	16	MA-FT1	53	MA-K212	15
MA-E353D	63	MA-E65PL	20	MA-ECSR50	16	MA-FRNR225	16	MA-FWP7	32	MA-K3	15
MA-E363D	63	MA-E69PL	20	MA-ECSR60	16	MA-FRNR25	16	MA-FWP7-MET	32	MA-K34	15
MA-E37-1	20	MA-E75	18	MA-ECSR70	16	MA-FRNR3.2	16	MA-GF1	15	MA-KC710	33
MA-E37-2	20	MA-E7590	18	MA-ECSR80	16	MA-FRNR30	16	MA-GF-100	15	MA-KN74HD	33
MA-E37-3	20	MA-E7S	20	MA-ECSR90	16	MA-FRNR35	16	MA-GF-50	15	MA-KVS007	33
MA-E374	63	MA-E80	20	MA-EM3213A	8	MA-FRNR4	16	MA-GH25	15	MA-KVS008	33
MA-E374D	63	MA-E81	20	MA-EM3215	8	MA-FRNR40	16	MA-GH50	15	MA-L42	34
MA-E376	20	MA-E82	20	MA-ETP110	13	MA-FRNR45	16	MA-HDT1	14	MA-L42RB	34
MA-E377	20	MA-E83	20	MA-EXT4	18	MA-FRNR5	16	MA-HDT12	14	MA-L50	34
MA-E378	20	MA-E900	20	MA-F336	56	MA-FRNR50	16	MA-HDT14	14	MA-L50RB	34
MA-E379	20	MA-E901	20	MA-FA134	37	MA-FRNR6.25	16	MA-HDT316	14	MA-LC20D	18
MA-E380	20	MA-E902	20	MA-FB2	31	MA-FRNR60	16	MA-HDT34	14	MA-LC20E	18
MA-E3PL	19	MA-E903	20	MA-FL3A	27	MA-FRNR70	16	MA-HDT38	14	MA-LC43D	18
MA-E3PL-1	19	MA-E904	20	MA-FL3A-12	27	MA-FRNR8	16	MA-HDT58	14	MA-LC43E	18

PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #
MALS-105A	58	MA-MFC2	31	MA-NS1	30	MA-P4034W	18	MA-PT550	12	MA-S16A	16
MALS-105A-P	58	MA-MFC3	31	MA-NS1000	30	MA-P6012W	18	MA-PT70C	12	MA-S1A	16
MALS-125E1	58	MA-MGT1	35	MA-NS12	30	MA-P6034W	18	MA-PVC27	34	MA-S20A	16
MALS-135A	58	MA-MGT2	35	MA-NS14	30	MA-PAK-1	41	MA-PVC42	34	MA-S21/2A	16
MALS-135A-P	58	MA-MHG-2	5	MA-NS16	30	MA-PAK-2	41	MA-Q115	62	MA-S25	34
MALS-160E1	58	MAMJ-120	59	MA-NS18	30	MA-PAK-3	41	MA-Q120	62	MA-S25A	16
MALS-190A	58	MAMJ-120-P	59	MA-NS2	30	MA-PDT392B	12	MA-Q125	62	MA-S25RB	34
MALS-190A-P	58	MAMJ-40	59	MA-NS2000	30	MA-PG1	55	MA-Q130	62	MA-S2A	16
MALS-210E1	58	MAMJ-40-P	59	MA-NS22	30	MA-PH100	15	MA-Q140	62	MA-S30	57
MALS-210E2	58	MAMJ-70	59	MA-NS24	30	MA-PH50	15	MA-Q150	62	MA-S3003	8
MALS-240A	58	MAMJ-70-P	59	MA-NS26	30	MAPLB1	27	MA-Q160	62	MA-S31A	16
MALS-280E1	58	MAMJ-90	59	MA-NS28	30	MAPLP-1000	59	MA-Q2100	62	MA-S32A	16
MALS-280E2	58	MAMJ-90-P	59	MA-NS32	30	MAPLP-1290E1	59	MA-Q2125	62	MA-S38	51
MALS-320A	58	MA-MMD3E	8	MA-NS36	30	MAPLP-1500	59	MA-Q215	62	MA-S4A	16
MALS-360E2	58	MA-MT53	33	MA-NS40	30	MAPLP-1720E2	59	MA-Q220	62	MA-S5A	16
MALS-410A	58	MA-MT62	33	MA-NSPD1	30	MAPLP-2000	59	MA-Q225	62	MA-S60	57
MALS-50E1	58	MA-MY69	2	MA-NW110	15	MAPLP-2150E2	59	MA-Q230	62	MA-S61/4A	16
MALS-540E2	58	MA-N12	51	MA-NW1126	15	MAPLP-2500	59	MA-Q240	62	MA-S6A	16
MALS-55A	58	MA-N14	51	MA-NW1126-C	15	MAPLP-2580E3	59	MA-Q250	62	MA-S8A	16
MALS-55A-P	58	MA-N38	51	MA-NW1128	15	MAPLP-3000	59	MA-Q260	62	MA-SAB1	49
MALS-95E1	58	MA-N516	51	MA-NW1128-C	15	MAPLP-380	59	MA-Q270	62	MA-SAB1-50	49
MA-LT125	18	MA-NAT18-5	14	MA-NW11410	15	MAPLP-430E	59	MA-Q280	62	MA-SB35	54
MA-LT150	18	MA-NAT316	14	MA-NW1146	15	MAPLP-500	59	MA-Q290	62	MA-SC10	17
MA-MC123	36	MA-NAT316-5	14	MA-NW1146-C	15	MAPLP-600	59	MA-QP400	32	MA-SC1200CF	37
MA-MC22C	19	MA-NDK16	32	MA-NW1148	15	MAPLP-640E	59	MA-QP400-12	32	MA-SC15	17
MA-MC23C	19	MA-NMLT50	18	MA-NW1148-C	15	MAPLP-750	59	MA-QP400-G	32	MA-SC150CF	37
MA-MC42C	19	MA-NMLT75	18	MA-NW1210	15	MAPLP-860E	59	MA-REF401C	50	MA-SC20	17
MA-MC43C	19	MA-NMLT9050	18	MA-NW124	15	MA-PLT11	40	MA-REF401F	50	MA-SC25	17
MA-MDL-1	17	MA-NMLT9075	18	MA-NW124-C	15	MA-PLT11-K	40	MA-REF700	50	MA-SC30	17
MA-MDL-1/2	17	MA-NON1	16	MA-NW126	15	MA-PLT14	40	MA-RRWBK	32	MA-SC35	17
MA-MDL-1/4	17	MA-NON10	16	MA-NW126-C	15	MA-PLT14-K	40	MA-RS300	57	MA-SC40	17
MA-MDL-10	17	MA-NON100	16	MA-NW128	15	MA-PLT4	40	MA-RT1	13	MA-SC45	17
MA-MDL-11/4	17	MA-NON15	16	MA-NW128-C	15	MA-PLT4-K	40	MA-RT330	11	MA-SC50	17
MA-MDL-15	17	MA-NON150	16	MA-NW14	15	MA-PLT7	40	MA-RT335	11	MA-SC5000CF	37
MA-MDL-2	17	MA-NON175	16	MA-NW14-C	15	MA-PLT7-K	40	MA-RT340	11	MA-SC60	17
MA-MDL-20	17	MA-NON20	16	MA-NW16	15	MA-PS120	12	MA-RT340LS	11	MA-SC600CF	37
MA-MDL2-1/2	17	MA-NON200	16	MA-NW16-C	15	MA-PS220	12	MA-RT343	11	MA-SDB2	30
MA-MDL-25	17	MA-NON25	16	MA-NW18	15	MA-PT110C	12	MA-RT8100	13	MA-SDB8	30
MA-MDL-3	17	MA-NON3	16	MA-NW18-C	15	MA-PT134160	12	MA-RT8101	13	MA-SDF1	49
MA-MDL-3.2	17	MA-NON30	16	MA-NW3410	15	MA-PT134220	12	MA-RT818	12	MASF-105	58
MA-MDL-3/4	17	MA-NON35	16	MA-NW344	15	MA-PT138160	12	MA-RT819	12	MASF-105-P	58
MA-MDL-30	17	MA-NON40	16	MA-NW344-C	15	MA-PT138220	12	MA-RT900A	11	MASF-135	58
MA-MDL-4	17	MA-NON45	16	MA-NW346	15	MA-PT14	14	MA-S10A	16	MASF-135-P	58
MA-MDL-5	17	MA-NON50	16	MA-NW346-C	15	MA-PT160	12	MA-S11/4A	16	MASF-175	58
MA-MDL-6	17	MA-NON6	16	MA-NW348	15	MA-PT160B	12	MA-S12A	16	MASF-175-P	58
MA-MDL-7	17	MA-NON60	16	MA-NW348-C	15	MA-PT220	12	MA-S14	51	MASF-235	58
MA-MDL-8	17	MA-NON70	16	MA-OVN1	13	MA-PT220B	12	MA-S144	57	MASF-235-P	58
MA-MFC1	31	MA-NON80	16	MA-P4012W	18	MA-PT38	14	MA-S15A	16	MASF-305	58



PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #	PART #	PG #
MASF-305-P	58	MA-SR409A-50	49	MA-T21/2A	16	MATM-250	59	MA-W38	51	T 0210	49
MA-SH1500	15	MA-SR410A	49	MA-T25A	16	MATM-250-P	59	MA-W3A	16	T 0220	49
MA-SH2000	15	MA-SR410A-50	49	MA-T2A	16	MA-TN5044	26	MA-W455	14	T 0230	49
MA-SH3000	15	MA-SR417A	49	MA-T30A	16	MA-TN5044-100	26	MA-W516	51	T 0240	49
MA-SH4000	15	MA-SR417A-50	49	MA-T32A	16	MA-TN5044-25	26	MA-W5A	16	T 027	49
MA-SHCFC123	49	MA-SR421A	49	MA-T4A	16	MA-TN5044-50	26	MA-W6A	16	T 032	49
MA-SHCFC123-50	49	MA-SR421A-50	49	MA-T5A	16	MA-TN5066	26	MA-W8A	16	T 076	49
MA-SL15A	16	MA-SR422B	49	MA-T61/4A	16	MA-TN5066-100	26	MA-WHP22	50	T 080	49
MA-SL20A	16	MA-SR422B-50	49	MA-T7A	16	MA-TN5066-25	26	MA-WHP24	50	T 085	49
MA-SL25A	16	MA-SR422D	49	MA-T8A	16	MA-TN5066-50	26	MA-WHP26	50	VE118OD	39
MA-SL30A	16	MA-SR422D-50	49	MA-THHN10B	47	MA-TN5088	26	MA-WHP28	50	VE12OD	39
MA-SM6	9	MA-SR438A	49	MA-THHN10G	47	MA-TN5088-100	26	MA-WHP32	50	VE138OD	39
MA-SM7	9	MA-SR438A-50	49	MA-THHN10R	47	MA-TN5088-25	26	MA-WP1	50	VE14OD	39
MA-SM8	9	MA-SR500	49	MA-THHN10W	47	MA-TN5088-50	26	MA-WR6	31	VE158OD	39
MA-SMO1	49	MA-SR500-50	49	MA-THHN12B	47	MA-TN51212	26	MA-WR8	31	VE218OD	39
MA-SMO1-50	49	MA-SR502	49	MA-THHN12G	47	MA-TN51212-100	26	MA-WR10	31	VE258OD	39
MA-SNAT316-5	14	MA-SR502-50	49	MA-THHN12R	47	MA-TN51212-25	26	MA-WR12	31	VE318OD	39
MA-SND80	6	MA-SR507	49	MA-THHN12W	47	MA-TN51212-50	26	MA-WR681012	31	VE34OD	39
MA-SOC19	32	MA-SR507-50	49	MA-THHN14B	47	MA-TR12	51	MA-WSFD30A	18	VE358OD	39
MA-SOC19-MET	32	MA-SRECT	49	MA-THHN14G	47	MA-TR14	51	MA-WSFD60A	18	VE38OD	39
MA-SPA1	49	MA-SRECT-50	49	MA-THHN14R	47	MA-TR38	51	MA-WSNFD60A	18	VE418OD	39
MA-SPA1-50	49	MA-SRT14-5	14	MA-THHN14W	47	MA-TR516	51	MA-WTJ1	41	VE58OD	39
MA-SPO1	49	MA-SRT18-5	14	MA-THHN8B	47	MA-TX100	38	MA-WU17	51	VE78OD	39
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MA-SR11	49	MA-SRU	17	MA-THHN8R	47	MA-TX205	38	MAXICAP3R	48		
MA-SR11-50	49	MA-SRY	17	MA-THHN8W	47	MA-TX402	38	MAXICAP5R	48		
MA-SR113	49	MA-SSC-CK	52	MA-THHNS-10B	47	MA-TX403	38	MAXICAP7R	48		
MA-SR113-50	49	MA-SSG-CK	52	MA-THHNS-10G	47	MA-TX404	38	MA-XL80-25	57		
MA-SR114	49	MA-SSU	17	MA-THHNS-10R	47	MA-TX405	38	MA-XL80-5	57		
MA-SR114-50	49	MA-SSW	17	MA-THHNS-10W	47	MA-TX406	38	MA-XP5	18		
MA-SR12	49	MA-SSW-CK	52	MA-THHNS-12B	47	MA-TX407	38	MA-XP6	18		
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MA-SR406A-50	49	MA-T11/4A	16	MATM-100	59	MA-VIMK2	51	QO250	62		
MA-SR407C	49	MA-T12A	16	MATM-100-P	59	MA-VIMK3	51	QO260	62		
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MA-SR408A-50	49	MA-T1A	16	MATM-180	59	MA-W12	51	T 018	49		
MA-SR409A	49	MA-T20A	16	MATM-180-P	59	MA-W14	51	T 019	49		





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