



PM-253086A

2020-07

Processes



TIG (GTAW) Welding



Stick (SMAW) Welding



MIG (GMAW) Welding

Flux Cored (FCAW) Welding

Description



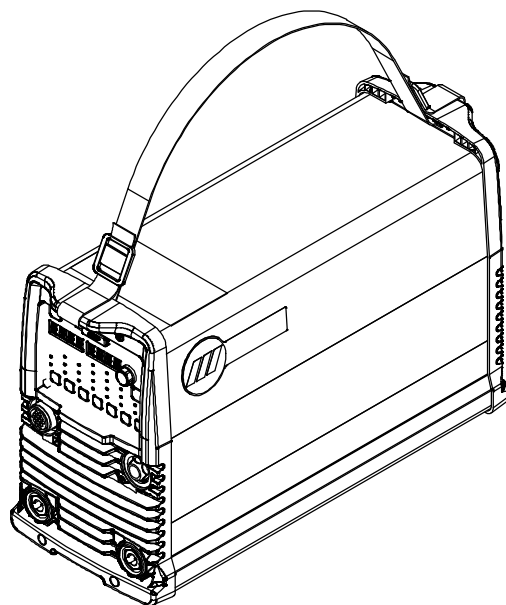
208-575 Volt Models W/Autoline®

Arc Welding Power Source

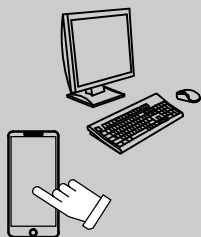
Dynasty[®] 280, 280 DX Dynasty[®] 280 DX Multiprocess Maxstar[®] 280, 280 DX

CE And Non-CE Models
Eff w/MD370231L And Following

For OM-253086 Revision A Thru W



PARTS MANUAL

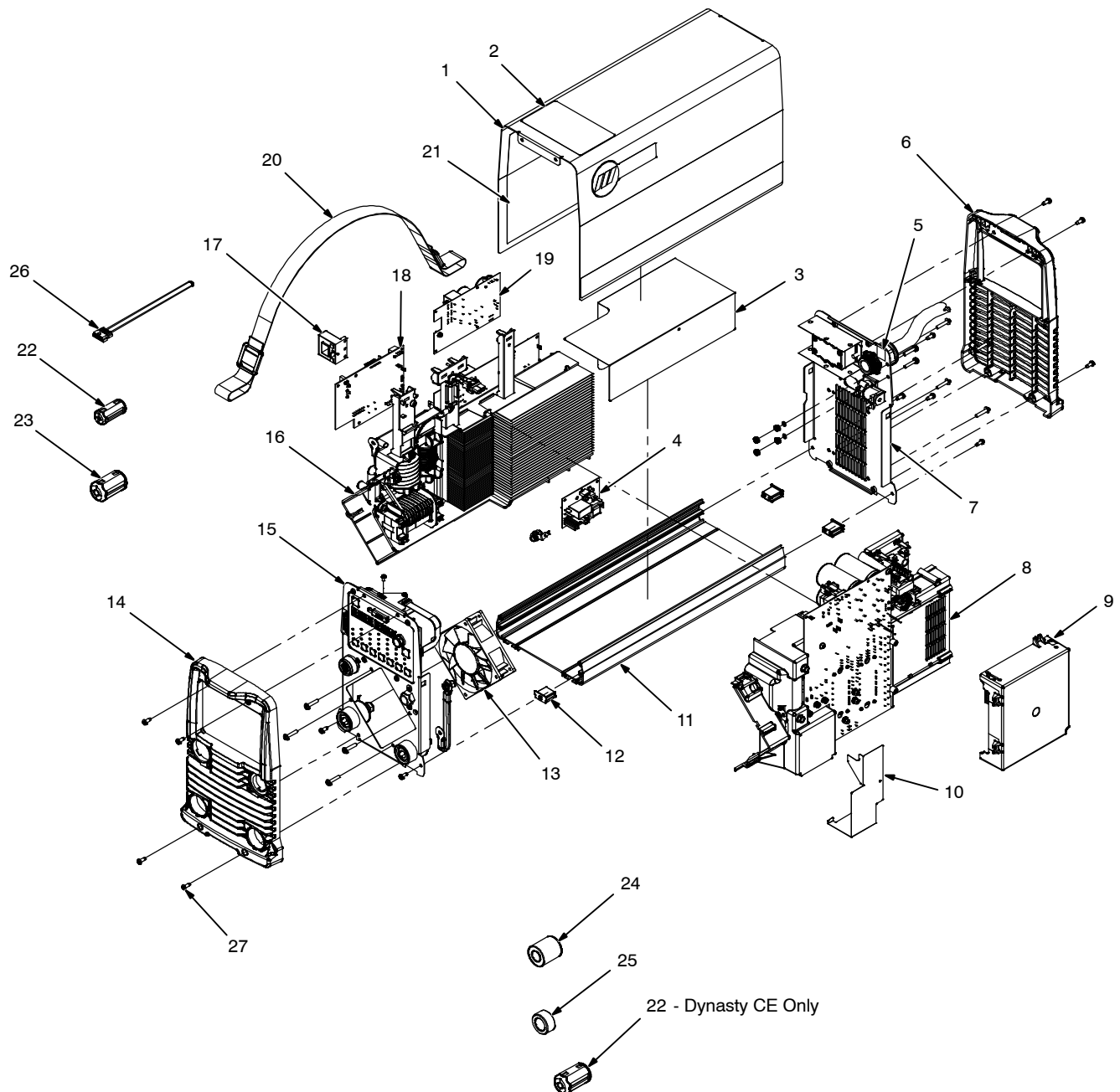


For product information,
Owner's Manual translations,
and more, visit

www.MillerWelds.com

SECTION 1 - DYNASTY/MAXSTAR PARTS LIST FOR SERIAL NO. MD370231L AND FOLLOWING

 Hardware is common and
not available unless listed.



805498-C

Figure 1-1. Main Assembly

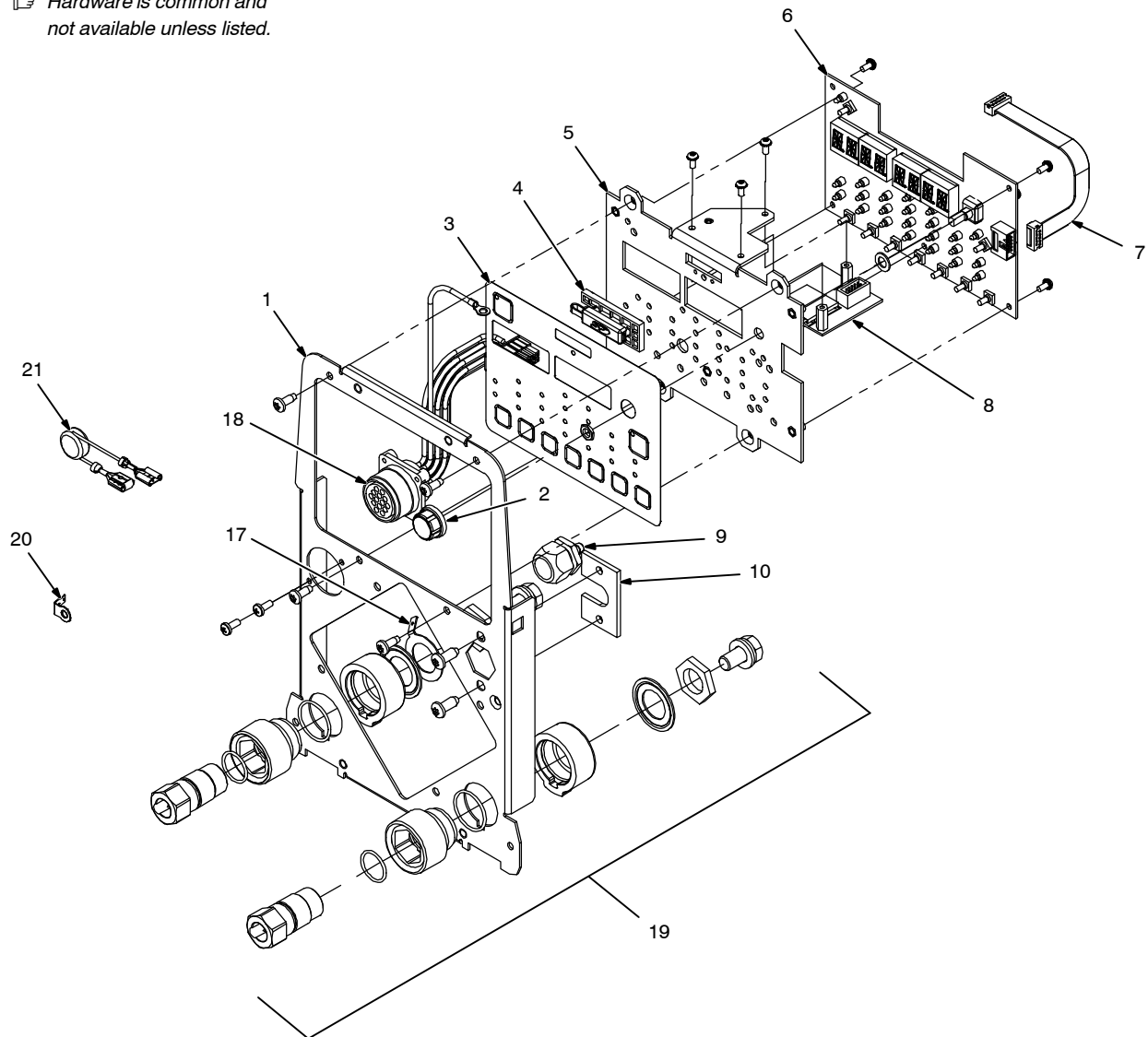
Eff w/ Serial No. MD370231L And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-1. Main Assembly				
.. 1		+246627 ..	Wrapper (Order by Model and Serial Number)	1
.. 2		203990 ..	Label, Warning General Precautionary Static	1
.. 2		179310 ..	Label, Warning General Precautionary Static (CE)	1
.. 3		268859 ..	Insulator, Main	1
.. 4	PC4	247046 ..	Circuit Card Assy, Arc Starter	1
.....	RC70	131204 ..	Housing Plug + Skts	1
.. 5		217553 ..	Label, GND	1
.. 6		246624 ..	Panel, Rear Plastic	1
.. 7		249517 ..	Panel, Rear w/Cmpnts (Figure 1-4)	1
.. 8		249515 ..	Windtunnel, Rh w/Cmpnts (Figure 1-5)	1
.. 9		250110 ..	Shell, Potting Cooler Power Supply (non CPS model)	1
.. 9	PC8	269502 ..	Kit, Power Supply, Cooler (CE)	1
.. 10		254119 ..	Insulator, Negative Stud	1
.. 11		246626 ..	Base	1
.. 12		250946 ..	Foot, Base	4
.. 13	FM	280575 ..	Fan, Muffin 24 VDC 6400 Rpm 4.125 Mtg Holes w/Guard	1
.. 14		246623 ..	Panel, Front Plastic	1
.. 15		249516 ..	Panel, Front w/Cmpnts-DX (Figure 1-2)	1
.. 15		255906 ..	Panel, Front w/Cmpnts (Figure 1-3)	1
.. 16		257293 ..	Windtunnel, Lh w/Cmpnts-Maxstar (Figure 1-7)	1
.. 16		249514 ..	Windtunnel, Lh w/Cmpnts-Dynasty (Figure 1-6)	1
.. 17	HD1	246993 ..	Transducer, Current 200A Module Supply V +/- 15V	1
.. 18	PC2	269498 ..	Kit, PC Board Process Control	1
.....	RC1,RC8 ..	115094 ..	Housing Plug + Skts	2
.....	RC40,RC80 ..	115093 ..	Housing Plug + Skts	2
.....	RC50	115092 ..	Housing Plug + Skts	1
.....	RC100	131058 ..	Housing Plug + Skts	1
.. 19	PC10	253884 ..	Circuit Card Assy,Input Filter (CE)	1
.. 20		257270 ..	Strap, Shoulder	1
.. 21		210166 ..	Insulator, Wrapper	2
.. 22 ...	L33,L34 ...	265451 ..	Core, Ferrite Round Cable .400 Id Clamp-on EMI Supp	2
.....	L40,L44 ...	265451 ..	Core, Ferrite Round Cable .400 Id Clamp-on EMI Supp (Dynasty CE Only) ..	2
.. 23 ...	L31,L32 ...	249747 ..	Core, Ferrite Round Cable .201 Id Clamp-on Emi Supp	2
.. 24 ...	L41,L45 ...	246958 ..	Core, Ferrite 25.90mm Od x 12.80mm Id x 28.60mm LG (Dynasty CE) ..	2
.....	L40,L45 ...	246958 ..	Core, Ferrite 25.90mm Od x 12.80mm Id x 28.60mm LG (Maxstar CE) ..	2
.. 25 ...	L42,L43 ...	268209 ..	Core, Ferrite 25.4mm Od x 15.5mm Id x 12.7mm LG (CE)	2
.. 26	J4	269354 ..	Plug Assy (CE)	1
.. 27		235065 ..	Screw, 010-32 x .75 Pan Hd-Torx Stl Zc Pld	8

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

To maintain the factory original performance of your equipment, use only Manufacturer's Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

 Hardware is common and not available unless listed.



Ref. 805508-D

Figure 1-2. Panel, Front w/Components-DX

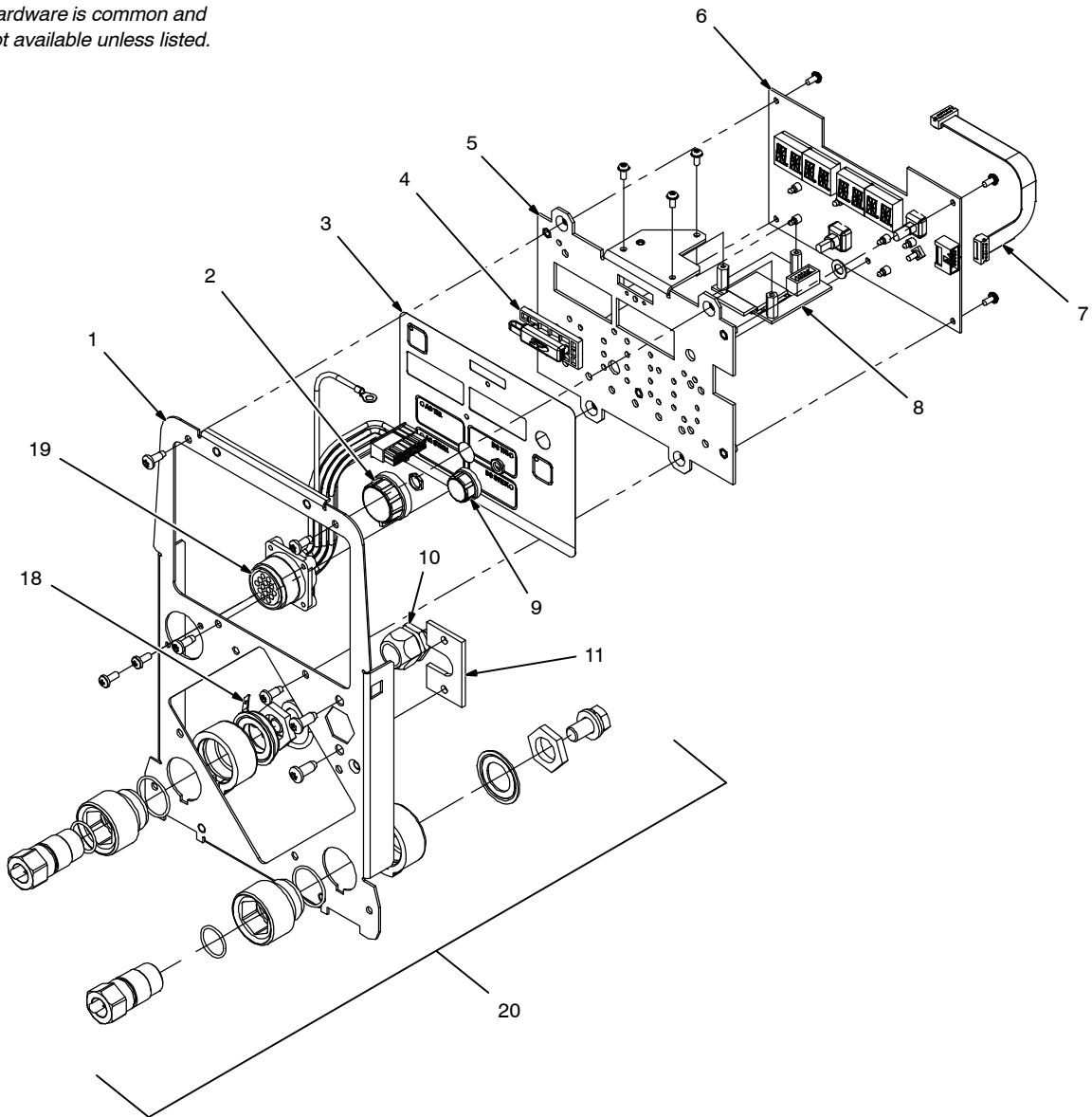
Eff w/ Serial No. MD370231L And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
249516 Figure 1-2. Panel, Front w/Components-DX				
.. 1		246628 ..	Panel, Front	1
.. 2		230052 ..	Knob, .840 Dia x 6mm Id w/Spring Clip-4.5	1
.. 3		247220 ..	Nameplate, Miller Dynasty 280 DX	1
.. 3		247216 ..	Nameplate, Miller Maxstar 280 DX	1
.. 3		280589 ..	Nameplate, Miller Dynasty 280 DX CV	1
.. 4		254052 ..	Cover, SD Card	1
.. 5		247225 ..	Panel, Mtg Nameplate/Circuit Bd	1
.. 6	PC3	269499 ..	Kit, PC Board User Interface (Prior to MH340629L)	1
.. 6	PC3	279305 ..	Kit, PC Board User Interface (Eff w/MH340629L)	1
.. 7		254529 ..	Cable, Ribbon 10 Posn 5.000 In Skts To Skts	1
.. 8	PC9	274828 ..	Circuit Card Assy, Sd Card Interface w/Program	1
.. 9		231279 ..	Fitting, Gas-clip Mount	1
.. 10		230155 ..	Bracket, Valve Mtg	1
.. 17		178548 ..	Terminal, Connector Friction	1
.. 18	RC1	250852 ..	Lead Assy, Process Control To 14 Pin	1
..	PLG100	131058 ..	Housing Plug + Skts	1
..	RC1	143976 ..	Rcpt w/Skts	1
.. 19		*279661 ..	Rcpt Assy, Tw Lk Insul Fem (Dinse Type)	2
..		229333 ..	Screw, M10-1.5 x 20 Hex Hd-pln 8.8 Pld Sems	2
..		185717 ..	Nut, M20-1.5 1.00 Hex .19h Brs Locking	2
..		229338 ..	Washer, Domed Load .812 Id x 1.450 Od x .070 Thk	2
..		274934 ..	Insulator, Bulkhead Rear	2
..		274935 ..	Insulator, Bulkhead Front	2
..		250043 ..	Receptacle, Twist Lock Dinse .890 Od	2
.. 19		284865 ..	Recpt Assy, Tw Lk Insul Fem (Camlock Style)	2
.. 19		284866 ..	Recpt Assy, Tw Lk Insul Fem (Tweco Style)	2
.. 20		231208 ..	Connector, Faston 1/4 Ring w/75deg Bend (Maxstar CE Only)	1
.. 21	C21	268643 ..	Capacitor Assy, (Maxstar CE Only)	1

* Prior to MH410412L purchase 279661 only. Individual parts are not interchangeable.

To maintain the factory original performance of your equipment, use only Manufacturer's Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

 Hardware is common and not available unless listed.



805515-C

Figure 1-3. Panel, Front w/Components

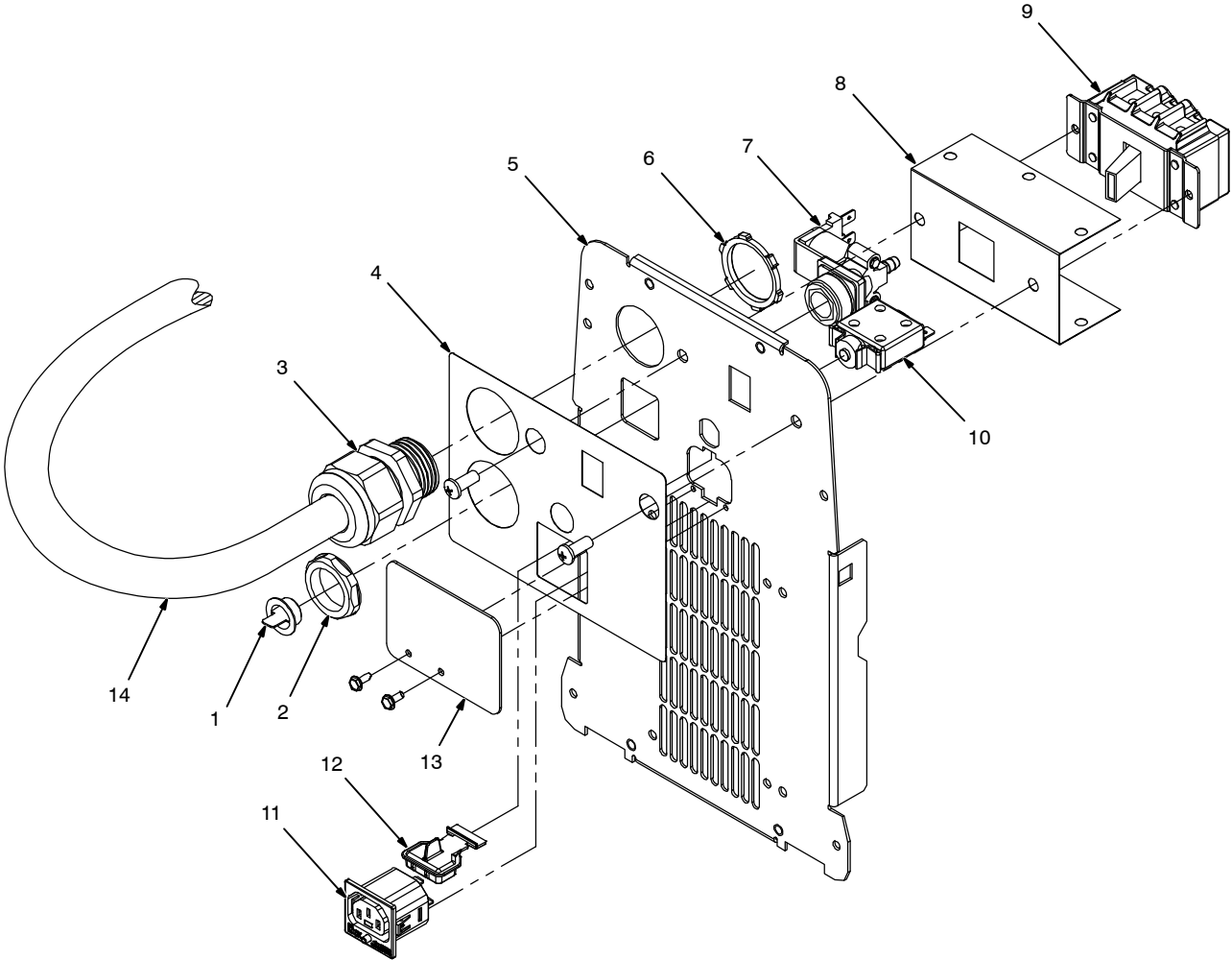
Eff w/ Serial No. MD370231L And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
255906 Figure 1-3. Panel, Front w/Components				
.. 1		246628	.. Panel, Front	1
.. 2		230052	.. Knob, Pointer 1.250 Dia x 6 mm Id	1
.. 3		247222	.. Nameplate, Miller Dynasty 280	1
.. 3		247218	.. Nameplate, Miller Maxstar 280	1
.. 4		254052	.. Cover, SD Card	1
.. 5		247225	.. Panel, Mtg Nameplate/Circuit Bd	1
.. 6	PC3	269500	.. Kit, PC Board User Interface	1
.. 7		254529	.. Cable, Ribbon 10 Posn 5.000 In Skts To Skts	1
.. 8	PC9	274828	.. Circuit Card Assy, Sd Card Interface w/Program	1
.. 9		228546	.. Knob, .840 Dia x 6mm Id w/Spring Clip-4.5	1
.. 10		231279	.. Fitting, Gas-clip Mount	1
.. 11		230155	.. Bracket, Valve Mtg	1
.. 18		178548	.. Terminal, Connector Friction	1
.. 19	RC1	250852	.. Lead Assy, Process Control To 14 Pin	1
..	PLG100	131058	.. Housing Plug + Skts	1
..	RC1	143976	.. Rcpt w/Skts	1
.. 20		*279661	.. Rcpt Assy, Tw Lk Insul Fem (Dinse Type)	2
..		229333	.. Screw, M10-1.5 x 20 Hex Hd-pln 8.8 Pld Sems	2
..		185717	.. Nut, M20-1.5 1.00 Hex .19h Brs Locking	2
..		229338	.. Washer, Domed Load .812 Id x 1.450 Od x .070 Thk	2
..		274935	.. Insulator, Bulkhead Rear	2
..		274934	.. Insulator, Bulkhead Front	2
..		202043	.. Receptacle, Twist Lock Dinse .890 Od	2
.. 20		284865	.. Rcpt Assy, Tw Insul Fem (Camlock Style)	2
.. 20		284866	.. Rcpt Assy, Tw Insul Fem (Tweco Style)	2

* Prior to MH410412L purchase 279661 only. Individual parts are not interchangeable.

To maintain the factory original performance of your equipment, use only Manufacturer's Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

 Hardware is common and not available unless listed.



805509-C

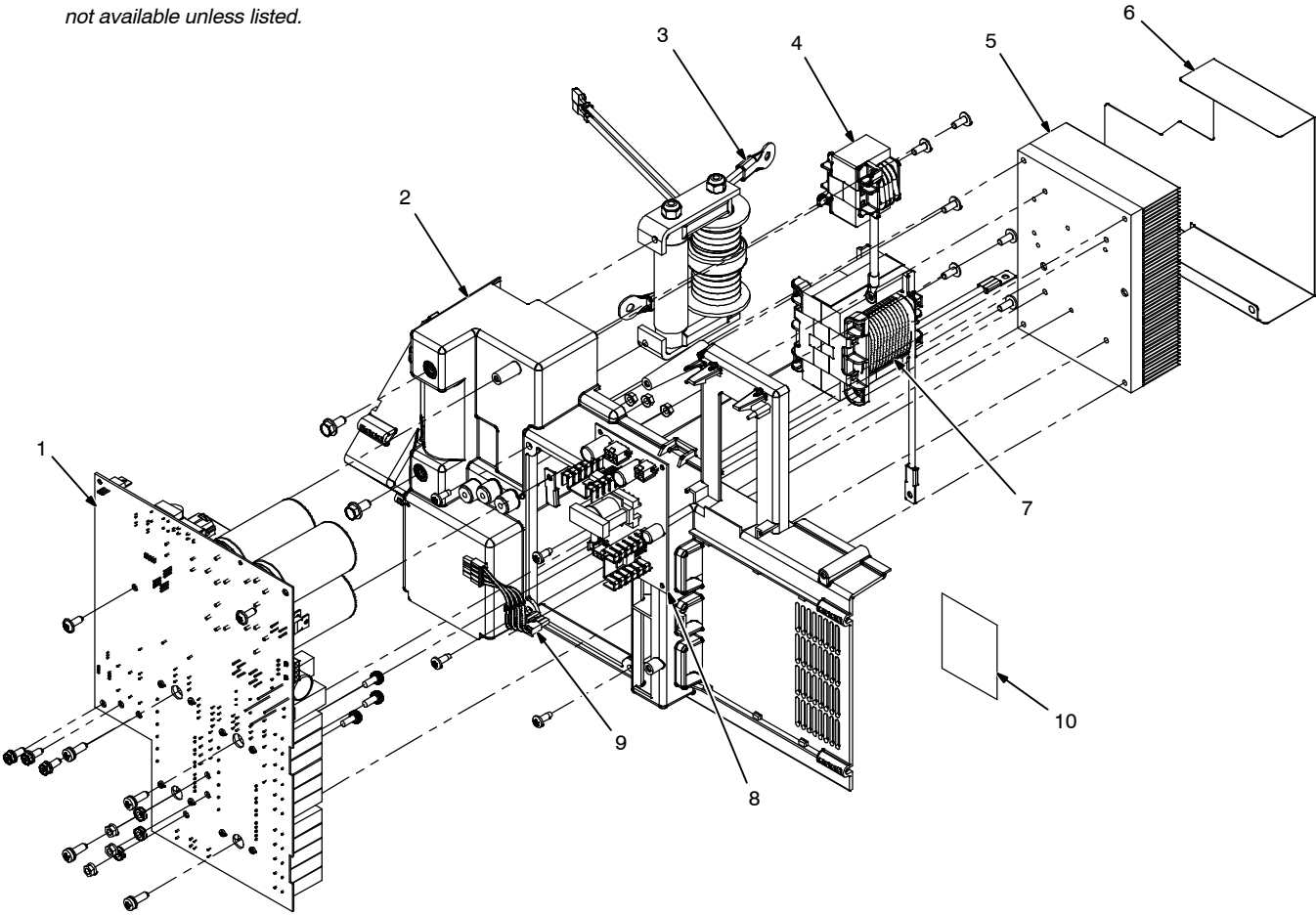
Figure 1-4. Panel, Rear w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
249517 Figure 1-4. Panel, Rear w/Components				
.. 1		225049 ..	Plug, Protective .598 x .31 Lg Rubber Yellow	2
.. 2		137761 ..	Nut, 750 Npt 1.31 Hex .27h Nyl Blk	1
.. 3		255469 ..	Bushing, Strain Relief .490/.785 D x 1.326 Mtg Hole	1
.. 4			Nameplate, Rear (Order By Model And Serial Number)	1
.. 5		246629 ..	Panel, Rear (Prior to MF150240L)	1
.. ..		270458 ..	Panel, Rear (Eff w/MF150240L)	1
.. 6		273571 ..	Nut, Conduit 1.000 NPT Pld 1.688 Od x .200 Thk	1
.. 7 GS1		238805 ..	Valve, 24 VDC 2 way,125 PSI Custom Port .054 Orf w/Fr	1
.. 8		176226 ..	Insulator, Switch Power	1
.. 9 S1		244920 ..	Switch,Tgl 3pst 40 A 600 VAC Scr Term Wide Tgl	1
.. 10 SP1		183492 ..	Supplementary Protector, Man Reset 1p 10A 250 VAC (Cooler Power Supply Only)1	
.. 11 RC2		249974 ..	Receptacle, w/Leads (Cooler Power Supply Only) (Prior to MF150240L) ..	1
.. ..		270463 ..	Receptacle, w/Leads (Cooler Power Supply Only) (Eff w/MF150240L) ..	1
.. 12		254150 ..	Cover, Outlet (Cooler Power Supply Only) (Prior to MF150240L)	1
.. ..		270466 ..	Cover, Outlet (Cooler Power Supply Only) (Eff to MF150240L)	1
.. 13		255307 ..	Plate, Rear Cover (Not Present With Cooler Power Supply)	1
.. 14		254147 ..	Cable, Power 10 Ft 6 In 10Ga 4c Blk/Red/Wht/Grny	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

To maintain the factory original performance of your equipment, use only Manufacturer’s Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

 Hardware is common and not available unless listed.



805512-B

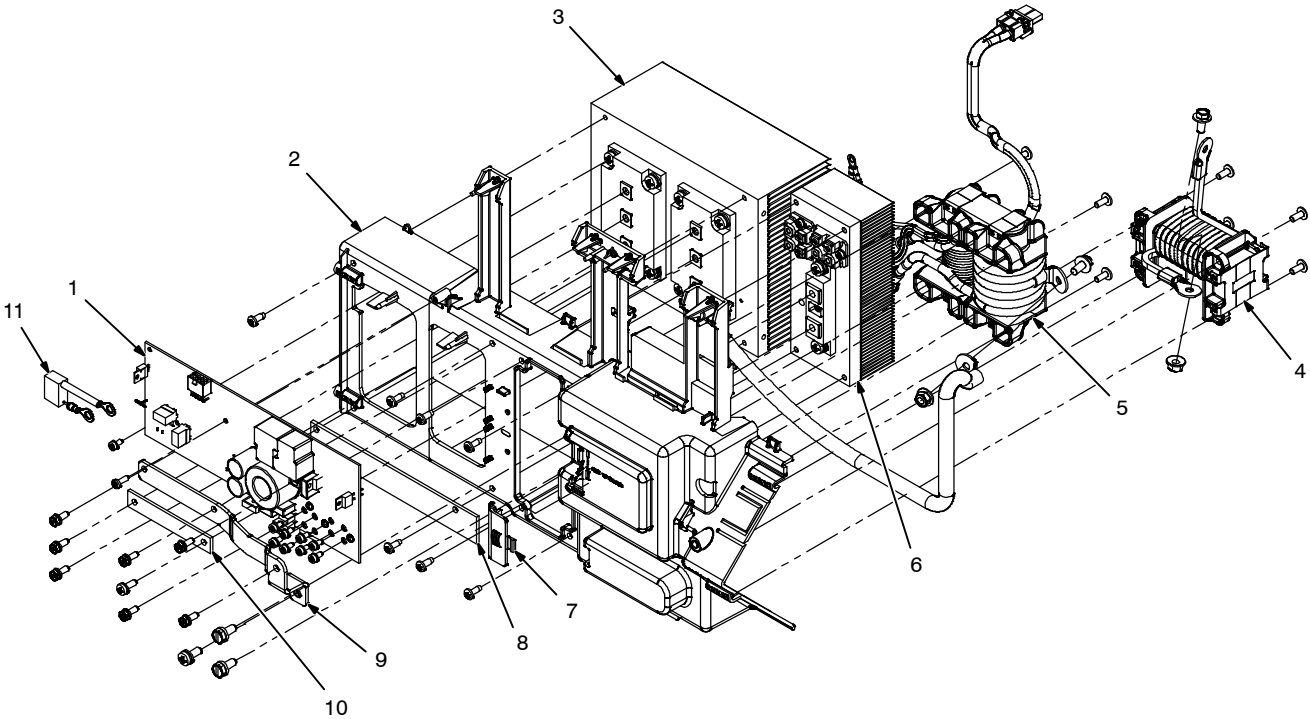
Figure 1-5. Wind Tunnel, Right Hand w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
249515 Figure 1-5. Wind Tunnel, Right Hand w/Components				
.. 1	PC1	280034 ..	Kit, Primary And Secondary (Dynasty, Prior to MG360294L)	1
.. 1	PC1	268142 ..	Kit, PCB Board Primary (Dynasty, Eff w/ MG360294L) (All Maxstars) ...	1
.....	RC308	201665 ..	Housing Plug + Skts	1
.. 2		246619 ..	Wind Tunnel, Right	1
.. 3	T2	249524 ..	XFMR, HF Coupling	1
.. 4	L2	249522 ..	Inductor, DI-DT	1
.. 5		246630 ..	Heat Sink, Primary	1
.. 6		249984 ..	Insulator, Heat Sink	1
.. 7	L1	249523 ..	Inductor, Input	1
.. 8	PC7	266586 ..	Circuit Card Assy, Flyback 60W 940V In	1
.....	RC30,RC200	201665 ..	Housing Plug + Skts	1
.....	RC40	115093 ..	Housing Plug + Skts	1
.....	RC210	115094 ..	Housing Plug + Skts	1
.. 9		250845 ..	Lead Assy, Primary To Flyback	1
.. 10			Insulator (CE)	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

To maintain the factory original performance of your equipment, use only Manufacturer’s Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

 Hardware is common and not available unless listed.



805510-B

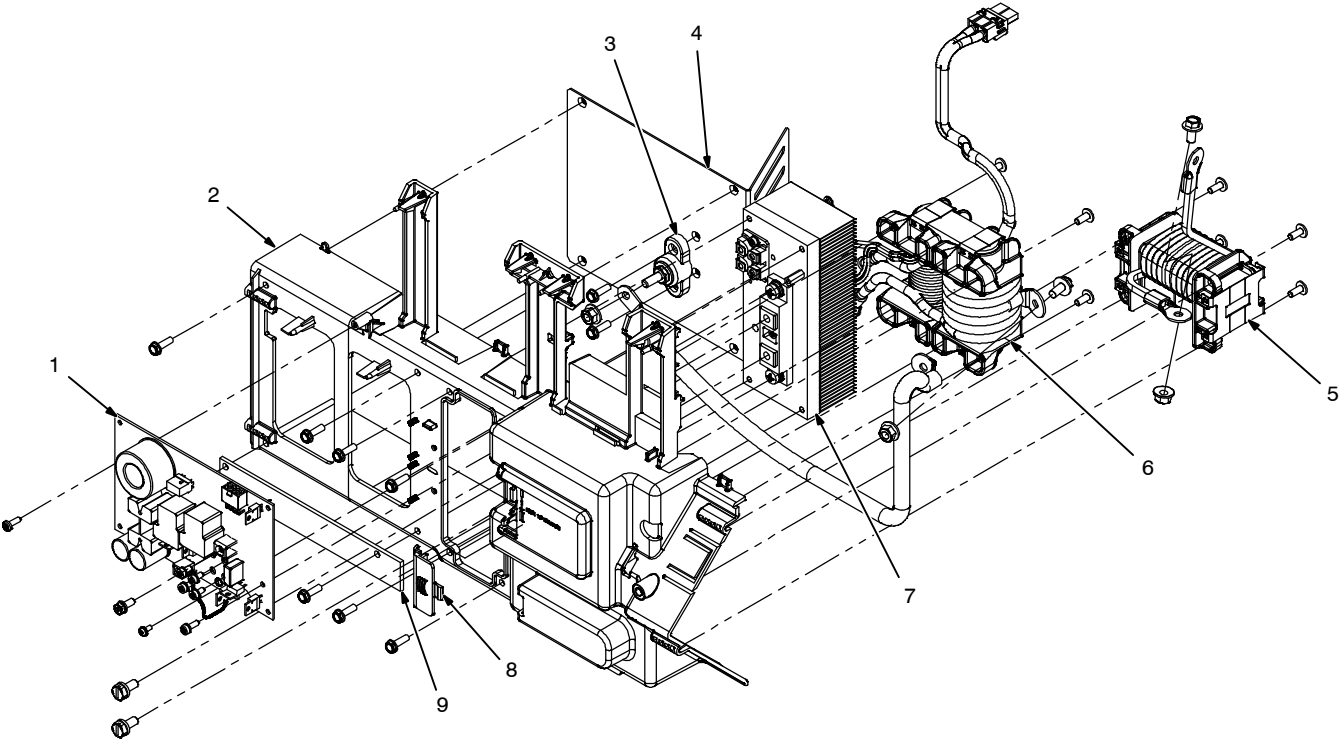
Figure 1-6. Dynasty 280 Wind Tunnel, Left Hand w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
249514 Figure 1-6. Dynasty 280 Wind Tunnel, Left Hand w/Components				
.. 1	PC5	280034 ..	Kit, Primary And Secondary (Prior to MG360294L)	1
.. 1	PC5	272111 ..	Circuit Card Assy, Secondary (Eff w/MG360294L)	1
.....	RC50	115092 ..	Housing Plug + Skts	1
.. 2		246620 ..	Wind Tunnel, Lh	1
.. 3		254146 ..	Heat Sink, IGBT Assembly (Figure 1-8)	1
.. 4	Z1	249518 ..	Inductor, Output	1
.. 5	T1	249521 ..	XFMR, HF Litz/Litz w/Boost	1
.. 6		254145 ..	Heat Sink, Diode Assembly (Figure 1-9)	1
.. 7		249529 ..	Cover, XFMR Leadout	1
.. 8		257268 ..	Bracket, Wind Tunnel	1
.. 9		246952 ..	Bus Bar, Positive	1
.. 10		246953 ..	Bus Bar, Negative	1
.. 11	C22	268206 ..	Capacitor/Resistor Assy (CE)	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

To maintain the factory original performance of your equipment, use only Manufacturer’s Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

 Hardware is common and not available unless listed.



805511-B

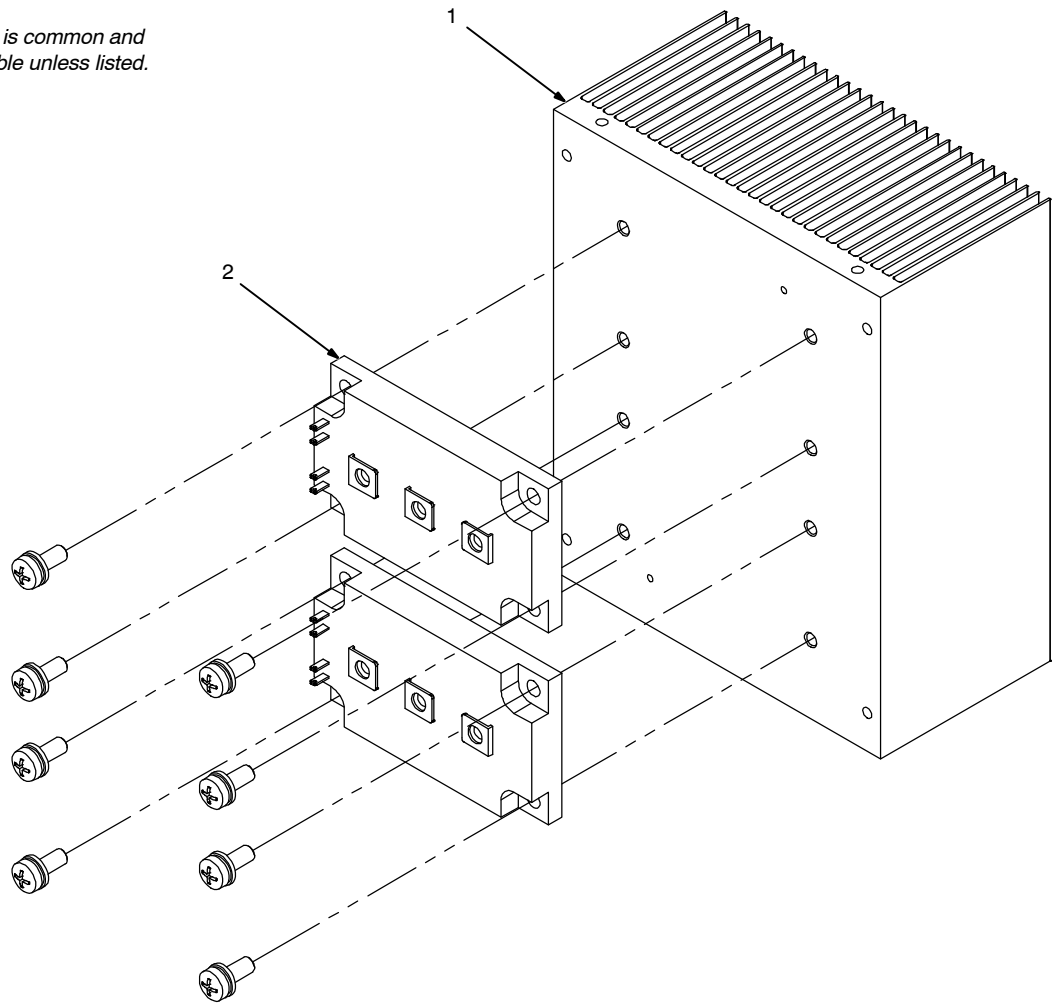
Figure 1-7. Maxstar 280 Wind Tunnel, Left Hand w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
257293 Figure 1-7. Maxstar 280 Wind Tunnel, Left Hand w/Components				
.. 1	PC5	255353 ..	Circuit Card Assy, Secondary	1
.....	RC50	115092 ..	Housing Plug + Skts	1
.. 2		246620 ..	Wind Tunnel, Lh	1
.. 3		263441 ..	Stud, Connection Single	1
.. 4		263440 ..	Baffle, Air Windtunnel	1
.. 5	Z1	249518 ..	Inductor, Output	1
.. 6	T1	249521 ..	XFMR, HF Litz/Litz w/Boost	1
.. 7		263442 ..	Heat Sink, Diode Assembly (Figure 1-10)	1
.. 8		249529 ..	Cover, Xfmr Leadout	1
.. 9		257268 ..	Bracket, Wind Tunnel	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

To maintain the factory original performance of your equipment, use only Manufacturer's Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

 Hardware is common and not available unless listed.



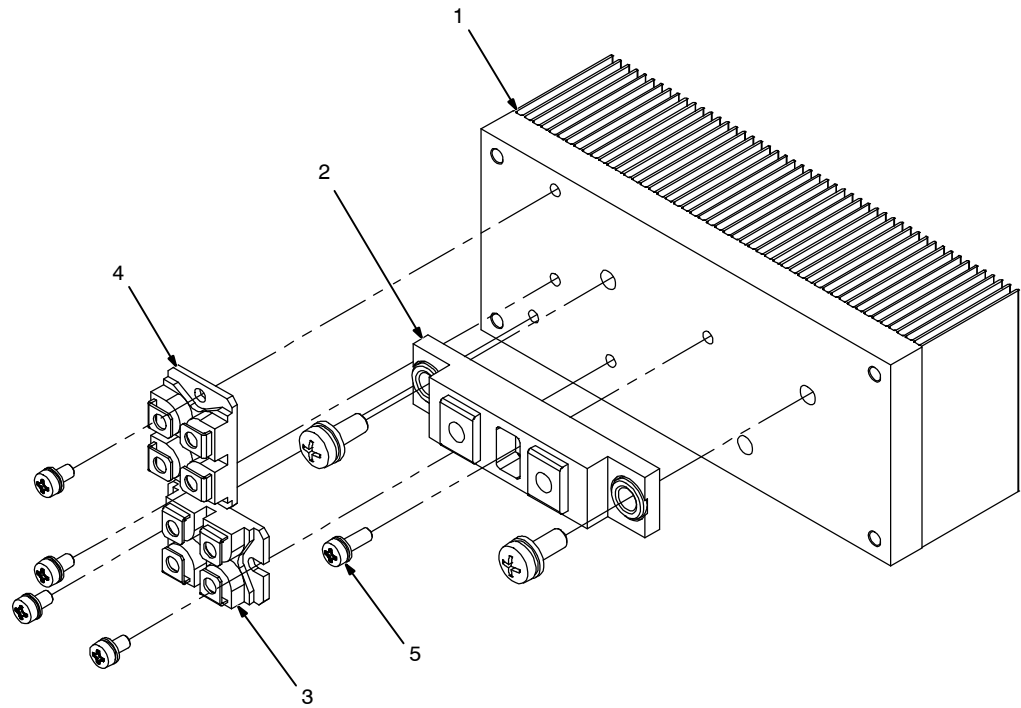
805513-A

Figure 1-8. IGBT Heat Sink Assembly (Primary)

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
254146 Figure 1-8. IGBT Heat Sink Assembly (Primary)				
.. 1 ..		246632 ..	Heat Sink, IGBT ..	1
.. 2 ..	PM21,PM22	259421 ..	Kit, IGBT ..	2

To maintain the factory original performance of your equipment, use only Manufacturer’s Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

 Hardware is common and not available unless listed.



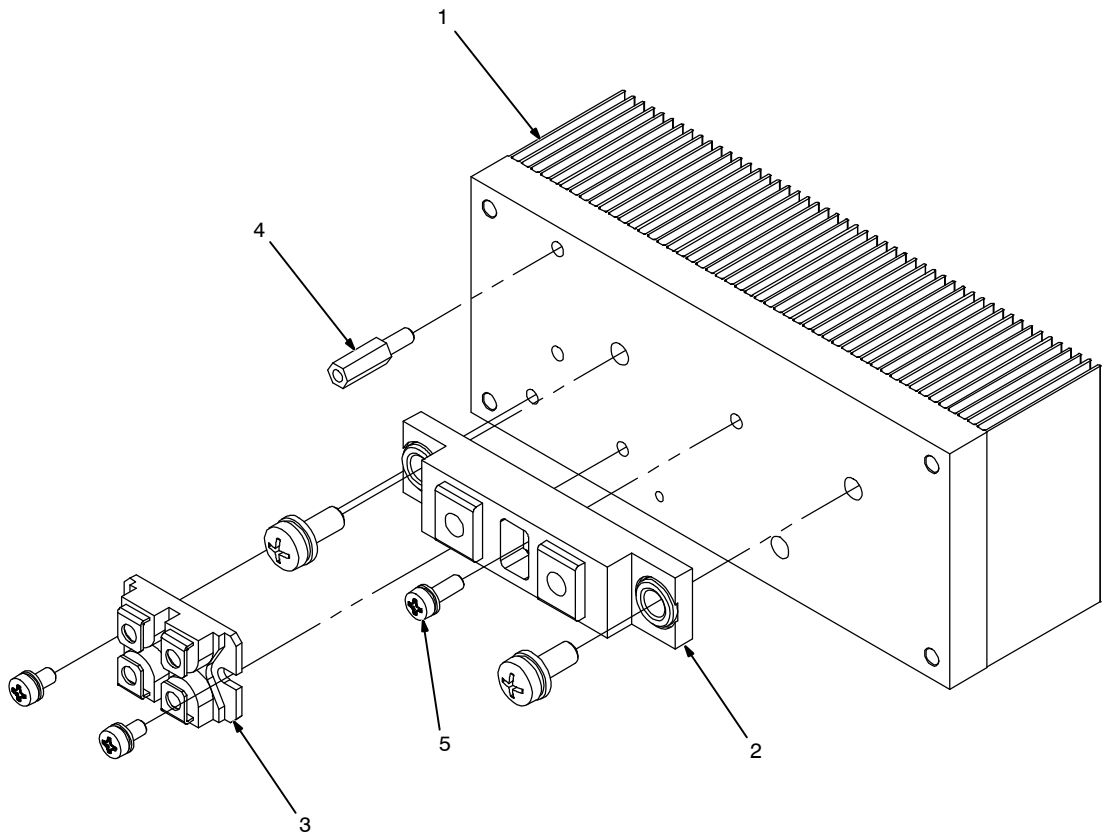
805514-A

Figure 1-9. Diode Heat Sink Assembly (Dynasty 280)

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
254145 Figure 1-9. Diode Heat Sink Assembly (Dynasty 280)				
.. 1		246631 ..	Heat Sink, Diode	1
.. 2	D23	285840 ..	Kit, Ultra-fast Diode - Use supplied terminal mounting screws	1
.. 3	D24	259419 ..	Kit, Ultra-fast Diode	1
.. 4	PM25	259420 ..	Kit, IGBT	1
.. 5			Not used on some modules without center mounting hole	

To maintain the factory original performance of your equipment, use only Manufacturer’s Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

 Hardware is common and not available unless listed.



805523-A

Figure 1-10. Diode Heat Sink Assembly (Maxstar 280)

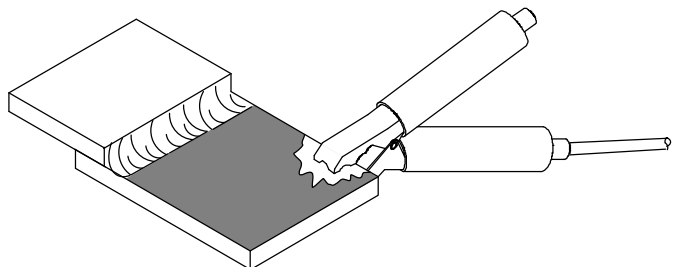
Item No.	Dia. Mkgs.	Part No.	Description	Quantity
263442 Figure 1-10. Diode Heat Sink Assembly (Maxstar 280)				
.. 1		246631 ..	Heat Sink, Diode	1
.. 2	D23	285840 ..	Kit, Ultra-fast Diode - Use supplied terminal mounting screws	1
.. 3	D24	259419 ..	Kit, Ultra-fast Diode	1
.. 4		263443 ..	Stand-off, M4 x 0.7 x 15 LG 6mm Hex AL M&F	1
.. 5			Not used on some modules without center mounting hole	

To maintain the factory original performance of your equipment, use only Manufacturer’s Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

Notes

Welding Tip:

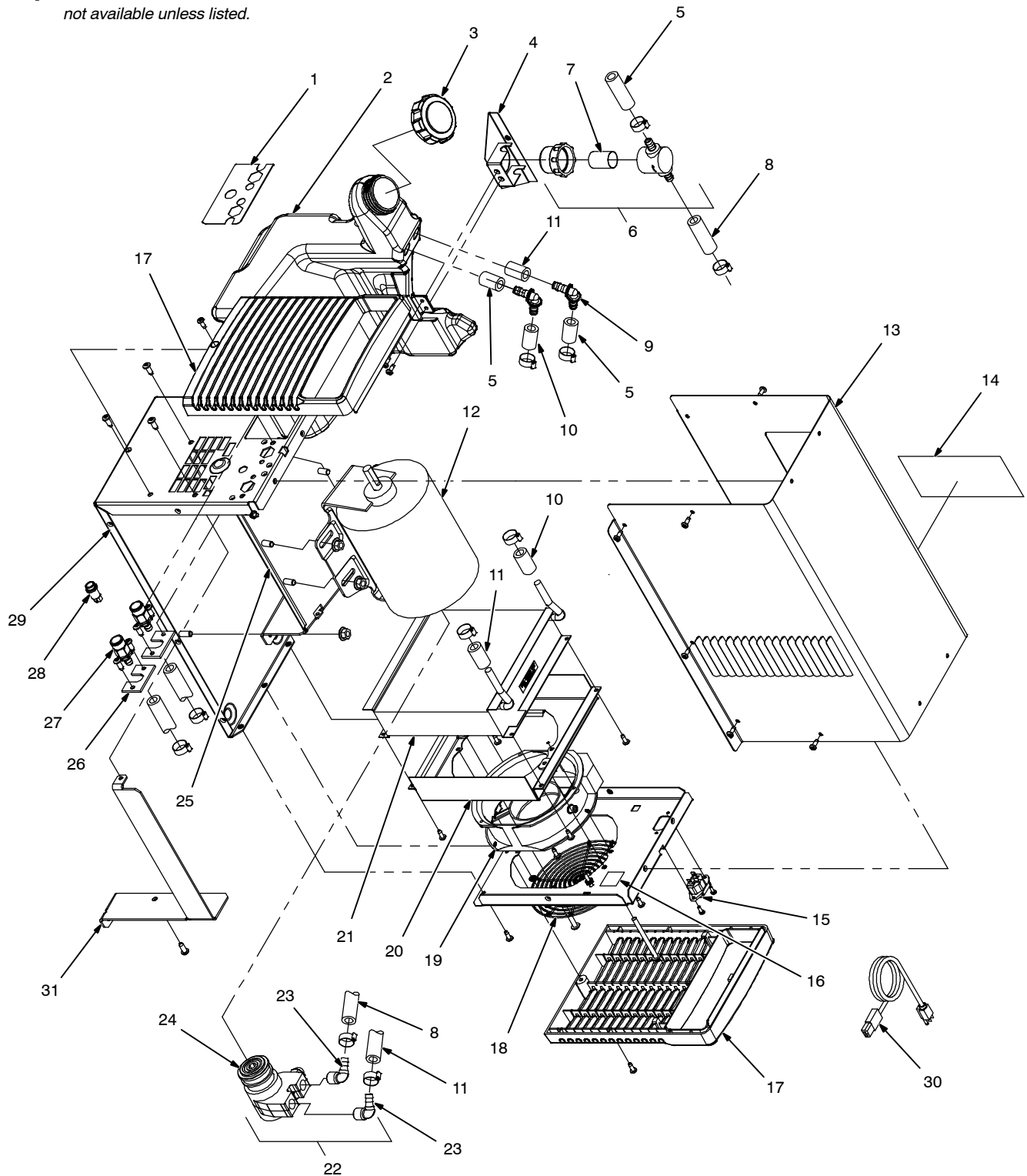
Securely connect work clamp to a clean area close to the weld joint.



SECTION 2 - COOLER PARTS LIST

EFF W/SERIAL NO. MD370231L AND FOLLOWING

 Hardware is common and not available unless listed.



805505-B

Figure 2-1. Cooler Main Assembly

Eff w/ Serial No. MD370231L And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 2-1. Cooler Main Assembly				
.. 1			Nameplate, Coolmate 1.3 (Order By Model And Serial Number)	1
.. 2		251119	Tank, Coolant	1
.. 3		166608	Cap, Tank Screw-on w/Vent	1
.. 4		235419	Bracket, Filter	1
.. 5		255188	Hose, Rubber Braided .375 Id x .650 Od x 3.000	2
.. 6		166654	Filter, In-line Low Profile 100 Screen 3/8 Hose Bar (Includes)	1
.. 7		239494	Screen, Filter	1
.. 8		255206	Hose, Rubber Braided .375 Id x .650 Od x 7.000	1
.. 9		231311	Ftg, Hose Nyl Barbed Elbow 3/8 x 3/8 90 Deg	2
.. 10		236084	Hose, Rubber Braided .375 Id x .650 Od x 10.500	1
.. 11		228531	Hose, Rubber Braided .375 Id x .650 Od x 12.000	3
.. 12	MOT	173263	Motor, 1/4 HP 115 VAC 50/60HZ 1425/1725 Rpm Dual	1
.. 13		+251126	Wrapper	1
.. 14		253514	Label, Warning General Precautionary Static (Eng/Fr)	1
.. 15		254162	Rcpt, Str Grd 2P3W 15A 250V (Black) IEC 320-C14	1
.. 16		217553	Label, Gnd	1
.. 17		251125	Bezel, Front/Rear	2
.. 18		196312	Guard, Fan	1
.. 19	FM	213072	Fan, Muffin 115V 60HZ 3400 Rpm 6.378 Mtg Holes	1
.. 20		251121	Plenum	1
.. 21		232424	Radiator, Heat Exchanger	1
.. 22		234310	Pump, Coolant (Includes)	1
.. 23		5523	Ftg, Hose Barbed Elbow	2
.. 24		173999	Pump	1
.. 25		010323	Weldcraft Clamp, Hose .250-.625 Clp Dia	2
.. 26		251120	Bracket, Motor Assy	1
.. 27		230155	Bracket, Valve Mtg	2
.. 28		251122	FTG, Coolant Barbed 3/8 Tbg 5/8-18 Female	2
.. 29	PL1	163562	Light, Ind Wht Lens 125 VAC Snap-in Neon Non-relampa	1
.. 30		251117	Base	1
.. 30	PLG1	251123	Cable, Power	1
.. 30	PLG1	255814	Cable, Power (TIGRunner)	1
.. 31		260035	Bracket, Support	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

To maintain the factory original performance of your equipment, use only Manufacturer's Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

SECTION 3 - CART PARTS LIST

EFF W/SERIAL NO. MD370231L AND FOLLOWING

 Hardware is common and not available unless listed.

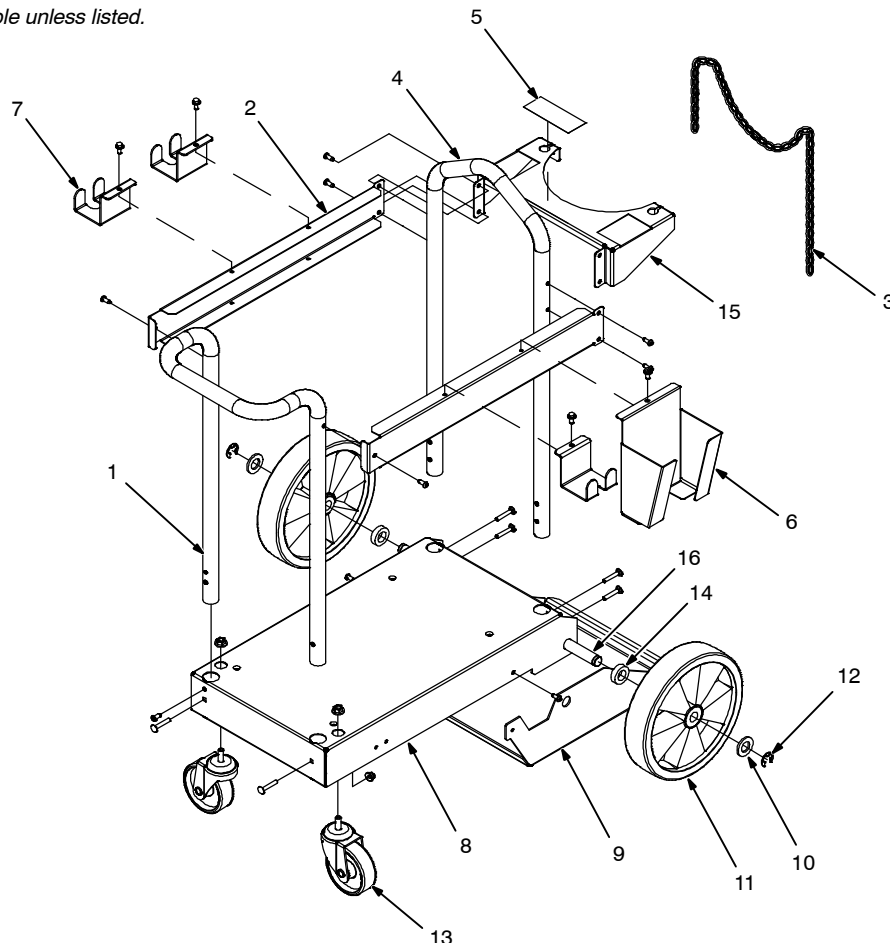


Figure 3-1. Complete Assembly For 254522

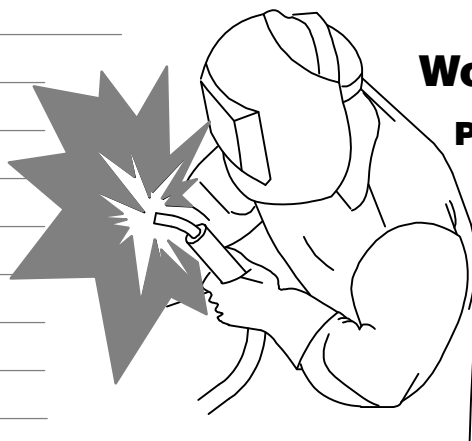
805491-A

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
254522 Figure 3-1 Complete Assembly For 254522				
.. 1		251105 ..	Handle, Cart	1
.. 2		251106 ..	Rail, Side	2
.. 3		210224 ..	Chain, Straight Link 1/0 x 27 Bright Zinc Pld	1
.. 4		251104 ..	Handle, Lifting	1
.. 5		200285 ..	Label, Warning Cylinder May Explode If Damaged	1
.. 6		199403 ..	Holder, Foot Control	1
.. 7		191875 ..	Hanger, Cable/Torch	3
.. 8		251101 ..	Base, Cart	1
.. 9		251102 ..	Tray, Bottle	1
.. 10		602250 ..	Washer, Flat .812 Id x 1.469 Od x .134t Stl Pld Ansi .750	2
.. 11		209869 ..	Wheel, Poly-olefin 10 In Dia x 2.000 wide x .750	2
.. 12		121614 ..	Ring, Rtnng Ext .750 Shaft x .085 Thk E Style Pld	2
.. 13		008999 ..	Caster, Swvl 4.00 In Polyolefin	2
.. 14		235506 ..	Spacer	2
.. 15		+251107 ..	Bracket, Bottle	1
.. 16		251103 ..	Axle	1

+When ordering a component originally displaying a precautionary label, the label should also be ordered.

To maintain the factory original performance of your equipment, use only Manufacturer's Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

Notes



Work like a Pro!

Pros weld and cut safely. Read the safety rules at the beginning of this manual.

Miller Electric Mfg. LLC

An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters-USA

USA Phone: 920-735-4505 Auto-Attended
USA & Canada FAX: 920-735-4134
International FAX: 920-735-4125

For International Locations Visit
www.MillerWelds.com

