



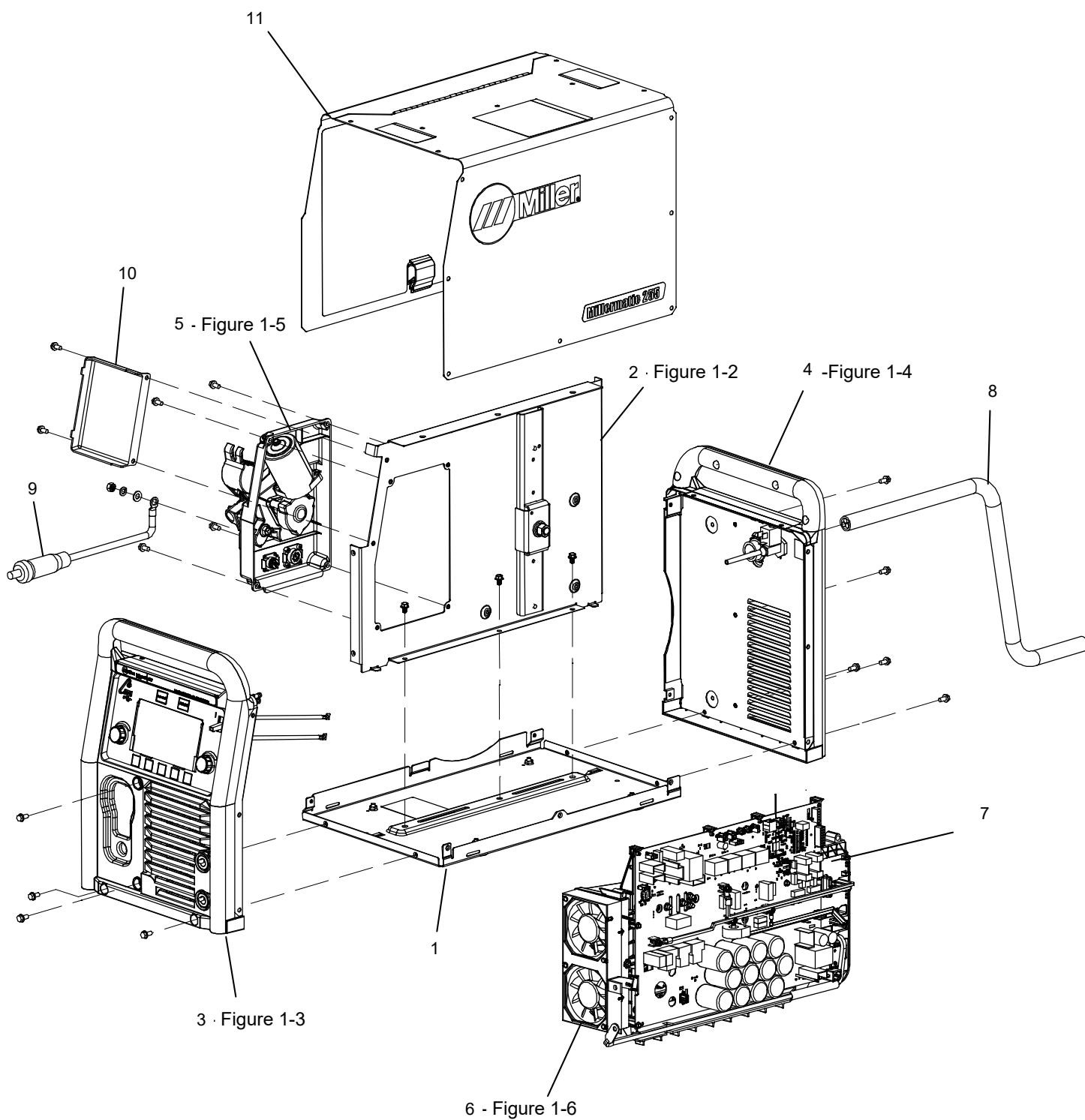
PM- 279299 B

Millermatic 255

Effective with Serial Number
MJ368639N - ZZ222222



PARTS MANUAL



Main Assembly

Main Assembly

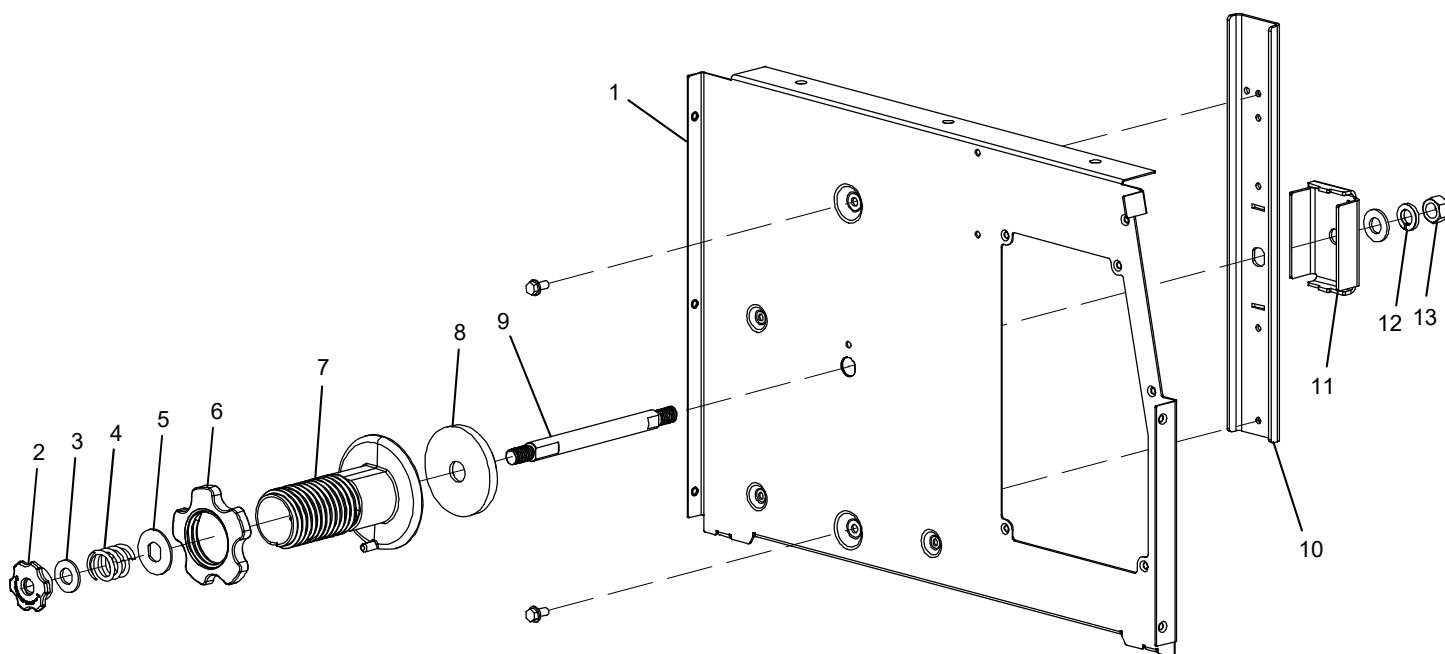
Item No.	Dia. Mkgs.	Part No.	Description	Qty
1		277329	Base	1
/		229325	Foot, Mtg Unit	4
6		279039	Windtunnel, w/Components	1
7		283917	Kit, Millermatic 255 Control Bd w/IGBT Replacement	1
8		280209	Cord Set, 250V 6-50p 8Ga 3/C 12ft St Jkt	1
9		278556	Lead Assy, Drive Polarity	1
10		277905	Enclosure, Electronics	1
11		284007	Kit, Wrapper w/Labels	1
/		277356	Wrapper Assy	1
/		230363	Latch, Slide Flush Mtg Hole 1.750 Wide x 1.500 Lg	1
/		275316	Label, Warning Falling Equipment (EN/FR/SP)	1
/		282495	Label, Parameter/Polarity	1
/		231983	Label, Warning General Precautionary (En/Sp)	1
/	PLG4	279040	Plug Assy, Elect	1
/		281222	Harness, Wrg Unit Main	1

*Recommended Spare Parts ~ Optional ↓ Item includes other parts. → Item is part of a subassembly.

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

Hardware is common and not available unless listed.

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.



Center Baffle Assembly

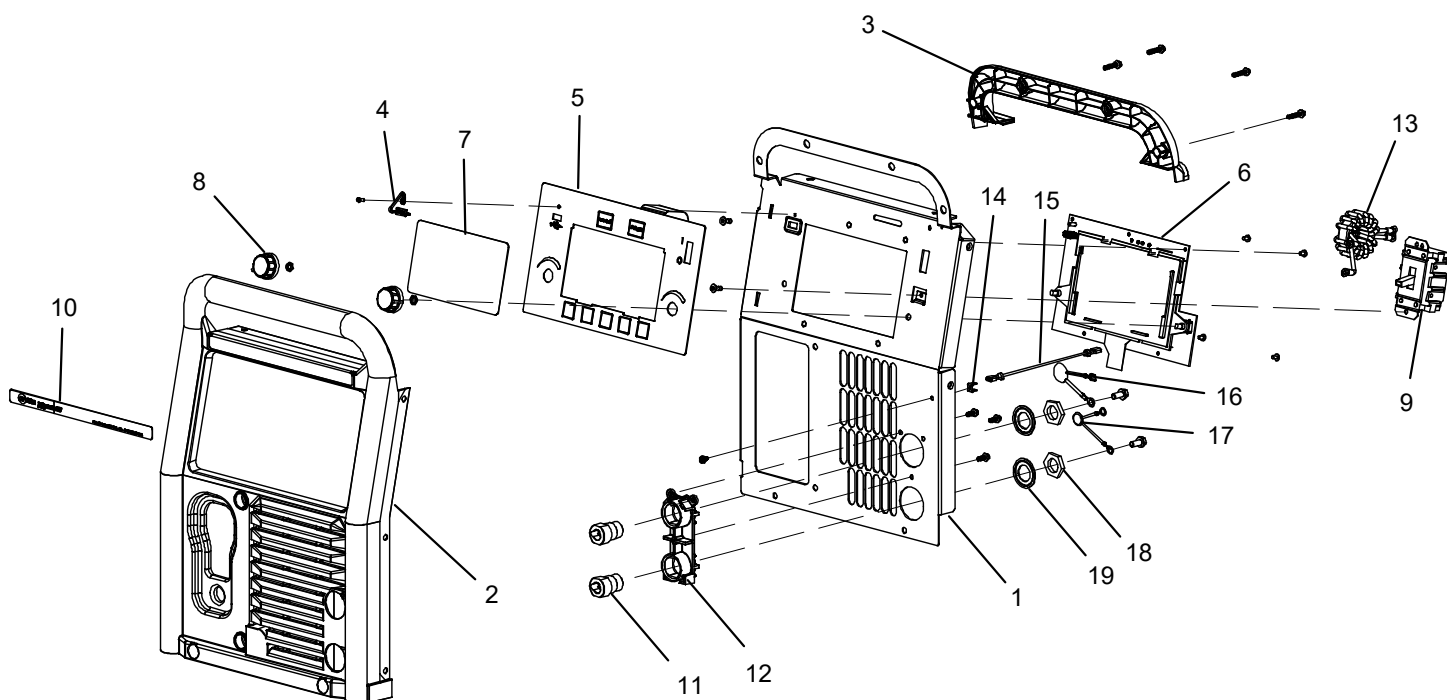
Item No.	Dia. Mkgs.	Part No.	Description	Qty
1		277359	Baffle, Center	1
2		279504	Knob, Tensioner 1/2-13 Thread	1
3		602247	Washer, Flat .531 Id x 1.062 Od x 0.95T Stl Pld Ansi .500	2
4		186437	Spring, Cprsn .845 Od x .110 Wire x 1.500	1
5		231211	Washer, Anti-Turn	1
6		280091	Nut, Hub	1
7		279587	Hub, Spool 12 Inch	1
8		287119	Washer, Brake Plastic	1
9		271415	Shaft, Support Spool	1
10		274304	Channel, Support Spool Hub	1
11		274305	Brace, Support Spool Shaft	1
12		602216	Washer, Lock .502 Id x 0.879 Od x .151T Stl Pld Split .500	1
13		601879	Nut, .500-12 .75 Hex .44H Stl Pld	1

*Recommended Spare Parts ~ Optional ↓ Item includes other parts. → Item is part of a subassembly.

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

Hardware is common and not available unless listed.

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.



Front Panel Assembly

Front Panel Assembly

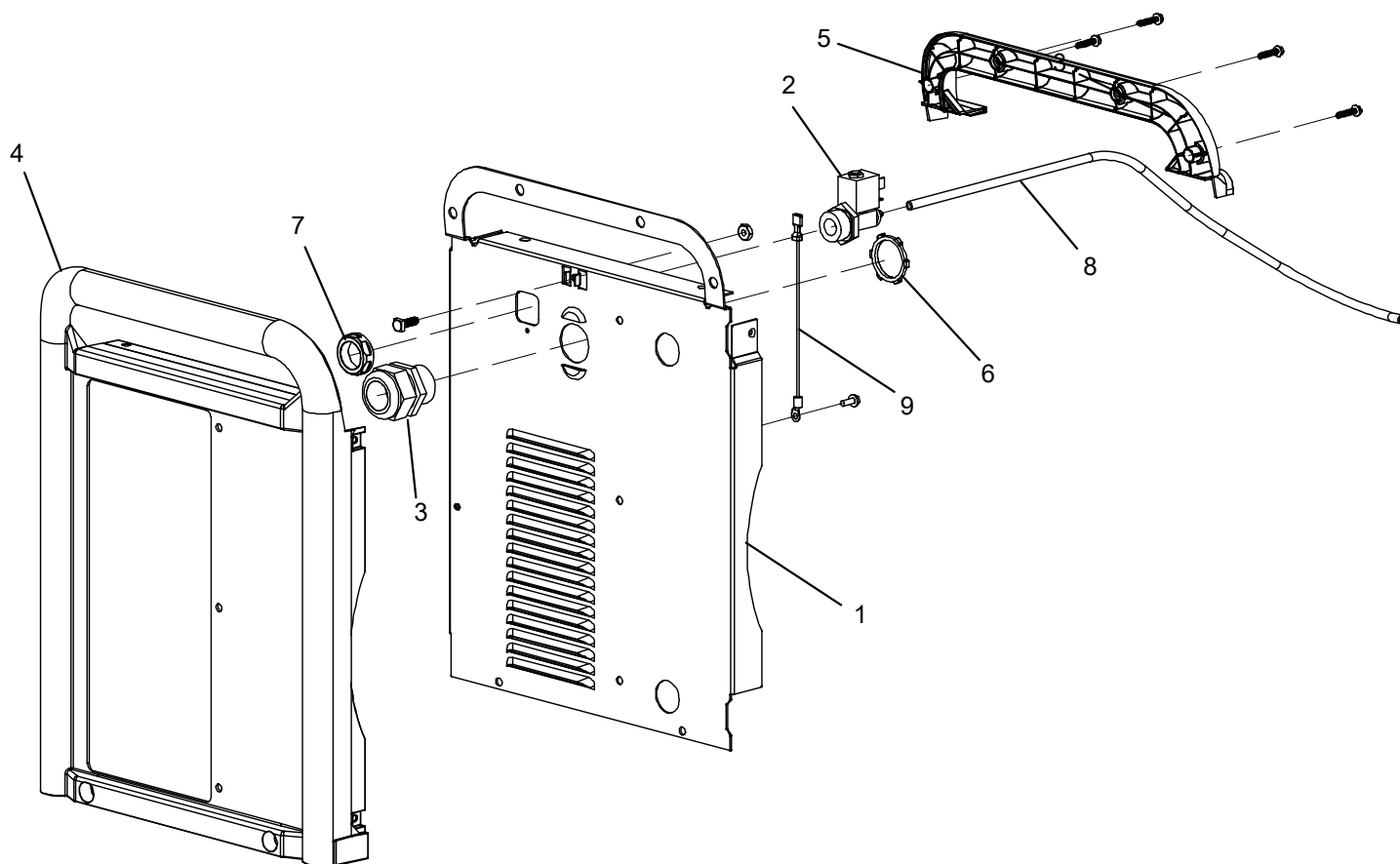
Item No.	Dia. Mkgs.	Part No.	Description	Qty
1		283119	Panel Assy, Front w/Pems	1
2		279060	Bezel, Front	1
3		277653	Handle, Half	1
4		278541	Cover, Dust Usb w/Tether	1
/		600760	Term, Frict .250 x .032 Uninsul Male .130 Stud Mtg 1pr	1
/		236343	Screw, 008-15 x .37 Hexwhd w/Gndrng Stl Pld Slf Tpg	1
5		279061	Membrane, Switch Control	1
6	PC2	276813	Circuit Card Assy, Interface Lcd Display	1
/		276416	Cable, Ethernet Cat5E Utp Rj45 24.000 In Lg (Blue)	1
/		249747	Core, Ferrite Round Cable .201 Id Clamp-On Emi Supp	1
7		277663	Lens Cover, Replaceable	1
8		266591	Knob, Encoder 1.250 Dia x 6mm Id Push On w/Spring	2
9		278971	Switch, Tgl Dpst 40A 600VAC Scr Term Narrow Tgl	1
10			Nameplate, SC ArcReach HDD Lower (Order By Model And Serial Number)	1
11		279111	Receptacle, Twist Lock Brass Fem Panel Mtg (Dinse)	2
12		277690	Insulator, Bulkhead 50MM	1
13		291522	Choke, Common Mode 8 Turns 10Ga	1
14		600760	Term, Frict .250 x .032 Uninsul Male .130 Stud Mtg 1pr	1
15		277973	Lead List, Small (Gnd)	1
16		138695	Capacitor, Cer Disc .01 Uf 1000 Vdc w/Terms	1
17		048420	Capacitor, Cer Disc .01uf 1000VDC	1
18		185717	Nut, M20-1.5 1.00Hex .19H Brs Locking	2
19		229338	Washer, Domed Load .812 Id x 1.450 Od x .070 Thk	2

*Recommended Spare Parts ~ Optional ↓ Item includes other parts. → Item is part of a subassembly.

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

Hardware is common and not available unless listed.

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.



Rear Panel Assembly

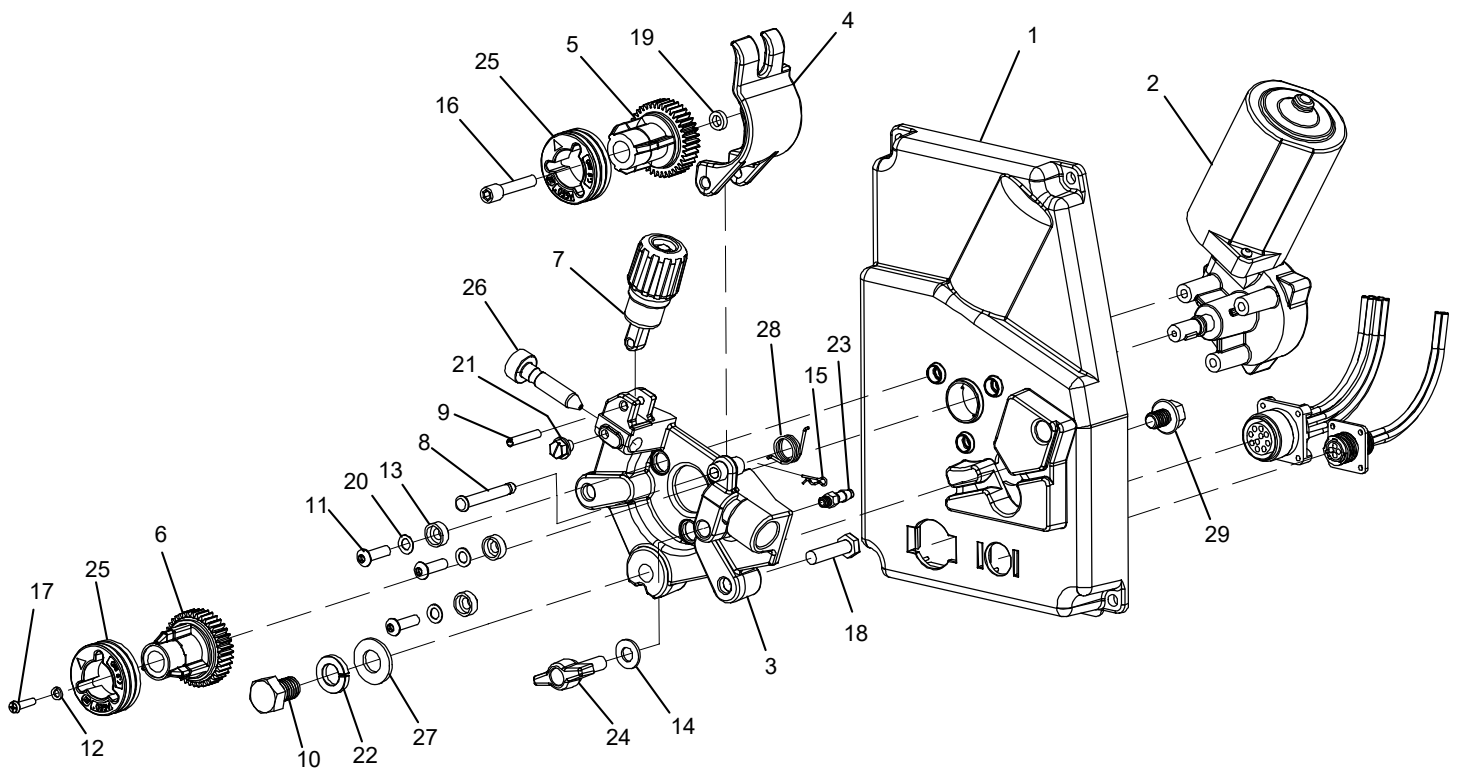
Item No.	Dia. Mkgs.	Part No.	Description	Qty
1		279064	Panel, Rear	1
2		262572	Valve, 24Vdc 1Way 750-14 Thd 2mm Orf 100Psi	1
3		215980	Bushing, Strain Relief .709/.984 Id x 1.375 Mtg Hole	1
4		277950	Bezel, Rear	1
5		277653	Handle, Half	1
6		182445	Nut, Conduit 1.000 Npt Pld 1.688 Od x .200 Thk	1
7		272186	Nut, .750-14 Nps 1.312Hex .413H Nyl	1
8		250864	Hose, Gas 27 In (MIG)	1
9		285812	Lead List, Small (Rear Panel Gnd)	1

*Recommended Spare Parts ~ Optional ↓ Item includes other parts. → Item is part of a subassembly.

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

Hardware is common and not available unless listed.

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.



Wire Feed Drive Assembly

Wire Feed Drive Assembly

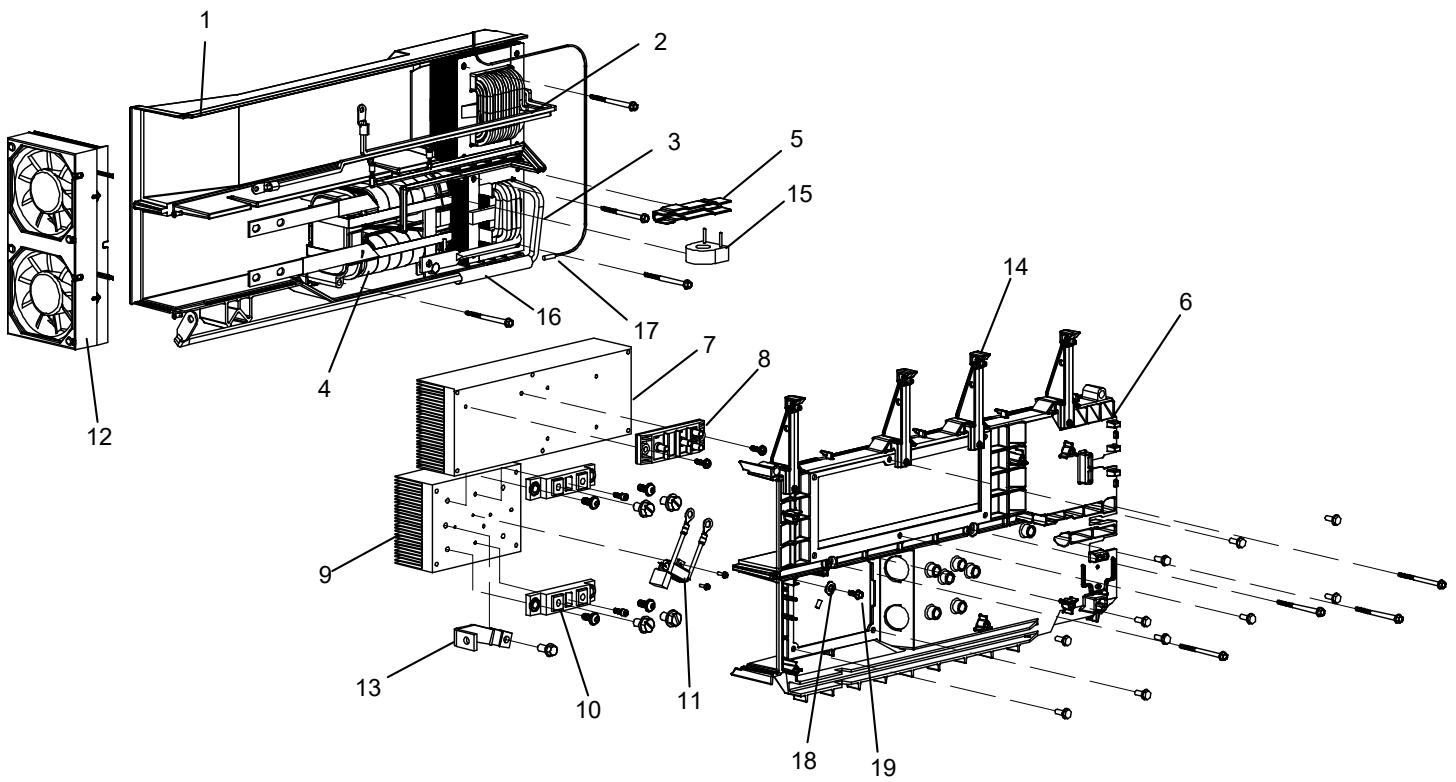
Item No.	Dia. Mkgs.	Part No.	Description	Qty
1		277437	Insulator	1
2		281378	Motor, Wire Drive w/Lead Assemblies	1
3		277657	Housing, Drive (Machined)	1
4		277795	Lever, Pressure Roll (Machined)	1
5		172075	Carrier, Drive Roll w/Components 24 Pitch	1
6		173619	Carrier, Drive Roll w/Components 24 Pitch 10mm Shaft	1
7		221976	Knob, Tension Adjust Assy (Including)	1
8		273112	Pin, Clevis .250 Od x 1.751 Lg w/Groove and Cham	1
9		010224	Pin, Spring CS .187 x 1.000	1
10		282942	Screw, 500-13 x .75 Hex Hd-Plt Stl Pld Slf Tpg Ab	1
11		174610	Screw, M 6-1.0 x 20 Soc Hd Button Cap Blk	3
12		602200	Washer, Lock .168 Id x 0.293 Od x.040T Stl Pld Split #8	1
13		173620	Bushing, Motor Mtg	3
14		604538	Washer, Flat .344Id x 0.688Od x .065T Stl Pld Ansi .312	1
15		151828	Pin, Cotter Hair .042 x .750	1
16		602009	Screw, .250-20 x 1.25 Soc Hd-Hex Gr8 Pln	1
17		209079	Screw M4 x 0.7 x 16	1
18		604534	Screw, 312-18 x 1.25 Hex Hd-Pln Gr5 Pld	1
19		166072	Spacer, Gear	1
20		192029	Washer, Flat .250 Id x 0.437 Od x .015T Stl Pln	3
21		233030	Screw, .250-20 x .25 Hexwhd Machine Stl Pld	1
22		602216	Washer, Lock .502 Id x 0.879 Od x .151T Stl Pld Split .500	1
23		263411	Fitting, Barbed Gas	1
24		222035	Knob, T 1562 Bar w/312-18 Stud 1000 Lg Plstc	1
25		189285	Roll, Drive V Groove .035-.045 Wire	2
26		221912	Guide, Wire Inlet Nylon .023 - .052	1
27		602247	Washer, Flat .531 Id x 1.062 Od x 0.95T Stl Pld Ansi .500	1
28		230801	Spring, Torsion	1
29		280210	Bolt, Hex Head Flange Stl .375-16 x .500 Gr8 Pld Zc	1

*Recommended Spare Parts ~ Optional ↓ Item includes other parts. → Item is part of a subassembly.

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

Hardware is common and not available unless listed.

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.



Windtunnel Assembly

Windtunnel Assembly

Item No.	Dia. Mkgs.	Part No.	Description	Qty
/		279050	Assembly, Magnetics Windtunnel	1
1		277435	Windtunnel, Lh	1
2	L1	277108	Inductor, Input	1
3	L2	277336	Inductor, Output	1
4	T1	279051	Xfmr, Main	1
5		278705	Channel, Wire Plastic	1
/		279052	Assembly, Heat Sink Windtunnel	1
6		277436	Windtunnel, Rh	1
7		277439	Heat Sink, Boost Inverter/Input Rectifier	1
8		275288	Rectifier, Integ Bridge 90. Amp 1600V 1ph	1
/	D1,D2	281799	Assembly, Output Rectifier Heat Sink	1
9		281797	Heat Sink, Output Rectifier	1
10		290137	Diode, Ultra-Fast 164Ns 400A 600V Dual To-244	2
11		280976	Resistor/Capacitor Assy	1
/	RT1	278442	Thermistor, NTC 30K Ohm @ 35 Deg C 30in Lead	1
12		278711	Assembly, Fan	1
/		277505	Holder, Plastic Front Fan	1
/	FM1,FM2	278710	Fan, Muffin 24VDC 8000 Rpm 175 Cfm 3.248 Mtg Holes	2
/		278709	Rivet, Plastic .163 Hole x .295-.335 Grip Push	4
13		278726	Bus Bar, Positive Output	1
14		279057	Bracket, Mtg Circuit Card Assy	4
15	CT1	277697	Xfmr, Current Sensing 200/1 Encapsulated w/6in Lds	1
/		278885	Grommet, Rubber	2
16		281133	Tubing, Htshnk Clear Mfp .500/.250 Dia x 4.000	1
17	RT2	277948	Thermistor, NTC 30k Ohm @ 25 Deg C 22.00in Lead	1
18		282223	Washer, Lock Stl Intl/Ext Tooth No 10 Zc Pld Sftmtl	1
19		265408	Screw, K50X 12 Hexwhd Stl Pld Blk Pt Thread Forming	1

*Recommended Spare Parts ~ Optional ↓ Item includes other parts. → Item is part of a subassembly.

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

Hardware is common and not available unless listed.

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.

Drive Roll And Wire Guide Kits

Base selection of drive rolls upon the following recommended usages:

- 1 V-Grooved rolls for hard wire.
- 2 U-Grooved rolls for soft and soft shelled cored wires.
- 3 U-Cogged rolls for extremely soft shelled wires (usually hard surfacing types).
- 4 V-Knurled rolls for hard shelled cored wires.
- 5 Drive roll types may be mixed to suit particular requirements (example: V-Knurled roll in combination with U-Grooved).

Wire Diameter			Kit No.	Drive Roll		Inlet Wire Guide
Fraction	Decimal	Metric		Part No.	Type	
.023/.025 in.	.023/.025 in.	0.6 mm	087131	087130	V-Grooved	056192
.030/.035 in.	.030/.035 in.	0.8/0.9 mm	204579	203526	V-Grooved	056192
.030 in.	.030 in.	0.8 mm	079594	053695	V-Grooved	056192
.035 in.	.035 in.	0.9 mm	079595	053700	V-Grooved	056192
.045 in.	.045 in.	1.2 mm	079596	053697	V-Grooved	056193

Ref. S-0026-B/7-91

Drive Roll And Wire Guide Kits

Item No.	Dia. Mkgs.	Part No.	Description	Qty
/		087131	Drive Roll And Wire Guide Kits	
/		087130	Drive Roll V-Grooved	
/		056192	Inlet Wire Guide	
/		204579	Drive Roll And Wire Guide Kits	
/		203526	Drive Roll V-Grooved	
/		079594	Drive Roll And Wire Guide Kits	
/		053695	Drive Roll V-Grooved	
/		079595	Drive Roll And Wire Guide Kits	
/		053700	Drive Roll V-Grooved	
/		079596	Drive Roll And Wire Guide Kits	
/		053697	Drive Roll V-Grooved	
/		056193	Guide, Wire Inlet	

*Recommended Spare Parts ~ Optional ↓ Item includes other parts. → Item is part of a subassembly.

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

Hardware is common and not available unless listed.

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.

MDX Welding Consumables
See OM-282976 (shipped with this product) for information on replacement consumables for the MDX welding gun.