



PM-246193A

2020-07

Eff w/Serial No. MA021803A

Processes



MIG (GMAW) and Pulsed MIG (GMAW-P) Welding



Air Carbon Arc (CAC-A) Cutting and Gouging

Description



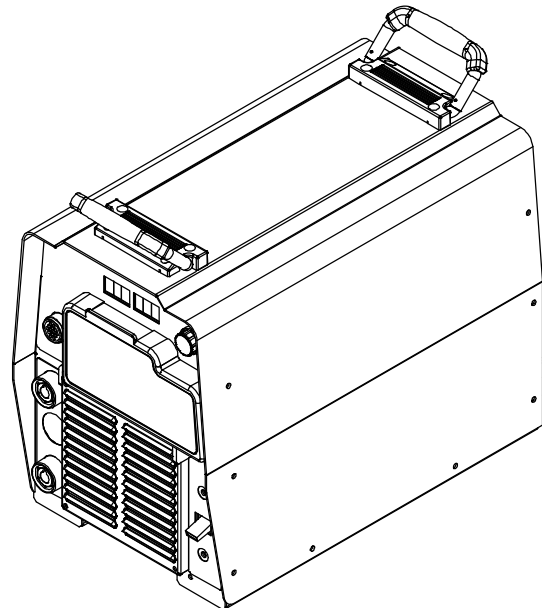
Arc Welding Power Source

InvisionTM 352 MPa

Auto-LineTM

Eff w/Serial No.
MA021803A Thru MC450892U

For OM-246193 Revisions A Thru F

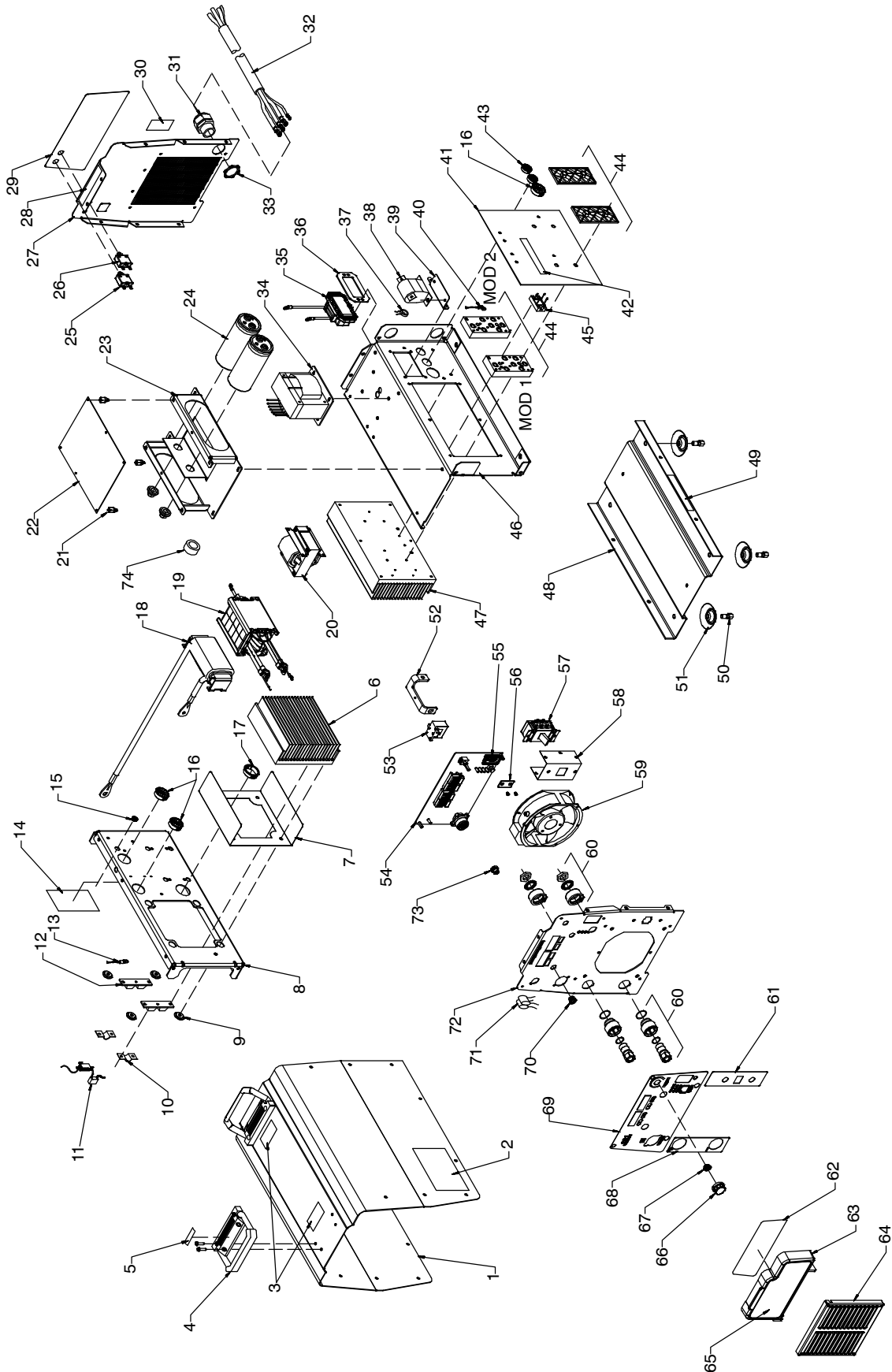


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PARTS MANUAL

SECTION 1 – PARTS LIST FOR SERIAL NO. MA021803A THRU MC450892U



Ref. 805071-C

Figure 1-1. Parts Assembly

Eff w/Serial No. MA021803A Thru MC450892U

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-1. Parts Assembly				
... 1		216034	.. Wrapper (Includes Insulators and Safety Labels)	1
...		175256	.. Insulator, Side Rh (Not Shown)	1
...		178551	.. Insulator, Side (Not Shown)	1
... 2		134327	.. Label, Warning General Precautionary Static & Wire Feed	2
... 3		138442	.. Label, Caution Falling Equip Can Cause Injury	2
... 4		195585	.. Handle, Rubberized Carrying	2
... 5		135483	.. Label, Important Remove These Two Handle Screws	2
... 6		225097	.. Heat Sink, Lh Rect	1
... 7		211503	.. Insulator, Heat Sink	1
... 8		+212207	.. Windtunnel, Lh	1
... 9		196355	.. Insulator, Screw	4
... 10		199840	.. Bus Bar, Diode	2
... 11	R3/C4	233052	.. Resistor/Capacitor	1
... 12	D1,D2	201531	.. Kit, Diode Power Module	2
... 13	RT1	199798	.. Thermistor, NTC 30K Ohm @ 25 Deg C 18In Lead	1
... 14		227127	.. Label, Warning Electric Shock/Exploding Parts	1
... 15		107983	.. Blank, Snap-in Nyl .500 Mtg Hole Black	1
... 16		179276	.. Bushing, Snap-In Nyl 1.000 Id X 1.375 Mtg Hole Cent	3
... 17		170647	.. Bushing, Snap-In Nyl 1.312 Id X 1.500 Mtg Hole	1
... 18	L3	212150	.. Inductor, Output	1
... 19	T1	228382	.. XFMR, HF Litz/Litz	1
... 20	L1	212091	.. Inductor, Input	1
... 21		083147	.. Grommet, Scr No 8/10 Panel Hole .312 Sq .500 High	4
... 22	PC1	242812	.. Circuit Card Assy, Control W/Program	1
... 22	PC1	♦242341	.. Circuit Card Assy, Control/Aux Power W/Program	1
...		216113	.. Stand-Off Support, PC Card .187 Dia W/P&I .375	2
...	PLG1	115091	.. Housing Plug+Pins (Service Kit) RC1	1
...	PLG2	201665	.. Housing Plug+Pins (Service Kit) RC2	1
...	PLG3	131056	.. Housing Plug+Pins (Service Kit) RC3	1
...	PLG5	131204	.. Housing Plug+Pins (Service Kit) RC5	1
...	PLG7	131054	.. Housing Plug+Pins (Service Kit) RC7	1
...	PLG8	131054	.. Housing Plug+Pins (Service Kit) RC8	1
...	PLG9	115093	.. Housing Plug+Pins (Service Kit) RC9	1
...	PLG10	115094	.. Housing Plug+Pins (Service Kit) RC10	1
...	PLG12	115092	.. Housing Plug+Pins (Service Kit) RC12	1
... 23		212072	.. Bracket, Mtg Capacitor/PC Board	1
... 24	C12,13	219930	.. Kit, Capacitor Elctlt Replacement	1
...	RC2	♦604176	.. Rcpt, Str Dx Grd 2P3W 15A 125V *5-15R	1
... 25	CB2	083432	.. Supplementary Protector, Man Reset 1P 10A 250VAC Frict	1
... 26	CB1	089807	.. Supplementary Protector, Man Reset 1P 2.5A 250VAC Frict	1
... 26	CB1	♦083432	.. Supplementary Protector, Man Reset 1P 10A 250VAC Frict	1
... 27		+212071	.. Panel, Rear Standard	1
... 27		♦+212202	.. Panel, Rear	1
... 28		126026	.. Label, Warning Electric Shock Can Kill Significant	1

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

♦Part of 115V Aux Power Option.

BE SURE TO PROVIDE MODEL AND SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS.

Eff w/Serial No. MA021803A Thru MC450892U

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-1. Parts Assembly (Continued)				
29			Nameplate, Rear (Order by Model and Serial Number)	1
29	♦		Nameplate, Rear Aux (Order by Model and Serial Number)	1
	♦217297		Cover, Receptacle Weatherproof Duplex Rcpt	1
30		217480	Label, Warning Incorrect Connections	1
31		215980	Bushing, Strain Relief .709/.984 Id X1.375 Mtg Hole	1
32		219487	Cable, Power 12 Ft 8Ga 4C (Non-Stripped End)	1
33		234126	Nut, Conduit 1.000 Npt Knurled	1
34	T2	211109	XFMR, Control 665V 336Va Syn Aux Pwr	1
34	T2	♦211968	XFMR, Control Toroidal 665 VAC Pri 1536 Va 60 Hz (Prior to MB520506A)	1
34	T2	♦251003	XFMR, Control Toroidal 665 VAC Pri 1536 Va 60 Hz (Eff w/MB520506A)	1
	♦212947		Plate, Mtg Toroid XFMR	1
35	L2	218018	Inductor, Pre-Regulator	1
36		218566	Gasket, Inductor Mounting	1
37	CT1	196231	XMFR, Current Sensing 200/1	1
38	C15	196143	Capacitor, Polyp Met Film 16. Uf 400 VAC 10%	1
39		216117	Bracket, Mtg Capacitor Series	1
40	RT2	199798	Thermistor, Ntc 30K Ohm @ 25 Deg C 18in Lead	1
41	PC2	225442	Circuit Card Assy, Interconnect W/Label & Clips (Includes)	1
42		126026	Label, Warning Electric Shock Can Kill Significant	1
		223343	Clip, Wire Std .40-.50 Bndl .156Hole .031-.078Thk	2
43		153403	Bushing, Snap-In Nyl .750 Id X 1.000 Mtg Hole Cent	2
44	MOD1, MOD2	266888	Kit, Xmt 350 Igbt Module & Interconnect (Includes)	1
			MOD 1, SKiip 83 HEC	1
			MOD 2, SKiip 83 EC	1
	PLG13	130203	Housing Plug+Pins (Service Kit) RC1	1
	PLG14	201665	Housing Plug+Pins (Service Kit) RC2	1
	PLG15	115092	Housing Plug+Pins (Service Kit) RC3	1
	PLG20	115093	Housing Plug+Pins (Service Kit) RC6	1
45	RM1	205751	Module, Power Resistor W/Plug	1
46		212206	Windtunnel, Rh	1
47		196330	Heat Sink, Power Module	1
48		+175132	Base	1
49		153178	Label, Warning Exploding Parts Can Serious Injury	1
50		176736	Screw, Mtg Foot	4
51		229325	Foot, Mtg Unit	4
52		212074	Bus Bar, Output	1
53	HD1	182918	Transducer, Current 400A Module Supply V +/- 15V	1
54	PC3	246194	Circuit Card Assy, Front Panel & Display W/Program	1
	PLG18	131204	Housing Plug+Pins (Service Kit) RC2	1
	RC50	210233	Rcpt, W/Pins (Service Kit)	1
	PLG21	212088	Plug, W/Leads	1
	RC21	167640	Housing Plug+Pins (Service Kit)	1
55		230943	Enclosure, Connector DB-9	1
56		230944	Cover, Enclosure Connector DB-9	1
57	S1	231191	Switch, Tgl 3Pst 50A 600VAC Scr Term Wide Tgl (Prior to MA430012A)	1
57	S1	244920	Switch, Tgl 3Pst 40A 600VAC Scr Term Wide Tgl (Eff w/MA430012A)	1
58		176226	Insulator, Switch Power	1
59	FM1	196313	Fan, Muffin 115V 50/60Hz 3000 RPM 6.378 Mtg Holes	1
	PLG16	131054	Housing Plug+Pins (Service Kit)	1
	RC16	135635	Housing Plug+Pins (Service Kit)	1

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BE SURE TO PROVIDE MODEL AND SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS.

Eff w/Serial No. MA021803A Thru MC450892U

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-1. Parts Assembly (Continued)				
... 60		208967	.. Rcpt Assy, Tw Lk Insul Fem (Dinse Type) 50/70 Series (Includes)	2
...		208968	 Rcpt, Tw Lk Insul W/O-Ring	1
...		185712	 Insulator, Bulkhead Front	1
...		185713	 Insulator, Bulkhead Rear	1
...		185714	 Washer, Tooth 22Mmid X 31.5Mmod 1.310-1Mmt Intern	1
...		185717	 Nut, M20-1.5 1.00Hex .19H Brs Locking	1
...		185718	 O-Ring, 0.989 Id X 0.070 H	1
...		186228	 O-Ring, 0.739 Id X 0.070 H	1
...		178548	 Terminal, Connector Friction (Eff w/MB520506A)	1
... 61			Nameplate, Power (Order by Model and Serial Number)	1
... 62		235553	.. Label, Process	1
... 63		218041	.. Door, W/Quick Access Ball Fasteners	1
... 64		175138	.. Box, Louver	1
... 65			Label, (Order by Model and Serial Number)	1
... 66		174991	.. Knob, Pointer 1.250 Dia X .250 Id W/Spring Clip-.21	1
... 67		231469	.. Nut, 500-28 .69Hex .28H Brs Conical Knurl	1
... 68			Nameplate, Connection (Order by Model and Serial Number)	1
... 69			Nameplate (Order by Model and Serial Number)	1
... 70		216112	.. Fastener, Panel Receptacle Quick Access	2
... 71	C6,7	214749	.. Capacitor Assy, W/Plug And Leads (Voltage Feedback)	1
... 72		235549	.. Panel, Front W/Knockout	1
... 73		231470	.. Nut, Adapter Encoder Shaft Mtg 375-32 To 500-28	1
... 74	L8	241027	.. Core, Toroidal (Eff w/MB380101A)	1

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

◆ Part of 115V Aux Power Option.

BE SURE TO PROVIDE MODEL AND SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS.

This image shows a full page of blank, lined paper. It features approximately 30 horizontal grey lines spaced evenly apart, typical of notebook paper. The lines extend across the entire width of the page, leaving small margins at the top and bottom. There are no vertical lines or other markings present.



PM-246193A

2020-07

Eff w/Serial No. MA021803A

Processes



MIG (GMAW) and Pulsed MIG (GMAW-P) Welding



Air Carbon Arc (CAC-A) Cutting and Gouging

Description



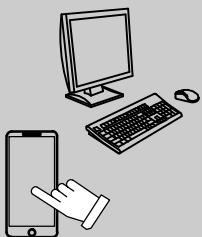
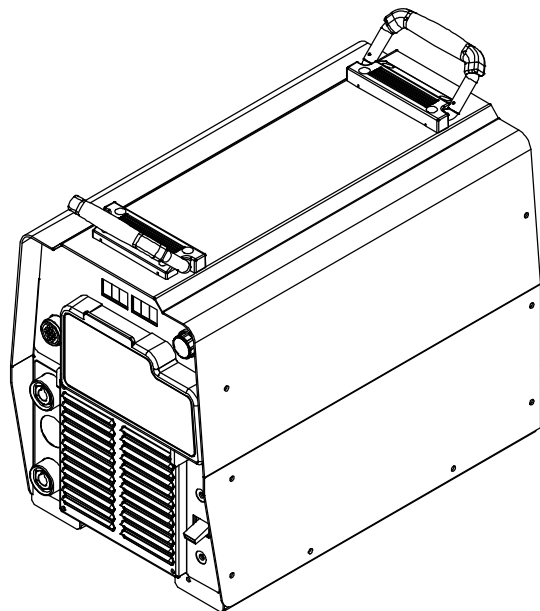
Arc Welding Power Source

InvisionTM 352 MPa

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Eff w/Serial No.
MC450893U And Following

For OM-246193 Revisions G Thru T

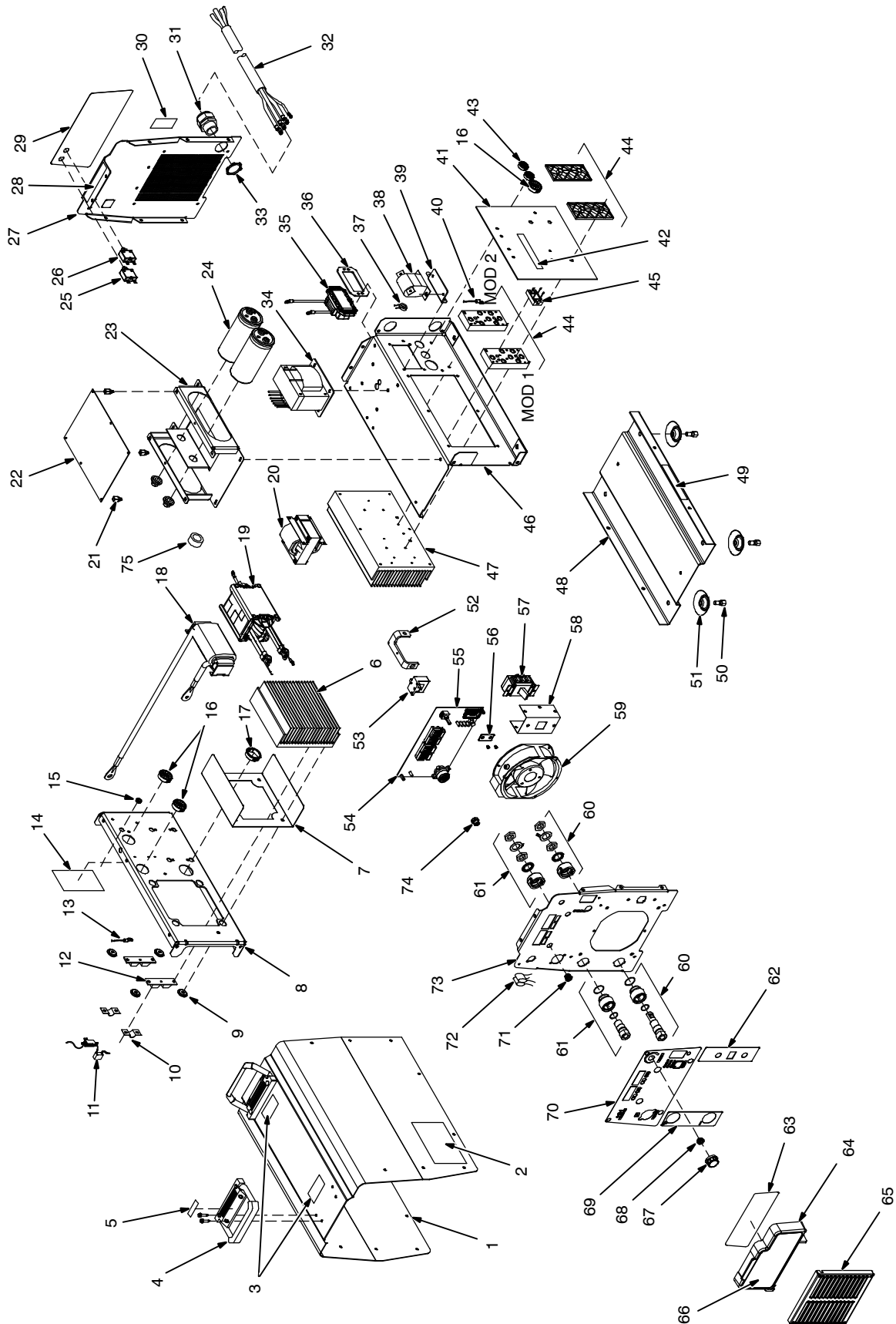


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PARTS MANUAL

SECTION 2 – PARTS LIST FOR SERIAL NO. MC450893U AND FOLLOWING



805 071-G

Figure 2-1. Parts Assembly

Eff w/Serial No. MC450893U And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 2-1. Parts Assembly				
1		216034	Wrapper (Includes Insulators and Safety Labels)	1
		175256	Insulator, Side Rh (Not Shown)	1
		178551	Insulator, Side (Not Shown)	1
2		134327	Label, Warning General Precautionary Static & Wire Feed	2
3		138442	Label, Caution Falling Equip Can Cause Injury	2
4		195585	Handle, Rubberized Carrying (Prior to MC510003U)	2
4		208015	Handle, Rubberized Carrying (Eff w/MC510003U)	2
5		135483	Label, Important Remove These Two Handle Screws	2
6		225097	Heat Sink, Lh Rect	1
7		211503	Insulator, Heat Sink	1
8		+212207	Windtunnel, Lh	1
9		196355	Insulator, Screw	4
10		199840	Bus Bar, Diode	2
11	R3/C4	233052	Resistor/Capacitor	1
12	D1,D2	201531	Kit, Diode Power Module	2
13	RT1	199798	Thermistor, NTC 30K Ohm @ 25 Deg C 18In Lead	1
14		227127	Label, Warning Electric Shock/Exploding Parts	1
15		107983	Blank, Snap-in Nyl .500 Mtg Hole Black	1
16		179276	Bushing, Snap-In Nyl 1.000 Id X 1.375 Mtg Hole Cent	3
17		170647	Bushing, Snap-In Nyl 1.312 Id X 1.500 Mtg Hole	1
18	L3	251396	Inductor, Output	1
19	T1	251394	XFMR, HF Litz/Litz	1
20	L1	212091	Inductor, Input	1
21		083147	Grommet, Scr No 8/10 Panel Hole .312 Sq .500 High	4
22	PC1	242812	Circuit Card Assy, Control W/Program (Prior to MF254023U)	1
22	PC1	260291	Circuit Card Assy, Control W/Program (Eff w/MF254023U thru MG094219U)	1
22	PC1	273301	Circuit Card Assy, Control W/Program (Eff w/MG094220U thru MJ404028U)	1
22	PC1	276638	Circuit Card Assy, Control W/Program (Eff w/MJ404029U)	1
22	PC1	♦242341	Circuit Card Assy, Control/Aux Power W/Program (Prior to MF254023U)	1
22	PC1	♦265280	Circuit Card Assy, Control W/Program (Eff w/MF254023U thru MG094219U)	1
22	PC1	♦274574	Circuit Card Assy, Control W/Program (Eff w/MG094220U thru MJ404028U)	1
22	PC1	♦279540	Circuit Card Assy, Control W/Program (Eff w/MJ404029U)	1
		216113	Stand-Off Support, PC Card .187 Dia W/P&I .375	2
	PLG1	115091	Housing Plug+Pins (Service Kit) RC1	1
	PLG2	201665	Housing Plug+Pins (Service Kit) RC2	1
	PLG3	131056	Housing Plug+Pins (Service Kit) RC3	1
	PLG5	131204	Housing Plug+Pins (Service Kit) RC5	1
	PLG7	131054	Housing Plug+Pins (Service Kit) RC7	1
	PLG8	131054	Housing Plug+Pins (Service Kit) RC8	1
	PLG9	115093	Housing Plug+Pins (Service Kit) RC9	1
	PLG10	115094	Housing Plug+Pins (Service Kit) RC10	1
	PLG11	115094	Housing Plug+Pins (Service Kit) RC11	1
	PLG12	115092	Housing Plug+Pins (Service Kit) RC12	1
23		212072	Bracket, Mtg Capacitor/PC Board (Prior to ME120121U)	1
23		263023	Bracket, Mtg Capacitor/Pc Board (Eff w/ME120121U)	1
		263052	Insulator, Capacitor Mtg (Eff w/ME120121U)	1
		251701	Adapter, Nut Capacitor (Eff w/ME120121U)	2
24	C12,13	219930	Kit, Capacitor Elctlt Replacement	1
	RC2	♦604176	Rcpt, Str Dx Grd 2P3W 15A 125V *5-15R	1
25	CB2	083432	Supplementary Protector, Man Reset 1P 10A 250VAC Frict	1
26	CB1	089807	Supplementary Protector, Man Reset 1P 2.5A 250VAC Frict (Prior to ME224001U)	1
26	CB1	♦083432	Supplementary Protector, Man Reset 1P 10A 250VAC Frict	1
27		+212071	Panel, Rear Standard (Prior to ME224001U)	1
27		+265908	Panel, Rear Standard W/Knockout (Eff w/ME224001U)	1
27		♦+212202	Panel, Rear	1
28		126026	Label, Warning Electric Shock Can Kill Significant	1

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

♦Part of 115V Aux Power Option.

BE SURE TO PROVIDE MODEL AND SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS.

Eff w/Serial No. MC450893U And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 2-1. Parts Assembly (Continued)				
29			Nameplate, Rear (Order by Model and Serial Number)	1
29	♦		Nameplate, Rear Aux (Order by Model and Serial Number)	1
	♦	175282	Cover, Receptacle Weatherproof Duplex Rcpt	1
30		217480	Label, Warning Incorrect Connections	1
31		215980	Bushing, Strain Relief .709/.984 Id X1.375 Mtg Hole	1
32		219487	Cable, Power	1
33		234126	Nut, Conduit 1.000 Npt Knurled	1
	♦	212947	Plate, Mtg Toroid XFMR	1
34	T2	211109	XFMR, Control 665V 336Va Syn Aux Pwr (Prior to MF254023U)	1
34	T2	268830	XFMR, Control 665V 336Va Syn Aux Pwr (Eff w/MF254023U)	1
34	T2	♦251003	XFMR, Control Toroidal 665 VAC Pri 1536 VA 60 Hz (Prior to MF254023U)	1
34	T2	♦270095	XFMR, Control Toroidal 665 VAC Pri 1536 VA 60 Hz (Eff w/MF254023U)	1
35	L2	218018	Inductor, Pre-Regulator	1
36		218566	Gasket, Inductor Mounting	1
37	CT1	196231	XMFR, Current Sensing 200/1	1
38	C15	196143	Capacitor, Polyp Met Film 16. Uf 400 VAC 10%	1
39		216117	Bracket, Mtg Capacitor Series	1
40	RT2	199798	Thermistor, Ntc 30K Ohm @ 25 Deg C 18in Lead	1
41	PC2	225442	Circuit Card Assy, Interconnect (Prior to ME100269U)	1
41	PC2	263676	Circuit Card Assy (Includes)	1
42		126026	Label, Warning Electric Shock Can Kill Significant	1
		223343	Clip, Wire Std .40-.50 Bndl .156Hole .031-.078Thk	2
43		153403	Bushing, Snap-In Nyl .750 Id X 1.000 Mtg Hole Cent	2
44	MOD1, MOD2	266888	Kit, IGBT Module & Interconnect Board (Prior to ME100269U) (Includes MOD1, MOD2, And Interconnect Board PC2)	1
44	MOD1, MOD2	261556	Kit, Input/Pre-Regulator And Inverter Module (Eff w/ME100269U) (Includes MOD1, MOD2)	1
	PLG13	130203	Housing Plug+Pins (Service Kit) RC1	1
	PLG14	201665	Housing Plug+Pins (Service Kit) RC2	1
	PLG15	115092	Housing Plug+Pins (Service Kit) RC3	1
	PLG20	115093	Housing Plug+Pins (Service Kit) RC6	1
45	RM1	205751	Module, Power Resistor W/Plug	1
46		212206	Windtunnel, Rh	1
47		196330	Heat Sink, Power Module	1
48	+	175132	Base	1
49		153178	Label, Warning Exploding Parts Can Serious Injury	1
50		176736	Screw, Mtg Foot	4
51		229325	Foot, Mtg Unit	4
52		212074	Bus Bar, Output	1
53	HD1	182918	Transducer, Current 400A Module Supply V +/- 15V	1
54	PC3	246194	Circuit Card Assy, Front Panel & Display W/Program	1
	PLG18	131204	Housing Plug+Pins (Service Kit) RC2	1
	RC50	210233	Rcpt, W/Pins (Service Kit)	1
	PLG21	212088	Plug, W/Leads	1
	RC21	167640	Housing Plug+Pins (Service Kit)	1
55		230943	Enclosure, Connector DB-9	1
56		230944	Cover, Enclosure Connector DB-9	1
57	S1	244920	Switch, Tgl 3Pst 40A 600VAC Scr Term Wide Tgl	1
58		176226	Insulator, Switch Power	1
59	FM1	196313	Fan, Muffin 115V 50/60Hz 3000 RPM 6.378 Mtg Holes	1
	PLG16	131054	Housing Plug+Pins (Service Kit)	1
	RC16	135635	Housing Plug+Pins (Service Kit)	1

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BE SURE TO PROVIDE MODEL AND SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS.

Eff w/Serial No. MC450893U And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 2-1. Parts Assembly (Continued)				
... 60		258711	.. Rcpt Assy, Tw Lk Insul Fem (Dinse) Bolted (Includes)	1
		257994	 Rcpt, Tw Lk Insul W/O-ring (Dinse) Bolted	1
		250037	 Insulator, Bulkhead Front	1
		250039	 Insulator, Bulkhead Rear	1
		185714	 Washer, Tooth 22mmid X 31.5mmmod 1.310-1mmt Intern	1
		185717	 Nut, M20-1.5 1.00Hex .19H Brs Locking	2
		185718	 O-Ring, 0.989 Id X 0.070 H	1
		186228	 O-Ring, 0.739 Id X 0.070 H	1
		178548	 Terminal, Connector Friction	1
... 61		258710	.. Rcpt Assy, Tw Lk Insul Fem (Dinse) (Includes)	1
		257995	 Rcpt, Tw Lk Insul W/O-ring (Dinse)	1
		250037	 Insulator, Bulkhead Front	1
		250039	 Insulator, Bulkhead Rear	1
		185714	 Washer, Tooth 22mmid X 31.5mmmod 1.310-1mmt Intern	1
		185717	 Nut, M20-1.5 1.00Hex .19H Brs Locking	2
		185718	 O-Ring, 0.989 Id X 0.070 H	1
		186228	 O-Ring, 0.739 Id X 0.070 H	1
		178548	 Terminal, Connector Friction	1
... 62			Nameplate, Power (Order by Model and Serial Number)	1
... 63		235553	Label, Process	1
... 64		218041	Door, W/Quick Access Ball Fasteners	1
... 65		175138	Box, Louver	1
... 66			Label, (Order by Model and Serial Number)	1
... 67		174991	Knob, Pointer 1.250 Dia X .250 Id W/Spring Clip-.21	1
... 68		231469	Nut, 500-28 .69Hex .28H Brs Conical Knurl	1
... 69			Nameplate, Connection (Order by Model and Serial Number)	1
... 70			Nameplate (Order by Model and Serial Number)	1
... 71		216112	Fastener, Panel Receptacle Quick Access	2
... 72	C6,7	214749	Capacitor Assy, W/Plug And Leads (Voltage Feedback)	1
... 73		235549	Panel, Front W/Knockout	1
... 74		231470	Nut, Adapter Encoder Shaft Mtg 375-32 To 500-28	1
... 75	L8	241027	Core, Toroidal	1

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

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BE SURE TO PROVIDE MODEL AND SERIAL NUMBER WHEN ORDERING REPLACEMENT PARTS.

Miller Electric Mfg. LLC

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