



PM-260850B

2021-04

Processes



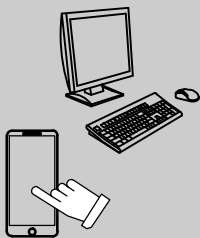
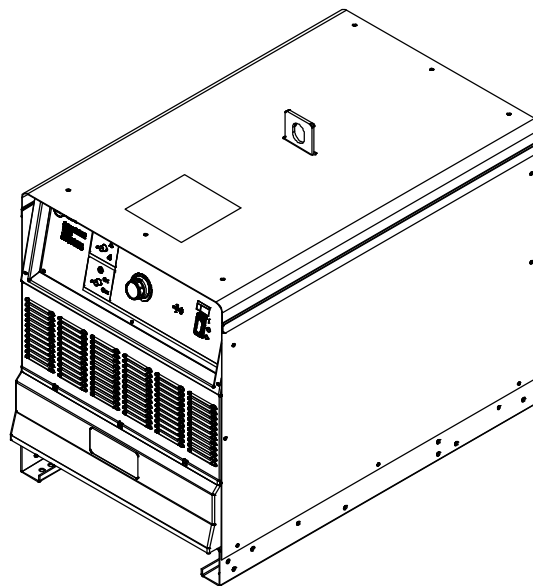
Submerged Arc (SAW) Welding

Description



Arc Welding Power Source

SubArc DC 650/800, 1000/1250 Digital Power Sources CE And Non-CE Models Eff w/ME210002G And Following For OM-265363 Revision A And Following




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

www.MillerWelds.com

PARTS MANUAL

SECTION 1 – PARTS LIST EFF W/SERIAL NO. ME210002G AND FOLLOWING

A. Part List For 650/800 Amp Models

 Hardware is common and not available unless listed.

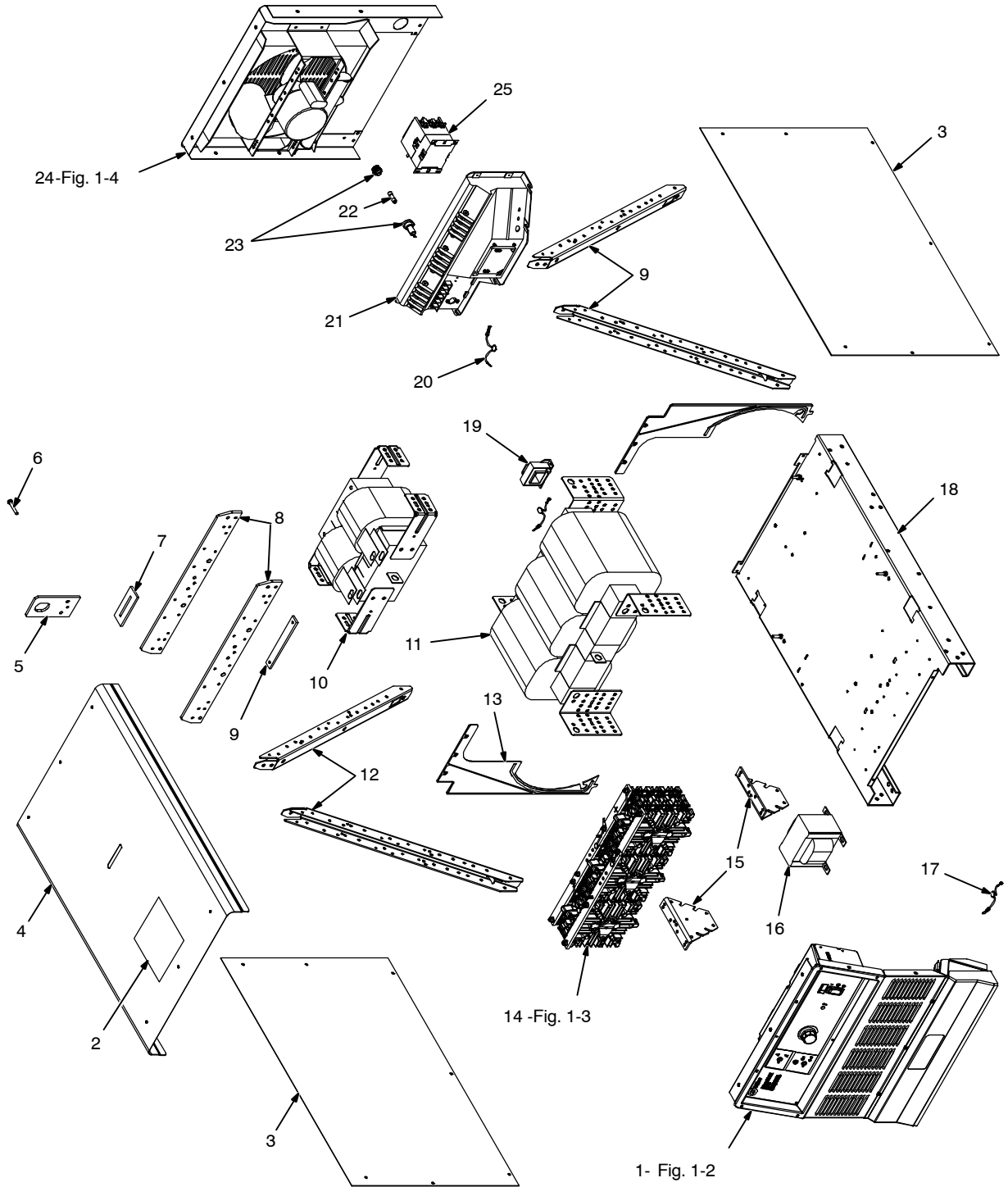


Figure 1-1. 650/800 Main Assembly (650 Model Illustrated)

270476-D

Eff w/Serial No. ME210002G And Following


Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-1. 650/800 Main Assembly (650 Model Illustrated)				
.. 1		Fig 1-2	Panel, Front w/Components	1
.. 2		274964	Label, Warning General Precautionary (En/Fr/Sp)	1
.. 3		+179432	Panel, Side	2
.. 4		179431	Cover, Top	1
.. 5		162830	Lift, Eye	1
.. 6		604536	Screw, .312-18 x 1.75 hexhd-pln gr 5	2
.. 7		177279	Gasket, Lift Eye	1
.. 8		162820	Bar, Mtg Lift Eye	2
.. 9		164717	Bus Bar, Stabilizer	1
.. 10	Z1	180068	Stabilizer (Prior to MH390210G)	1
.. 10	Z1	280666	Stabilizer (Eff. w/MH390210G)	1
.. 11	T1	264820	XFMR, Power Main 230/460/575 (DC 650)	1
.. 11	T1	264956	XFMR, Power Main 380/400/440 (DC 800)	1
..	TP1,2	175405	Thermostat, NC (Included w/T1)	2
..	TP4,5	168891	Thermostat, NC (Included w/T1)	2
.. 12		162816	Channel, Upright	4
.. 13		164700	Baffle, Air	2
.. 14	SR1	267606	Rectifier, SCR Main Subarc DC 650/800	1
.. 15		161294	Bracket, Mtg Rectifier	2
.. 16	T2	260744	XFMR, Control 600VA 230/460/575V Pri 24V Sec 60hz (DC650)	1
.. 16	T2	260746	XFMR, Control 600VA 220/380/400/440V Pri 24V Sec 50 (DC800)	1
.. 17		128750	Capacitor, Cer Disc .1 UF 500 VDC w/Terms	2
.. 18		163359	Base	1
.. 19	HD1	244958	Transducer, Current 1000A Module Supply V +/- 15V	1
.. 20	C21-23	163906	Capacitor	3
.. 21	TE1	159244	Primary Box Layout (Includes)	1
..		601835	Nut, 10-32 Brs	24
..		038887	Stud, Pri Bd Brs 10-32 x 1.375	24
..		038618	Link, Jumper Term Bd Pri	8
..		010913	Washer, Flat .218ID Brs	24
.. 22	F1	*260395	Fuse, Crtg 3. Amp 600 V Time Delay	1
.. 23		159034	Holder, Fuse Mintr 10.3mm x 33.3 To 38.1mm Panel Mt	1
.. 24		Fig 1-4	Panel, Rear w/Components	1
.. 25	W	258661	Contact, Def Prp 75A 3P 24 VAC Coil w/Boxlug	1

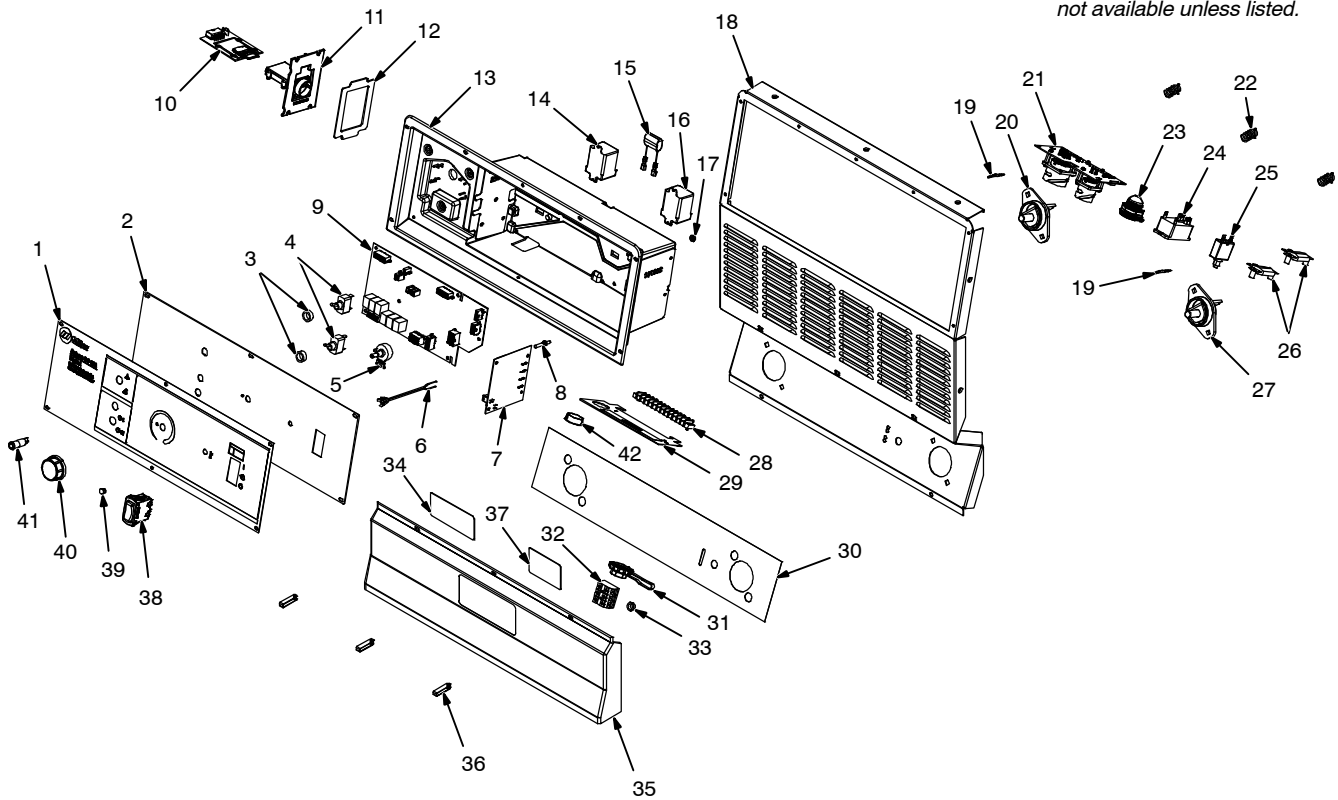
+When ordering a component originally displaying a precautionary label, the label should also be ordered.

*Recommended Spare Parts.

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.

Eff w/Serial No. ME210002G And Following

 Hardware is common and not available unless listed.



270478-C

Figure 1-2. 650/800 Panel, Front w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 1-2. 650/800 Panel, Front w/Components

.. 1			Nameplate, DC 650 Digital (Order By Model And Serial Number)	1
.. 2		262970	Panel, Front Upper Subarc DC Digital Units	1
.. 3		189404	Spacer, Nylon .718 Od x .526 Id x .281 Lg	2
.. 4		011609	Switch, Tgl Spdt 15A 125 VAC On-none-on Spd Term Chr	2
.. 5		198087	Pot, Cp Std Slot 1t 2. W 1k Linear w/Fricctabs	1
.. 6		159522	Led, Yellow 2.1V 20 Ma 45.0 Mcd Panel Mtg .250 Hole	1
.. 7	PC4	264088	Circuit Card Assy, Automation w/Prgrm	1
.. 8		038887	Stud, Primary Board Brs 10-32 x 1.375	1
.. 9	PC1	264012	Circuit Card Assy, Control w/Program	1
.. 10	PC3	244477	Circuit Card Assy, Sd Card	1
.. 11		234344	Program, Motor Control 8 X-treme 5 Sec Postflow	1
.. 12		264385	Gasket, Sd Card Bracket	1
.. 13		263759	Electronics Box, Modified	1
.. 14	CR3	052964	Relay, Encl 24 VDC Dpdt 10a/120 VAC 8pin Flange Mtg	1
.. 15	SN1	234081	Snubber Assy	1
.. 16	CR5	006393	Relay, Encl 24 VAC Dpdt 10A/120 VAC 8pin Flange Mtg	1
.. 17		601835	Nut, 10-32 Brs	2
.. 18		261068	Panel, Front	1
.. 19		010381	Connector, Rectifier	2
.. 20		241432	Terminal, Pwr Output Red	1
.. 21	PC2	261392	Circuit Card Assy, Subarc DC Filter	1
.. 22		161303	Spring, Cprsn .600 Od x .072 Wire x 1.500 Pld	3
.. 23		264897	Conn, Circ Cpc Ethernet Skt Sealed 34.000in Cable	1
.. 24	CR6	261010	Relay, Encl 24 VDC Dpst 30A/24 VAC 4pin Flange Mtg	1
.. 25	CB1	261011	Supplementary Pro, Man Reset 1p 25A 250 VAC Frict	1

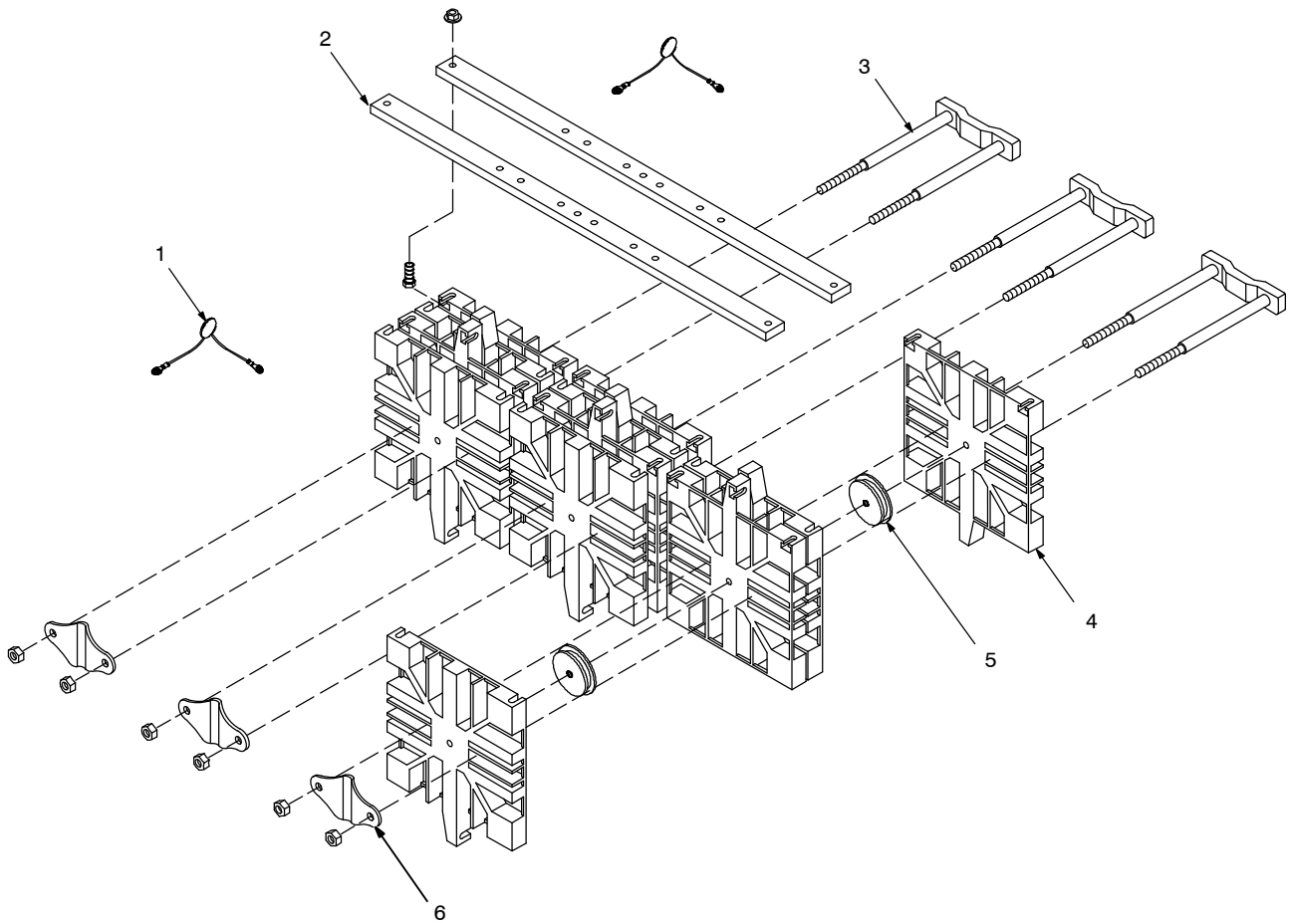
Eff w/Serial No. ME210002G And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-2. 650/800 Panel, Front w/Components (Continued)				
.. 26 ...	R4, R5 ...	136076 ..	Resistor, WW Fxd 30 W 200 Ohm Faston Te	2
.. 27		241433 ..	Terminal, Pwr Output Black	1
.. 28	1T	159040 ..	Block, Term 20 Amp 12 Pole Screw Term	1
.. 29		162828 ..	Panel, Mtg Rcpt/Terminal Strip	1
.. 30			Nameplate, Lower (Order By Model And Serial Number)	1
.. 31		244237 ..	Dust Cap	1
.. 32		246951 ..	Block,Term 20 Amp 3 Pole Quick Conn	1
.. 33		010546 ..	Bushing, Snap-in Nyl .375 Id x .500 Mtg Hole	1
.. 34		217865 ..	Label, Warning Electric Shock And Reduced Air (Fr)	1
.. 35	+172587		Cover, Output Stud Generic	1
.. 36		160935 ..	Clip, Spring	3
.. 37		227980 ..	Label, Notice Output Terminal Connection	1
.. 38	S1	261608 ..	Switch, Rocker Spdt 10A 24 VDC On-none-on Illum	1
.. 39		159036 ..	Lens, LED Clear Panel Mtg	1
.. 40		171007 ..	Knob, Pointer 1.670 Dia x .250 Id w/Set Screwsplstc	1
.. 41		249340 ..	LED Assy, Blue w/Terminals	1
.. 42		070371 ..	Blank, Snap-In Nyl 1.093/1.125 Mtg Hole Black	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.

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Figure 1-3. Rectifier, Si Diode

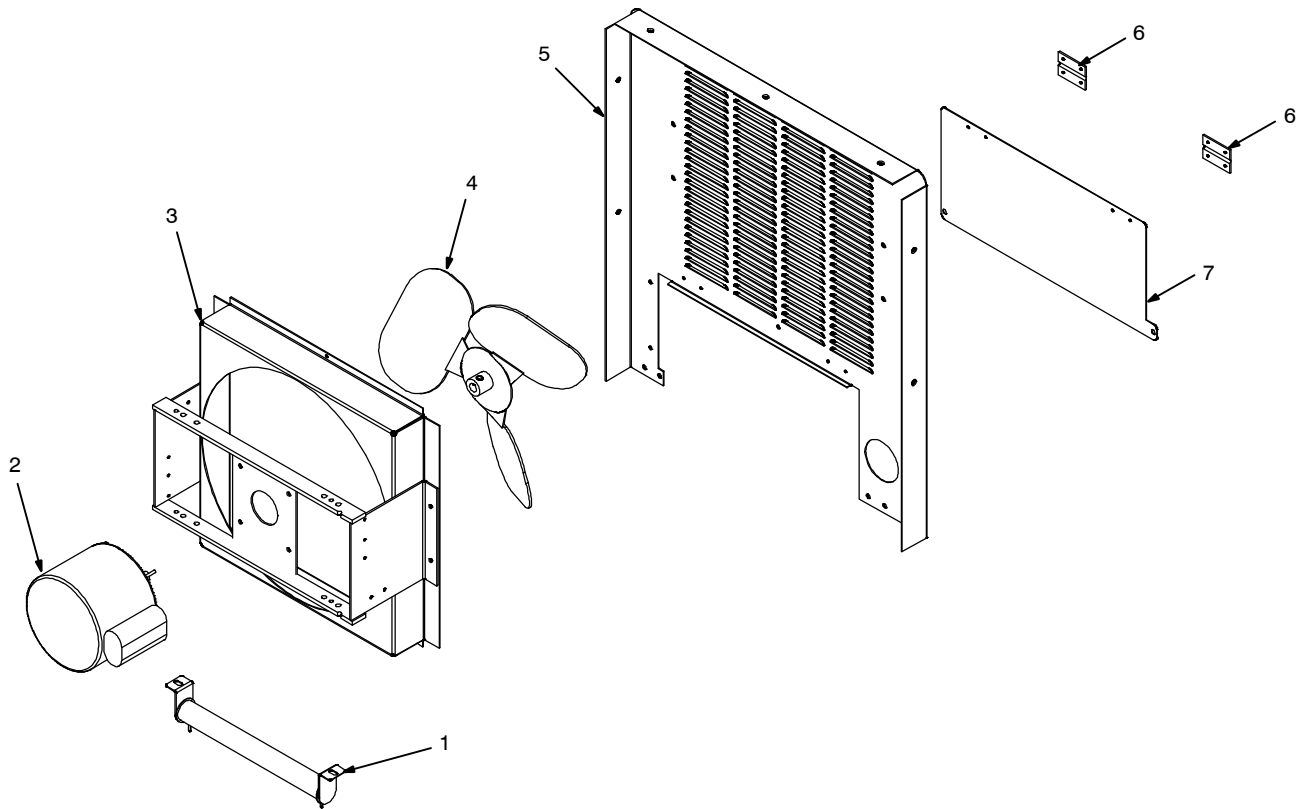
Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 1-3. 650/800 Rectifier, Si Diode

.. 1 C7.12	.. 048420	.. Capacitor, Cer Disc .01uf 1000 VDC	6
.. 2		.. 191989	.. Bar, Mtg Rectifier	2
.. 3		.. 188691	.. Clamp, Thyristor Rectifier 5.500	3
.. 4		.. 188839	.. Heatsink, Rectifier Snowflake .800	12
.. 5	... SCR1-6	.. 148091	.. Thyristor, SCR 865A 300V Hockey Puck	6
.. 6		.. 166667	.. Clamp, Spring Thyristor Rectifier 5.500	3
	..... PLG1	.. 158720	.. Connector & Sockets	1
	..... TP3	.. 191992	.. Thermostat, NC Open 186f Close 166f No Flange Fasto	1
	..... TP6	.. 191991	.. Thermostat, Rectifier	1

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.



270480-B

Figure 1-4. Panel, Rear w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 1-4. 650/800 Panel, Rear w/Components

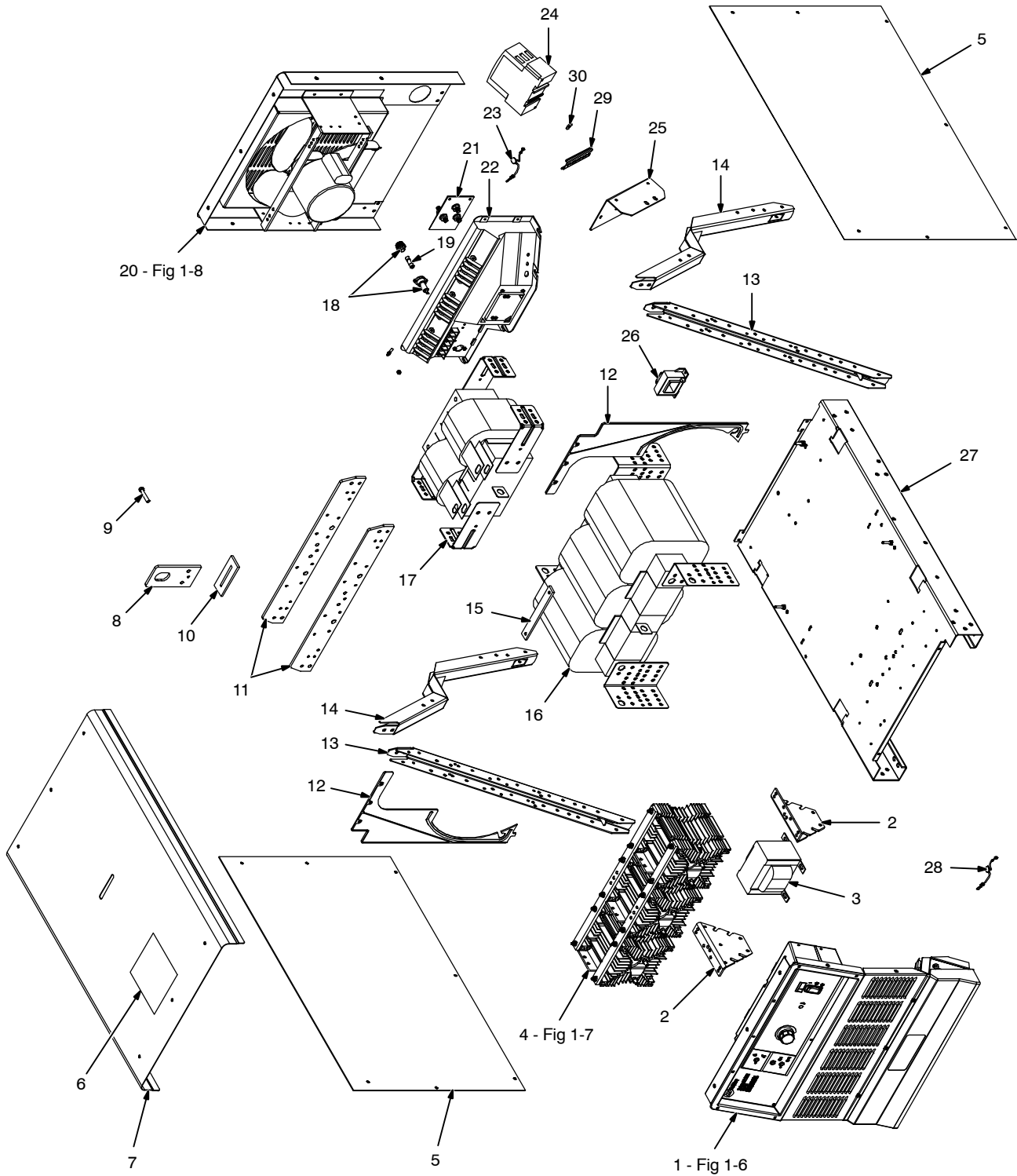
.. 1	.. R3	.. 097459	.. Resistor, WW Fxd 375W 20 Ohm	.. 1
.. 2	.. FM	.. 237398	.. Motor, 1/12HP 230V 1550 RPM 50/60Hz .83A (Prior To M0000000)	.. 1
.. 2	.. FM	.. 032605	.. Motor, Cap Perm Sp 1/4Hp 230 VAC 1670Rpm (Eff w/M0000000)	.. 1
.. 3		.. 124274	.. Bracket, Mtg Fan Motor	.. 1
.. 4		.. 173283	.. Chamber, Plenum 14 In (Prior To M0000000)	.. 1
.. 2		.. 132107	.. Chamber, Plenum 14 In (Eff w/M0000000)	.. 1
.. 5		.. 180165	.. Blade, Fan 14 In 3wg 23Deg .375 Bore CCW (Prior To M0000000)	.. 1
.. 2		.. 605799	.. Blade, Fan 14 In 5wg 30Deg .500 Bore CW AL (Eff w/M0000000)	.. 1
.. 6		.. 162807	.. Panel, Rear	.. 1
.. 7		.. 168343	.. Hinge, Door Primary	.. 2
.. 8		.. +162818	.. Door, Access Primary	.. 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.

B. Part List For 1000/1250 Amp Models

 Hardware is common and not available unless listed.



270477-D

Figure 1-5. 1000/1250 Main Assembly

Eff w/Serial No. ME210002G And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-5. 1000/1250 Main Assembly				
.. 1		Fig 1-6	Panel, Front w/Components	1
.. 2		161294	Bracket, Mtg Rectifier	1
.. 3	T2	260744	XFMR, Control 600VA 230/460/575V Pri 24V Sec 60hz (DC 1000)	1
.. 3	T2	260746	XFMR, Control 600VA 220/380/400/440V Pri 24V Sec 50 (DC 1250)	1
.. 4	SR1	267574	Rectifier, Scr Main Subarc DC 1000/1250 Digital (Fig 1-7)	1
.. 5		+179432	Panel, Side	2
.. 6		274964	Label, Warning General Precautionary (En/Fr/Sp)	1
.. 7		179431	Cover, Top	1
.. 8		162830	Lift Eye	1
.. 9		604536	Screw, .312-18 x 1.75 Hex Hd-Pln Gr 5	2
.. 10		177279	Gasket, Lift Eye	1
.. 11		162820	Bar, Mtg Lift Eye	2
.. 12		164700	Baffle, Air	2
.. 13		162816	Channel, Upright Front	2
.. 14		190959	Channel, Upright	2
.. 15		164717	Bus Bar, Stabilizer	1
.. 16	T1	264946	XFMR Assy, Power Main (DC 1000)	1
.. 16	T1	264958	XFMR Assy, Power Main (DC 1250)	1
..	TP1, 2	216600	Thermostat, NC Open 150C w/Insulator Leads & Terms (Included w/T1)	2
..	TP4, 5	168891	Thermostat, NC (Included w/T1) (Fan Control Circuit)	2
.. 17	Z1	190954	Stabilizer (Prior to MH370182G)	1
.. 17	Z1	280665	Stabilizer (Eff. w/MH370182G)	1
.. 18		159034	Holder, Fuse Mintr	1
.. 19	F1	260395	Fuse, Crtg 3. Amp 600V Time Delay	1
.. 20		Fig 1-8	Panel, Rear w/Components	1
.. 21		193676	Terminal Assy, Primary 3 phase	1
.. 22		193495	Primary Box, (Includes)	1
..		601835	Nut, 10-32 Brs	24
..		038887	Stud, Pri Bd Brs 10-32 x 1.375	24
..		038618	Link, Jumper Term Bd Pri	8
..		010913	Washer, Flat .218 Id Brs	24
..		601835	Nut, 10-32 Brs	24
.. 23	C21 - 23	099518	Capacitor (Prior To MF150244G)	3
.. 23	C21 - 23	269734	Capacitor, w/Lead (Eff w/ MF150244G)	3
.. 24	W	193473	Contact, Size 3-1/2 3P 24 VAC (Prior To MF150244G)	1
.. 24	W	252348	Contact, Size S3 3P AC 140 Amp 24V 50/60Hz (Eff w/MF150244G)	1
.. 25		193462	Bracket, Contactor Mount (Prior To MF150244G)	1
.. 25		264208	Bracket, Contactor Mount (Eff w/MF150244G)	1
.. 26	HD1	244958	Transducer, Current 1000A Module Supply V +/- 15V	1
.. 27		163359	Base	1
.. 28		128750	Capacitor, Cer Disc .1 Uf 500 VDC w/Terms	2
.. 29		252349	Rail (Eff w/MF150244G)	1
.. 30		252264	Spacer, Nylon (Eff w/MF150244G)	1

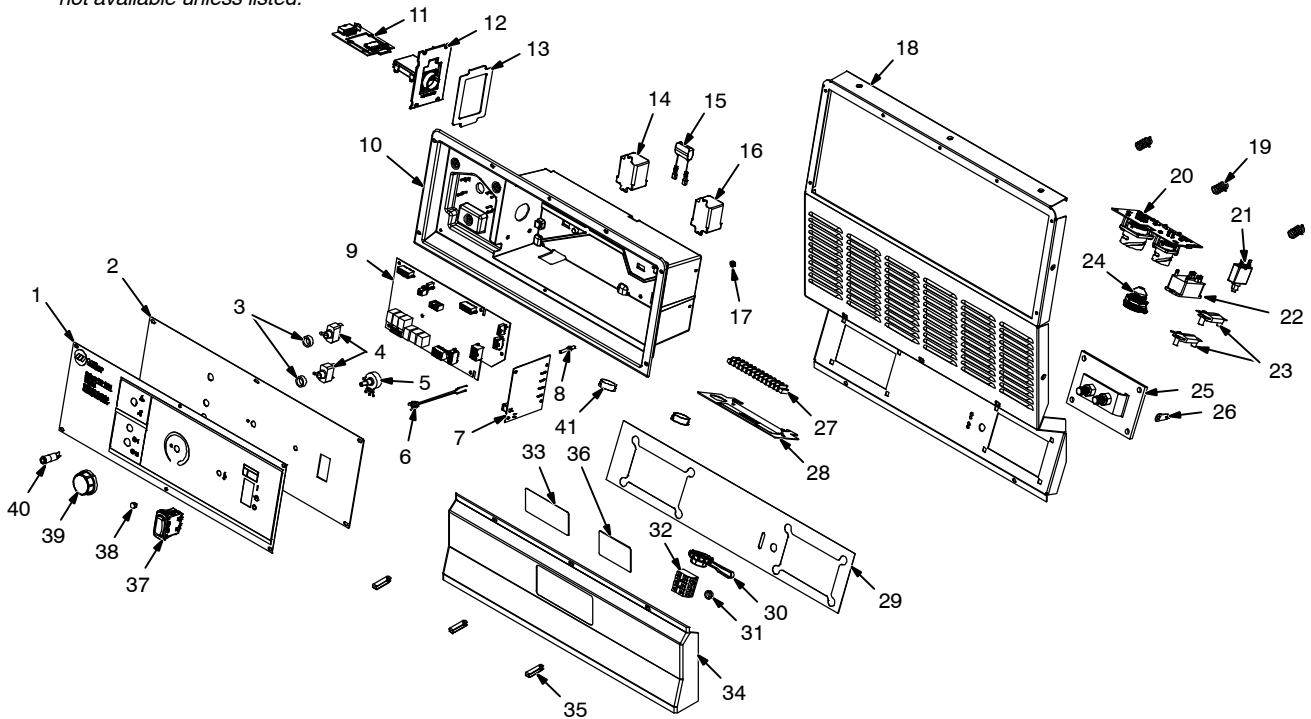
+When ordering a component originally displaying a precautionary label, the label should also be ordered.

*Recommended Spare Parts.

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.

Eff w/Serial No. ME210002G And Following

☞ Hardware is common and not available unless listed.



270481-C

Figure 1-6. 1000/1250 Panel, Front w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 1-6. 1000/1250 Panel Front w/Components

.. 1			Nameplate (Order By Model And Serial Number)	1
.. 2		262970	Panel, Front Upper	1
.. 3		189404	Spacer, Nylon .718 Od x .526 Id x .281 LG	2
.. 4		011609	Switch, Tgl Spdt 15A 125 VAC On-none-on Spd Term Chr	2
.. 5		198087	Pot, Cp Std Slot 1t 2. W 1k Linear w/Fricctabs	1
.. 6		159522	LED, Yellow 2.1a 20 MA 45.0 Mcd Panel Mtg .250 Hole	1
.. 7	PC4	264088	Circuit Card Assy, Automation w/Prgm	1
.. 8		038887	Stud, Primary Board Brs 10-32 x 1.375	1
.. 9	PC1	264012	Circuit Card Assy, Control w/Program	1
.. 10		263759	Electronics Box, Modified	1
.. 11	PC3	244477	Circuit Card Assy, SD Card	1
.. 12		234344	Bracket, SD Card Reader	1
.. 13		264385	Gasket, SD Card Bracket	1
.. 14		052964	Relay, Encl 24 VDC Dpdt 10A/120 VAC 8pin Flange Mtg	1
.. 15	SN1	234081	Snubber Assy	1
.. 16		006393	Relay, Encl 24 VAC Dpdt 10A/120 VAC 8pin Flange Mtg	1
.. 17		601835	Nut, 10-32 Brs	2
.. 18		261067	Panel, Front	1
.. 19		161303	Spring, Cprsn .600 Od x .072 Wire x 1.500 Pld	3
.. 20	PC2	261392	Circuit Card Assy, Subarc DC Filter	1
.. 21	CB1	261011	Supplementary Pro, Man Reset 1p 25A 250 VAC Frict	1
.. 22		261010	Relay, Encl 24 VDC Dpst 30A/24 VAC 4pin Flange Mtg	1
.. 23		136076	Resistor, WW Fxd 30 W 200 Ohm Faston Te	2
.. 24		264897	Conn, Circ Cpc Ethernet Skt Sealed 34.000in. Cable	1
.. 25		263753	Terminal Assy, Power Output	2
.. 26		010381	Connector, Rectifier	2
.. 27		159040	Block, Term 20 Amp 12 Pole Screw Term	1
.. 28		162828	Panel, Mtg Rcpt/Terminal Strip	1

Eff w/Serial No. ME210002G And Following

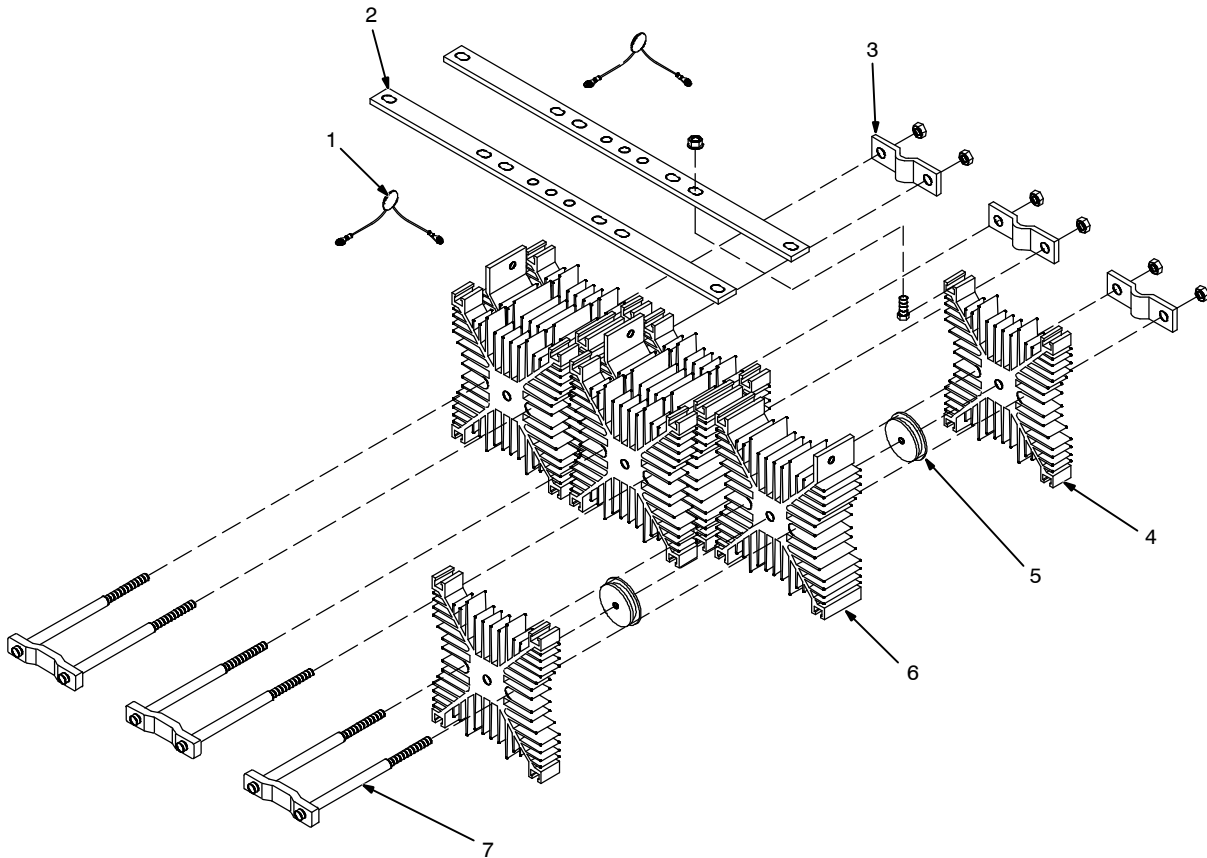
Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-6. 1000/1250 Panel Front w/Components (Continued)				
.. 29			Nameplate, Lower (Order By Model And Serial Number)	1
.. 30		244237	Dust, Cap	1
.. 31		010546	Bushing, Snap-In Nyl .375 Id x .500 Mtg Hole	1
.. 32		246951	Block, Term 20 Amp 3 Pole Quick Conn 20-12 Awg Wire	1
.. 33		217865	Label, Warning Electric Shock And Reduced Air (Fr)	1
.. 34		+172587	Cover, Output Stud Generic	1
.. 35		160935	Clip, Spring	3
.. 36		227980	Label, Notice Output Terminal Connection	1
.. 37	S1	261608	Switch, Rocker Spdt 10A 24 VDC On-None-On Illum	1
.. 38		159036	Lens, LED Clear Panel Mtg	1
.. 39		171007	Knob, Pointer 1.670 Dia x .250 Id w/Set Screwsplstc	1
.. 40		249340	LED Assy, Blue w/Terminals	1
.. 41		070371	Blank, Snap-In Nyl 1.093/1.125 Mtg Hole Black	1

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

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Eff w/Serial No. ME210002G And Following

☞ Hardware is common and not available unless listed.



800696-A

Figure 1-7. Rectifier, SCR Main

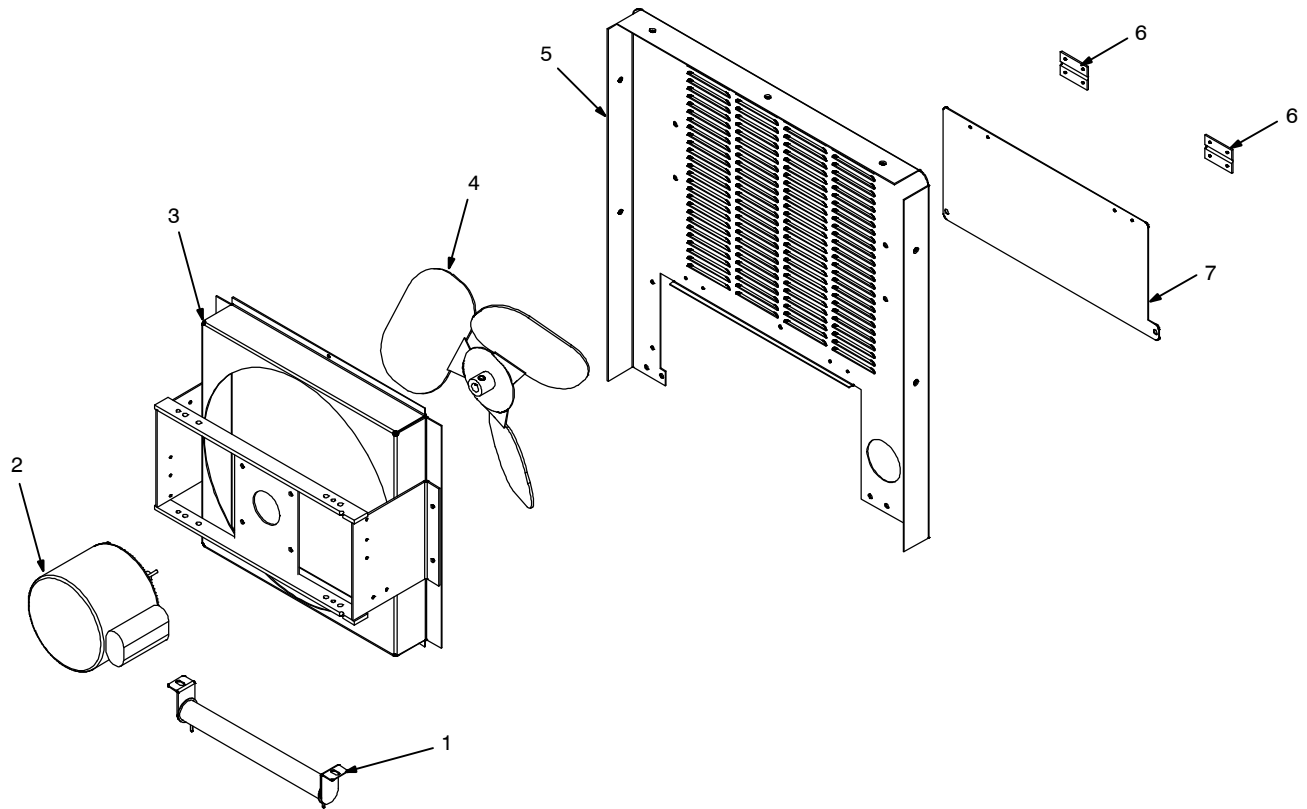
Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 1-7. 1000/1250 Rectifier, SCR Main

.. 1	... C7-12	... 048420	.. Capacitor, Cer Disc .01uf 1000 VDC	6
.. 2	.....	... 176168	.. Bar, Mtg Rectifier	2
.. 3	.....	... 166667	.. Clamp, Spring Thyristor Rectifier	3
.. 4	.....	... 191248	.. Heatsink, Rectifier Snowflake 1.500	6
.. 5	... SCR1-6	... 148091	.. Thyristor, Scr 865A 300V Hockey Puck	6
.. 6	.....	... 191247	.. Heatsink, Rectifier Snowflake 3.000	3
.. 7	.....	... 191246	.. Clamp, Thyristor Rectifier 8.187	3
.....	PLG1	... 158720	.. Connector & Sockets	1
.....	TP3	... 192731	.. Thermostat, Rectifier	1
.....	TP6	... 168894	.. Thermostat, Rectifier (Fan Control Circuit)	1

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.



270480-B

Figure 1-8. 1000/1250 Panel, Rear w/Components

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-8. 1000/12500 Panel, Rear w/Components				
.. 1	.. R3	.. 097459	.. Resistor, WW Fxd 375W 20 ohm	.. 1
.. 2	.. FM	.. 032605	.. Motor, Cap Perm Sp 1/4Hp 230 VAC 1670Rpm	.. 1
.. 3		.. 132101	.. Chamber, Plenum 14 In	.. 1
.. 4		.. 605799	.. Blade, Fan 14.000 5wg 30deg .500 Bore Cw Al	.. 1
.. 5		.. 191552	.. Panel, Rear	.. 1
.. 6		.. 168343	.. Hinge, Door Primary	.. 2
.. 7		.. +191553	.. Door, Access Primary	.. 1

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

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