



PM-281710B

2023-10

Processes



Battery Charging



Multiprocess Welding

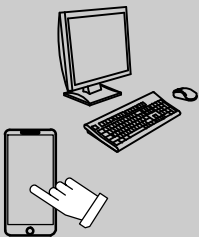
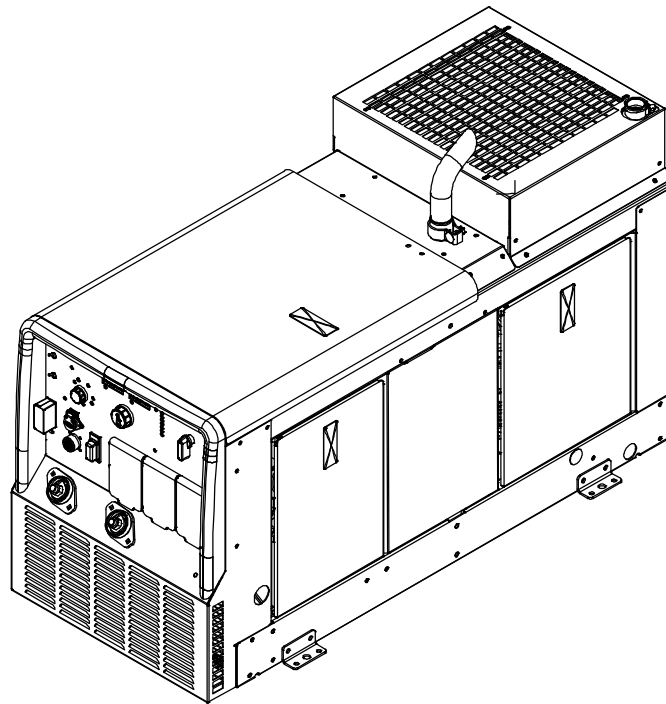
Description



Engine Driven Air Compressor, Generator, Battery Charger, And Welder

Bobcat[™] 200 Air Pak Diesel

Eff w/Serial No. MK021122R And Following




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

www.MillerWelds.com

PARTS MANUAL

SECTION 1 – PARTS LIST

 Hardware is common and not available unless listed.

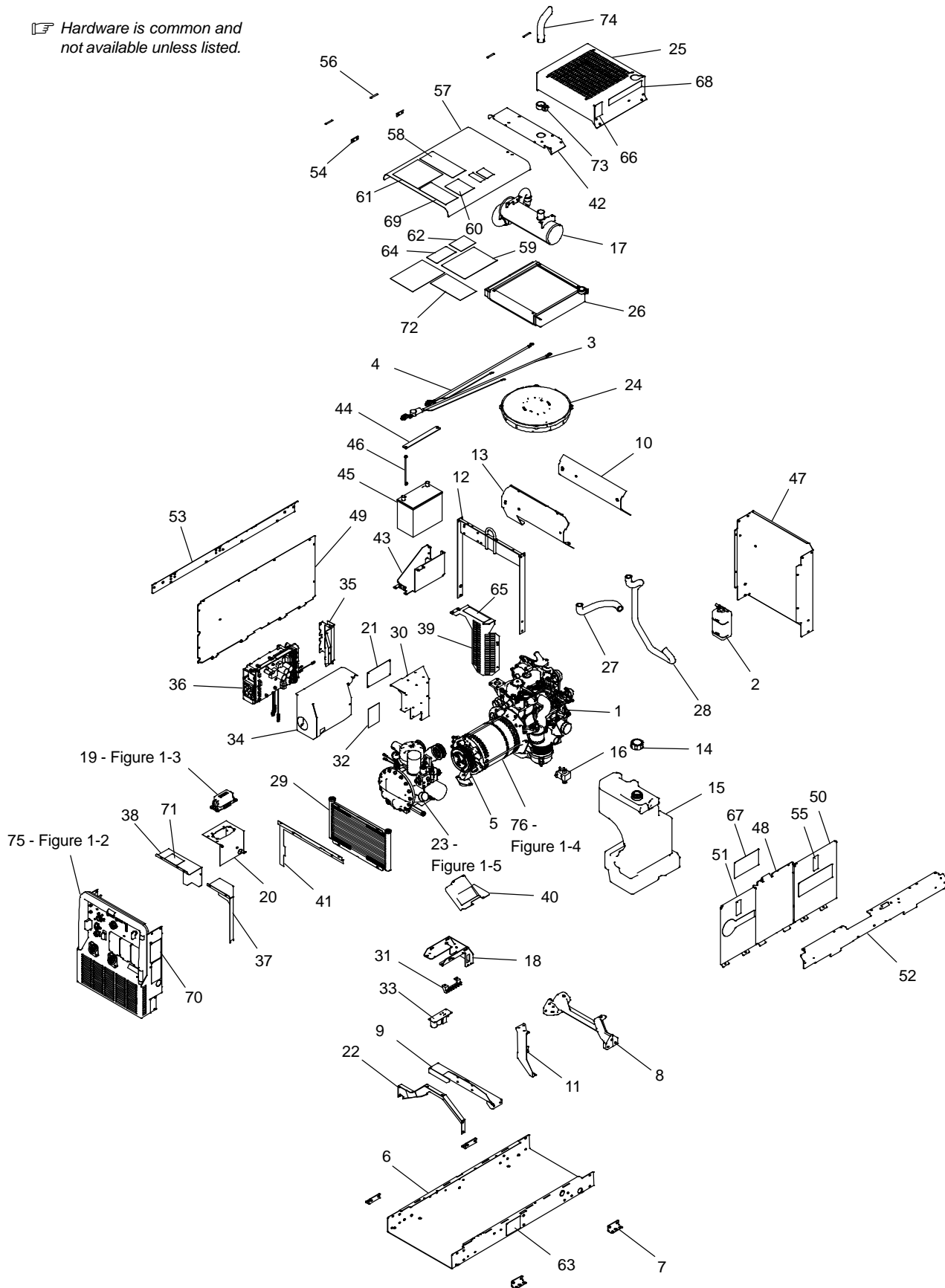


Figure 1-1. Main Assembly

283764

Eff w/Serial No. MK021122R And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-1. Main Assembly				
...		1	281669 .. Engine, Kubota Dsl Elec D722 W/Components	1
			281670 Engine, Kubota Dsl Elec D722	1
...		2	283020 Bottle, Coolant Overflow	1
			281678 Flange, Oil Filler	1
			242954 Block Heater, Engine Kubota 05 Series Head Type	1
			258342 Bracket, Mtg Engine	2
			258490 Hose Assy, Oil Drain	1
			281686 .. Assy, Fuel Line W/Clamps (.560 Od X 8.500lg)	2
			282897 .. Assy, Fuel Line W/Clamps (.410 Od X 2.000lg) (Prior to NA300602R) ..	1
			282899 .. Hose, SAE .197 Id X .410 Od X 2.000 (Eff w/NA300602R)	1
			287779 .. Clamp, Oetiker 1 Ear 9.7-11.3mm X 7mm St Cl Zink (Eff w/NA300602R)	1
			*213858 .. Fuel Pre-Filter	1
			*259934 .. Fuel Primary Filter	1
			*283082 .. Engine Fan Belt	1
			*187820 .. Glow Plug	1
...		3	281825 .. Cable, Battery Positive 36in 4 Awg .312 Ring	1
...		4	281823 .. Cable, Battery Negative 32in 4 Awg .375 Ring	1
			278416 .. Clamp, Stl Cush 1.000 Dia X .281 Mtg Hole	1
			260506 .. Clamp, Stl Cush .375 Dia X .281 Mtg Hole	2
...		5	229813 .. Clutch, Electro Mgntc 12V 6pk Micro V Pulley	1
...		6	281859 .. Base	1
...		7	213668 .. Bracket, Mtg Unit	4
...		8	281683 .. Bracket, Mtg Base Engine	1
			282766 .. Mount, Engine 50 Duro Flange Mtg (White Dot)	2
...		9	281860 .. Bracket, Mtg Generator	1
			213266 .. Mount, Engine/Generator Flange Mtg	1
			283612 .. Clip, Edge W/Cable Tie (1.0mm-3.0mm)	2
...		10	278145 .. Shield, Heat Reflective (Baffle)	1
...		11	281672 .. Bracket, Mtg Fuel Filter	1
...		12	274657 .. Upright, Base	1
...		13	281684 .. Baffle, Muffler	1
			278535 .. Shield, Heat Reflective (Tank)	1
...		14	220711 .. Cap, Tank Screw-On W/Vent	1
...		15	281685 .. Tank, Fuel 7.0 Gal W/Sender (Includes)	1
			274806 .. Ftg, Stand Pipe .250 X 3.69 Lg 90 Deg.	1
			124253 .. Bushing, Tank Fuel	1
			274807 .. Sender, Fuel Gauge	1
			228054 .. Gasket, Fuel Sender/Fuel Tank	1
			250762 .. Fitting, Fuel Vent	1
			283065 .. Assy, Fuel Line W/Clamps And In-Line Filter	1
			283095 .. Assy, Fuel Line W/Clamps/Tubing (.410 Od X 43.750lg)	1
			239319 .. Ftg, Hose Brs Barbed Elbow M 5/16 Tbg X 1/8 Npt	2
...		16	239311 .. Pump, Fuel Electric 12V	1
...		17	281681 .. Muffler, Exhaust Engine (Kubota D722)	1
...		18	281861 .. Bracket, Mtg Compressor	1
			187431 .. Air Cleaner, Intake Dry Straight Outlet Type	1
			187432 .. Bracket, Mtg Air Cleaner	1
			187640 .. Clamp, Air Cleaner W/Latch	1
...		19	281689 .. Bracket, W/Components/Harness (Includes) (See Figure 1-3)	1
...		20	283061 .. Bracket, Mtg Fuse Block	1
			271607 .. Weatherstripping, Adh .125 X .375 X 3.125	1
			233821 .. Weatherstripping, Adh .125 X .375 X 5.000	1
...	PC3	21	280897 .. Circuit Card Assy, Control W/Program	1
			283568 .. Clamp, Cushion J-Clip	2
	W1		278934 .. Contactor, 14dc	1
...		22	282911 .. Bracket Assy, Mtg Compressor (Front)	1
...		23	281858 .. Assy, Compressor Ev01-Nk (See Figure 1-5)	1
			*274630 .. Belt, Compressor	1

Eff w/Serial No. MK021122R And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-1. Main Assembly (Continued)				
		*275644	Kit, Filter/Separator, Compressor (Includes)	1
		232207	Filter, Oil Air Compressor	1
		275648	Separator, Oil/Air Rotary Screw Compressor	1
		232208	Filter, Inlet Air Air Compressor	1
		276620	Oil, Air Compressor Rotary Screw (Synthetic) (Quart)	2
		283031	Hose, Sae .281 Id X .460 Od X 61.50	1
24		281673	Fan, Engine Cooling (Electric)	1
		010861	Clamp, Hose 1.312 – 2.250 Clp Dia	2
		189674	Clamp, Hose .687 – 1.500 Clp Dia Sae #16	4
25		283775	Housing, Radiator	1
26		281674	Radiator	1
27		281675	Hose, Radiator Upper	1
28		281676	Hose, Radiator Lower	1
		281677	Hose, Intake	1
29		274548	Radiator, 11.050 X 18.610 X .750–16 Ports	1
		239094	Adapter, 1/2 Sae X 1/2 Jic	2
		274549	Hose, Oil W/Fittings .375 Id X 22.000 Lg	1
		274550	Hose, Oil W/Fittings .375 Id X 12.000 Lg	1
30		281854	Bracket, Mtg Control Board & Components	1
31	1T	172661	Block, Stud Connection 6 Position	1
32	PC5	275464	Circuit Card Assy, Battery Charger Clamp Pcb	1
33	PC2	281849	Circuit Card Assy, Excitation	1
	L2	284141	Inductor, Output	1
		114923	Boot, Insulator Term Post Red 1/0 Cable .875odx1.00	1
34		281724	Cover, Windtunnel Encloser Front	1
35		282545	Cover, Windtunnel Encloser Rear	1
36		281726	Assy, Windtunnel W/Components (Includes)	1
	PC1	282088	Circuit Card Assy, Bobcat/Enpak W/Program	1
37		275476	Guard, Electrical Receptacle	1
38		283060	Guard, Electrical Left Upper	1
39		274681	Guard, Belt	1
		020279	Clamp, Stl Cush .687 Dia X .281 Mtg Hole	3
40		282070	Guard, Electrical Lower	1
41		275711	Baffle, Cooler	1
		006086	Blank, Snap-In Nyl 1.500 Mtg Hole Black	1
		283120	Seal, Weather Stripping .125 X .375 X 8.500	1
		283121	Seal, Weather Stripping .125 X .375 X 11.500	1
		270736	Insulator, Mylar .014 X 5.000 X 3.500	3
		202209	Spacer, Nylon .805 Od X .510 Id X .220 Lg	2
		238802	Clip, Retaining Supplementary Protector	1
		282093	Plug, W/Leads	1
		283732	Cover, Protective Cap 10 Pin Rcpt	1
42		283791	Shield, Muffler	1
43		283030	Bracket, Battery Tray	1
44		274686	Bracket, Battery Holddown	1
45		*	Battery, Stor 12V 450 Crk 70 Rsv Gp 51r Maint Fre	1
46		494604	Bolt, J Stl .250–20 X 8.000 Pld W/Nut&Washer	1
		256531	Clamp, Stl Cush 2.000 Dia X .531 Mtg Hole	1
47		282110	Panel, Rear Miller Black/Zinc	1
48		275527	Panel, Side(Service Side)	1
49		282866	Panel, Side (Non–Service Side)	1
50		280248	Door, Side (Service Side) Service	0
51		280249	Door, Access (Service Side) Service	0
52		281866	Rail, Side Door	1
53		282051	Rail, Side Hinge	1
54		282837	Spacer, Hinge	2
55		194320	Latch, Lever Flush Trigger	3
56		189975	Hinge, Door Access 180 Deg	4
		217395	Bumper, Door .500 Od X .250 High Nprn 70 Duro	17
		251862	Catch, Cover Telescoping Push Button	1

Eff w/Serial No. MK021122R And Following

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-1. Main Assembly (Continued)				
... 57		281716	Cover, Top Service Assy	0
		277339	Blank, Snap-In Nyl 1.250 Mtg Hole Black	1
		278356	Blank, Snap-In Nyl 1.000 Mtg Hole Black	1
... 58		227734	Label, Warning Battery Charging Precautions	1
... 59		281700	Label, Maintenance Enpak A30/Bobcat 200 Ap (Diesel)	1
... 60		233088	Label, Danger Using A Generator Indoors Can Kill	1
... 61		233639	Label, Warning General Precautionary Csa (En/Fr/Sp)	1
... 62		227728	Label, Warning Use Diesel Fuel Only (Trilingual)	1
... 63		275820	Label, Warning Do Not Weld On Base(Tri)	2
... 64		227913	Label, Warning Battery Explosion Can Blind	1
... 65		276283	Label, Warning Moving Parts Can Cause Serious Etc	1
... 66		272333	Label, Warning Hot Parts (En/Fr/Sp-Sym)	2
... 67		283021	Label, Notice Radiator Fill	1
... 68		243022	Label, Warning Steam And Hot Coolant Can Burn 6in X	1
... 69		282178	Label, Warning Breathing Diesel Engine Exhaust	1
... 70		280750	Label, Warning Compressed Air	1
... 71		282410	Label, Fuse Identification (Diesel)	1
... 72		278439	Label, Fuel/Hour/Engine Shutdown	1
		*281730	Kit, Label	0
		*284101	Tune-Up & Filter Kit, Kubota (D722) (Includes)	0
		187443	Engine Oil Filter	1
		187441	Engine Air Filter Element	1
		280960	Ftg, Elbow 90 Deg -8(F) Jic 3/4-16 W/Swivel -8 Hose (Compressor)	1
... 73		262681	Clamp, Band (Muffler)	1
... 74		262680	Pipe, Exhaust Elbow	1
		278467	Grommet, Rbr 1.250 Id X 1.500 Mtg Hole .063 Groove	1
... 75		Figure 1-2	Front Panel Assembly	1
... 76		Figure 1-4	Generator	1
		*276418	USB Flash Drive	1

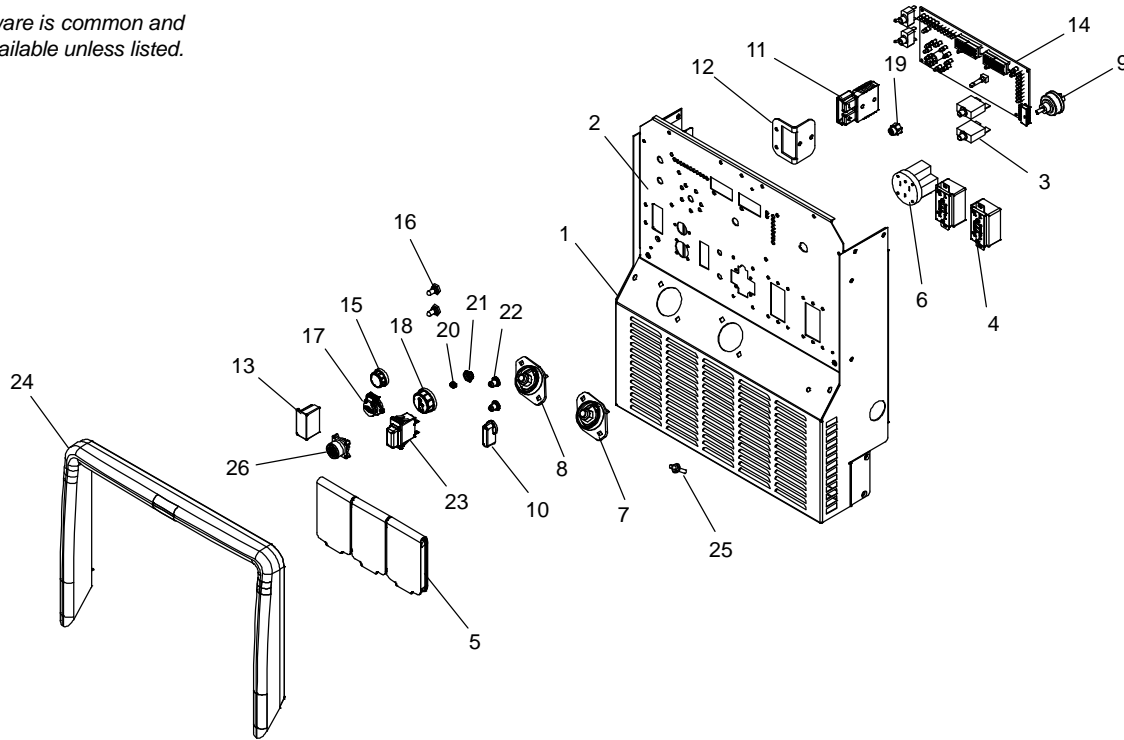
*Recommended Spare Parts.

+ 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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
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Figure 1-2. Front Panel (Figure 1-1 Item 75)

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
Figure 1-2. Front Panel				
.....	CT1	277281	Xfmr, Current Sensing	1
... 1		281608	Panel, Front	1
... 2		281606	Label, Nameplate Bobcat 200 D	1
.....		282474	Receptacles/Circuit Breakers, W/Leads (Includes)	1
... 3	CB2-CB3	093996	Supplementary Pro, Man Reset 1p 20A 250VAC Frict	2
... 4	RC2-RC3	222093	Rcpt, Str Dx Grd GFCI w/Capacitor	2
... 5		209056	Cover, Receptacle W/Gasket	3
.....		282477	Receptacles, W/Leads (Includes)	1
... 6	RC1	182954	Rcpt, Str 3p4w 50A 125/250V Flush Mtg *14-50	1
... 7		241433	Terminal, Pwr Output Black	1
... 8		241432	Terminal, Pwr Output Red	1
... 9		217680	Switch, Ignition 4 Position W/Out Handle	1
... 10		207073	Lever, Ignition Switch	1
... 11		231162	Housing, Rcpt Battery Charger 175 Amp Black	1
... 12		231447	Bracket, Mtg Battery Charger Rcpt	1
... 13		231927	Dust Cover, 2 Pole Housing	1
... 14	PC4	280889	Circuit Card Assy, User Interface W/Program	1
.....		282524	Foam, Led Process Select (12 Position)	1
.....		278563	Foam, Led Dig	1
.....		278564	Foam, Led Fuel And Service	1
... 15		245663	Knob, Encoder 1.250 Dia X .250 Id Push On W/Spring	1
... 16		252039	Boot, Half Toggle Switch Lever (Black)	2
... 17		276484	Harness, Front Panel Usb	1
... 18		276230	Knob, Encod 1.67 D. X 6mm Id Push On W/Spring/Print	1
... 19		278485	Assy, Encoder Nut W/O-Ring	1
... 20		280214	Spring, Wave (Stainless Steel)	1
... 21		231469	Nut, 500-28 .69hex .28h Brs Conical Knurl	1
... 22		190323	Boot, Circuit Breaker Clear Hex Nut	2
... 23	CB1	267194	Supplementary Protector, Man Reset 2p 30A 250V	1
... 24		237615	Bezel	1
... 25		197203	Grounding Stud Assy, Brass	1
.....		282093	Plug, w/Leads (Includes)	1
... 26	RC40	189238	Conn, Circ Ms/Cpc 10skt Size 18 Rcpt Panel Pushin	1

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Eff w/Serial No. MK021122R And Following

 Location of components inside electrical box is indicated on the label.

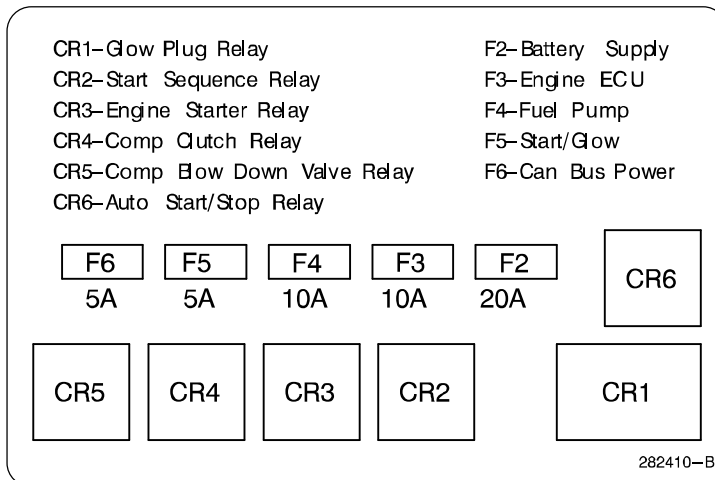
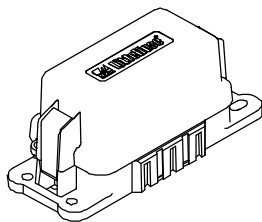


Figure 1-3. Fuse Box Assembly (Figure 1-1 Item 19)

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 1-3. Fuse Box Assembly

		283061	Bracket, Mtg Fuse Block	1
	CB4	190374	Circuit Breaker, Auto Reset 12VDC 40 Amp	1
	CR1	281756	Relay, Encl 12VDC Spst 35A Skt Mtg	1
	CR2-CR6	281755	Relay, Encl 12VDC Spst 20A Skt Mtg	5
	2T	172661	Block, Stud Connection 6 Position	1
	F2	281760	Fuse, Mini Blade Atm 20. Amp 32 Volt	1
	F3-F4	281759	Fuse, Mini Blade Atm 10. Amp 32 Volt	2
	F5-F6	281758	Fuse, Mini Blade Atm 5. Amp 32 Volt	2
		173734	Link, Jumper	1
		283832	Jumper, Bus Mini Fuse	2

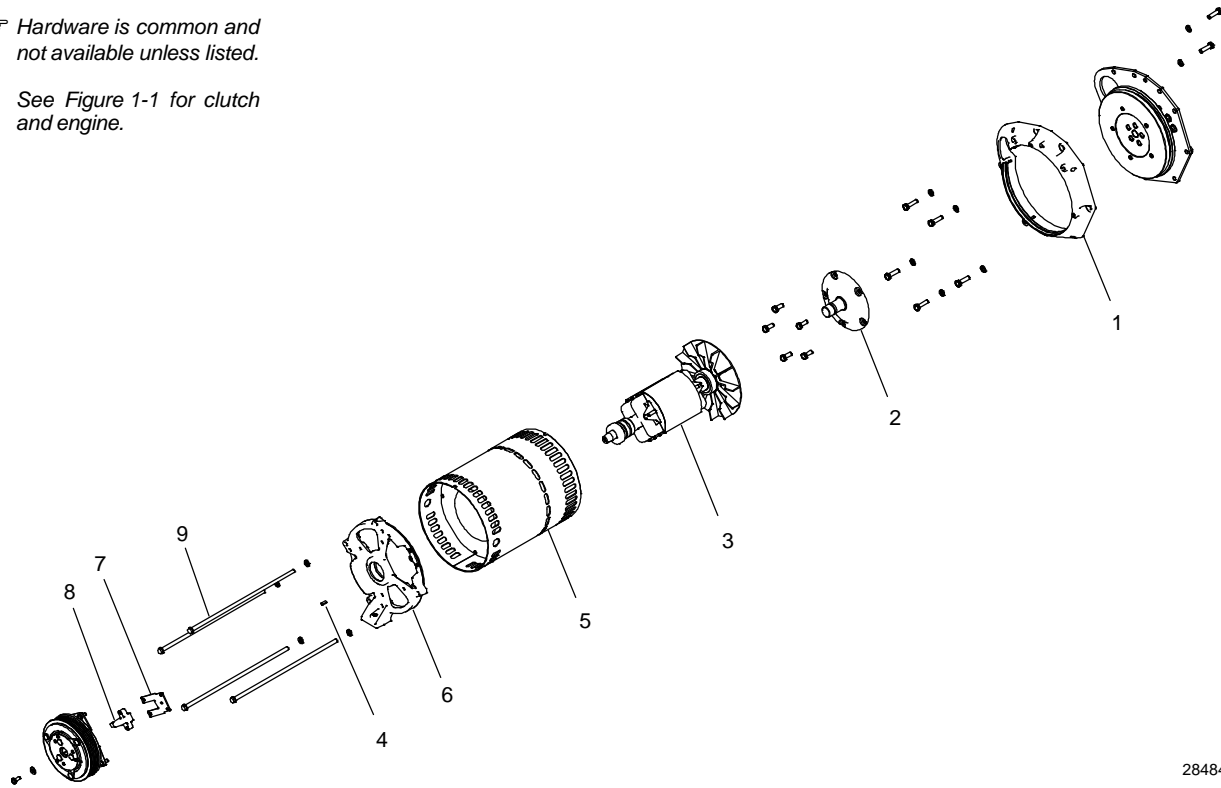
*Recommended Spare Parts.

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Eff w/Serial No. MK021122R And Following

☞ Hardware is common and not available unless listed.

See Figure 1-1 for clutch and engine.



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Figure 1-4. Generator (Figure 1-1, Item 76)

Item No.	Dia. Mkgs.	Part No.	Description	Quantity
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Figure 1-4. Generator

...	1	281671	.. Adapter, Engine	1
...	2	281680	.. Adapter, Rotor/Engine	1
...	3	282523	.. Rotor, Generator (Includes)	1
...		209004	.. Fan, Rotor Gen	1
...		273964	.. Bearing, Ball Rdl Sgl Row Long Life W/5k Grease	1
...	4	250655	.. Key, Woodruff .156 X .625	1
...	5	281808	.. Stator, Generator	1
...	6	281682	.. Endbell, W/Tolerance Ring	1
...		274002	.. Ring, Tolerance	1
...		260506	.. Clamp, Stl Cush .375 Dia X .281 Mtg Hole	1
...	7	274624	.. Bracket, Mtg Brush Holder	1
...	8	*493509	.. Brushholder Assy, Generator (Consisting Of)	1
...	9	282561	.. Screw, 312-18x12.75 Hexwhd Stl Gr5 Pld	4

*Recommended Spare Parts.

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Eff w/Serial No. MK021122R And Following

Dia. Mkgs.	Part No.	Description	Quantity
Wiring Harnesses			
	281691	Harness, Wrg Unit (Includes)	
	282319	Lead Assy, Twisted Pair	1
	282321	Lead Assy, Twisted Pair	1
	282480	Lead Assy, Twisted Pair	1
	282855	Lead Assy, Elect	1
PLG34	281452	Conn, Rect Mini Tpa2 10skt 2row Plug Blk Cable Lkg	1
PLG36,PLG41	114426	Conn, Rect Mini 045 16skt 2row Plug Cable Lkg	2
PLG30	281453	Conn, Rect Mini Tpa2 12skt 2row Plug Blk Cable Lkg	1
	261260	Plug, Cavity Cmc .635mm	23
PLG1	281634	Conn, Amp Superseal 44pos 2row Plug	1
PLG2	237895	Conn, Pack 3p 1row Plg Yazaki	1
	237896	Conn, Skt Female Yazaki	3
	240511	Conn, Rear Clip Yazaki	1
PLG3	237897	Conn, Amp Econoseal 2pin 1row Plug	1
	237898	Conn, Skt Amp Econoseal	2
	240383	Seal, Conn 20ga-16ga	2
PLG4	237901	Conn, Body 2 Pin Sealed Sumitomo	1
	237903	Conn, Skt Female .5 -1.25mm 1.6-2.6mm mod Tin/Brass	2
	237904	Seal, Conn Sumitomo Dark Green	2
PLG5	192170	Conn, Rect 250 2skt 2row Plug Cable Lkg	1
PLG50	240032	Conn, Body 150 Series 3 Pos M/P Female Terms Sealed	1
	240033	Conn, Skt 150 Series M/P 18-20ga .08-.10 Od	3
PLG9	239682	Conn, Body 2 Pos Rcpt Weather Pack	1
	239683	Conn, Term Male 14ga-16ga Weather Pack	2
PLG38	281448	Conn, Rect Mini Tpa2 2skt 2row Plug Blk Cable Lkg	1
PLG22	176121	Conn, Rect Univ 084 2p/S 1row Plug Cable Lkg	1
PLG6	282225	Conn, Male	1
	282226	Term, Female Fast-On	2
	282227	Gasket, Seal 4-5 (Mm)	2
	282230	Term, Female Fast-On	1
	282228	Gasket, Seal 1.6-2.2 (Mm)	1
S4	128808	Switch, Tgl Sptt 15A 125VAC On-On-On Spd Term Chrom	1
S3	011611	Switch, Tgl Dpdt 15A 125VAC On-None-On Spd Term Chr	1
PLG8	177859	Conn, Body 5 Terminal	1
RC7	201507	Conn, Deutsch 6p 2row Rcpt	1
	239115	Conn, Deutsch Wedge Lock 6 Position	1
	238028	Conn, Deutsch 6p 2row Female Plug	1
	238029	Conn, Deutsch Wedge Lock 6 Position	1
RC51	281475	Conn, Rect Mini Tpa2 6pin 2row Rcpt Blk Cable Lkg	1
	279170	Plug, Cable (Comes On 274509 & 279286)	1
	250930	Alarm, Piezo Slow Pulse 4-16VDC 105/100 Db	1
	281757	Module, Fuse/Relay Holder	1
	215418	Term, Frict 3.0 M/P Feml Sealed	2
	237893	Conn, Skt Female 1 -.5mm W/P 3.11mm Od Tin/Brass	50
	215432	Seal, Cable Plug Packard	2
	237888	Seal, Conn Weather Pack Green	53
	253060	Seal, Cavity Plug Weather Pack Green	8
	215343	Seal, Plug Deutsch 12-16 Size	7
	280875	Conn, Lever 5 Wire 12-28 Gauge 600V 20A	1
	282525	Conn, Lever 3 Wire 12-28 Gauge 600V 20A	1
	281488	Clip, Retainer Mini Tpa2 Nat 5 Ckt Housing	2
	281489	Clip, Retainer Mini Tpa2 Nat 6 Ckt Housing	2
	281485	Clip, Retainer Mini Tpa2 Nat 2 Ckt Housing	1
	281486	Clip, Retainer Mini Tpa2 Nat 3 Ckt Housing	2
	234625	Conn, Wt 1-Way Male	1
	234626	Conn, Pushin Skt 14-16 Ga	1

Eff w/Serial No. MK021122R And Following

Dia. Mkgs.	Part No.	Description	Quantity
Wiring Harnesses			
.....	282365	Harness, Weld Module (Includes)	
.....	282367	Lead Assy, Twisted Pair	1
.....	282369	Lead Assy, Twisted Pair	3
.....	PLG12	281469 .. Conn, Rect Mini Tpa2 3skt 1row Plug Blk Cable Lkg	1
.....	PLG18	281470 .. Conn, Rect Mini Tpa2 4skt 1row Plug Blk Cable Lkg	1
.....	PLG31	281449 .. Conn, Rect Mini Tpa2 4skt 2row Plug Blk Cable Lkg	1
.....	281486	Clip, Retainer Mini Tpa2 Nat 3 Ckt Housing	1
.....	281487	Clip, Retainer Mini Tpa2 Nat 4 Ckt Housing	1
.....	281485	Clip, Retainer Mini Tpa2 Nat 2 Ckt Housing	2

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