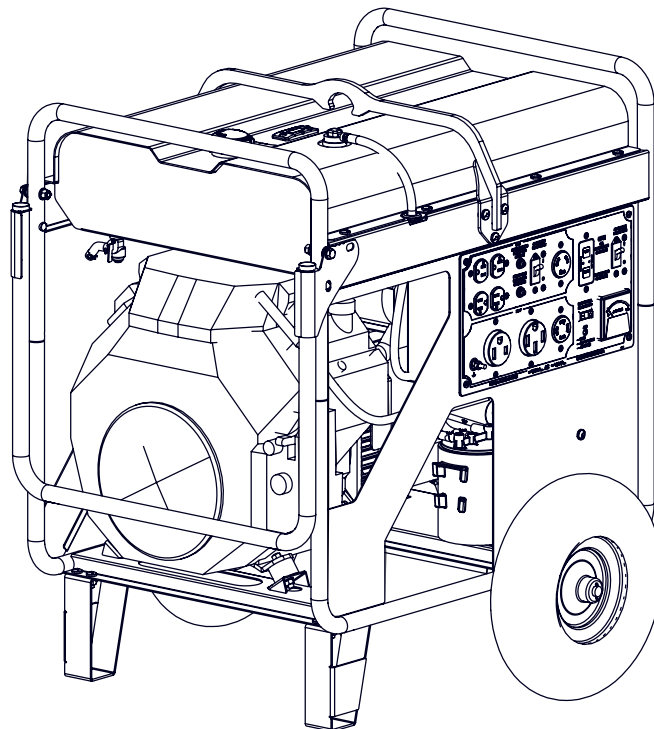




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WCS12000 / WCS12000R Generator Parts Manual

Starting with S/N's
WCS12000 - see rev A1
WCS12000R - 127000 to 127001



Refer to the operators
manual for safe
operation and
maintenance

Foreword

EMB Mfg. has prepared this parts manual to assist customers in ordering quality OEM replacement parts.

Proper and regular service and replacing old, worn or broken parts with the correct OEM parts are essential to prolonging the life of your EMB product. Please refer to this manual before ordering any replacement parts.

All information contained in this parts manual is based on the latest product specification available at the time of printing this manual. If your product differs from the specifications contained within this manual contact EMB Mfg. for information.

EMB reserves the right to alter specifications on their products at any time.

Reproduction of this parts manual of any kind is prohibited without prior written permission from EMB Mfg.

For parts and information please contact your dealer. If your dealer is no longer available please go to our website: <http://www.wallensteinequipment.com> and click on "FIND A DEALER NEAR YOU" for information on a local dealer.

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Alternator: Mecc Alte Inc. S20F-160A Below are alternator parts available from Wallenstein. For other parts and maintenance or repair information please refer to the Mecc Alte alternator manual that shipped with the generator.			
1	Drive End Bracket	0391700143	
2	Fan	0392000033	
3	Rear Bearing 6205-2RS	0390302511	
4	Diode D2/125 25A	9910356050	
5	Varistor	9910384005	
6	Capacitor # :see list below		
Find the value of the capacitor in your alternator, and match it to the list shown.		GECAP31MF	Capacitor, 31.5 MFZ
		GECAP40MF	40 MF CAPACITOR
		GECAP14MF	Capacitor, 14 MFZ
		GECAP20MF	Capacitor, 20uF

Alternator maintenance should be performed by trained personnel only.



Exercise extreme caution when working with exposed wiring of the alternator, be aware that high voltage discharge of the capacitor is a danger.

Bolt Torque

CHECKING BOLT TORQUE

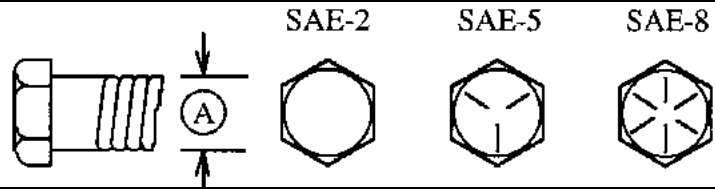
The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

* Torque value for bolts and capscrews are identified by their head markings.

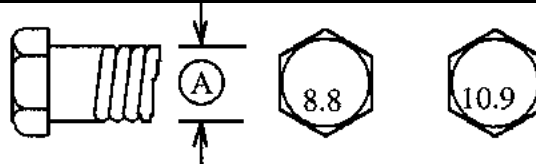
ENGLISH TORQUE SPECIFICATIONS

Bolt Diameter "A"	Bolt Torque*					
	SAE 2 (N.m) (lb-ft)		SAE 5 (N.m) (lb-ft)		SAE 8 (N.m) (lb-ft)	
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	220	165
5/8"	128	95	215	160	305	220
3/4"	225	165	390	290	540	400
7/8"	230	170	570	420	880	650
1"	345	225	850	630	1320	970



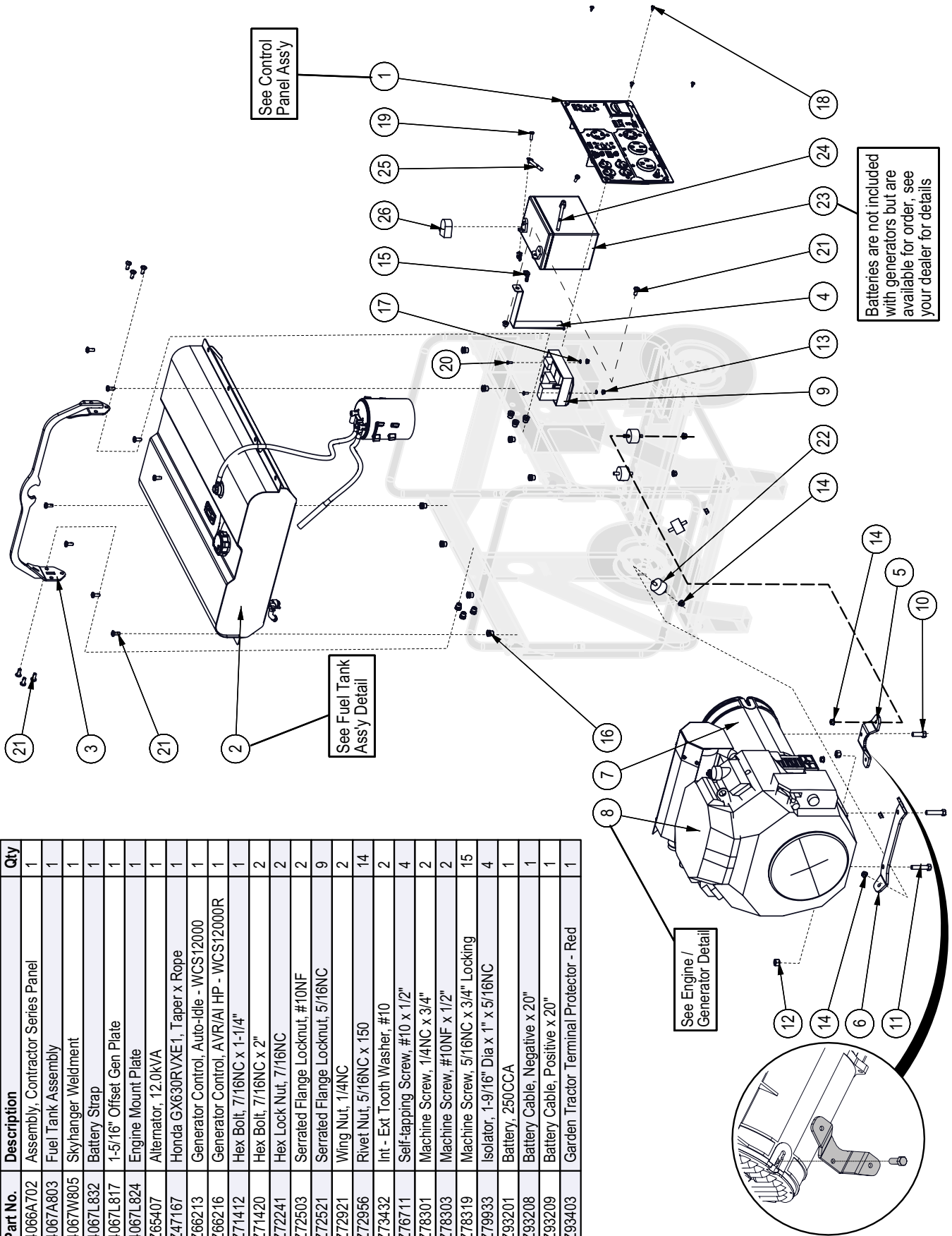
METRIC TORQUE SPECIFICATIONS

Bolt Diameter "A"	Bolt Torque*			
	8.8 (N.m) (lb-ft)		10.9 (N.m) (lb-ft)	
M3	0.5	0.4	1.8	1.3
M4	3	2.2	4.5	3.3
M5	6	4	9	7
M6	10	7	15	11
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	774
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710



WCS12000 Main Assembly

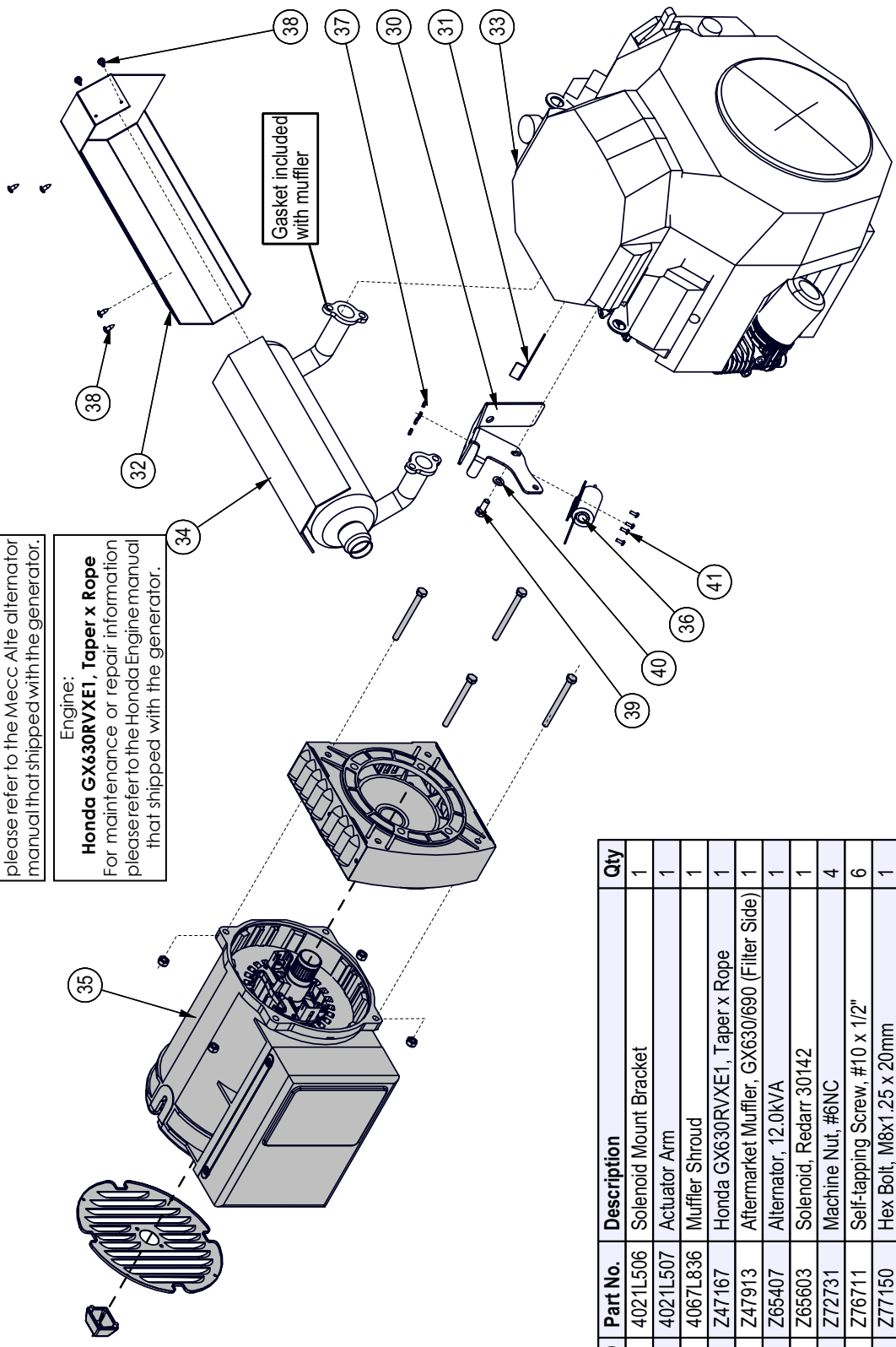
BOM ID	Part No.	Description	Qty
1	4066A702	Assembly, Contractor Series Panel	1
2	4067A803	Fuel Tank Assembly	1
3	4067W805	Skyhanger Weldment	1
4	4067L832	Battery Strap	1
5	4067L817	1-5/16" Offset Gen Plate	1
6	4067L824	Engine Mount Plate	1
7	Z65407	Alternator, 12.0KVA	1
8	Z47167	Honda GX630RXE1, Taper x Rope	1
9	Z66213	Generator Control, Auto-Idle - WCS12000	1
	Z66216	Generator Control, AVR/AI HP - WCS12000R	1
10	Z71412	Hex Bolt, 7/16NC x 1-1/4"	1
11	Z71420	Hex Bolt, 7/16NC x 2"	2
12	Z72241	Hex Lock Nut, 7/16NC	2
13	Z72503	Serrated Flange Locknut, #10NF	2
14	Z72521	Serrated Flange Locknut, 5/16NC	9
15	Z72921	Wing Nut, 1/4NC	2
16	Z72956	Rivet Nut, 5/16NC x 150	14
17	Z73432	Int - Ext. Tooth Washer, #10	2
18	Z76711	Self-tapping Screw, #10 x 1/2"	4
19	Z78301	Machine Screw, 1/4NC x 3/4"	2
20	Z78303	Machine Screw, #10NF x 1/2"	2
21	Z78319	Machine Screw, 5/16NC x 3/4" Locking	15
22	Z79933	Isolator, 1-9/16" Dia x 1" x 5/16NC	4
23	Z93201	Battery, 250CCA	1
24	Z93208	Battery Cable, Negative x 20"	1
25	Z93209	Battery Cable, Positive x 20"	1
26	Z93403	Garden Tractor Terminal Protector - Red	1



Engine / Alternator Assembly

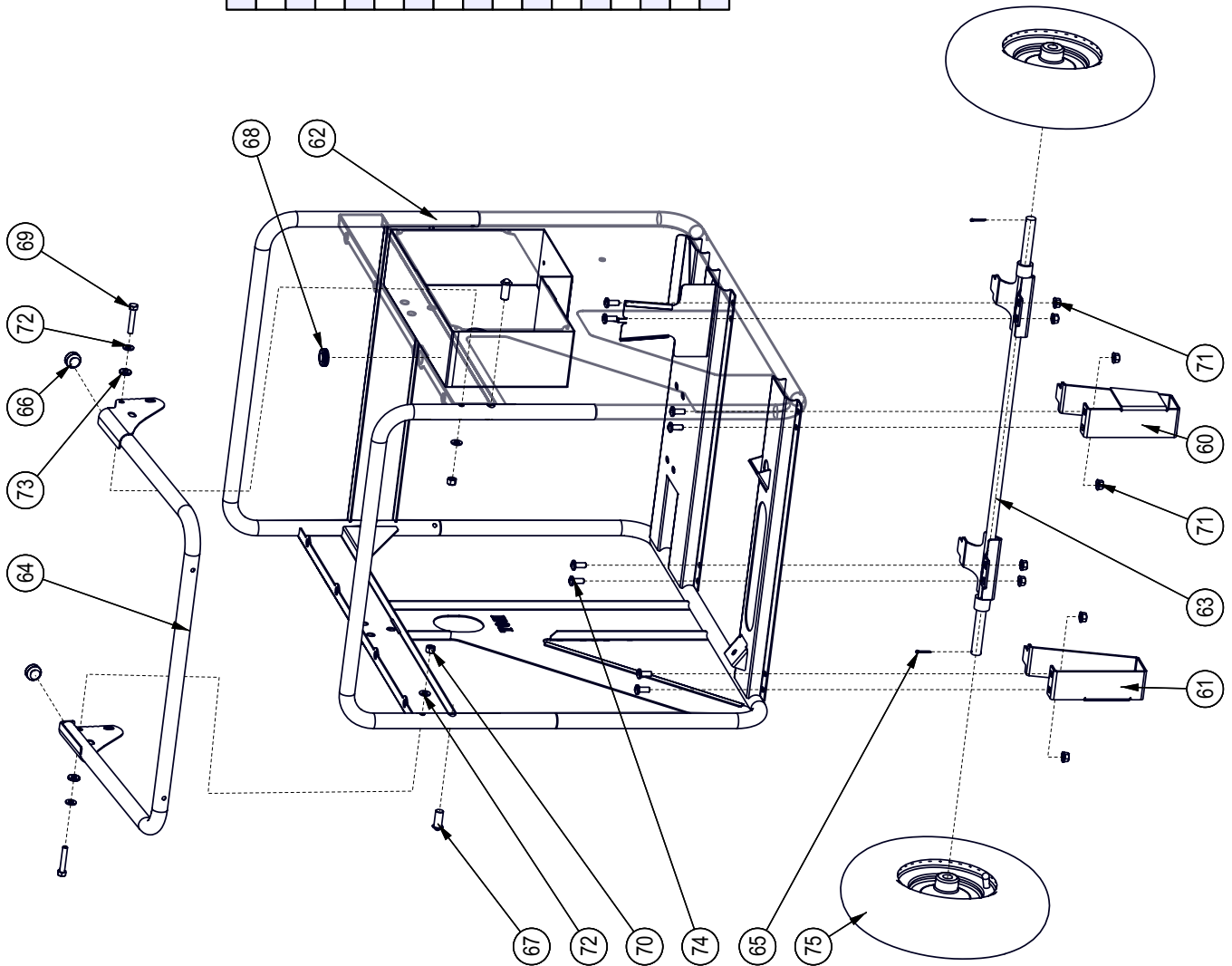
Alternator:
Mecc Alte Inc. S20F-160/A
 See parts chart page 3
 For maintenance or repair information please refer to the Mecc Alte alternator manual that shipped with the generator.

Engine:
Honda GX630RVXE1, Taper x Rope
 For maintenance or repair information please refer to the Honda Engine manual that shipped with the generator.



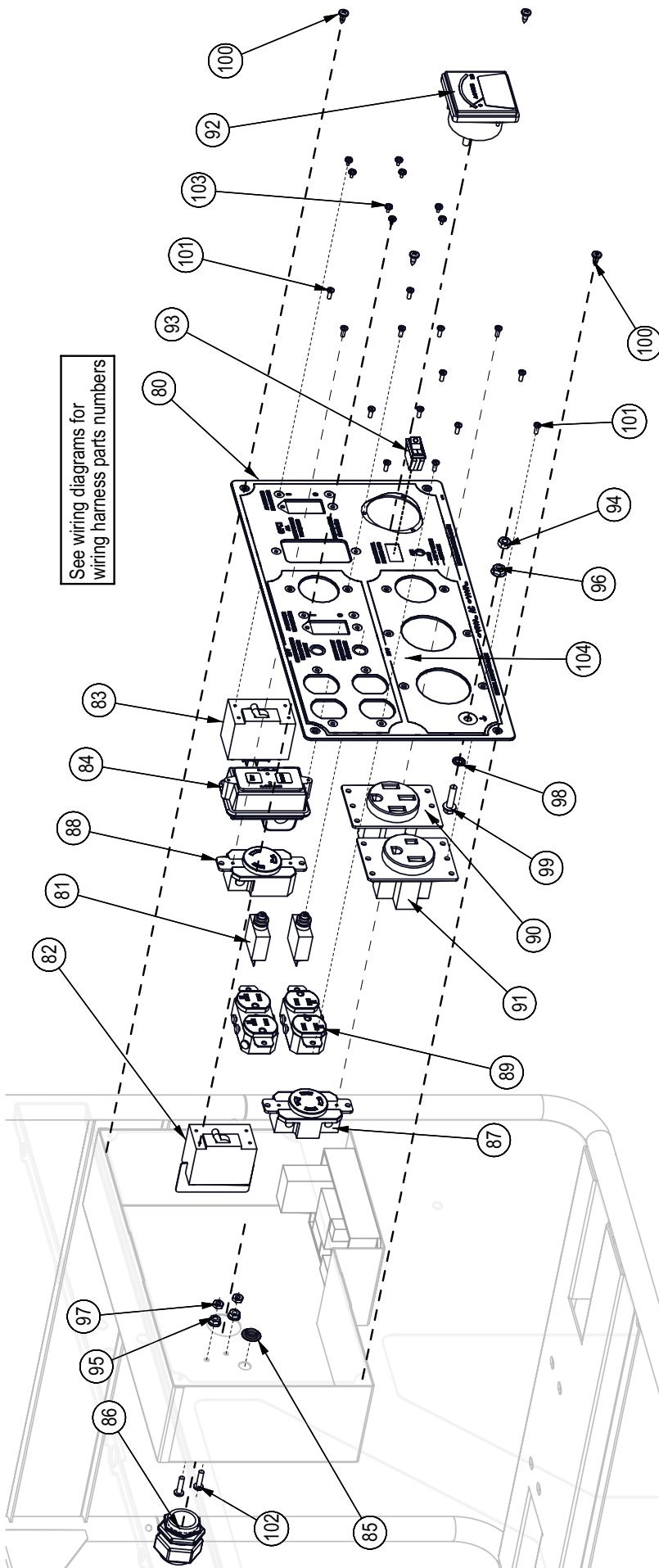
BOM ID	Part No.	Description	Qty
30	4021L506	Solenoid Mount Bracket	1
31	4021L507	Actuator Arm	1
32	4067L836	Muffler Shroud	1
33	Z47167	Honda GX630RVXE1, Taper x Rope	1
34	Z47913	Aftermarket Muffler, GX630/690 (Filter Side)	1
35	Z65407	Alternator, 12.0kVA	1
36	Z65603	Solenoid, Redarr 30142	1
37	Z72731	Machine Nut, #6NC	4
38	Z76711	Self-tapping Screw, #10 x 1/2"	6
39	Z77150	Hex Bolt, M8x1.25 x 20mm	1
40	Z77352	DIN 125 Washer, M8	1
41	Z78304	Machine Screw, #6NC x 3/8"	4

Frame Assembly



BOM ID	Part No.	Description	Qty
60	4067L807	Leg, Lg Frame RH	1
61	4067L807H	Leg, Lg Frame LH	1
62	4067W801	Generator Standard Lg-Frame	1
63	4067W803	Axle Weldment	1
64	4067W806	Weldment, Handle Lg.	1
65	Z12301	Cotter Pin, 3/32" x 3/4"	2
66	Z19909	Rubber Bumper, 7/16" x 1"	2
67	Z34303	Spring Plunger, 1/2" Press x 1.1" x 18 lbs	2
68	Z62823	Rubber Grommet, 5/8" x 1/8"	1
69	Z71217	Hex Bolt, 5/16NC x 1-3/4"	2
70	Z72221	Hex Lock Nut, 5/16NC	2
71	Z72521	Serrated Flange Locknut, 5/16NC	8
72	Z73122	SAE Washer, 5/16"	4
73	Z73223	Thick Washer, 5/16 x 0.125"	2
74	Z78319	Machine Screw, 5/16NC x 3/4" Locking	8
75	Z91315	4.00-6 NHS 2PR	2

Electrical Panel Assembly

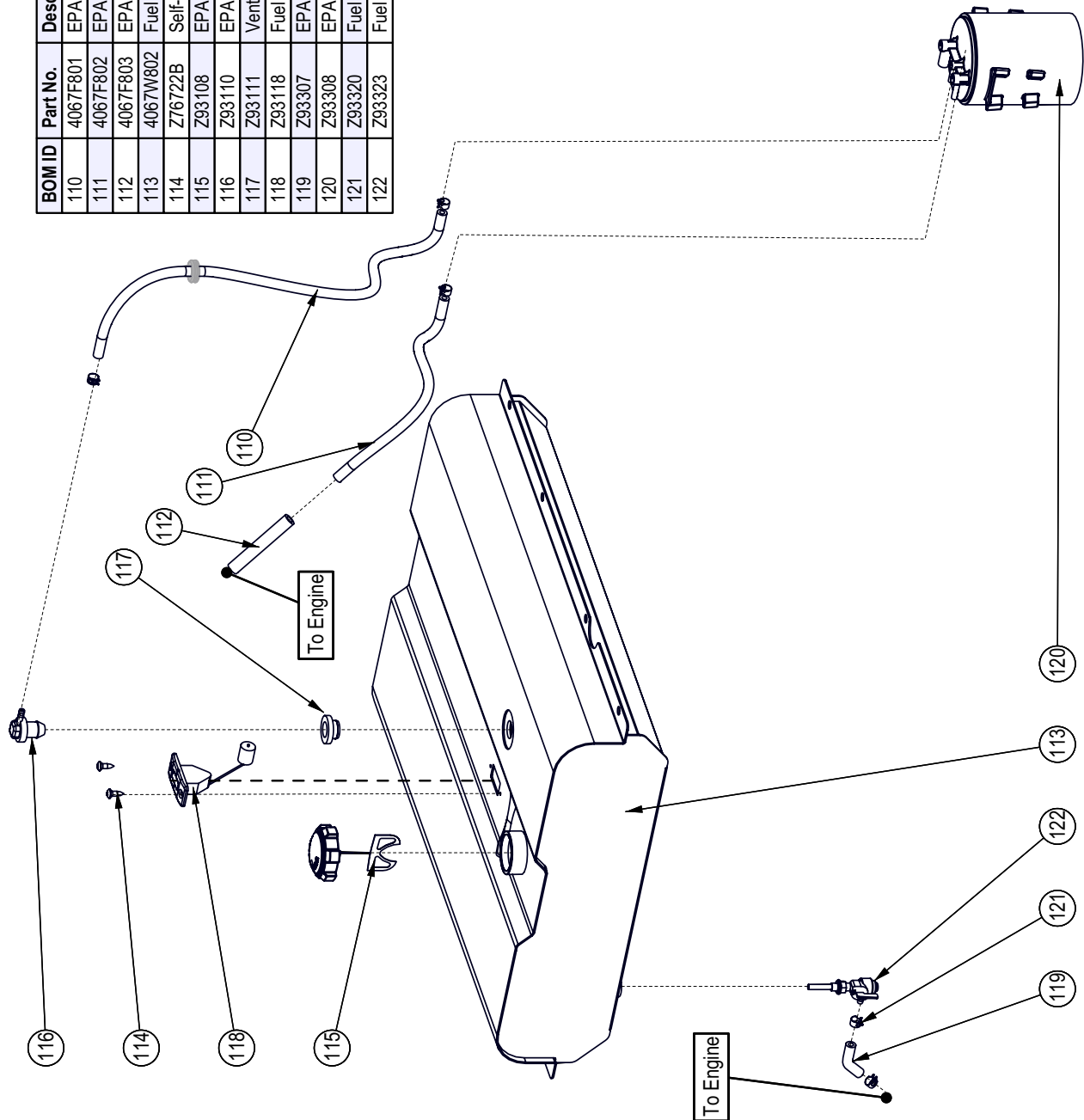


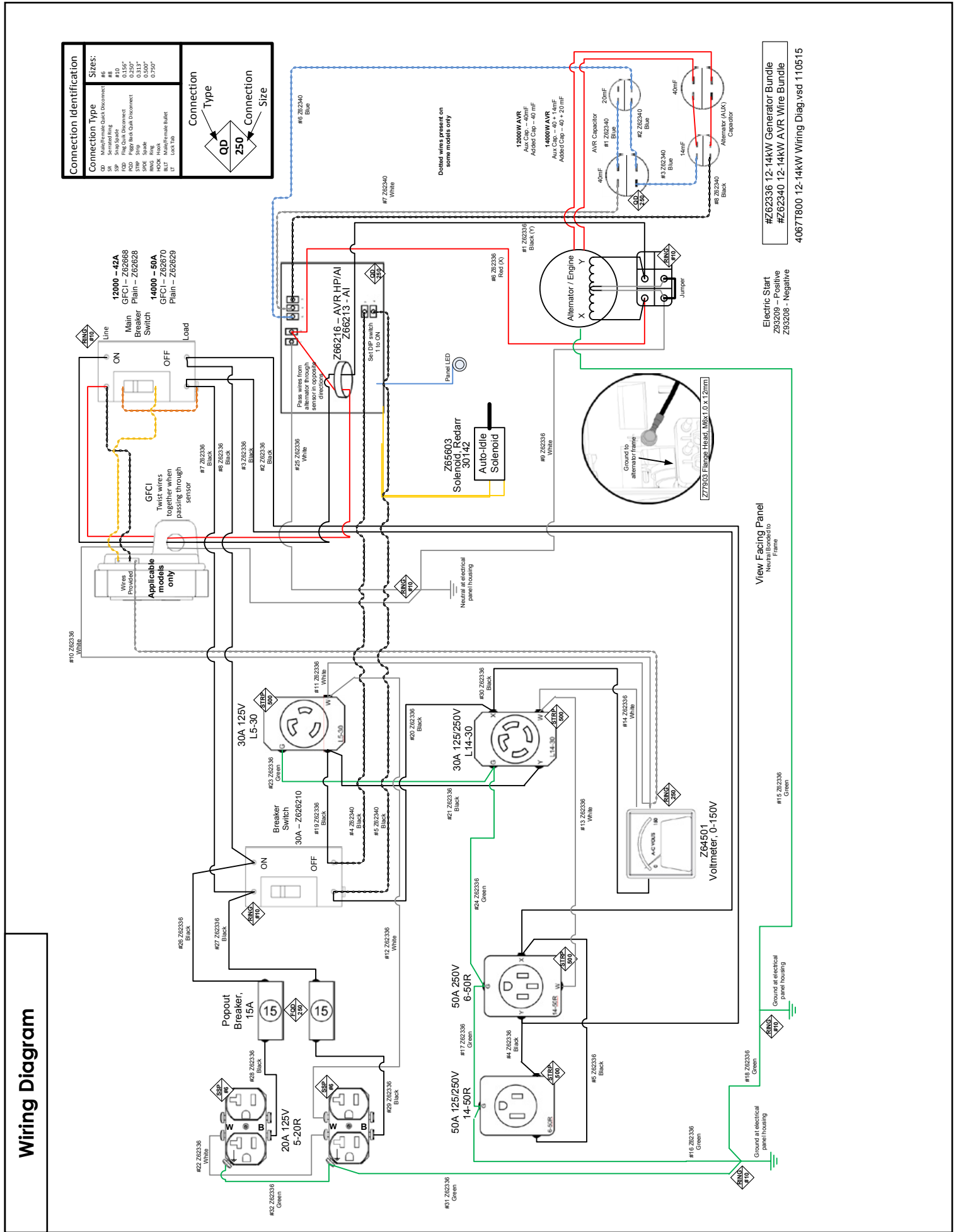
BOM ID	Part No.	Description	Qty
93	Z66112	Rocker Switch, 20A SPST	1
94	Z72111	Hex Nut, 1/4NC	1
95	Z72502	Serrated Flange Locknut, #10NC	2
96	Z72511	Serrated Flange Locknut, 1/4NC	1
97	Z72751	Machine Nut, #10NC	2
98	Z73431	Int - Ext Tooth Washer, 1/4"	1
99	Z76114	Flange Bolt, 1/4NC x 1"	1
100	Z76711	Self-tapping Screw, #10 x 1/2"	4
101	Z78304	Machine Screw, #6NC x 3/8"	14
102	Z78305	Machine Screw, #10NC x 3/4"	2
103	Z78320	SEMS Screw, #6NC x 1/4" x External Tooth	8
104	Z94807	12-14kW GFI Control Panel Decal - WCS12000	1
	Z94822	12-14kW GFI AVR Control Panel Decal - WCS12000R	1

BOM ID	Part No.	Description	Qty
80	4067L804	Panel, Work Series	1
81	Z62616	Thermal Breaker, 15A x TC1 OL1	2
82	Z626210	30A - Double Breaker	1
83	Z62668	42A - Double Breaker - Aux	1
84	Z62671	GFCI Module - PGFM	1
85	Z62813	Plug, #18	1
86	Z62827	Cable Gland, 18-25mm	1
87	Z63403	Receptacle, L14-30 x 30A x 125/250V	1
88	Z63404	Receptacle, L5-30 x 30A x 125V	1
89	Z63406	Receptacle, 5-20R x 20A x 125V	2
90	Z63409	Receptacle, 14-50R x 50A x 125/250V	1
91	Z63410	Receptacle, 6-50R x 50A x 125/250V	1
92	Z64501	Voltmeter, 0-150V	1

Fuel Tank Assembly & Fuel Lines

BOM ID	Part No.	Description	Qty
110	4067F801	EPA fuel line 1/4" ID x 26"	1
111	4067F802	EPA fuel line 1/4" ID x 18.5"	1
112	4067F803	EPA fuel line 3/8" ID x 6"	1
113	4067W802	Fuel Tank Weldment	1
114	Z76722B	Self-tapping Screw, 1/4 x 3/4" Oval Head Countersunk - Black Zinc	2
115	Z93108	EPA Ratchet Fuel Cap, Unleaded Fuel x Unvented with Tether	1
116	Z93110	EPA Remote Vent, HB04	1
117	Z93111	Vent Grommet For Z93110	1
118	Z93118	Fuel Gauge, Generator	1
119	Z93307	EPA Fuel Line, 1/4" x 3"	1
120	Z93308	EPA Carbon Canister, 1200cc	1
121	Z93320	Fuel Line Clip, 1/2" OD Hose	5
122	Z93323	Fuel Shut-Off Valve, 1/4" Generator	1





Connection Identification	
Connection Type	Sizes:
QD	Male/Female Quick Disconnect
SR	Serrated Ring
RB	Ring
RD	Ring with Insulation
RD2	Ring with Insulation and Lock Washer
SRP	SRP Ring with Insulation
SRP2	SRP Ring with Insulation and Lock Washer
SRP3	SRP Ring with Insulation and Lock Washer (3/16")
SRP4	SRP Ring with Insulation and Lock Washer (1/2")
SRP5	SRP Ring with Insulation and Lock Washer (3/4")
SRP6	SRP Ring with Insulation and Lock Washer (1")
SRP7	SRP Ring with Insulation and Lock Washer (1 1/4")
SRP8	SRP Ring with Insulation and Lock Washer (1 1/2")
SRP9	SRP Ring with Insulation and Lock Washer (1 3/4")
SRP10	SRP Ring with Insulation and Lock Washer (2")
SRP11	SRP Ring with Insulation and Lock Washer (2 1/4")
SRP12	SRP Ring with Insulation and Lock Washer (2 1/2")
SRP13	SRP Ring with Insulation and Lock Washer (2 3/4")
SRP14	SRP Ring with Insulation and Lock Washer (3")
SRP15	SRP Ring with Insulation and Lock Washer (3 1/4")
SRP16	SRP Ring with Insulation and Lock Washer (3 1/2")
SRP17	SRP Ring with Insulation and Lock Washer (3 3/4")
SRP18	SRP Ring with Insulation and Lock Washer (4")
SRP19	SRP Ring with Insulation and Lock Washer (4 1/4")
SRP20	SRP Ring with Insulation and Lock Washer (4 1/2")
SRP21	SRP Ring with Insulation and Lock Washer (4 3/4")
SRP22	SRP Ring with Insulation and Lock Washer (5")
SRP23	SRP Ring with Insulation and Lock Washer (5 1/4")
SRP24	SRP Ring with Insulation and Lock Washer (5 1/2")
SRP25	SRP Ring with Insulation and Lock Washer (5 3/4")
SRP26	SRP Ring with Insulation and Lock Washer (6")
SRP27	SRP Ring with Insulation and Lock Washer (6 1/4")
SRP28	SRP Ring with Insulation and Lock Washer (6 1/2")
SRP29	SRP Ring with Insulation and Lock Washer (6 3/4")
SRP30	SRP Ring with Insulation and Lock Washer (7")
SRP31	SRP Ring with Insulation and Lock Washer (7 1/4")
SRP32	SRP Ring with Insulation and Lock Washer (7 1/2")
SRP33	SRP Ring with Insulation and Lock Washer (7 3/4")
SRP34	SRP Ring with Insulation and Lock Washer (8")
SRP35	SRP Ring with Insulation and Lock Washer (8 1/4")
SRP36	SRP Ring with Insulation and Lock Washer (8 1/2")
SRP37	SRP Ring with Insulation and Lock Washer (8 3/4")
SRP38	SRP Ring with Insulation and Lock Washer (9")
SRP39	SRP Ring with Insulation and Lock Washer (9 1/4")
SRP40	SRP Ring with Insulation and Lock Washer (9 1/2")
SRP41	SRP Ring with Insulation and Lock Washer (9 3/4")
SRP42	SRP Ring with Insulation and Lock Washer (10")
SRP43	SRP Ring with Insulation and Lock Washer (10 1/4")
SRP44	SRP Ring with Insulation and Lock Washer (10 1/2")
SRP45	SRP Ring with Insulation and Lock Washer (10 3/4")
SRP46	SRP Ring with Insulation and Lock Washer (11")
SRP47	SRP Ring with Insulation and Lock Washer (11 1/4")
SRP48	SRP Ring with Insulation and Lock Washer (11 1/2")
SRP49	SRP Ring with Insulation and Lock Washer (11 3/4")
SRP50	SRP Ring with Insulation and Lock Washer (12")

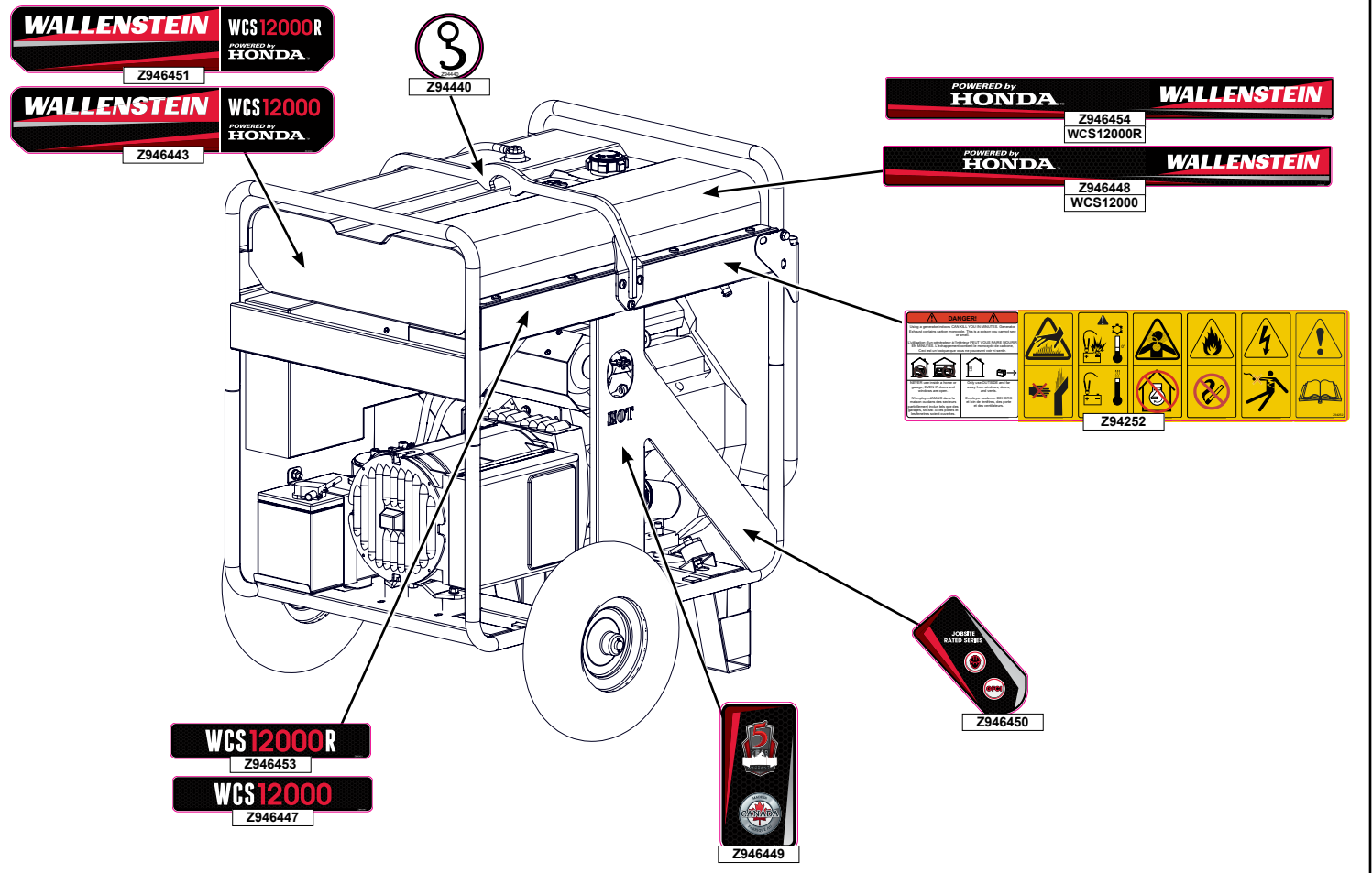
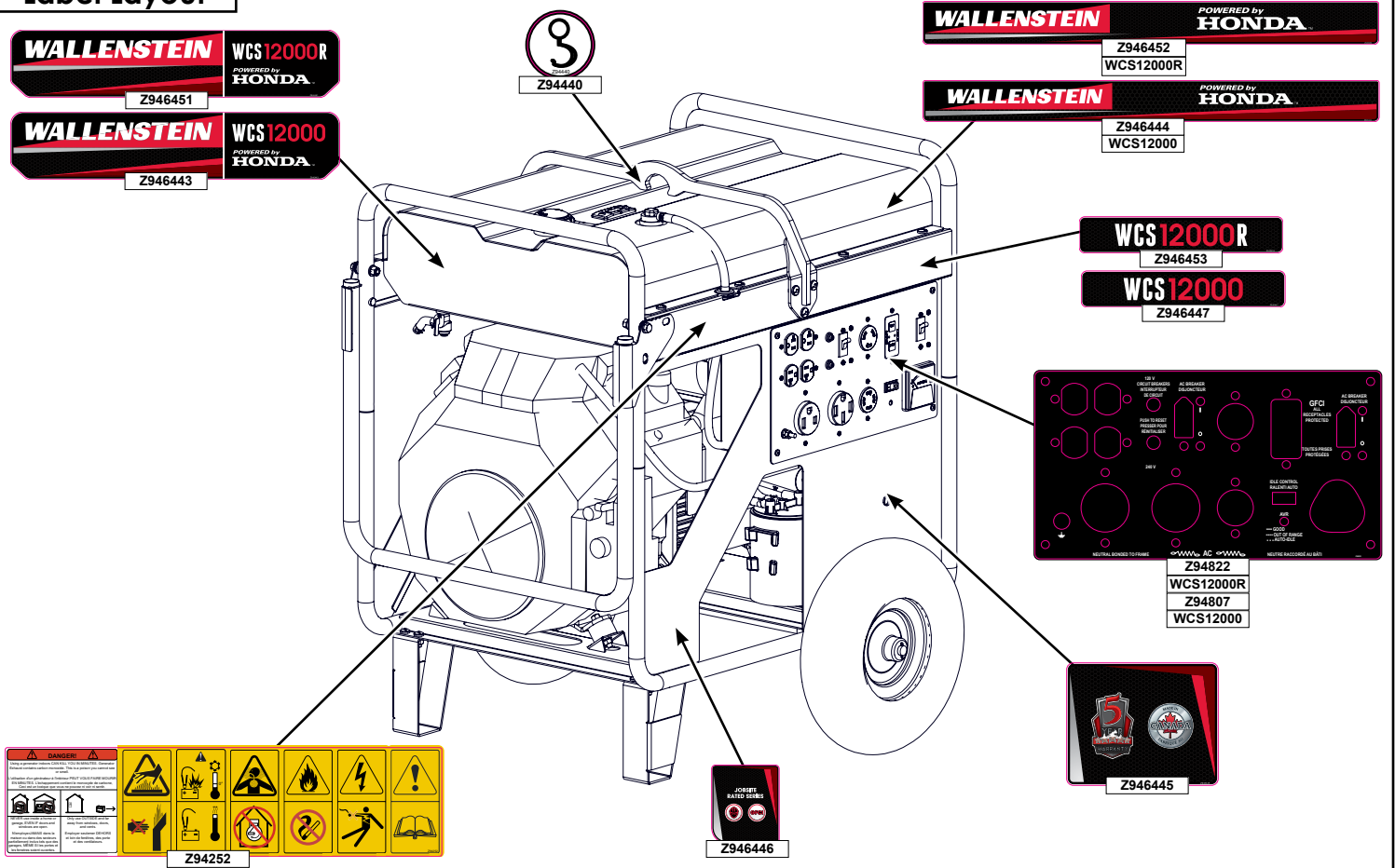
#Z62336 12-14kW Generator Bundle
 #Z62340 12-14kW AVR Wire Bundle
 4067T800 12-14kW Wiring Diag.vsd 110515

Electric Start
 Z93209 - Positive
 Z93208 - Negative

View Facing Panel
 Neutral Block to
 Frame

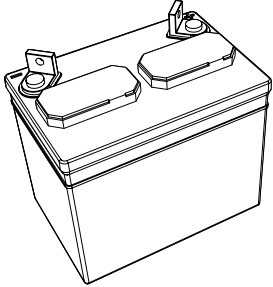
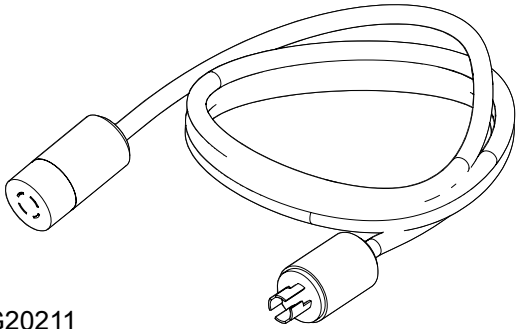

Wiring Diagram

Label Layout



Accessories

Call your dealer for pricing and availability

 <p>#Z93201</p>	<p>#Z93201 U1 250CCA Lawn & Garden Battery</p> <p>The perfect battery to reliably get your generator started.</p>
 <p>#G20211</p>	<p>Generator Extension cord, the right length and size, to make the most of your generator.</p> <ul style="list-style-type: none"> • Heavy Duty SJTW Cable • -40° cold weather jacket • Nema L14-30P 30a 125/250v Plug • Nema L14-30R 30a 125/250v Connector • Water & Flame Resistant • UL, OSHA compliant <p>Availalbe in three sizes.</p> <p>G20211 • 10' Power Cord G20212 • 20' Power Cord G20213 • 25' Power Cord</p>
	<p>#Z97098 GENERATOR OPERATOR'S MANUAL</p> <p>Available as a download at www.wallensteinequipment.com</p>