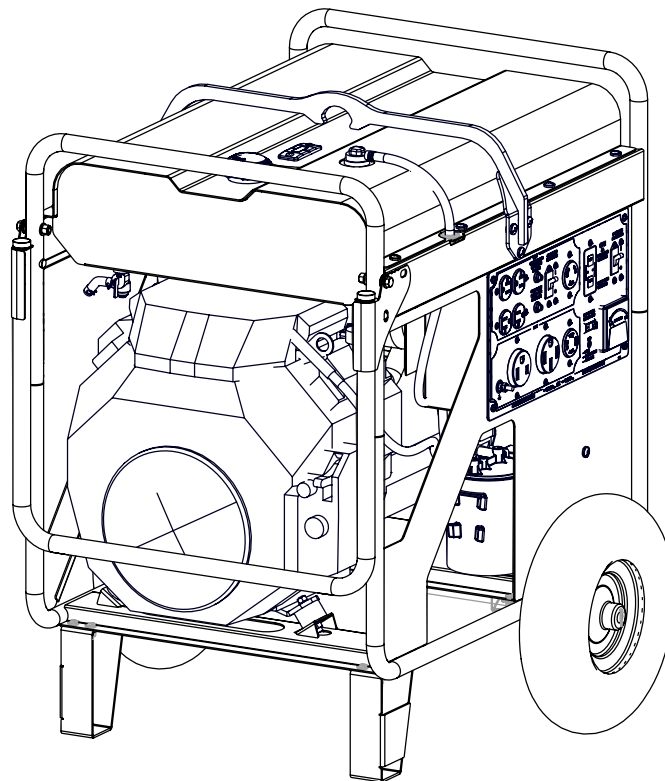




EMB Manufacturing Inc.  
4144 Boomer Line · St. Clements, On · N0B 2M0 · Canada  
Ph: (519) 699-9283 · Fax: (519) 699-4146  
[www.wallensteinequipment.com](http://www.wallensteinequipment.com)

# WCS14000 / WCS14000R Generator Parts Manual

Starting with S/N's  
WCS14000 - 147003  
WCS14000R - 148005



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.

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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-P200 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.



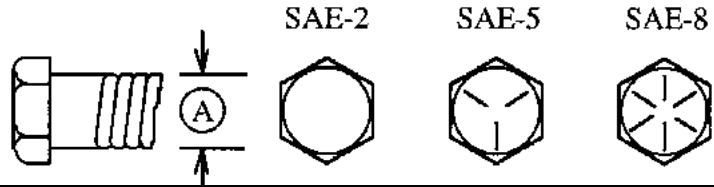
Exercise extreme caution when working with exposed wiring of the alternator, be aware that high voltage discharge of the capacitor is a danger.

**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.

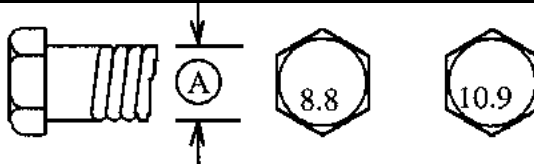
ENGLISH TORQUE SPECIFICATIONS						
Bolt Diameter "A"	Bolt Torque*					
	SAE 2 (N.m) (lb-ft)		SAE 5 (N.m) (lb-ft)		SAE 8 (N.m) (lb-ft)	
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	220	165
5/8"	128	95	215	160	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



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%.

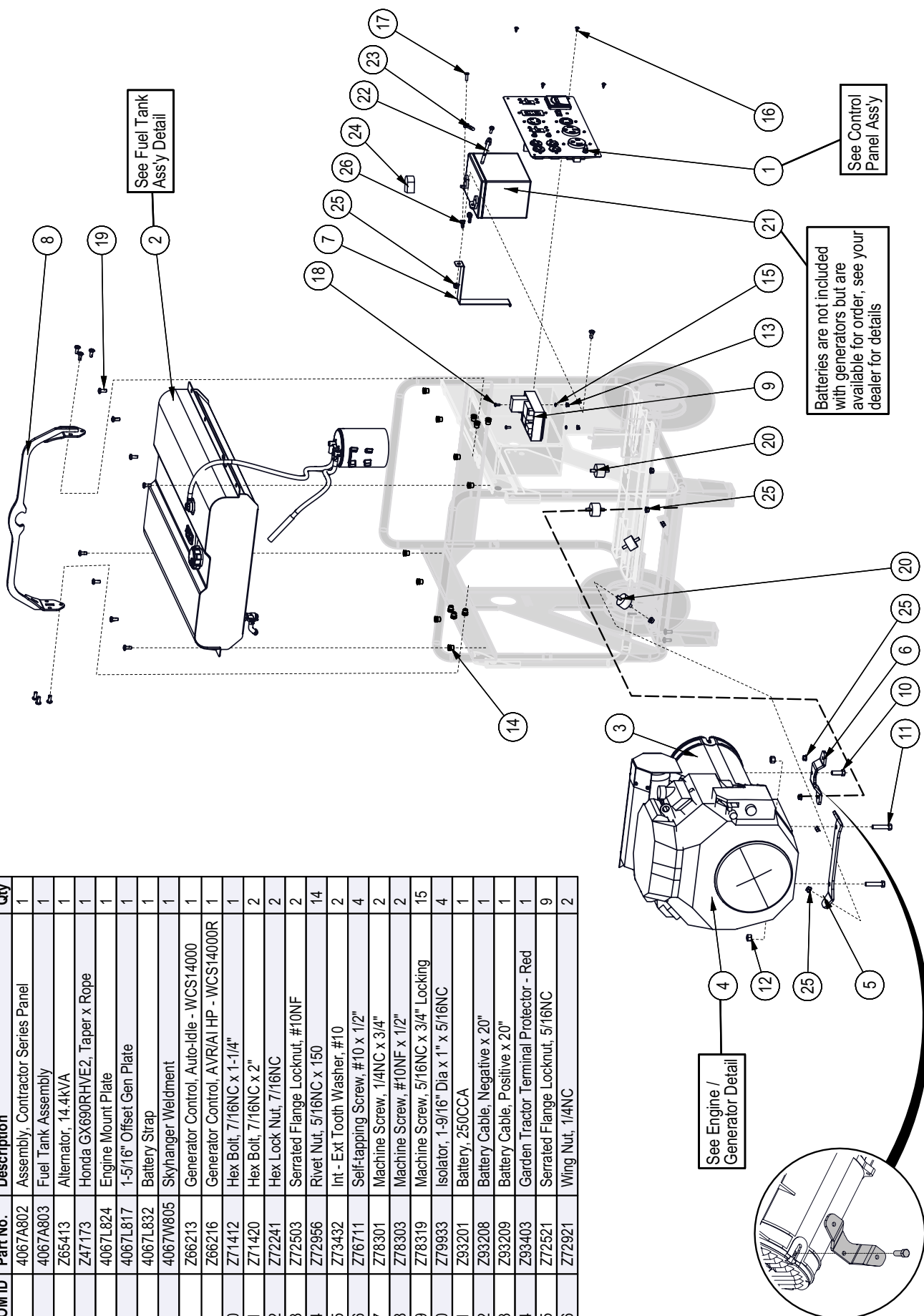
\* Torque value for bolts and capscrews are identified by their head markings.

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

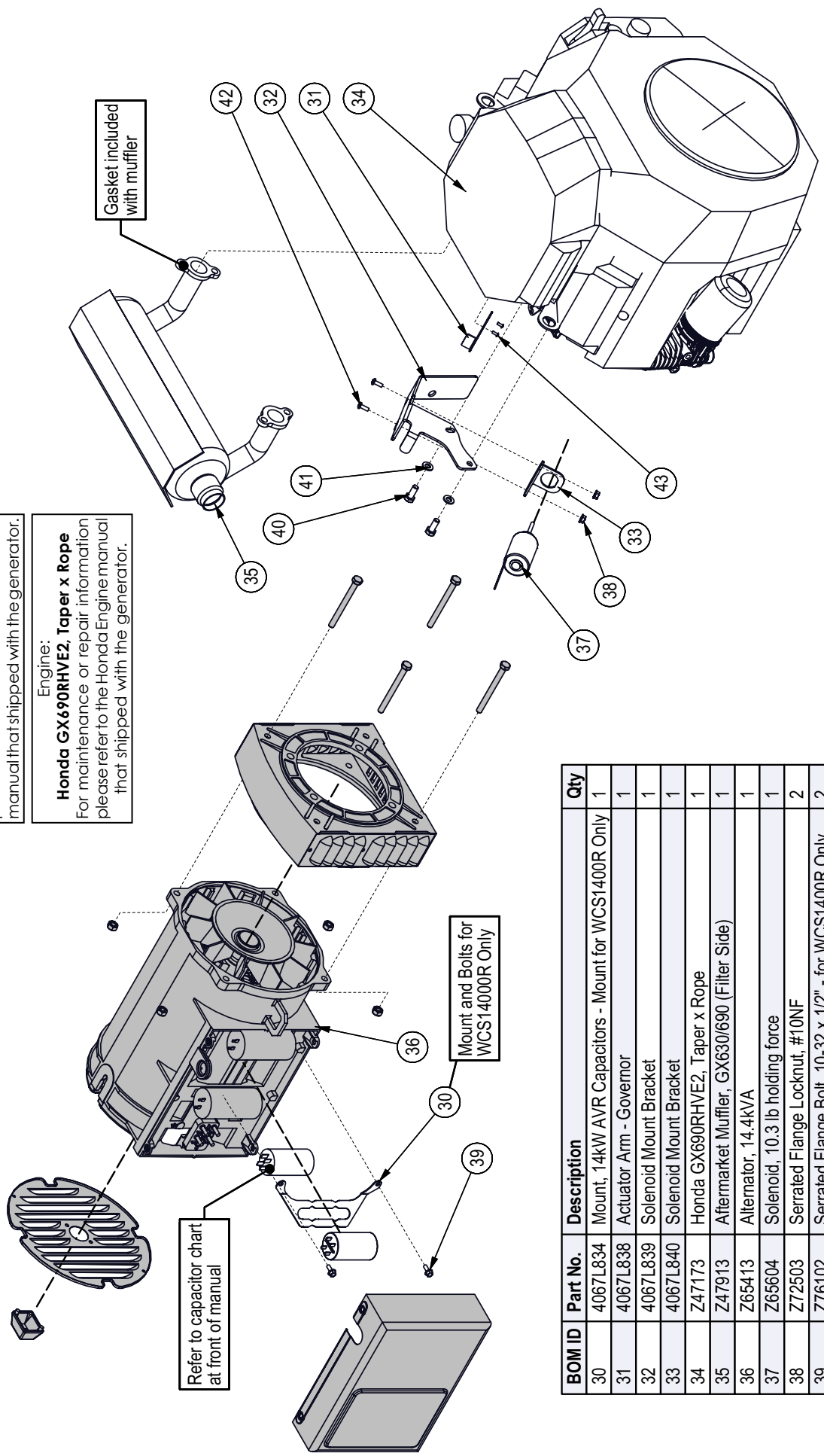


**WCS14000 Main Assembly**

BOM ID	Part No.	Description	Qty
1	4067A802	Assembly, Contractor Series Panel	1
2	4067A803	Fuel Tank Assembly	1
3	Z65413	Alternator, 14.4kVA	1
4	Z47173	Honda GX690RHVE2, Taper x Rope	1
5	4067L824	Engine Mount Plate	1
6	4067L817	1-5/16" Offset Gen Plate	1
7	4067L832	Battery Strap	1
8	4067M805	Skyhanger Weldment	1
9	Z66213	Generator Control, Auto-Idle - WCS14000	1
10	Z66216	Generator Control, AVR/AI HP - WCS14000R	1
11	Z71412	Hex Bolt, 7/16NC x 1-1/4"	1
12	Z71420	Hex Bolt, 7/16NC x 2"	2
13	Z72241	Hex Lock Nut, 7/16NC	2
14	Z72503	Serrated Flange Locknut, #10NF	2
15	Z72956	Rivet Nut, 5/16NC x 150	14
16	Z73432	Int. - Ext Tooth Washer, #10	2
17	Z76711	Self-tapping Screw, #10 x 1/2"	4
18	Z78301	Machine Screw, 1/4NC x 3/4"	2
19	Z78303	Machine Screw, #10NF x 1/2"	2
20	Z78319	Machine Screw, 5/16NC x 3/4" Locking	15
21	Z79933	Isolator, 1-9/16" Dia x 1" x 5/16NC	4
22	Z93201	Battery, 250CCA	1
23	Z93208	Battery Cable, Negative x 20"	1
24	Z93209	Battery Cable, Positive x 20"	1
25	Z93403	Garden Tractor Terminal Protector - Red	1
26	Z72521	Serrated Flange Locknut, 5/16NC	9
27	Z72921	Wing Nut, 1/4NC	2



**Engine / Alternator Assembly**



Alternator:  
**Mecc Alte Inc. S20W-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 GX690RHVE2, Taper x Rope**  
 For maintenance or repair information please refer to the Honda Engine manual that shipped with the generator.

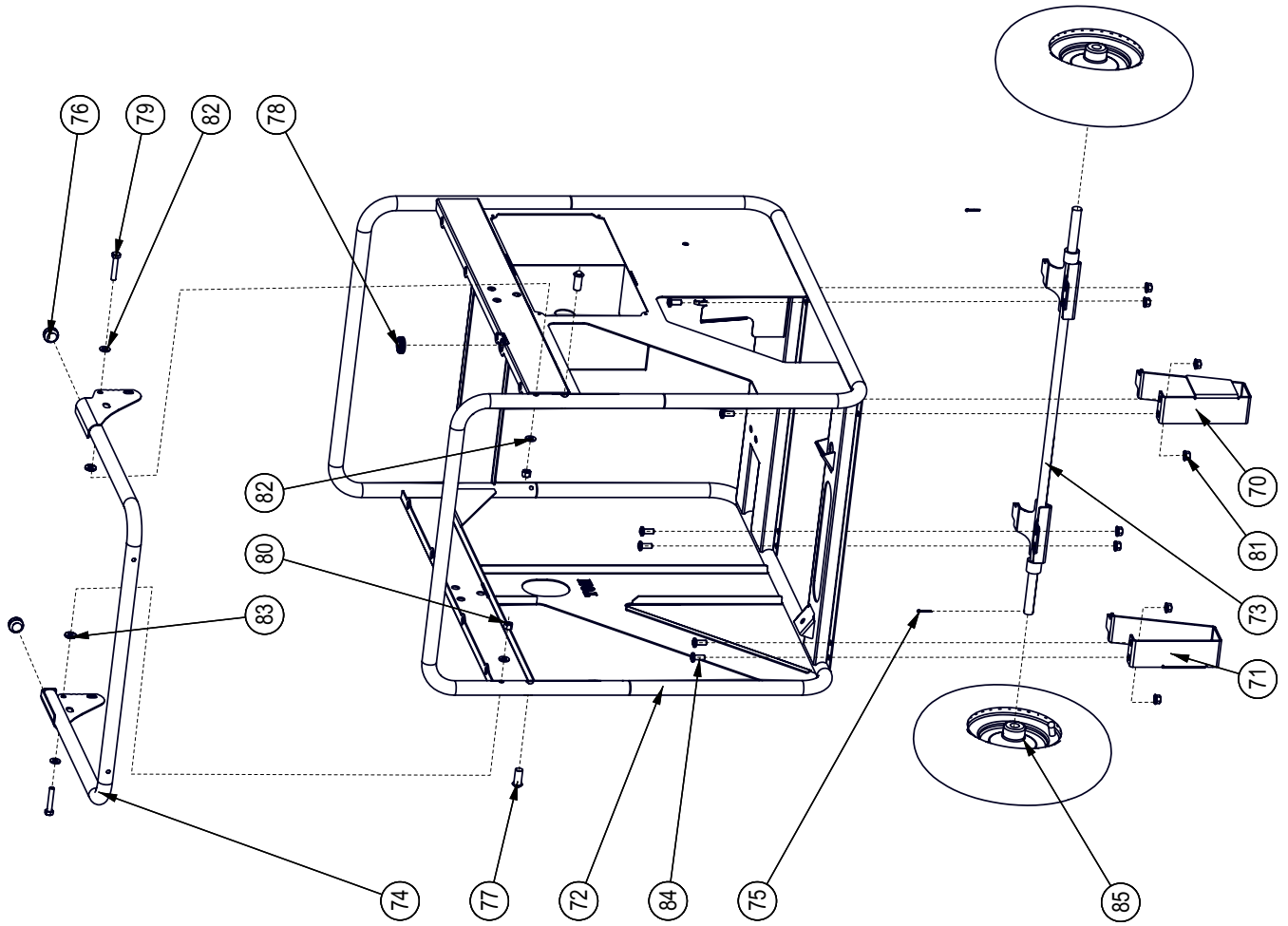
Refer to capacitor chart at front of manual

Mount and Bolts for WCS14000R Only

Gasket included with muffler

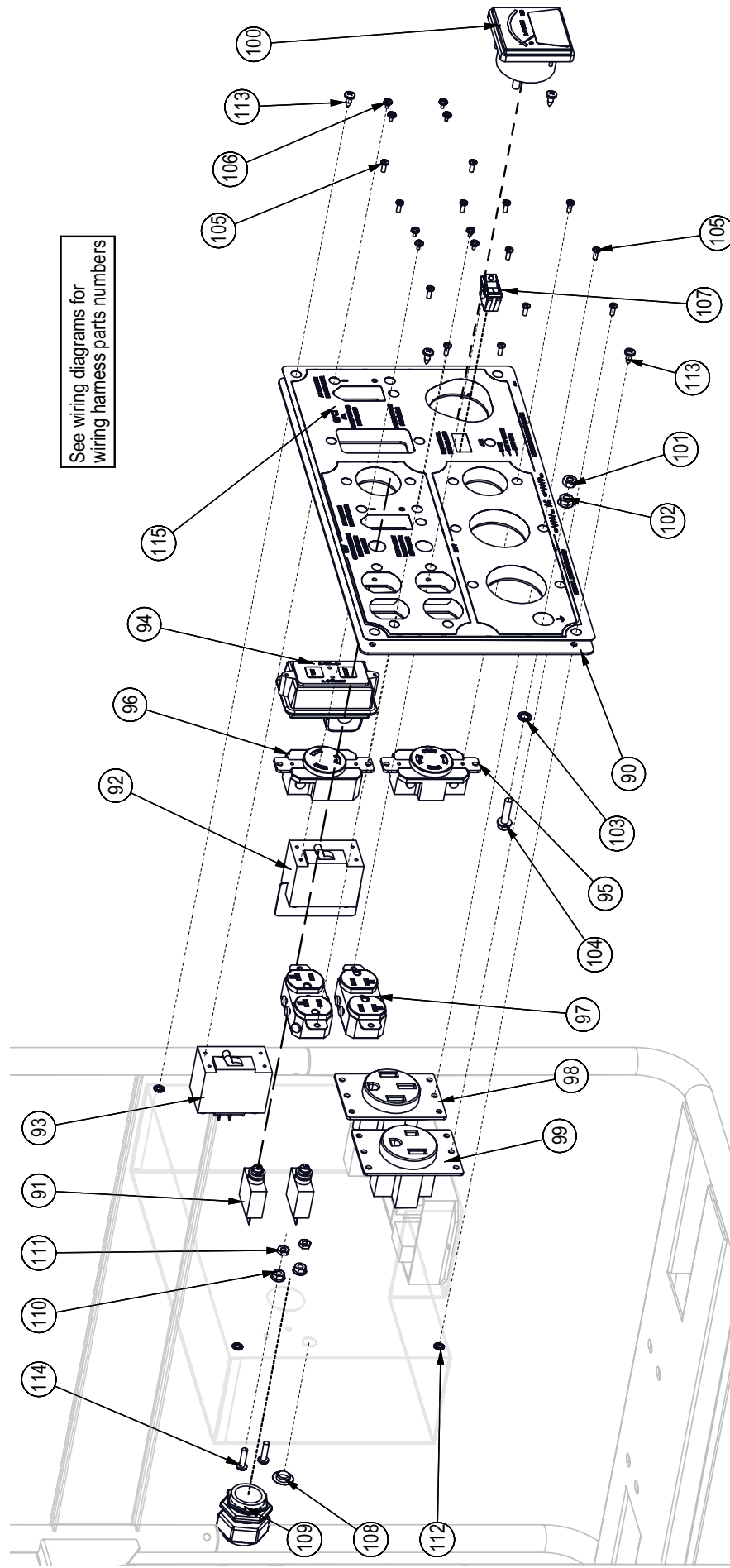
BOM ID	Part No.	Description	Qty
30	4067L834	Mount, 14kW AVR Capacitors - Mount for WCS1400R Only	1
31	4067L838	Actuator Arm - Governor	1
32	4067L839	Solenoid Mount Bracket	1
33	4067L840	Solenoid Mount Bracket	1
34	Z47173	Honda GX690RHVE2, Taper x Rope	1
35	Z47913	Aftermarket Muffler, GX630/690 (Filter Side)	1
36	Z65413	Alternator, 14.4kVA	1
37	Z65604	Solenoid, 10.3 lb holding force	1
38	Z72503	Serrated Flange Locknut, #10NF	2
39	Z76102	Serrated Flange Bolt, 10-32 x 1/2" - for WCS1400R Only	2
40	Z77150	Hex Bolt, M8x1.25 x 20mm	2
41	Z77352	DIN 125 Washer, M8	2
42	Z78303	Machine Screw, #10NF x 1/2"	2
43	Z79308	Dome Head Rivet, 1/8" x 3/25	2

**Frame Assembly**



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

**Electrical Panel Assembly**

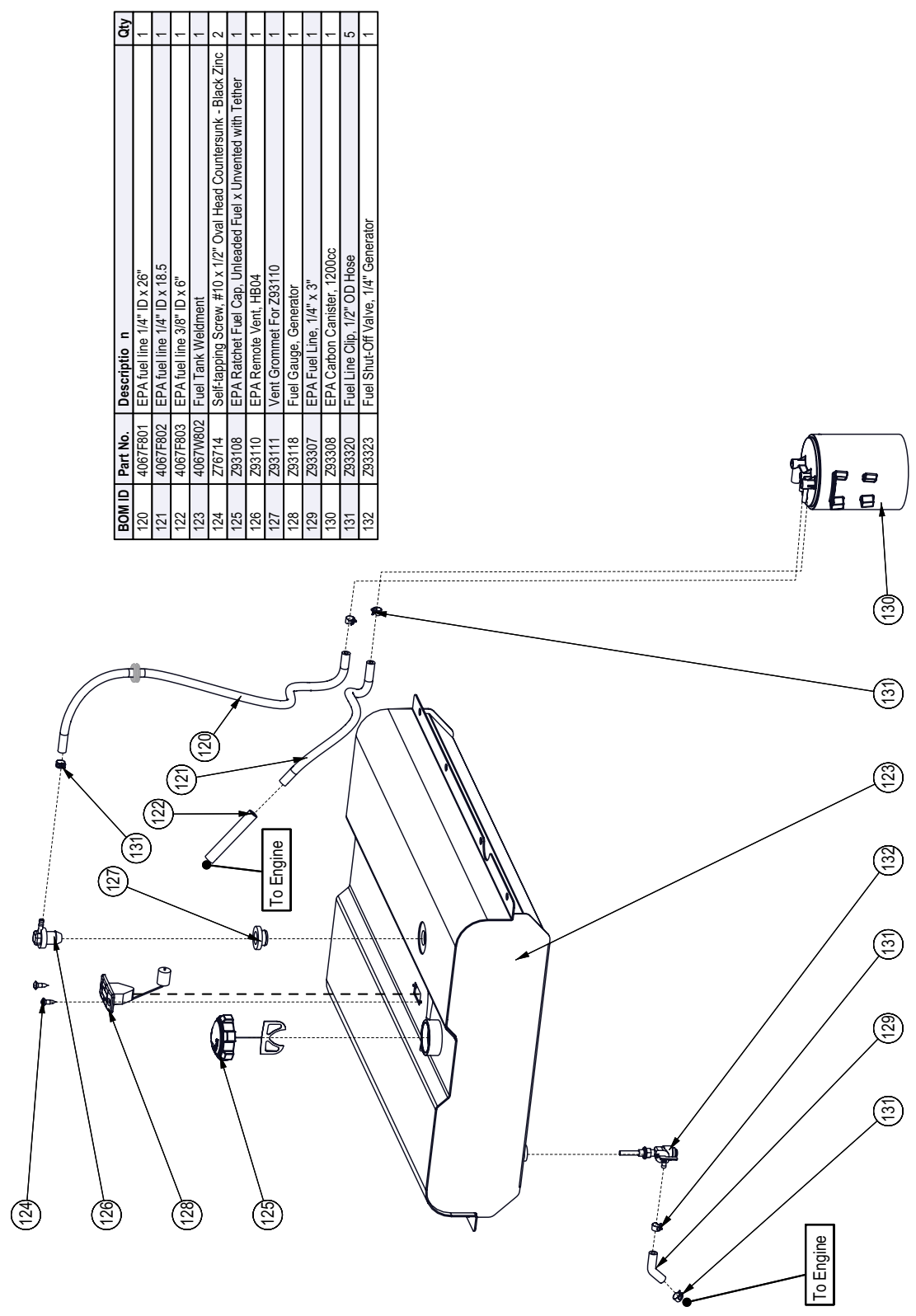


BOM ID	Part No.	Description	Qty
104	Z76114	Flange Bolt, 1/4NC x 1"	1
105	Z78304	Machine Screw, #6NC x 3/8"	14
106	Z78320	SEMS Screw, #6NC x 1/4" x External Tooth	8
107	Z66112	Rocker Switch, 20A SPST	1
108	Z62813	Plug, #18	1
109	Z62827	Cable Gland, 18-25mm	1
110	Z72502	Serrated Flange Locknut, #10NC	2
111	Z72751	Machine Nut, #10NC	2
112	Z73432	Int. - Ext Tooth Washer, #10	4
113	Z76711	Self-tapping Screw, #10 x 1/2"	4
114	Z78305	Machine Screw, #10NC x 3/4"	2
115	Z94807	12-14kW GFI Control Panel Decal - WCS1400R Only	1
	Z94822	12-14kW GFI AVR Control Panel Decal - WCS1400R Only	1

BOM ID	Part No.	Description	Qty
90	4067L804	Panel, Work Series	1
91	Z62616	Thermal Breaker, 15A x TC1 OL1	2
92	Z626210	30A - Double Breaker	1
93	Z62670	50A - Double Breaker - Aux	1
94	Z62671	GFCI Module - PGFM	1
95	Z63403	Receptacle, L14-30 x 30A x 125/250V	1
96	Z63404	Receptacle, L5-30 x 30A x 125V	1
97	Z63406	Receptacle, 5-20R x 20A x 125V	2
98	Z63409	Receptacle, 14-50R x 50A x 125/250V	1
99	Z63410	Receptacle, 6-50R x 50A x 125/250V	1
100	Z64501	Voltmeter, 0-150V	1
101	Z72111	Hex Nut, 1/4NC	1
102	Z72511	Serrated Flange Locknut, 1/4NC	1
103	Z73431	Int. - Ext Tooth Washer, 1/4"	1



**Fuel Tank Assembly & Fuel Lines**



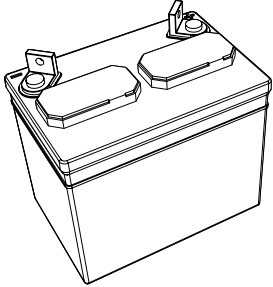
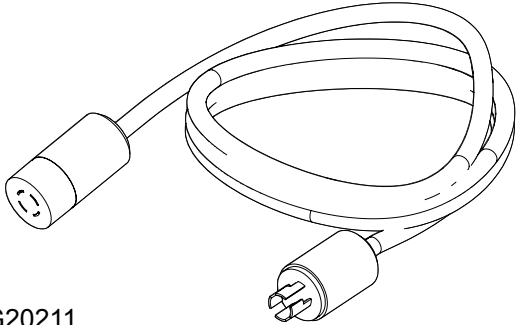
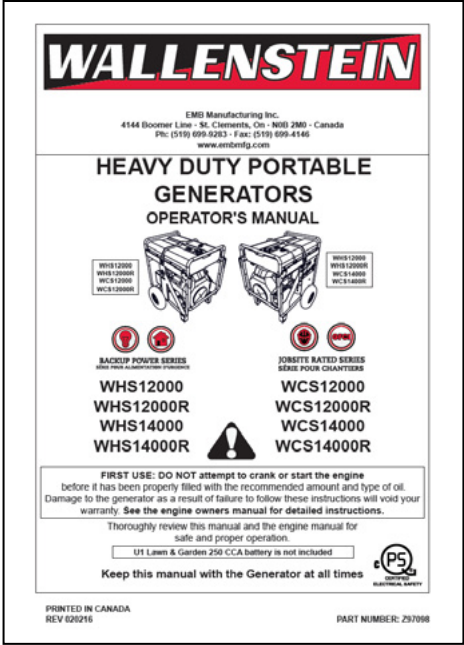
BOM ID	Part No.	Description	Qty
120	4067F801	EPA fuel line 1/4" ID x 26"	1
121	4067F802	EPA fuel line 1/4" ID x 18.5	1
122	4067F803	EPA fuel line 3/8" ID x 6"	1
123	4067W802	Fuel Tank Weldment	1
124	Z16714	Self-tapping Screw, #10 x 1/2" Oval Head Countersunk - Black Zinc	2
125	Z93108	EPA Ratchet Fuel Cap, Unleaded Fuel x Unvented with Tether	1
126	Z93110	EPA Remote Vent, HB04	1
127	Z93111	Vent Grommet For Z93110	1
128	Z93118	Fuel Gauge, Generator	1
129	Z93307	EPA Fuel Line, 1/4" x 3"	1
130	Z93308	EPA Carbon Canister, 1200cc	1
131	Z93320	Fuel Line Clip, 1/2" OD Hose	5
132	Z93323	Fuel Shut-Off Valve, 1/4" Generator	1





**Accessories**

Call your dealer for pricing and availability

 <p>#Z93201</p>	<p><b>#Z93201 U1 250CCA Lawn &amp; Garden Battery</b></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"> <li>• Heavy Duty SJTW Cable</li> <li>• -40° cold weather jacket</li> <li>• Nema L14-30P 30a 125/250v Plug</li> <li>• Nema L14-30R 30a 125/250v Connector</li> <li>• Water &amp; Flame Resistant</li> <li>• UL, OSHA compliant</li> </ul> <p>Available in three sizes.</p> <p>G20211 • 10' Power Cord                  G20212 • 20' Power Cord                  G20213 • 25' Power Cord</p>
	<p><b>#Z97098 GENERATOR OPERATOR'S MANUAL</b></p> <p>Available as a download at <a href="http://www.wallensteinequipment.com">www.wallensteinequipment.com</a></p>