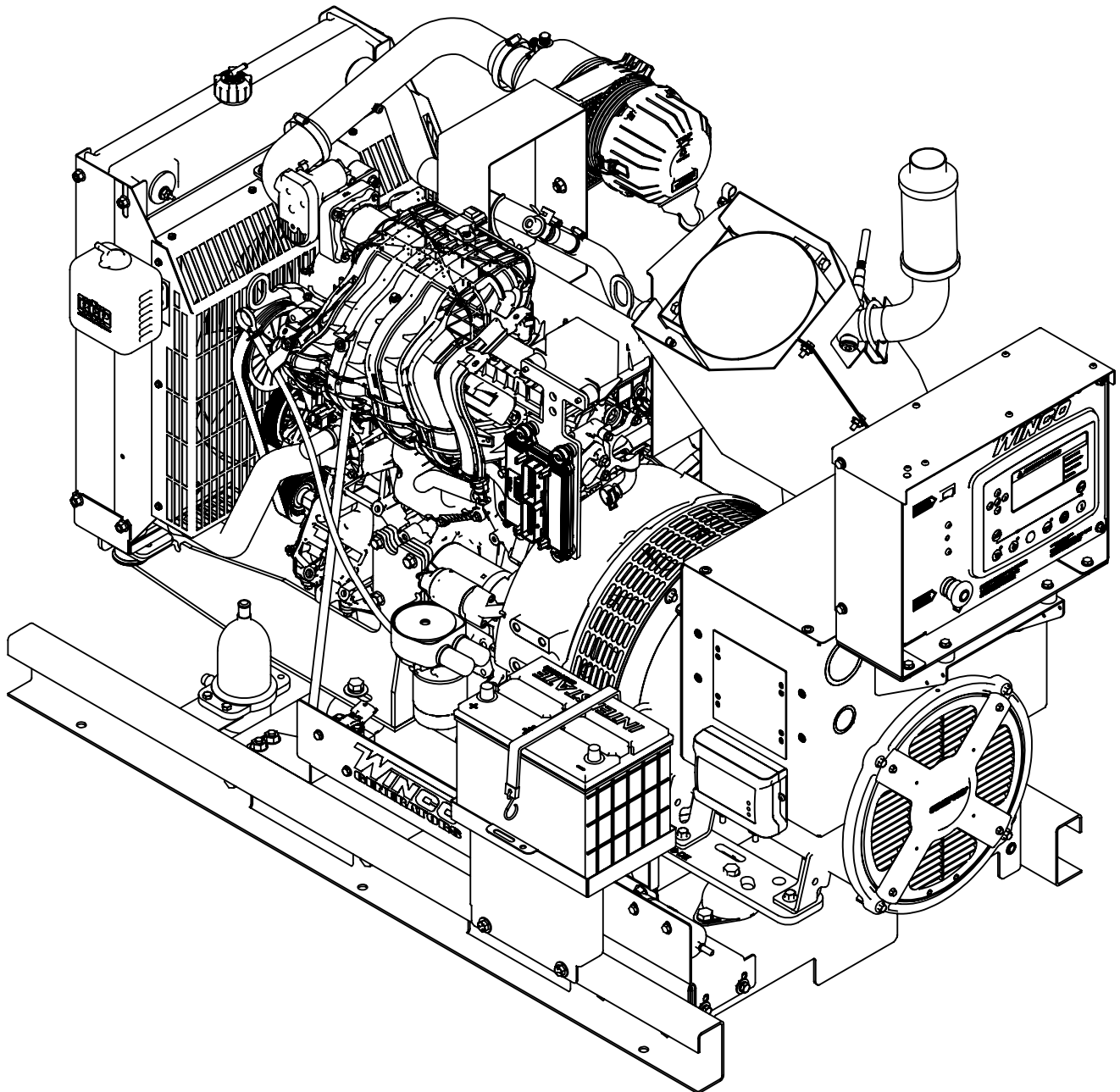


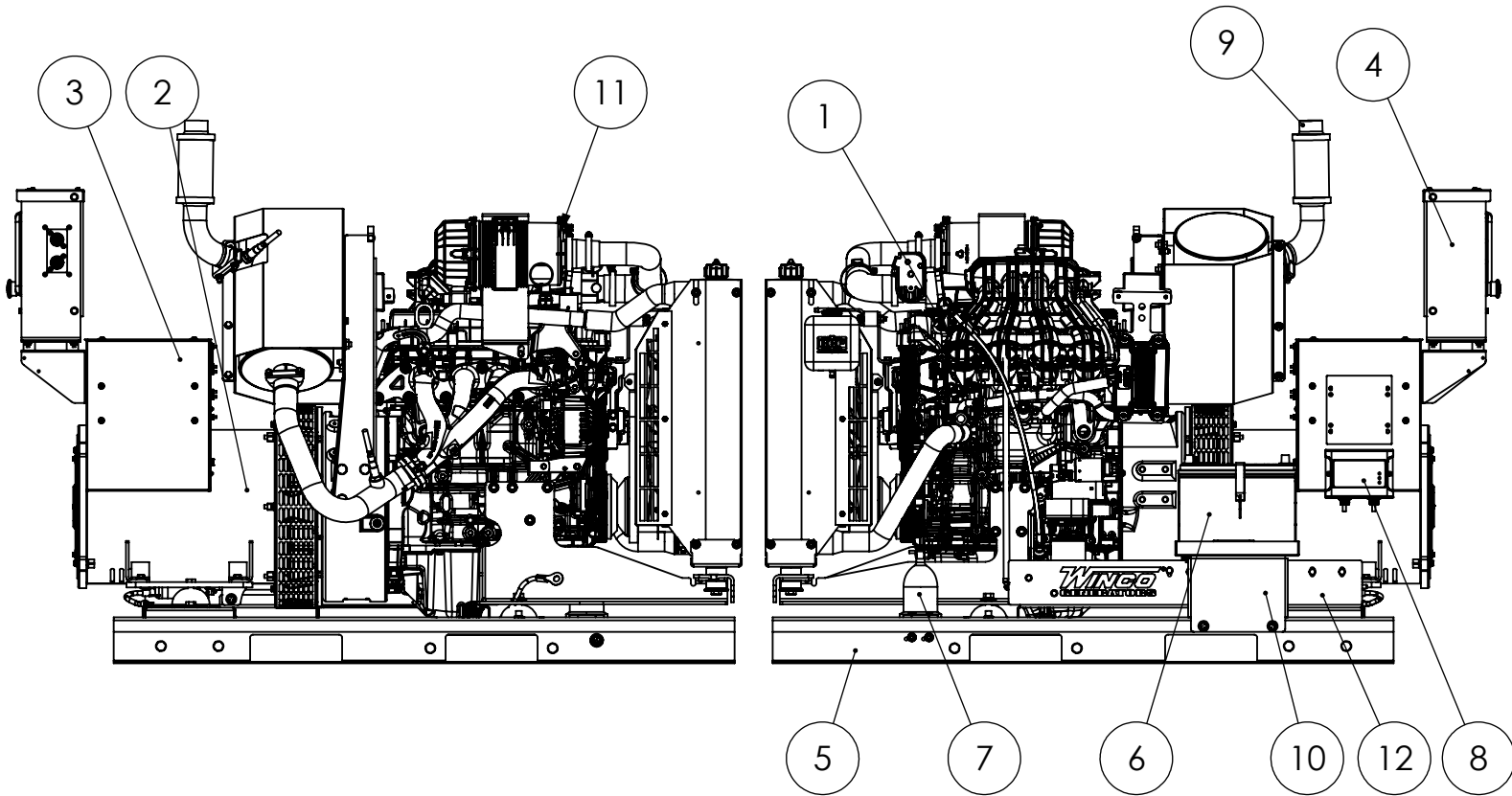


PPG28F4-XX/4 Parts List



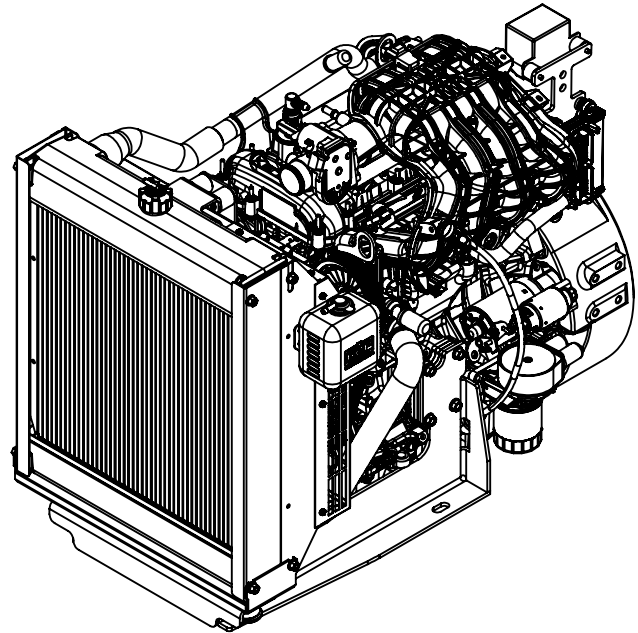
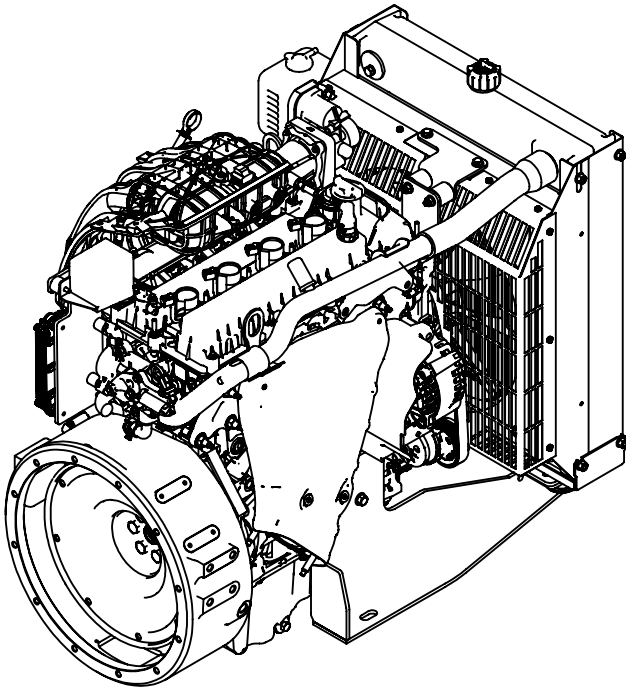
WINCO Service
Phone: 507-357-6831
Email: service@wincogen.com
www.wincogen.com

General Assembly



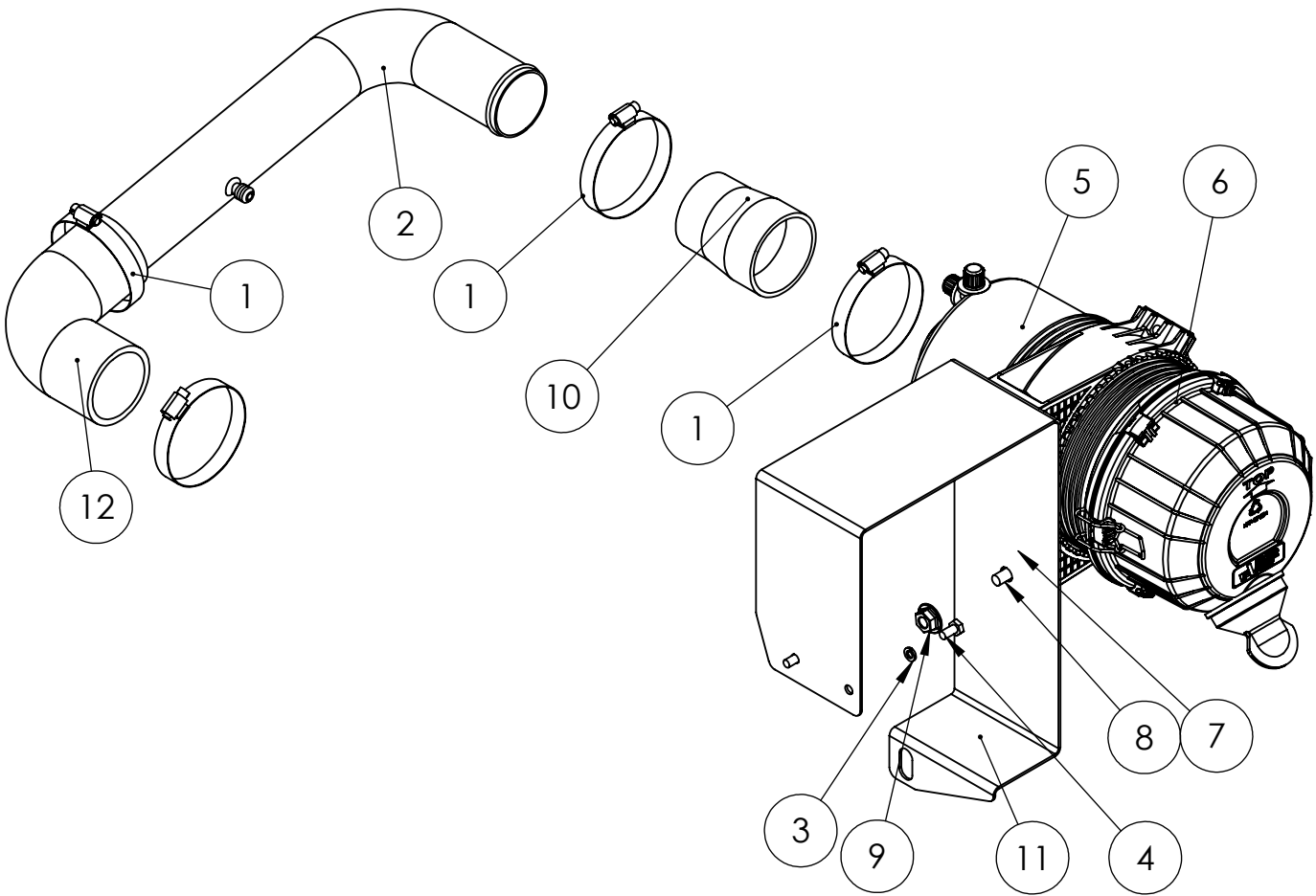
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	350002-38	ENGINE, EDI FORD, 2.5L, GASOLINE, PRIME POWER	1
2	350023-1	GEN END, S1L2-K1, 38.4 KW AT 125C, WDG#711, CLASS H, 4-POLE, 1500-1800 RPM, STAMFORD, SAE 4-10	1
3	1000-0567	DE30 TERMINAL BOX ASSEMBLY	1
4	1000-0541	CONTROLLER MOUNT ASSEMBLY	1
5	1000-0713	PPG28 BASE ASSEMBLY	1
6	805050-000	BATTERY TRAY KIT	1
7	80781-018	BLOCK HEATER WITH THERMOSTAT ASSY	1
8	352020-26	BATTERY CHARGER KIT, 12V, 1.5 AMP	1
9	1000-0728	PPG28 EXHAUST ASSEMBLY	1
10	1000-0735	PPG28 HARDWARE KIT	1
11	1000-0721	PPG28 AIR FILTER KIT	1
12	2000-0183	FUEL SYSTEM ASSEMBLY	1
13	811023-001	DE23, DSE DISPLAY TO ECU WIRING HARNESS	1
14	99420-034	ENGINE HARNESS PPG28 FORD	1

Engine



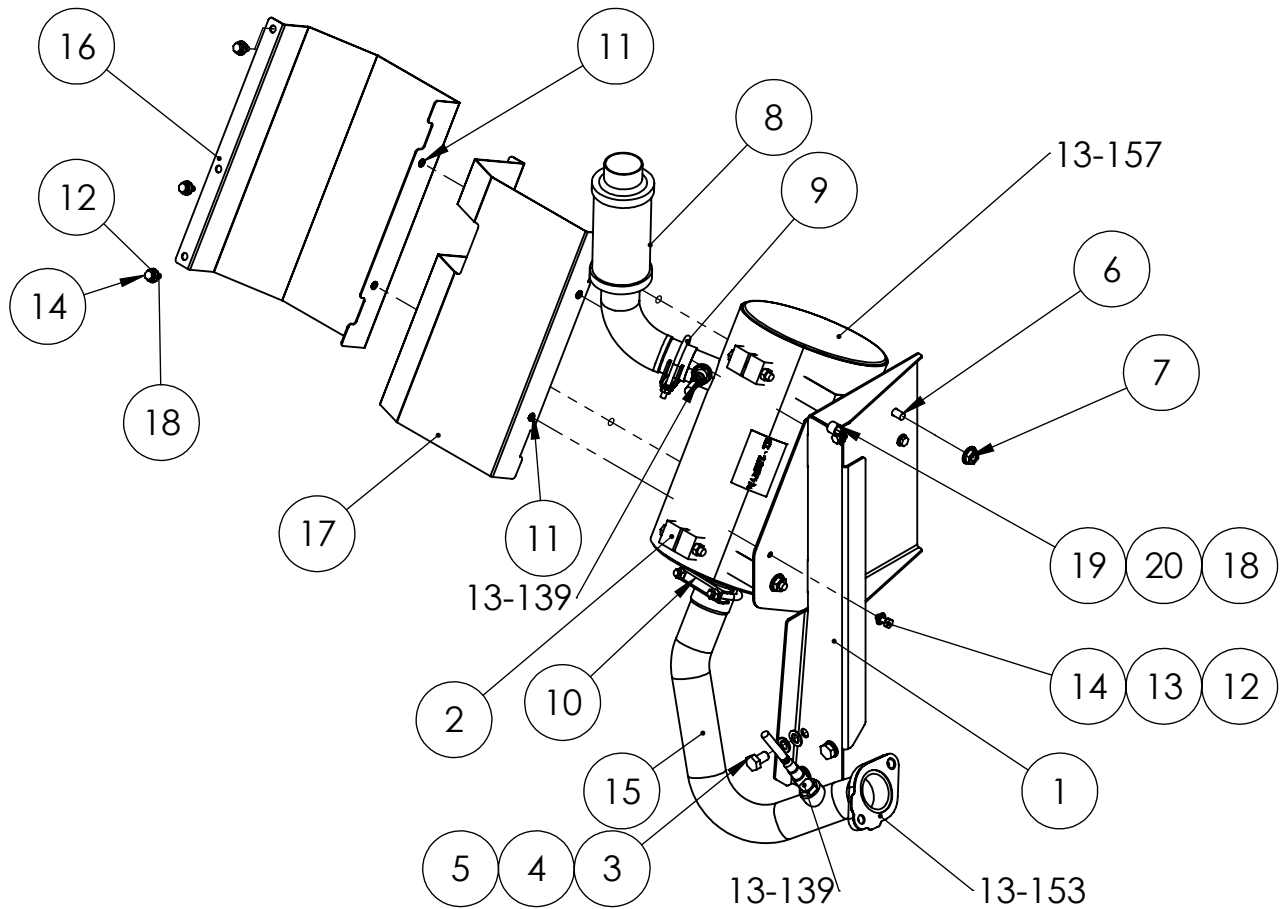
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	7-106	AIR FILTER	1
2	14-110	OIL FILTER	1
3	13-146	FUEL FILTER	1
4	14-111	SPARK PLUG	4
ALL ITEMS LISTED IN THE ABOVE TABLE ARE INCLUDED WITH A 16200-043 MAINTENANCE KIT PURCHASE			
5	13-143	STARTER MOTOR	1
6	13-144	ALTERNATOR	1
7	14-112	FAN BELT	1
8	14-113	SERPENTINE BELT	1
9	13-141	THERMOSTAT	1
10	13-142	THERMOSTAT GASKET	1
11	14-114	UPPER RADIATOR HOSE	1
12	14-115	COOLANT PUMP HOSE	1
13	13-140	RADIATOR CAP	1
14	13-139	O2 SENSOR	1
15	13-145	FUEL PUMP	1
16	13-131	OIL PRESSURE SWITCH	1
17	13-130	WATER TEMP SWITCH	1
Contact Winco service for full engine parts support.			

Air Filter Kit



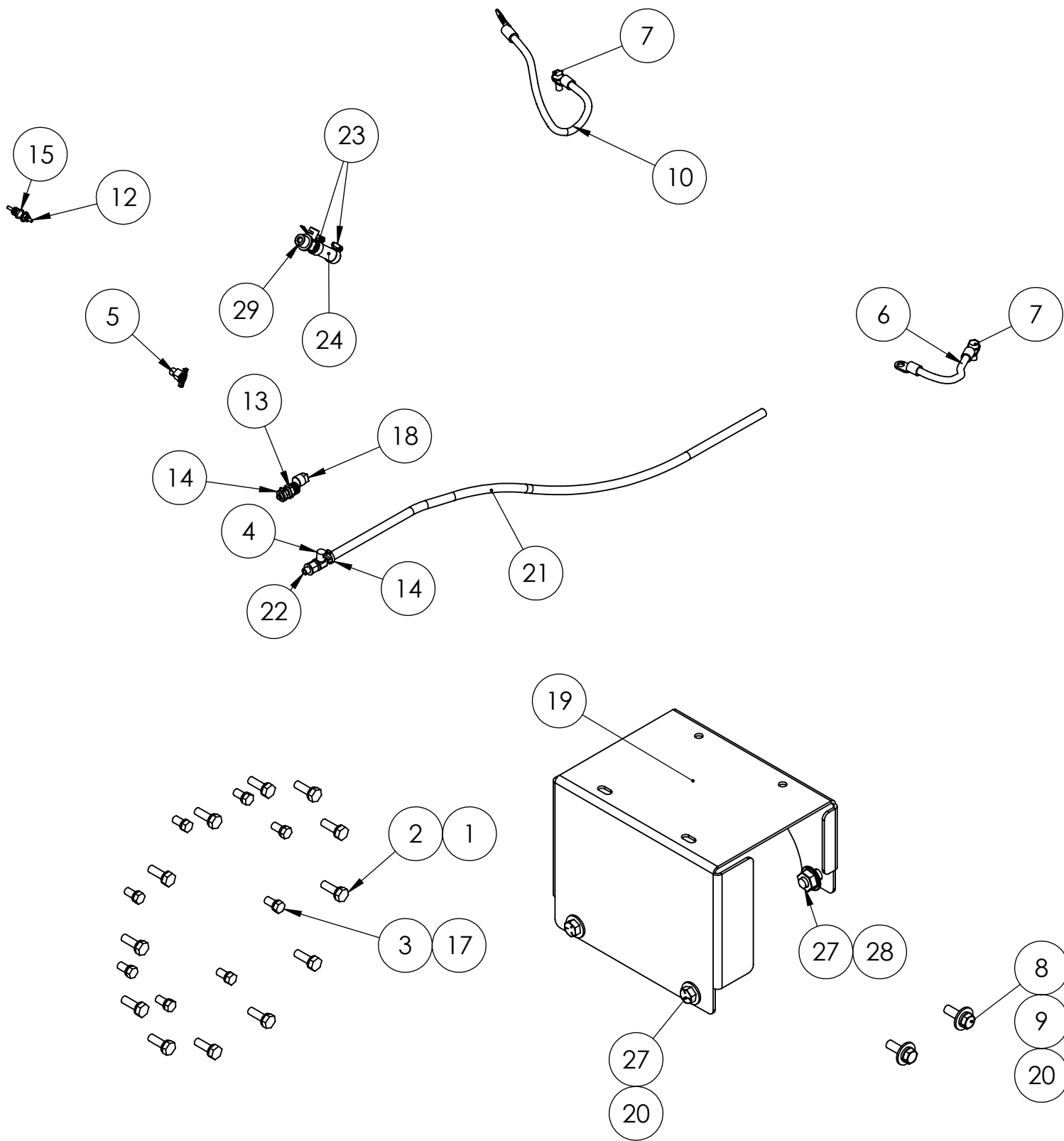
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	81018-002	HOSE CLAMP 3-2.0625	4
2	1000-0723	INTAKE PIPE, PPG28	1
3	93341-006	LOCKWASHER M6 ZINC	2
4	75139-012	HHCS M6-1X12MM ZINC	2
5	352104-3	FILTER HOUSING WITH ELEMENT	1
6	352104-2	AIR FILTER MOUNTING BAND	1
7	65005-001	5/16 WASHER SS	2
8	65001-002	.3125-18X1 HHB SS	2
9	65006-001	.3125-18 FLANGE NUT SS	2
10	352104-26	2.0" TO 2.25" SILICONE INTAKE REDUCER, STRAIGHT	1
11	1000-0722	PPG28 AIR FILTER MOUNTING BRACKET	1
12	352104-27	2.0" SILICONE ELBOW, BLACK	1

Exhaust Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1000-0727	CATALYST MOUNT WELDMENT	1
2	350264-7	8" EXHAUST BAND	2
3	94270-020	HHCS M12-175X 20MM	3
4	93341-012	LOCKWASHER M12 ZINC	3
5	21867-001	FLAT WASHER .51 X .88 X .05	3
6	464-000	.375-16X.75 HHB	4
7	16250-000	.375-16 FLANGE NUT	4
8	1000-0730	PPG28 TAIL PIPE	1
9	93489-003	2.0" EXHAUST CLAMP	1
10	93489-011	MUFFLER CLAMP 2.25"	1
11	352125-1	1/4-20 RIVET NUT 22 GA-10GA	4
12	512-000	.25 WASHER	7
13	479-000	LOCK WASHER, .25" SPLIT	4
14	466-000	.25-20X.75 HHB	7
15	1000-0729	PPG28 EXHAUST PIPE	1
16	2000-0310	INNER HEAT SHEILD	1
17	2000-0311	OUTER HEAT SHIELD	1
18	16248-000	.25-20 FLANGE NUT	4
19	97391-007	TUBE CLAMP/CUSH.WIRE 1/2	1
20	463-000	HEX BOLT .25-20X.50	1
21	97274-000	HEAT WRAP PER FOOT	11

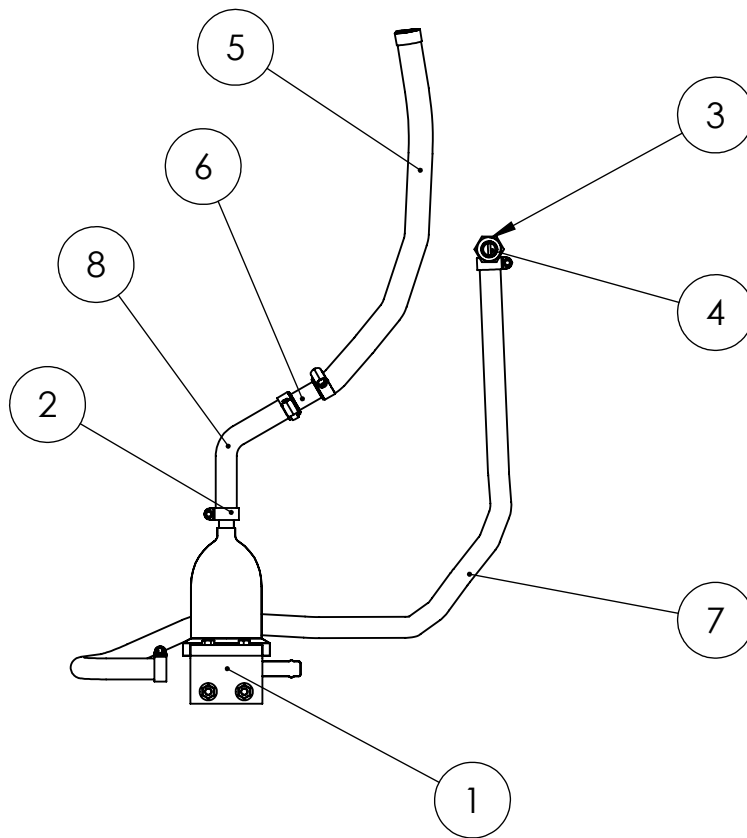
Hardware Kit



Hardware Kit continued

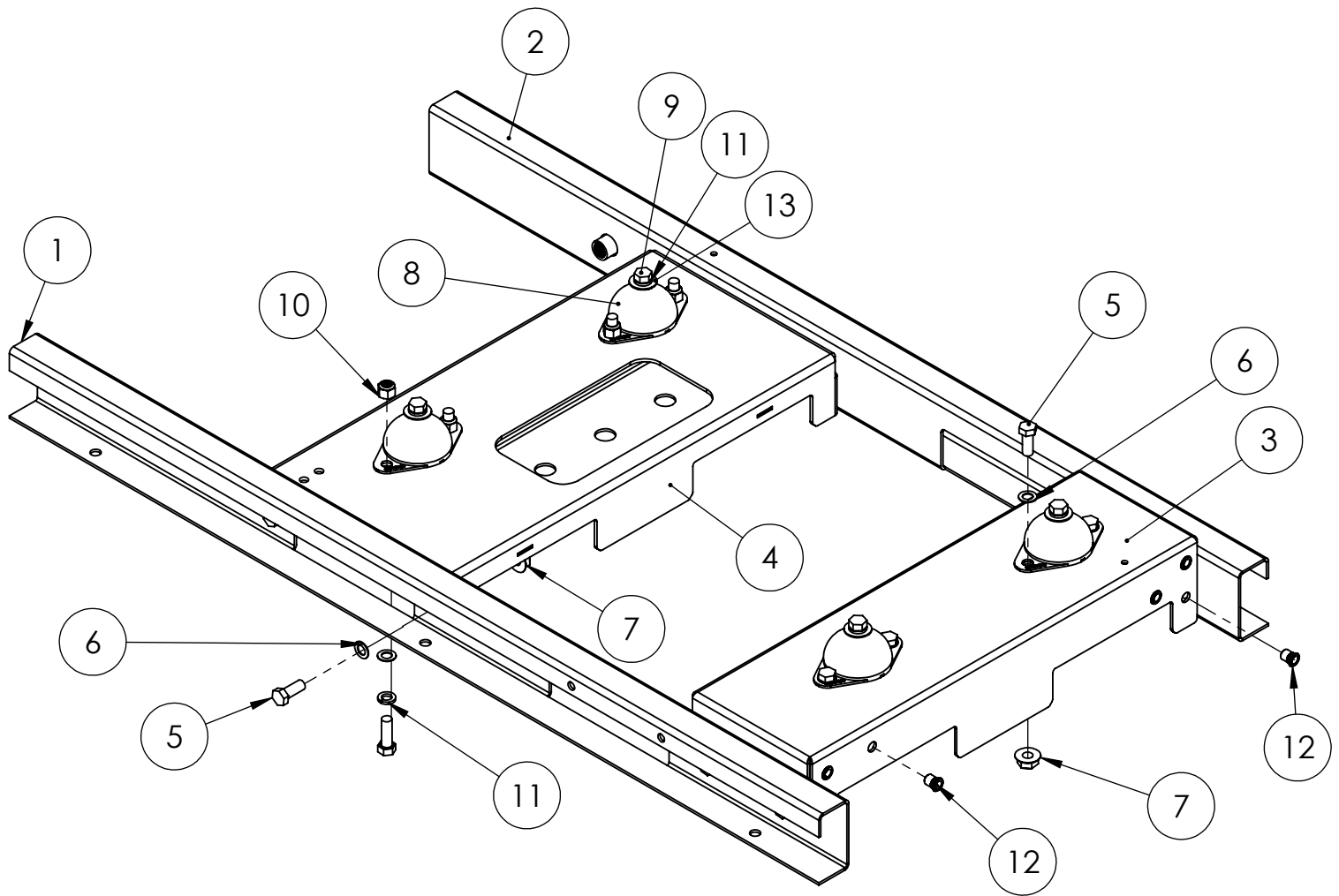
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	97436-010	M10 LOCKWASHER	12
2	96003-030	M10-1.5X30MMM	12
3	91658-011	.375-16X.75 HHB	8
4	98906-009	OIL DRAIN VALVE M12-1.75 X 3/8 F-107N	1
5	93824-003	PETCOCK VALVE 1/4 NPT 90 HOSE BARB	1
6	93542-018	LEAD WIRE	1
7	65004-001	SELF TAP.SC. 5/16-18X.75	2
8	1116-000	HHCS .3125-18X1	2
9	480-000	5/16 SPLIT LOCKWASHER	2
10	93542-013	LEAD WIRE ASSY	1
11	55505-017	HOSE 3/8 ID X 32" LONG	1
12	96333-002	LOW COOLANT PROBE	1
13	94319-008	HOSE FIT. .500-14NPT X .375 HOSE BARB	1
14	81018-008	HOSE CLAMP .875-.25	2
15	80951-000	HEX REDU.BUSH. 1/4X1/8	1
16	2000-0044	SHIP LOOSE FOAM KIT FOR FIELD INSTALLATION	1
17	481-001	LOCKWASHER 3/8 SPLIT BLACK	8
18	93084-000	PIPE PLUG .50 GALV	1
19	2000-0182	BATTERY RELOCATOR	1
20	526-000	WASHER ID .375 OD .890	6
21	55505-029	HOSE 3/8 RUBBER 46 IN LONG	1
22	99778-000	ADAPTER FITTING M12-1.75(M) X M12-1.75(F)	1
23	81018-005	HOSE CLAMP 1.0625-.500	2
24	93689-001	HOSE, 0.625 ID, PER INCH	3
25	62625-004	14 INCH HEAT SLEEVE	1
26	49975-014	STAINLESS STEEL CABLE TIE 8"	2
27	91658-001	HHCS 3/8-16X1	4
28	16250-000	.375-16 FLANGE NUT	4
29	98906-014	OIL DRAIN VALVE M22-1.50 X 5/8 FG-7BN	1

Block Heater Assembly



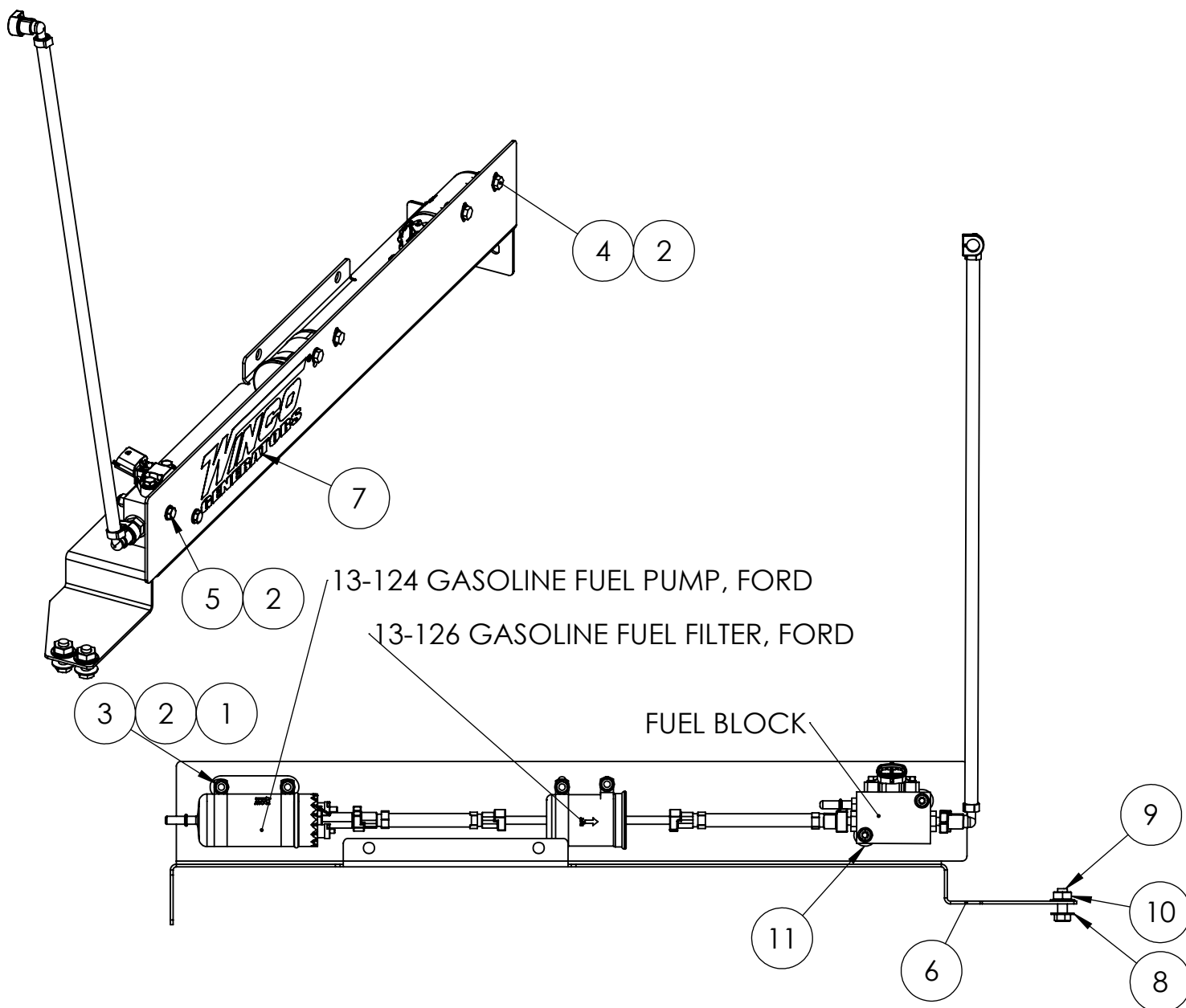
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	80781-018	BLOCK HEATER WITH THERMOSTAT ASSY	1
2	81018-005	HOSE CLAMP 1.0625-.500	6
3	81075-000	HEX REDU.BUSH. 3/4X1/2	1
4	92382-001	HOSE FIT.ELBOW .500NPT X .625 HOSE	1
5	93689-000	HOSE, 0.75 ID	10
6	98590-004	HEATER HOSE CONNECTOR	1
7	93689-001	HOSE 0.625 ID	50
8	93689-001	HOSE, 0.625 ID	6.5

Base Frame Assembly



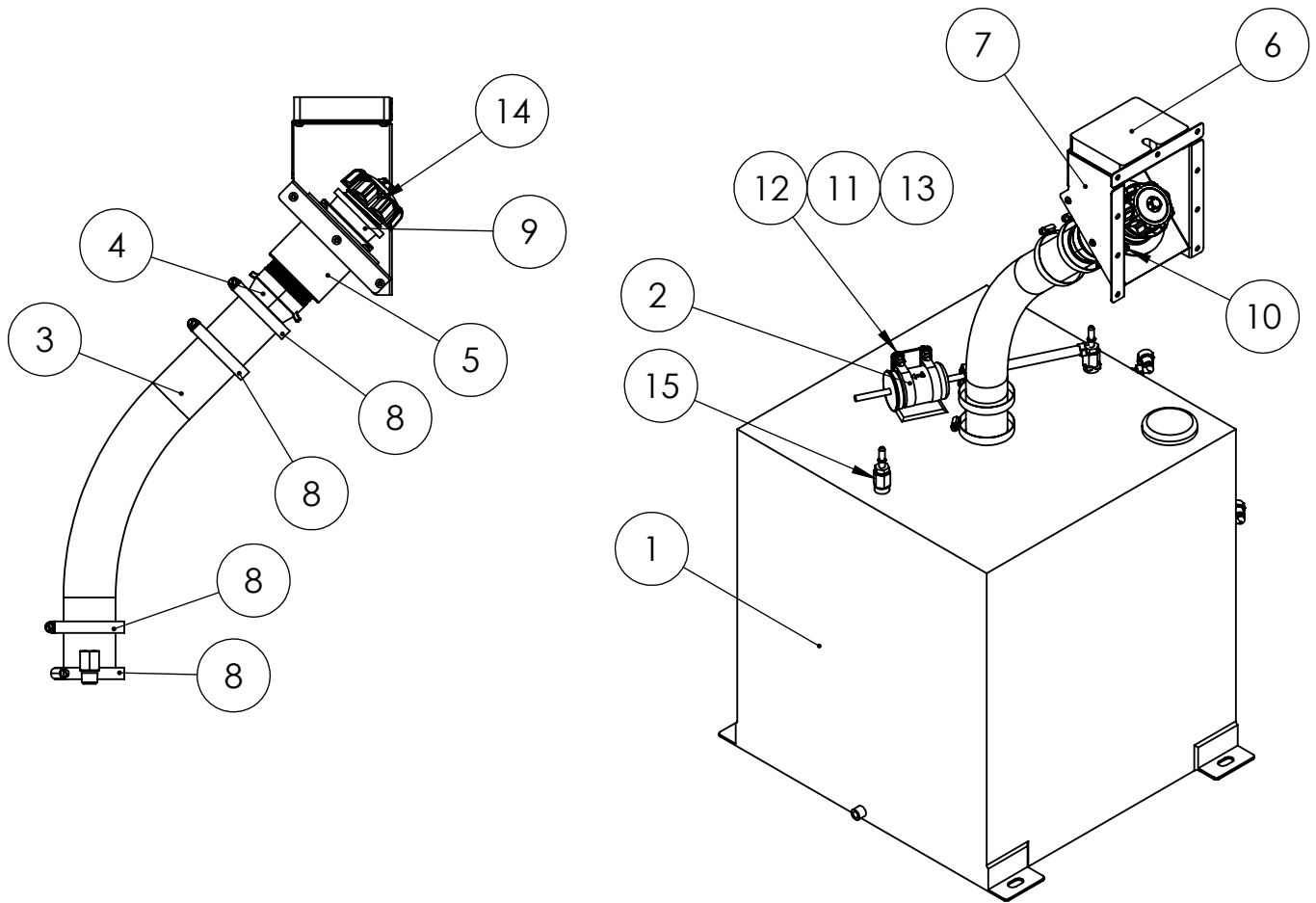
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1000-0714	PPG28 LEFT SIDE BASE RAIL	1
2	1000-0715	DE28 RIGHT SIDE BASE RAIL WELDMENT	1
3	1000-0717	PPG28 GEN CROSSMEMBER	1
4	1000-0718	PPG28 ENGINE MOUNT WELDMENT	1
5	1516-000	.5-13X1.25 HHB	12
6	21867-001	FLAT WASHER .51 X .88 X .05	16
7	16248-001	.5-13 FLANGE NUT	12
8	98956-001	SHOCKMOUNT 40 DURO (GREEN DOT)	4
9	57580-000	.5-13X1.5 HHB	8
10	92242-000	NUT HEX .500-13 NYLOCK	4
11	636-000	LOCKWASHER 1/2 SPLIT	8
12	352126-1	RIVET NUT 5/16-18 .027-.150	10
13	21867-000	FLAT WASHER	4

Fuel System Assembly



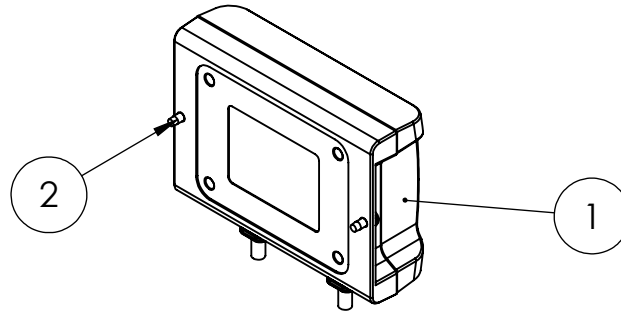
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	15374-002	TUBE CLAMP CUSH WIRE 1.937IN	4
2	488-000	FLAT WASHER .25 X .5625 .0468	12
3	47517-000	.25-20 NYLOCK	6
4	466-000	.25-20X.75 HHB	4
5	20544-001	HHCS 1/4-20 X 2-1/4 GR2	2
6	2000-0181	FUEL SYSTEM RAIL	1
7	64214-047	WINCO LOGO	1
8	526-000	FLAT WASHER 5/16_3/8	2
9	91658-001	HHCS 3/8-16X1	2
10	16250-000	.375-16 FLANGE NUT	2
11	2000-0294	FUEL SYSTEM SPACER	2

Fuel Tank Option



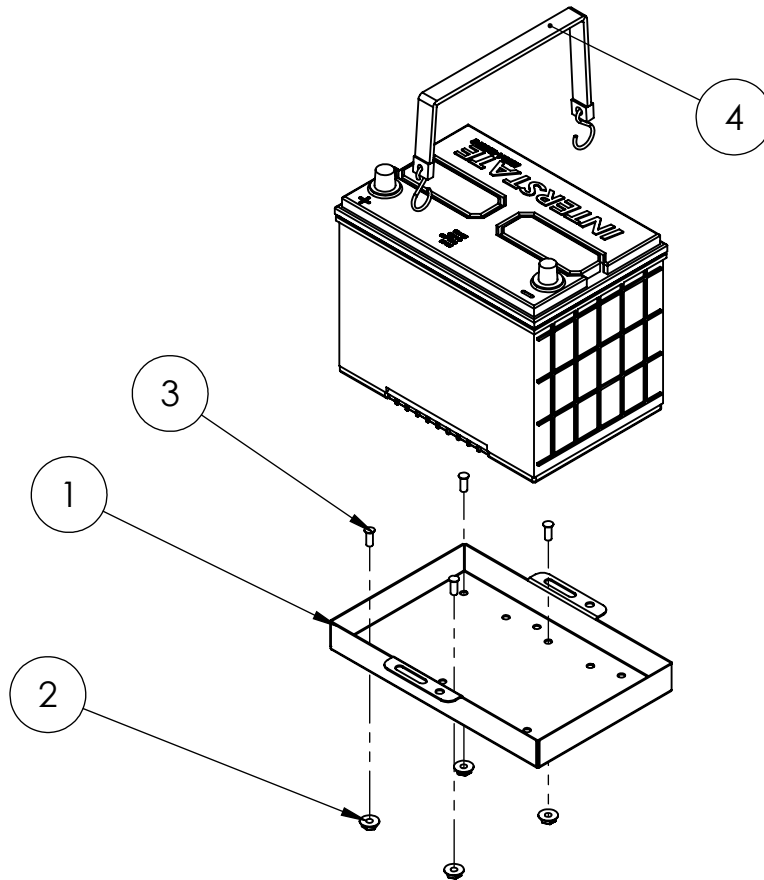
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	350041-151	30 GAL GASOLINE TANK	1
2	15374-002	TUBE CLAMP CUSH WIRE 1.937IN	2
3	49410-000	2IN ID FUEL FILLER HOSE CUT TO 18.75 INCH	1
4	94319-012	2" NPT X 2" HOSE, BARBED, ZINC	1
5	2000-0307	FILLER NECK WELDMENT	1
6	2000-0306	BEZEL FOAM	1
7	2000-0305	GASOLINE BEZEL ASSEMBLY	1
8	81018-002	HOSE CLAMP 3-2.0625	4
9	94319-014	2.25 BUTTRESS TO 2.0 IN NPT ADAPTER	1
10	21698-001	TORX PAN HEAD SCREW #10	4
11	47517-000	.25-20 NYLOCK	2
12	466-000	.25-20X.75 HHB	2
13	512-000	.25 WASHER	2
14	15482-004	FUEL CAP, 2.25 INCH, 2WAY VENTED, TETHERED, GASOLINE ONLY, RED	1
15	99966-001	ADAPTER 3/8-18"NPT(M) X 9/16-18 SAE-ORB (F)	2

Battery Chargers



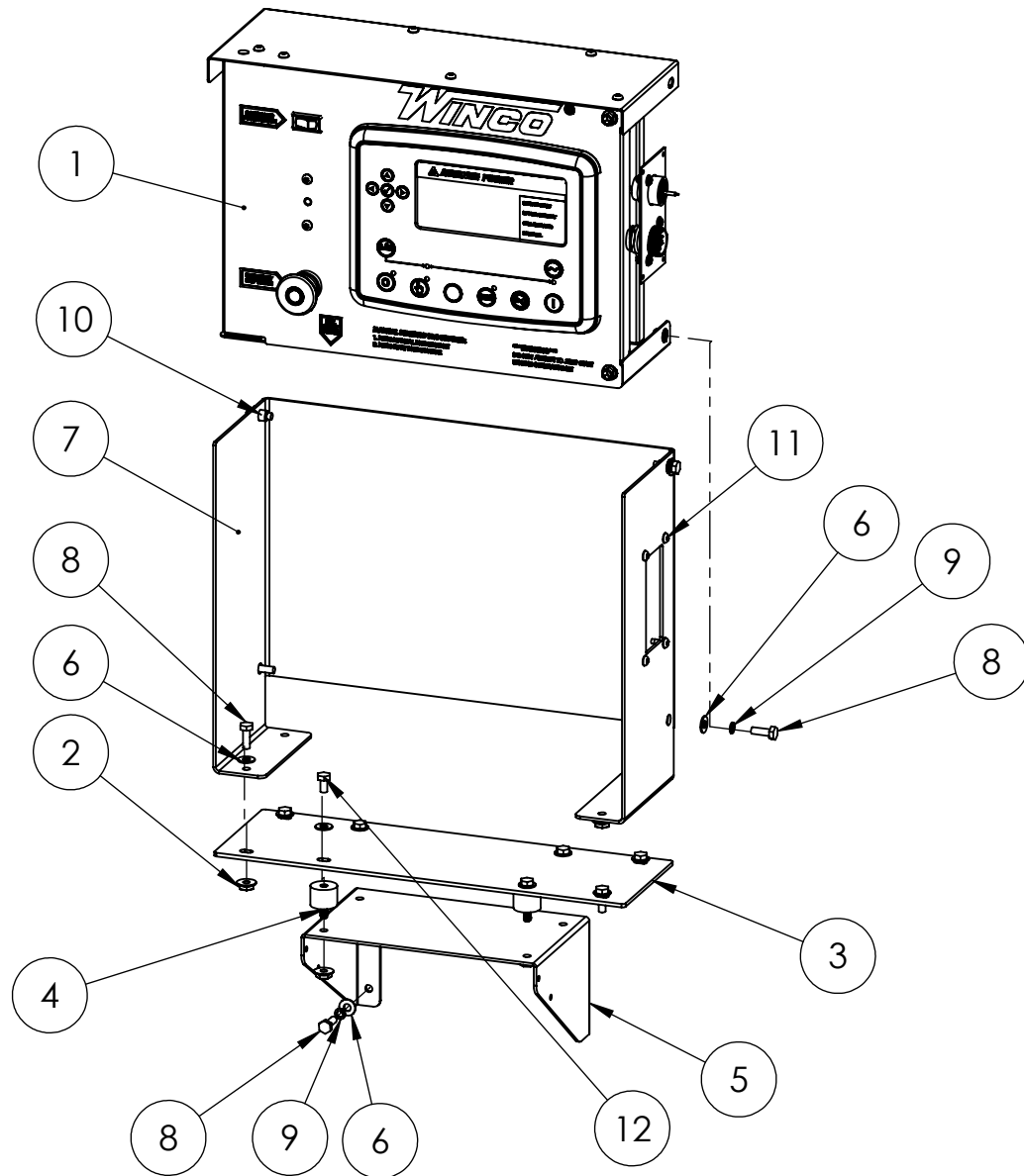
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	72036-022	BATTERY CHARGER, 12VDC, 1.5AMP, GUEST 2701A	1
2	21698-001	TORX PAN HEAD SCREW #10	2

Battery Kit



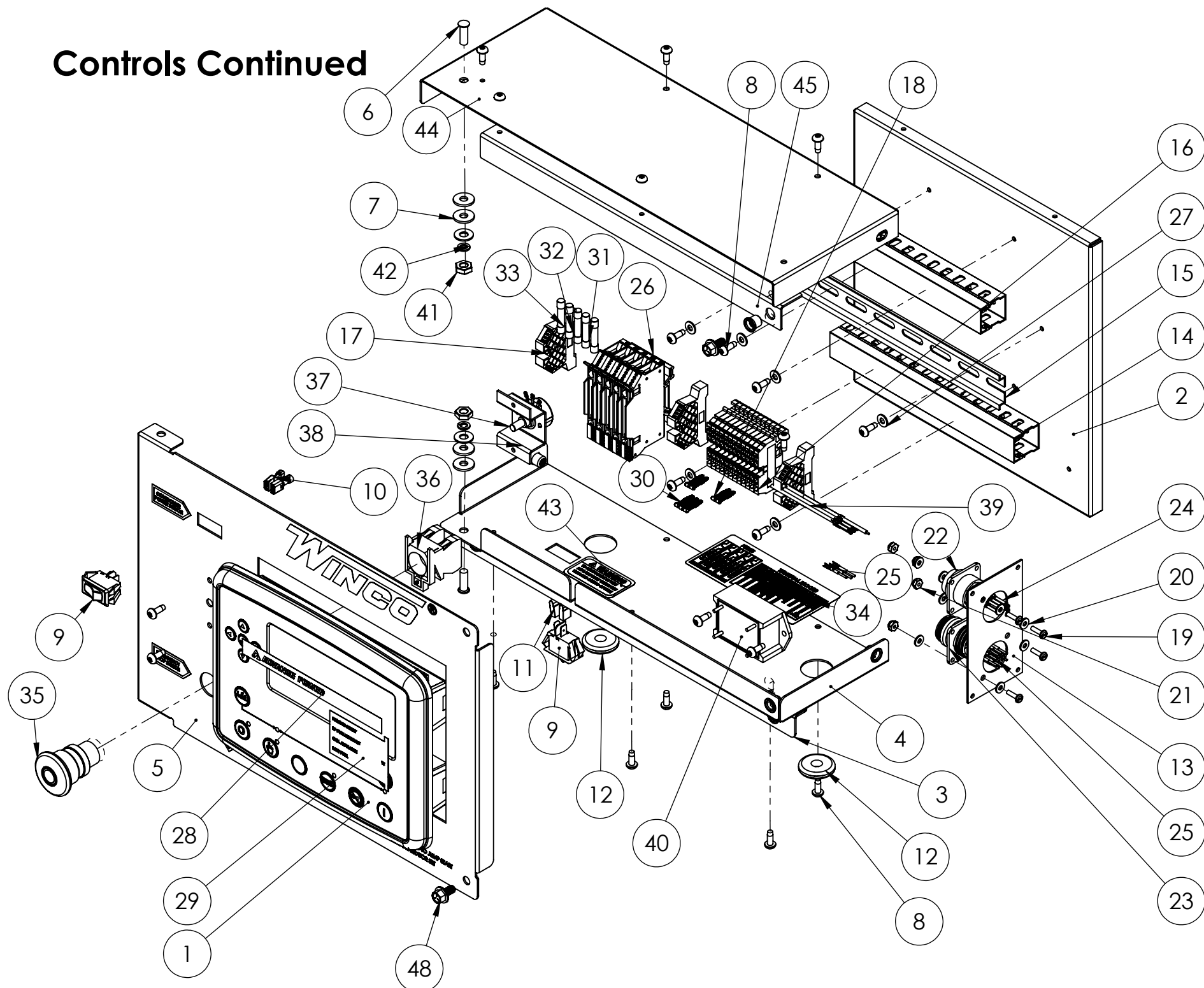
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	805050-001	BATTERY TRAY	1
2	16248-000	.25-20 FLANGE NUT	4
3	94980-001	THREAD STUD .25-20X.625	4
4	16329-001	RUBBER STRAP, BATTERY HOLD DOWN	1
5	53220-050	BATTERY CABLE 49" (NEGATIVE)	1
6	53220-069	BATTERY CABLE 48" (POSITIVE)	1

Controls



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	351891-51	ECU ENGINE CONTROLLER	1
2	16248-000	.25-20 FLANGE NUT	8
3	1000-0542	CONTROLLER VIBE MOUNT	1
4	64062-002	SHOCKMOUNT .25 50 DURO	4
5	1000-0561	CONTROLLER SIDE PEDESTAL	1
6	512-000	.25 WASHER	16
7	1000-0568	CONTROLLER BOX MOUNT	1
8	466-000	.25-20X.75 HHB	12
9	479-000	LOCK WASHER, .25" SPLIT	8
10	352125-1	1/4-20 RIVET NUT 22 GA-10GA	2
11	21698-001	TORX PAN HEAD SCREW #10	4
12	463-000	HEX BOLT .25-20X.50	4

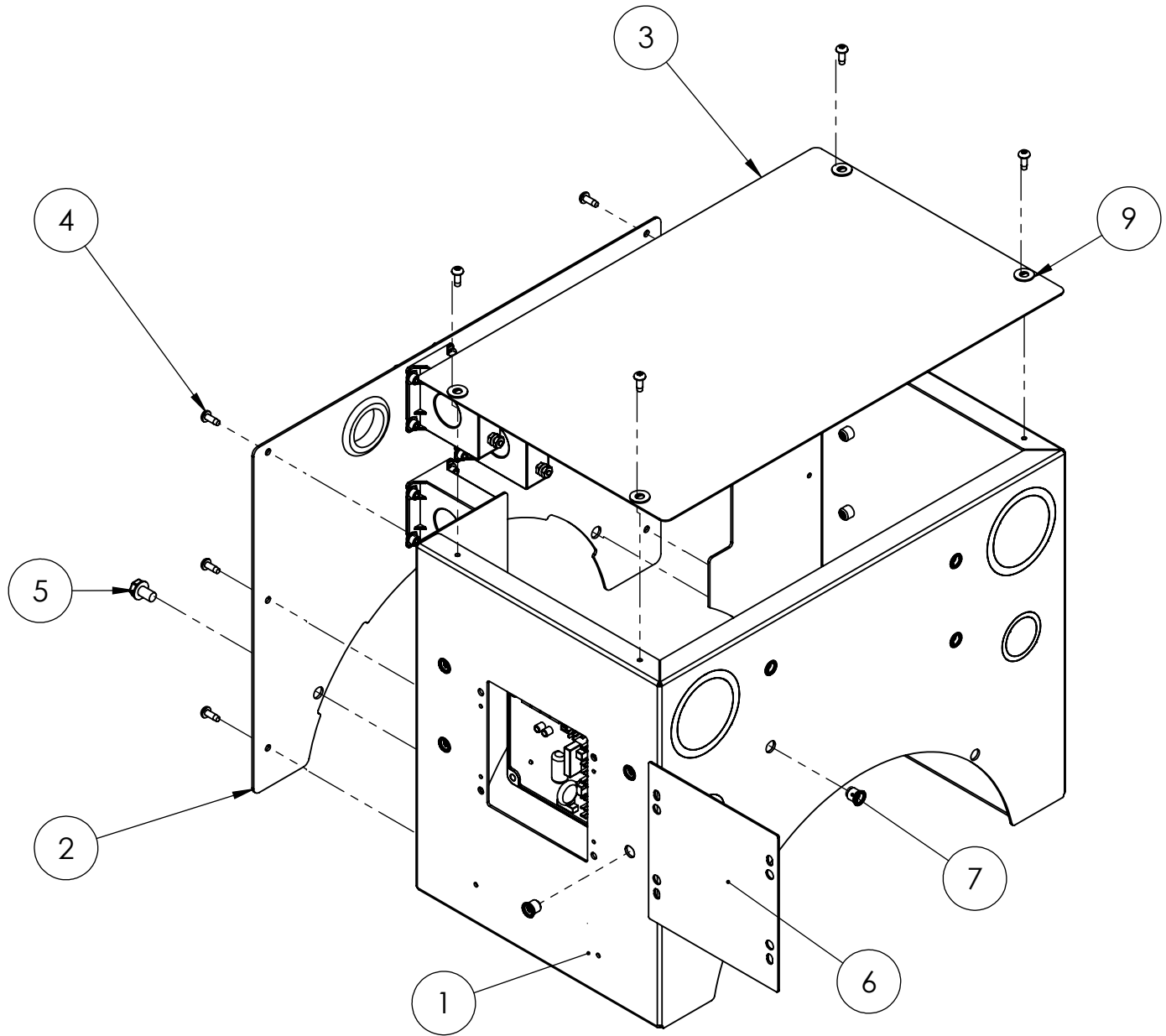
Controls Continued



Controls Continued

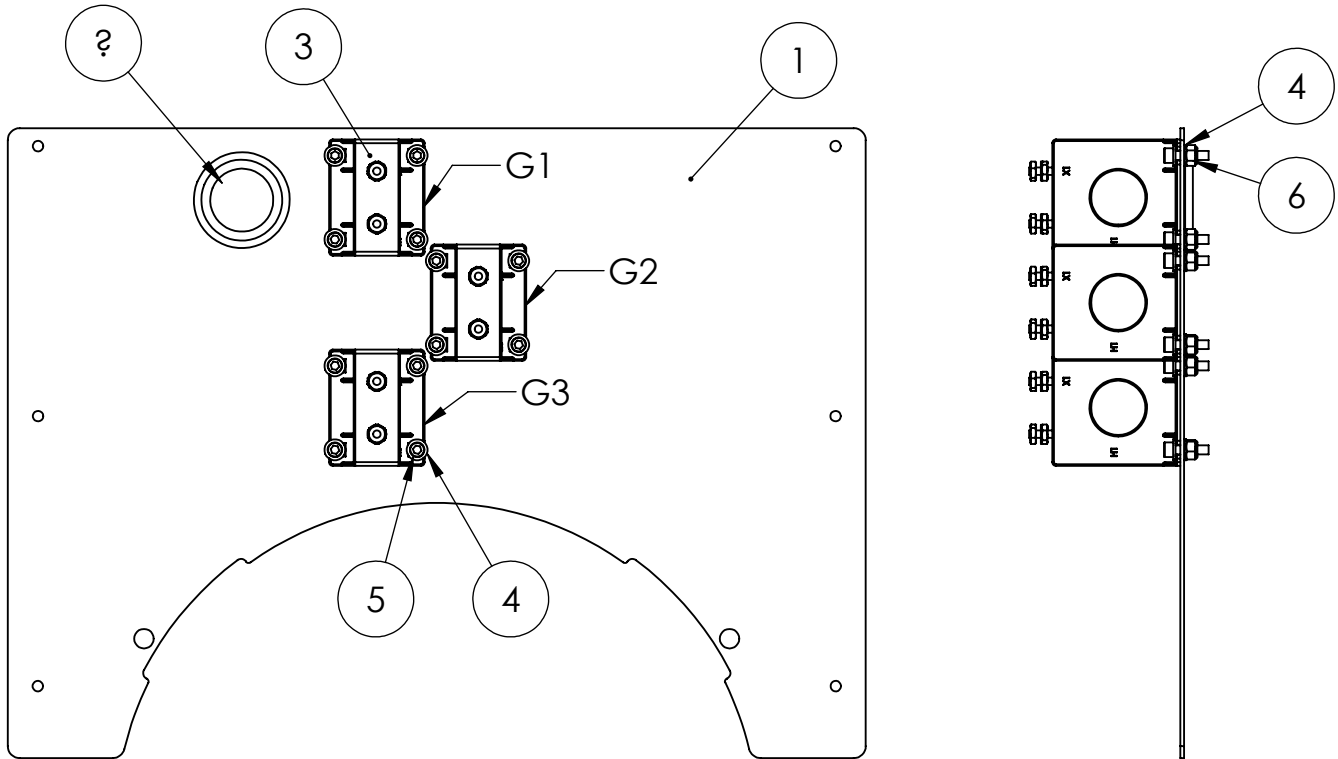
ITEM NO.	PART NUMBER	DESCRIPTION	
1	351112-29	DEEP SEA ELECTRONICS 7310 MKII	1
2	351900-42	DIN RAIL MOUNTING PLATE	1
3	351900-44	COVER SUPPORT BRACKET	1
4	351900-45	DSE8610 CONTROL BOX BOTTOM	1
5	351900-47	DSE 7310 MKII FRONT PANEL	1
6	94980-003	THREAD STUD .25-20 X .750	2
7	96286-001	1/4" NYLON WASHER	4
8	21698-001	TORX PAN HEAD SCREW #10	21
9	64089-000	SPST, ROCKER SWITCH	2
10	48602-003	TERMINAL FEMALE 16-14 AWG .250 TAB	4
11	61898-000	TERMINAL FLAG 16/14AWG .250	2
12	23917-002	GROMMET, .375ID X 1	2
13	351900-51	PLUG MOUNTING PLATE	1
14	352017-001	WIRE DUCT, 8.5IN	2
15	64551-005	DIN RAIL 9.5"	1
16	80623-009	TERMINAL BLOCK, DIN MOUNTED, SPRING CAGE	12
17	80623-010	END BLOCK, DIN MOUNTED	3
18	80623-011	2-POLE TERMINAL BLOCK JUMPER	2
19	24988-000	SCREW 6-32 X 1/2 BIND	4
20	425-000	#6 FLATWASHER	8
21	51802-000	NUT HEX #6-32 NYLOCK	4
22	96925-002	14 PIN CONNECTOR	1
23	96925-006	16 PIN CONNECTOR	1
24	96923-001	TERMINAL, SOCKET, 18-16AWG	10
25	96924-001	TERMINAL, PIN, 18-16AWG	16
26	2489-003	DIN RAIL FUSE HOLDER 1-1/4 X 1/4IN	5
27	598-000	#10 WASHER	6
28	16600-005	DSE MKII ADVANCE POWER LOGO INSERT	1
29	16601-007	DSE 8610 MKII LIGHT LEGEND CARD INSERT	1
30	80623-012	3-POLE TERMINAL BLOCK JUMPER	1
31	95064-008	FUSE AGC 2 AMP	3
32	95064-000	FUSE AGC 3 AMP	1
33	95064-006	FUSE AGC 10 AMP	1
34	351095-16	DECAL, FUSES AND TERMINAL BLOCKS	1
35	99783-001	SWITCH, PUSH-PULL	1
36	99783-002	SWITCH CONTACT	1
37	97517-001	RHEOSTAT	1
38	351900-36	RHEOSTAT MOUNTING BRACKET	1
39	96923-101	PLUG TERMINAL	4
40	96333-001	LOW COOLANT MODULE	1
41	638-000	HEX NUT, .25IN	2
42	479-000	LOCK WASHER, .25" SPLIT	2
43	63941-004	DECAL FUSE WARNING (ENGLISH)	1
44	351900-52	DSE CONTROL BOX TOP	1
45	351900-53	DSE PANEL STOP	1
46	512-000	.25 WASHER	2
47	352125-1	1/4-20 RIVET NUT 22 GA-10GA	1
48	352120-1	1/4-20 X .500 FHCS	2
49	48602-004	TERMINAL MALE 16-14 AWG .250 TAB	1

Terminal Box Assembly



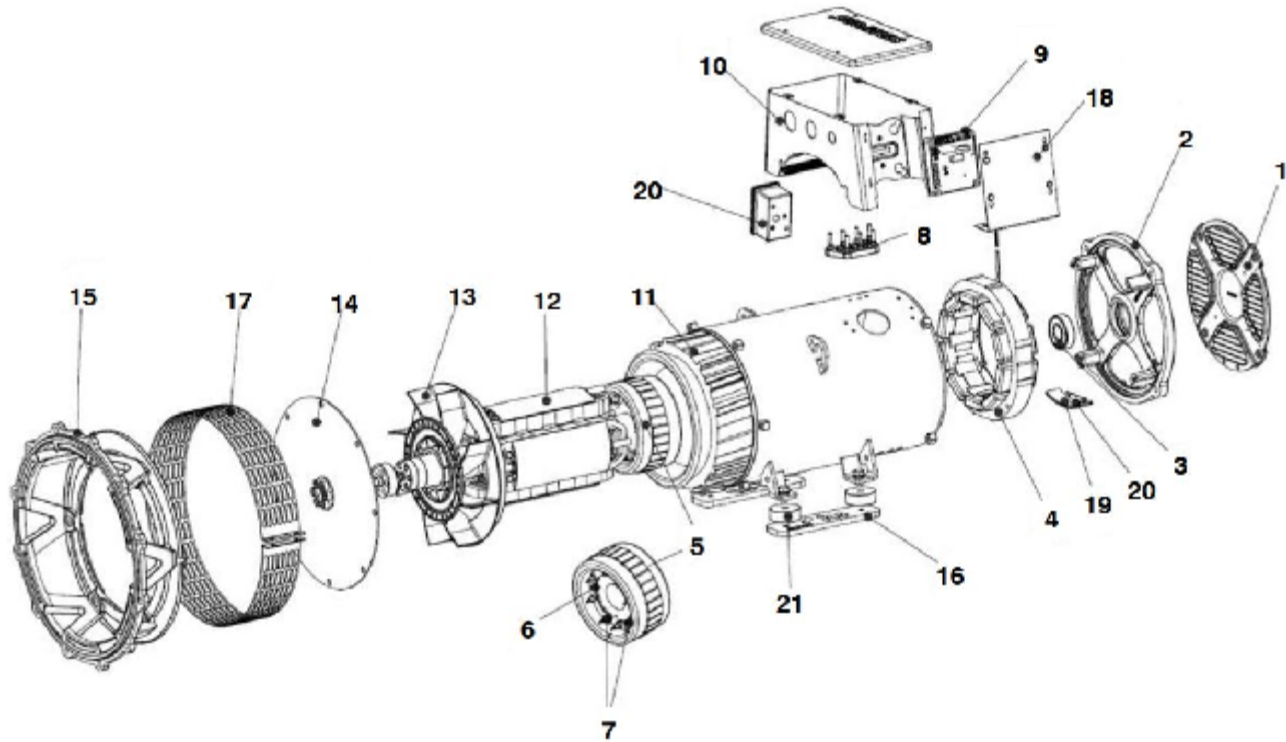
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1000-0566	DE30 TERMINAL BOX	1
2	801025-009	TERMINAL BOX CT PANEL ASSEMBLY	1
3	1000-0237	DE40 TERMINAL BOX COVER	1
4	21698-001	TORX PAN HEAD SCREW #10	10
5	62173-001	SELF TAP.SC. 5/16-18X.5	2
6	1000-0304	DE40 AVR COVER	1
7	352125-1	1/4-20 RIVET NUT 22 GA-10GA	12
8	93542-018	LEAD WIRE ASSY	1
9	512-000	.25 WASHER	4

Terminal Box CT Panel Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	801025-009	TERMINAL BOX CT PANEL	1
2	23917-005	GROMMET 1-5/16" ID	1
3	80126-003	CT 150:5 PANEL MOUNT	3
4	598-000	#10 WASHER	24
5	64872-000	SOC.HCS 10-24 X 3/4 BLK	12
6	5315-000	NUT HEX 10-24 NYLON	12
7	99347-029	AC HARNESS FOR DE SERES GENERATORS	1

Generator

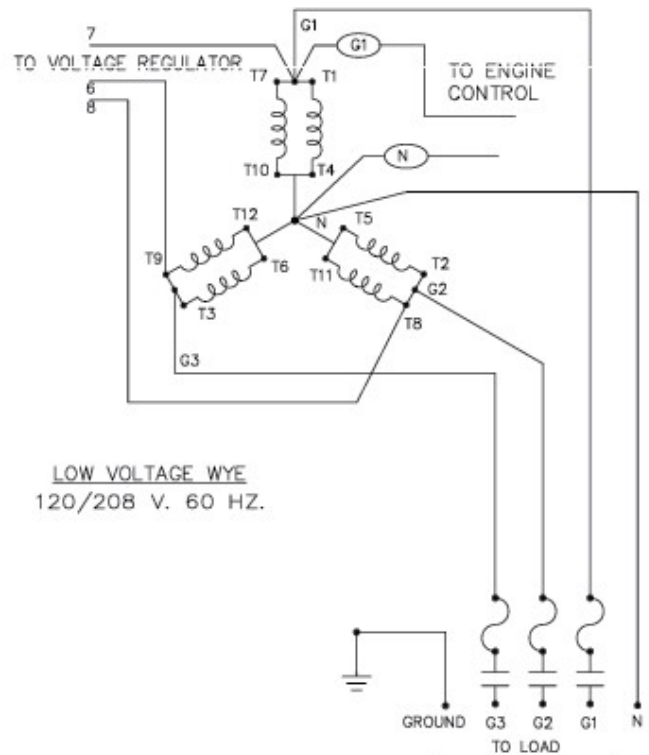
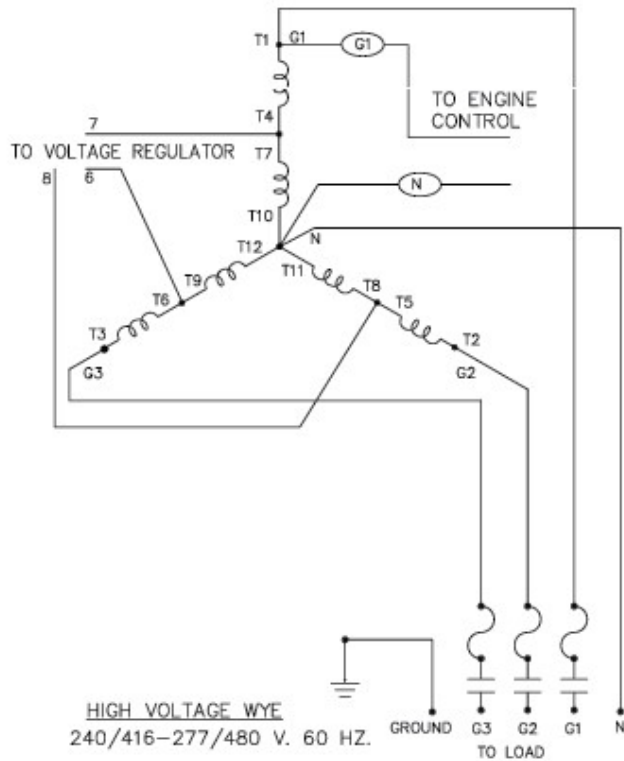


ITEM	DESCRIPTION	PPG28	QTY
-	COMPLETE GENERATOR END	350023-1	1
-	STAMFORD MODEL	S1L2-K1	-
-	WINDING	711	-
9	AVR AS540	8-101	1
--	RECTIFIER SERVICE KIT	8-818	1
For additional parts support contact WINCO service.			

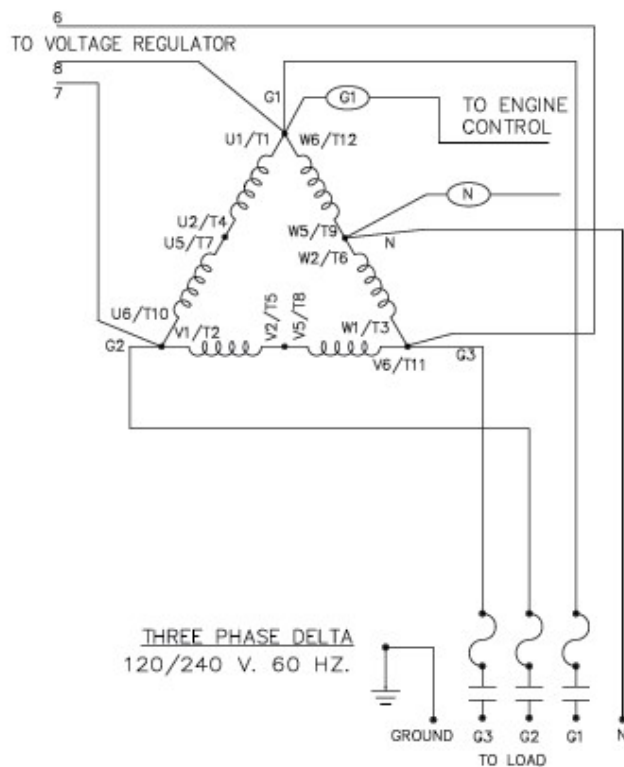
EXPECTED RESISTANCE (Ω) @ 22C	
MODEL	S1L2-K1 711
STATOR WINDING (PER PHASE SERIES CONNECTED)	0.177
ROTOR WINDING	0.965
EXCITER STATOR	15.5
EXCITER ROTOR (PER PHASE)	0.112
POSSITIVE SEQUENCE (R1)	0.221
NEGATIVE SEQUENCE (R2)	0.255
ZERO SEQUENCE (R0)	0.221
AUX WINDING	3.91

Generator Connections

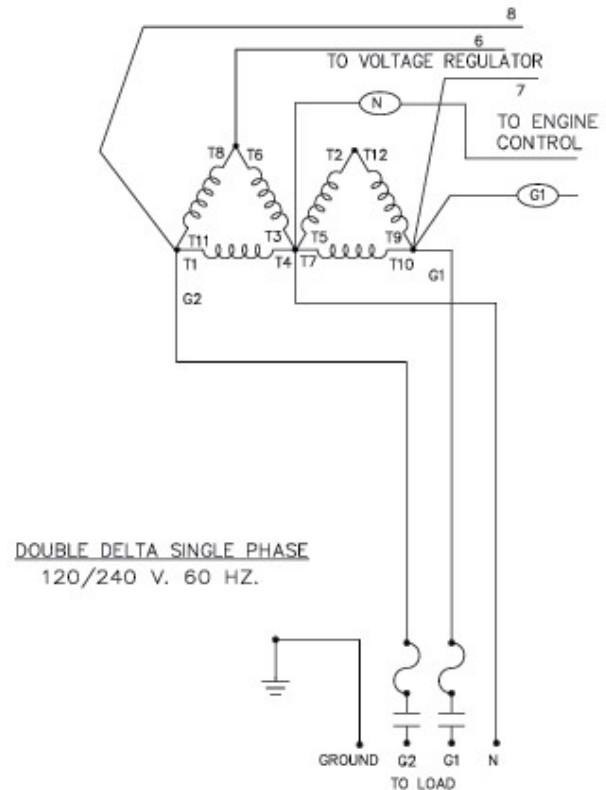
THREE PHASE AC WIRE HIGH AND LOW WYE



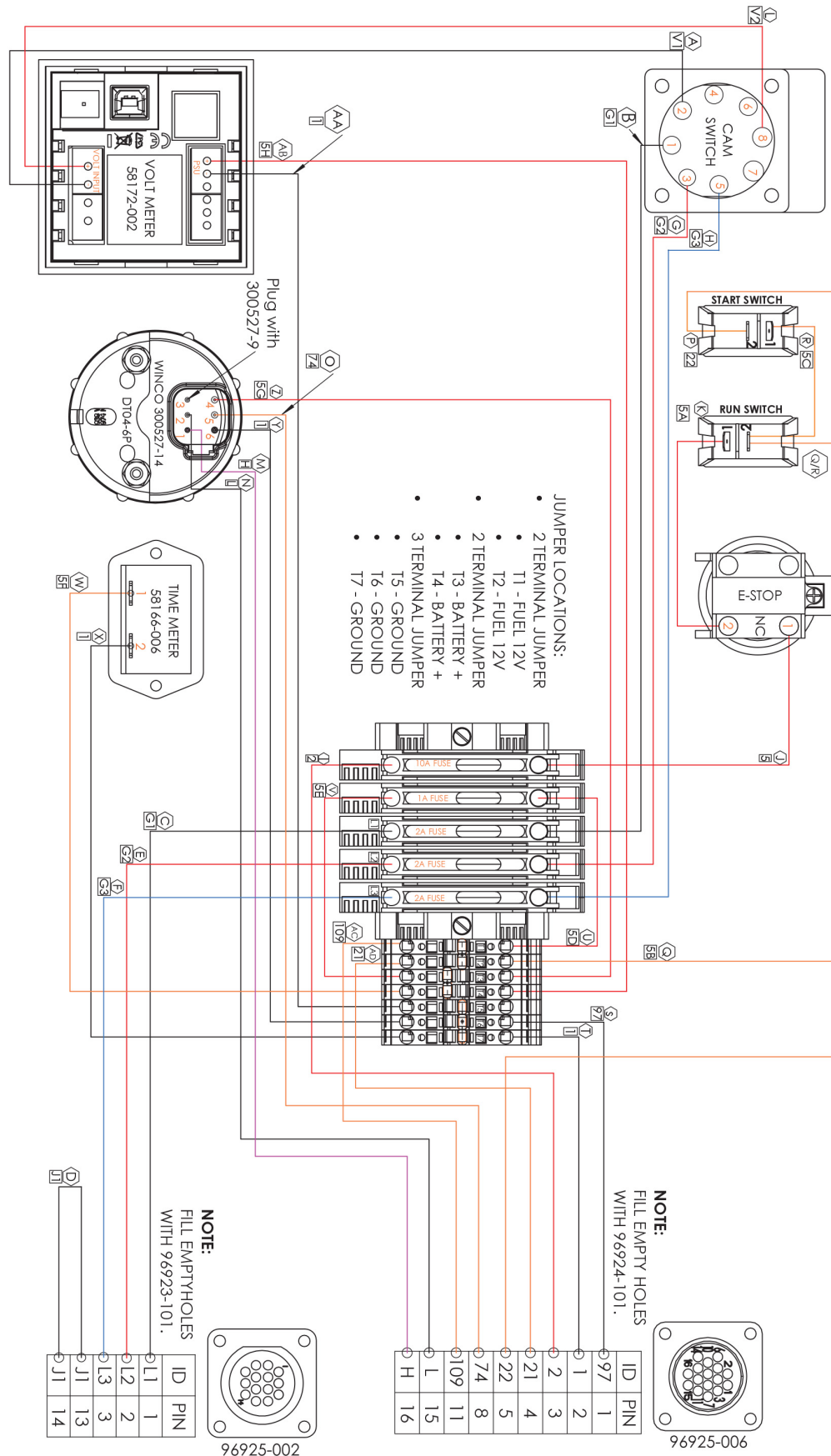
THREE PHASE AC WIRING-DELTA



SINGLE PHASE 311 WINDING

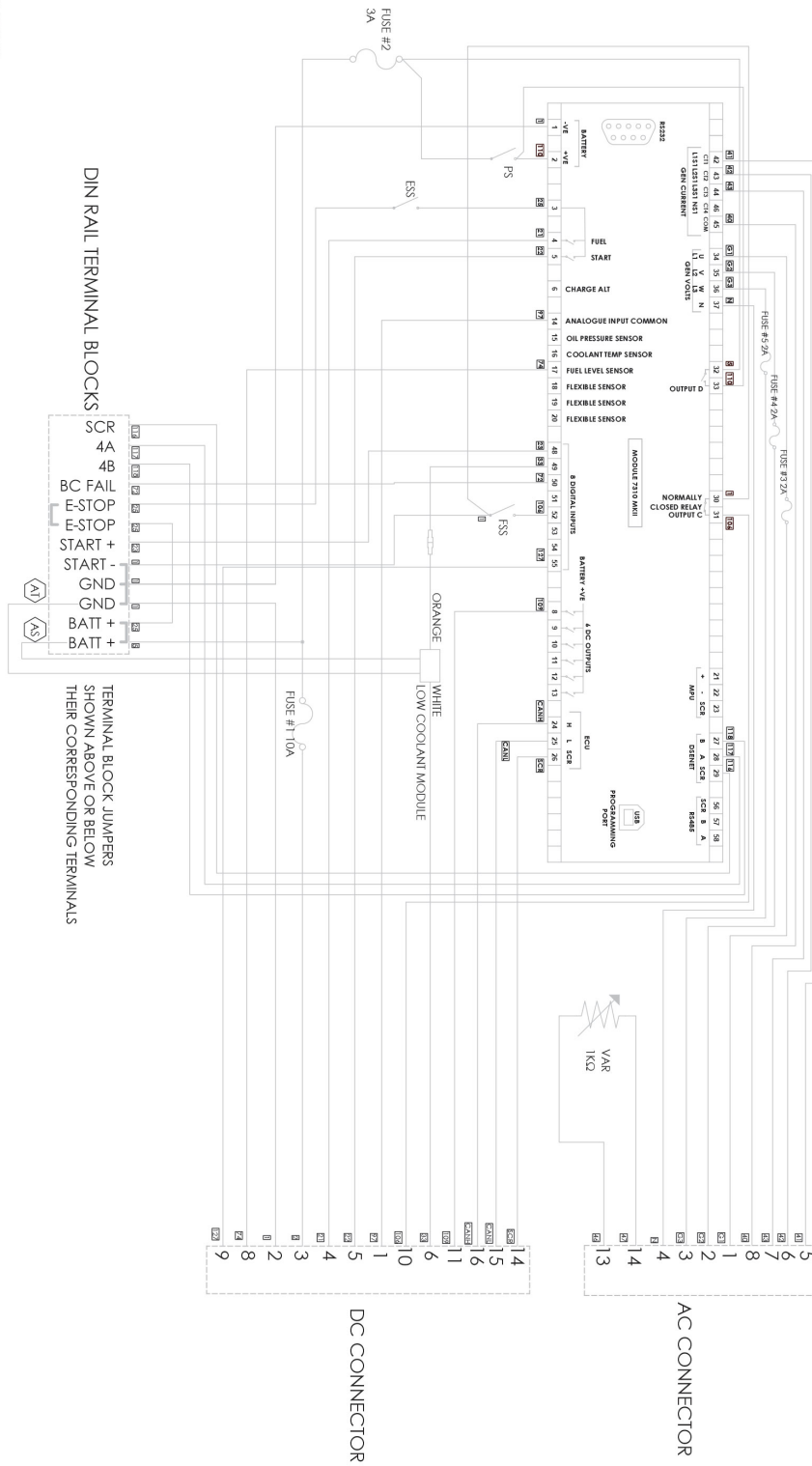


Manual Generator Control Schematic



DSE7310 Generator Control Schematic

LEGEND:
 PS: POWER SWITCH
 ESS: EMERGENCY STOP SWITCH
 FSS: FUEL SELECTION SWITCH
 VAR: VOLTAGE ADJUSTMENT RHEOSTAT



Engine Wiring Schematic

