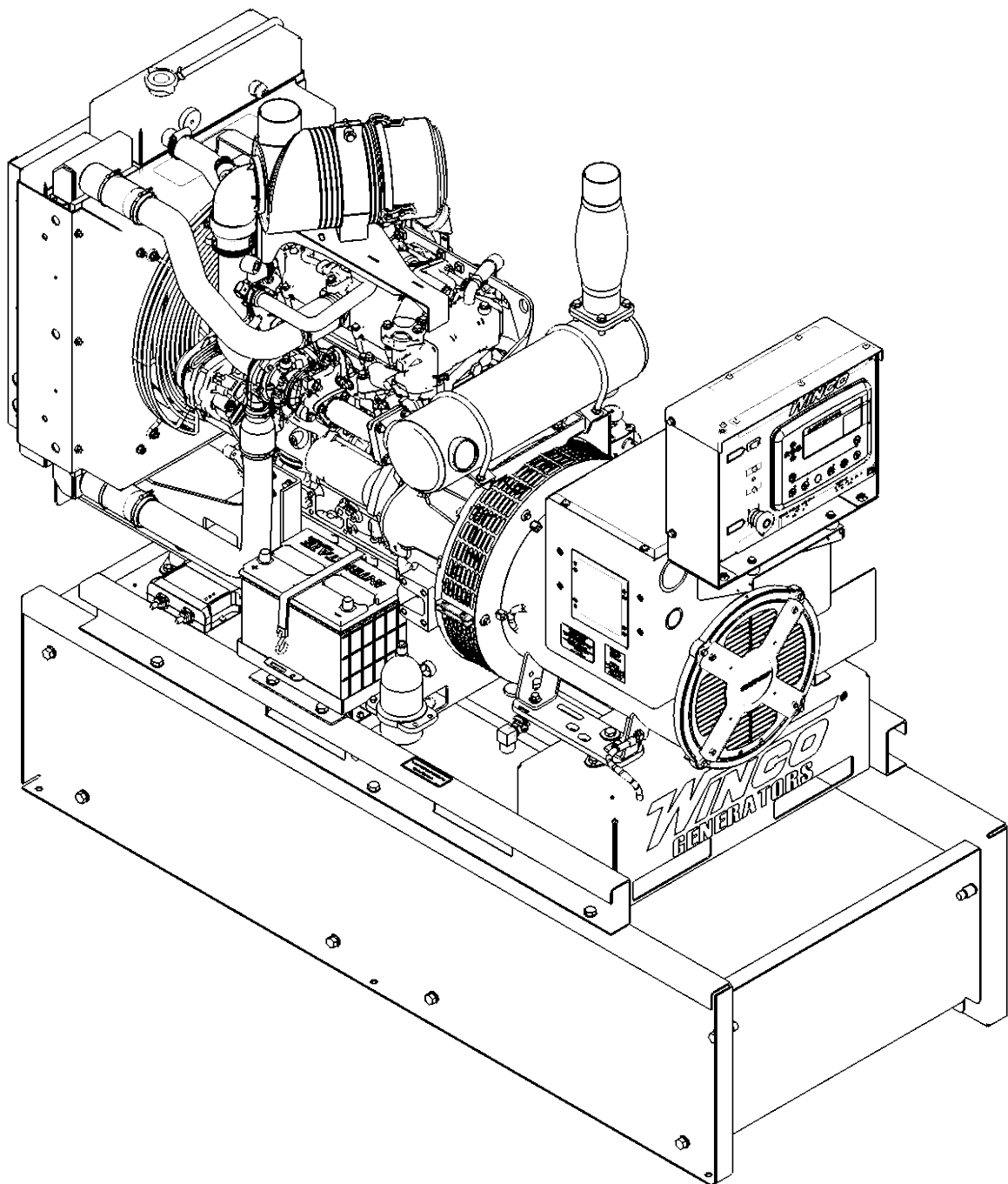


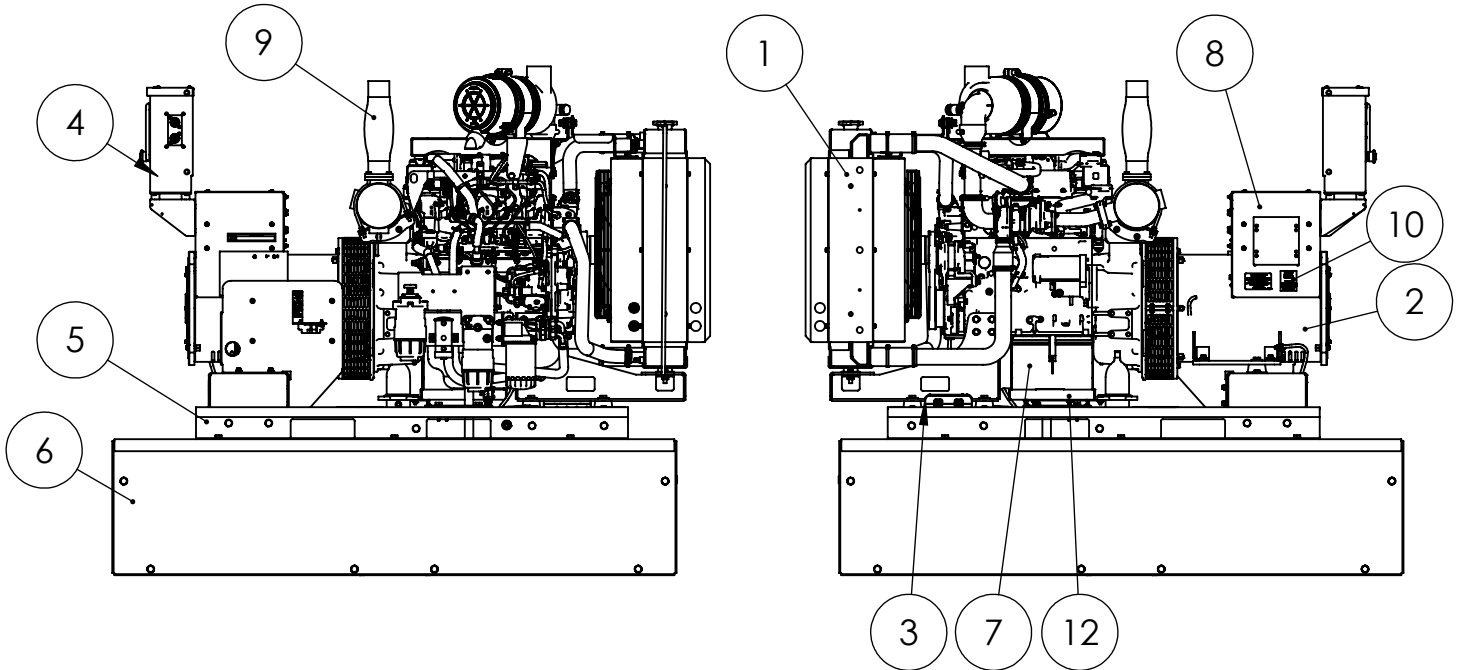


# DE40I4-XX/4 Parts List



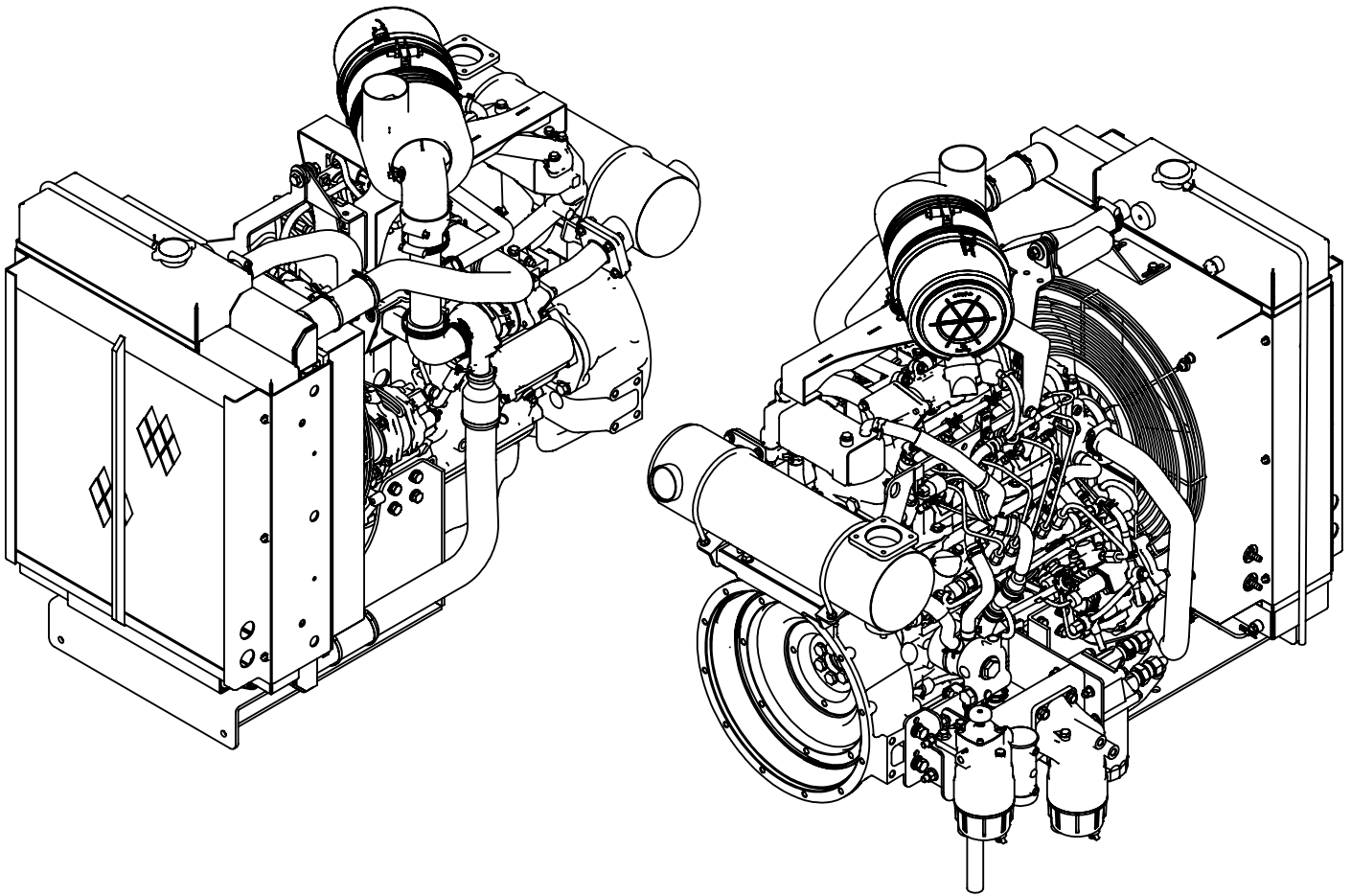
**WINCO Service**  
Phone: 507-357-6831  
Email: [service@wincogen.com](mailto:service@wincogen.com)  
[www.wincogen.com](http://www.wincogen.com)

# General Assembly



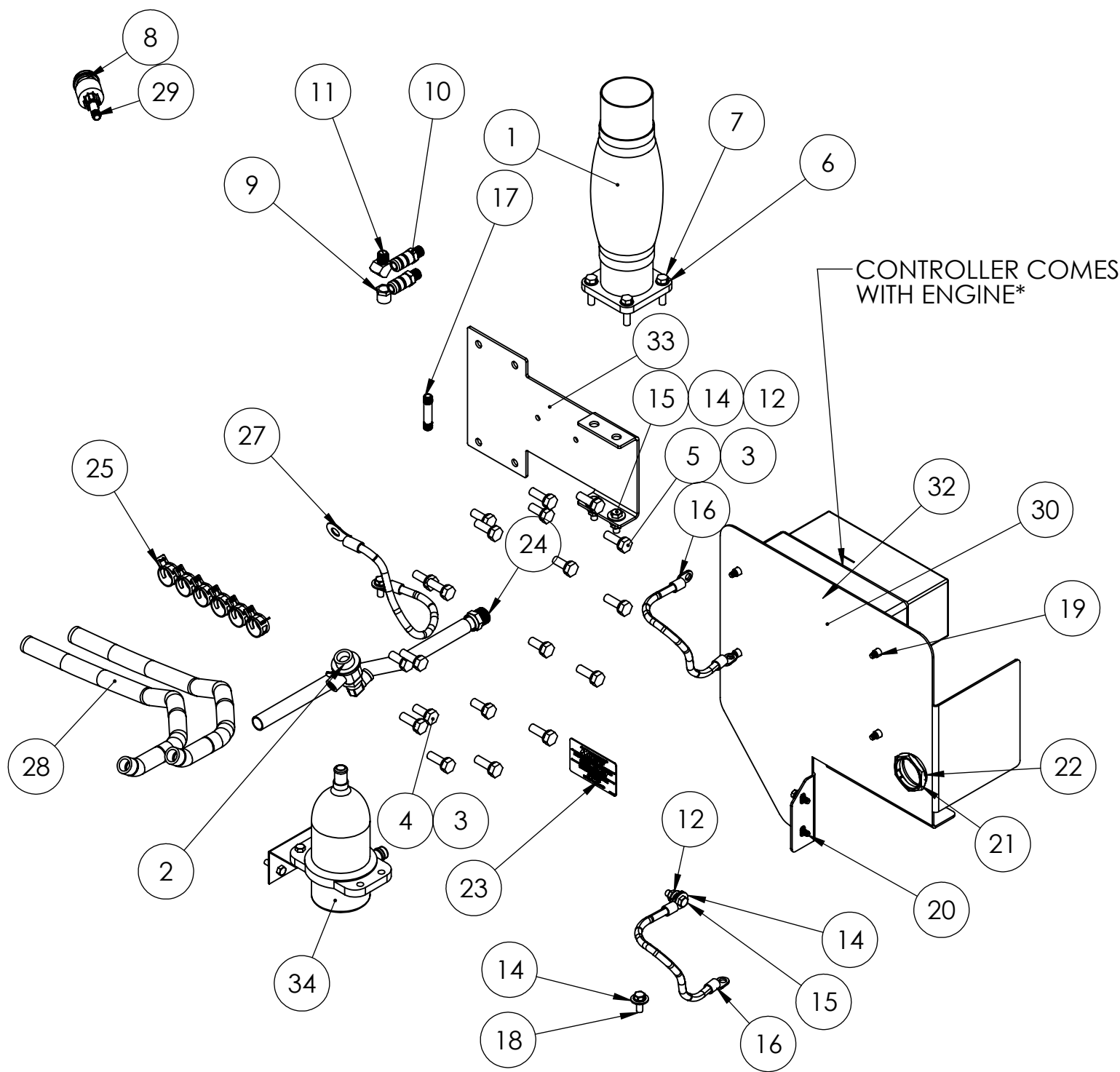
| ITEM NO. | PART NUMBER | DESCRIPTION                                   | QTY. |
|----------|-------------|-----------------------------------------------|------|
| 1        | 350001-107  | ENGINE, ISUZU, MODEL 4LE2X, TIER IV FINAL     | 1    |
| 2        | 350023-19   | GEN END, S1L2-R1, SAE#4/10", WDG#711, 12-LEAD | 1    |
| 3        | 352020-26   | BATTERY CHARGER KIT, 12V, 1.5 AMP             | 1    |
| 4        | 1000-0541   | CONTROLLER MOUNT ASSEMBLY                     | 1    |
| 5        | 1000-0959   | DE40 BASE ASSEMBLY                            | 1    |
| 6        | 1000-0554   | DE FUEL TANK ASSEMBLY                         | 1    |
| 7        | 80765-010   | BATTERY 12V 650CCA GROUP 24                   | 1    |
| 8        | 1000-0567   | DE30 TERMINAL BOX ASSEMBLY                    | 1    |
| 9        | 1000-0955   | HARDWARE KIT DE40 MKII                        | 1    |
| 10       | 1000-0951   | DECAL AND NAMEPLATE INSTALLATION DE23, DE40   | 1    |
| 11       | 811023-001  | DE23, DSE DISPLAY TO ECU WIRING HARNESS       | 1    |
| 12       | 805050-004  | BATTERY TRAY KIT                              | 1    |
| 13       | OPM-147     | OPERATORS MANUAL DE40                         | 1    |

# Engine



| ITEM NO.                                                                                   | PART NUMBER | DESCRIPTION                       | QTY. |
|--------------------------------------------------------------------------------------------|-------------|-----------------------------------|------|
| 1                                                                                          | 7-120       | AIR FILTER                        | 1    |
| 2                                                                                          | 7-105       | OIL FILTER                        | 1    |
| 3                                                                                          | 7-112       | SEDIMENT BOWL FUEL FILTER         | 1    |
| 4                                                                                          | 7-113       | SEDIMENT BOWL FUEL FILTER         | 1    |
| ALL ITEMS LISTED IN THE ABOVE TABLE ARE INCLUDED WITH A 16200-035 MAINTENANCE KIT PURCHASE |             |                                   |      |
| 5                                                                                          | 7-121       | STARTER MOTOR                     | 1    |
| 6                                                                                          | 7-122       | ALTERNATOR                        | 1    |
| 7                                                                                          | 7-115       | FAN BELT                          | 1    |
| 8                                                                                          | 7-114       | UPPER AND LOWER RADIATOR HOSE KIT | 1    |
| Contact Winco service for full engine parts support.                                       |             |                                   |      |

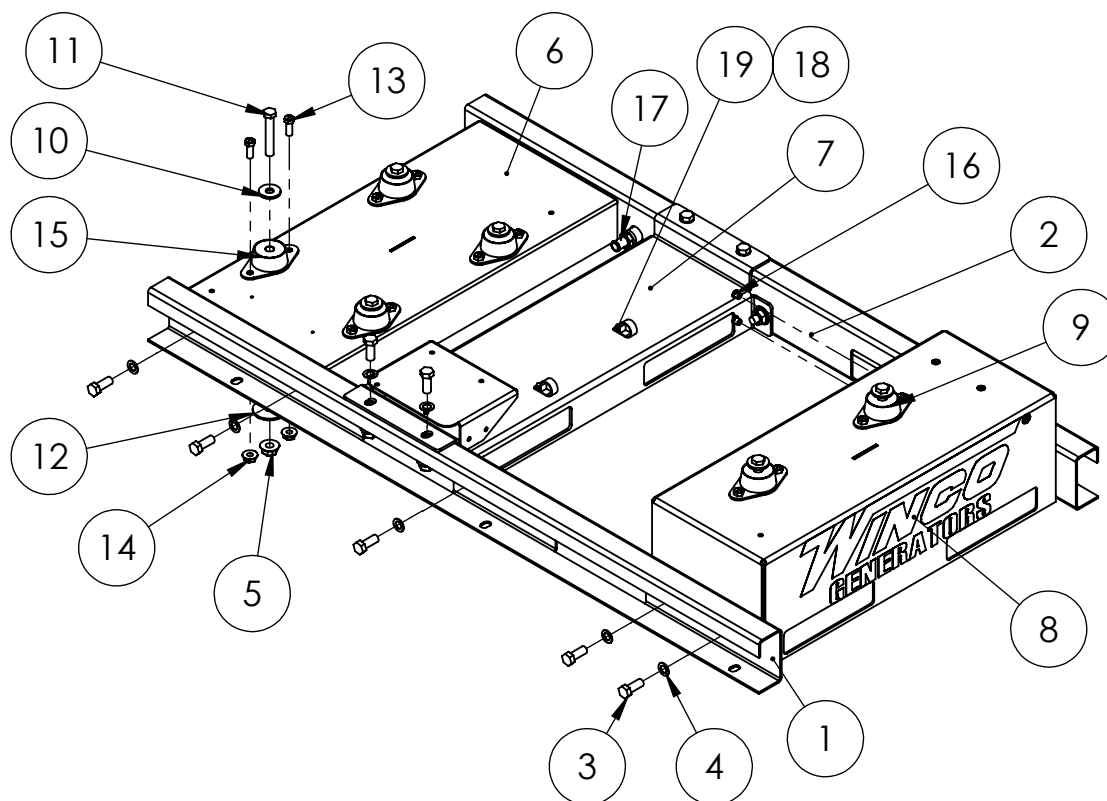
# Hardware Kit



## Hardware Kit continued

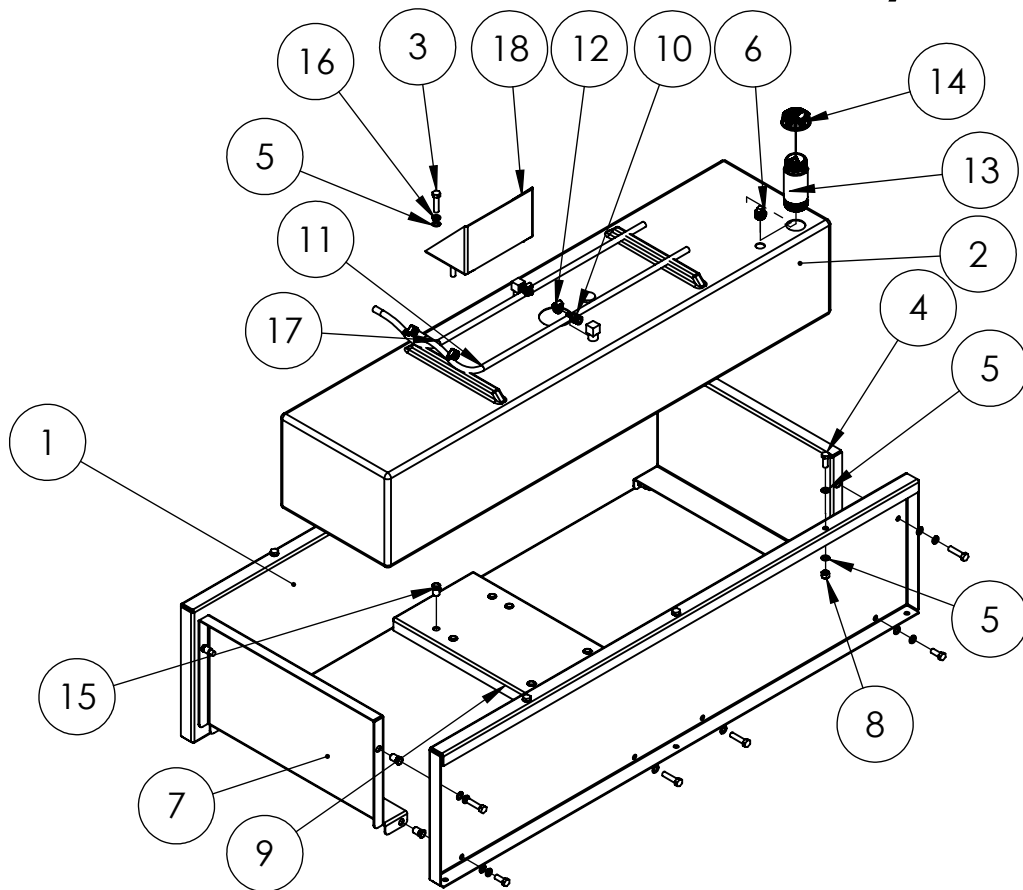
| ITEM NO. | PART NUMBER     | DESCRIPTION                                | QTY. |
|----------|-----------------|--------------------------------------------|------|
| 1        | 801025-013      | EXHAUST, 2.5IN FLEX WITH FLANGE            | 1    |
| 2        | 98906-021       | OIL DRAIN VALVE M24-2.0 X5/8" 90           | 1    |
| 3        | 97436-010       | M10 LOCKWASHER                             | 20   |
| 4        | 96003-025       | M10-1.5X25MM                               | 8    |
| 5        | 96003-030       | M10-1.5X30MMM                              | 12   |
| 6        | 65005-001       | 5/16 WASHER SS                             | 4    |
| 7        | 64908-001       | HHCS M8-1.25X35MM 8.8GR ZINC               | 4    |
| 8        | 16043-002       | VIRGIS AIR RESTRICTION INDICATOR           | 1    |
| 9        | 56348-000       | FITTING, REDUCER, 3/8 X 1/4                | 1    |
| 10       | 350341          | HOSE FITTING 1/4 NPT (M) X 5/8 HOSE BARB   | 2    |
| 11       | 92587-000       | ELBOW 1/4NPT 45 DEGREE                     | 1    |
| 12       | 16249-000       | .3125-18 FLANGE                            | 3    |
| 13       | 20039-000       | LOCKWASHER 1/2 EXTERNAL TOOTH              | 1    |
| 14       | 526-000         | 5/16 FLAT WASHER                           | 5    |
| 15       | 1116-000        | HHCS .3125-18X1                            | 3    |
| 16       | 93542-018       | LEAD WIRE ASSY                             | 2    |
| 17       | 92386-003       | 1/8 NPT X 2' NIPPLE                        | 1    |
| 18       | 62173-001       | SELF TAP.SC. 5/16-18X.75                   | 2    |
| 19       | 352125-1        | 1/4-20 RIVET NUT 22 GA-10GA                | 4    |
| 20       | 352120-2        | 1/4-20 X .75 FHCS                          | 8    |
| 21       | 300527-7        | DEUTSCH HDP20 1.875 JAM NUT                | 1    |
| 22       | 300527-6        | DEUTSCH HDP20 LOCK WASHER                  | 1    |
| 23       | 16200-523       | MAINTENANCE KIT DECAL                      | 1    |
| 24       | 94319-009       | HOSE FIT. .500-14NPT X .625 HOSE BARB      | 1    |
| 25       | 81019-000       | HOSE CLAMP CONSTANT TENSION 24MM, 5/8 HOSE | 6    |
| 26       | 93689-001       | HOSE 0.625IN ID RUBBER, 16 IN              | 1    |
| 27       | 93542-013       | LEAD WIRE ASSY                             | 1    |
| 28       | 93689-001       | HOSE 43"                                   | 2    |
| 29       | 92386-002       | PIPE NIPPLE 1/8 NPT X 1.5"                 | 1    |
| 30       | 1000-0949       | ISUZU ECU MOUNT MKII                       | 1    |
| 31       | 2000-0044       | SHIP LOOSE FOAM KIT FOR FIELD INSTALLATION | 1    |
| 32       | 2000-0015       | RELAY RELOCATION BRACKET ASM (DE23, DE40)  | 1    |
| 33       | 1000-0227       | FUEL FILTER MOUNT                          | 1    |
| 34       | 80781-018       | BLOCK HEATER WITH THERMOSTAT ASSY          | 1    |
| 35       | ISUZU ECU MODEL | ISUZU ECU                                  | 1    |

# Base Frame Assembly



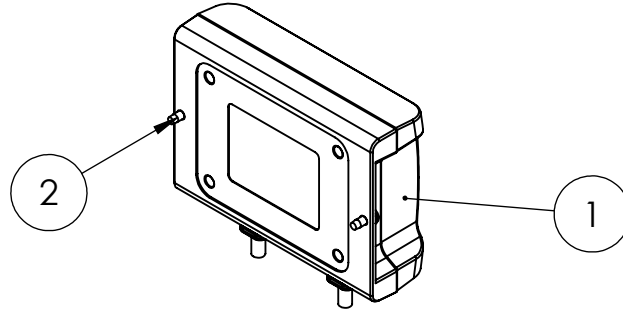
| ITEM NO. | PART NUMBER | DESCRIPTION                           | QTY. |
|----------|-------------|---------------------------------------|------|
| 1        | 1000-0934   | DE23 LEFT SIDE BASE RAIL              | 1    |
| 2        | 1000-0936   | DE23 RIGHT SIDE BASE RAIL WELDMENT    | 1    |
| 3        | 1516-000    | .5-13X1.25 HHB                        | 14   |
| 4        | 21867-001   | FLAT WASHER .51 X .88 X .05           | 14   |
| 5        | 16248-001   | .5-13 FLANGE NUT                      | 20   |
| 6        | 1000-0944   | DE23 ENGINE CROSSMEMBER WELDMENT      | 1    |
| 7        | 1000-0954   | DE40 FORWARD FORK POCKET WELDMENT     | 1    |
| 8        | 1000-0958   | DE40 GEN CROSSMEMBER WELDMENT         | 1    |
| 9        | 98807-005   | SHOCKMOUNT BLUE/GOLD                  | 2    |
| 10       | 21867-002   | WASHER .5 X 1.375 X .146              | 6    |
| 11       | 57580-007   | HHCS .5-13 X 3                        | 6    |
| 12       | 98806-002   | WASHER SNUBBING 2.13 X .532 X .134THK | 6    |
| 13       | 91658-001   | HHCS 3/8-16X1                         | 12   |
| 14       | 16250-000   | .375-16 FLANGE NUT                    | 12   |
| 15       | 98807-003   | SHOCKMOUNT RED/GOLD                   | 4    |
| 16       | 352125-1    | 1/4-20 RIVET NUT 22 GA-10GA           | 4    |
| 17       | 92388-001   | HOSE FIT 1/2 NPT X 5/8 HOSE           | 1    |
| 18       | 97391-003   | TUBE CLAMP/CUSH.WIRE 15/16            | 2    |
| 19       | 65004-000   | .25-20X.5 SELF TAP SS                 | 2    |

# Base and Fuel Tank Assembly



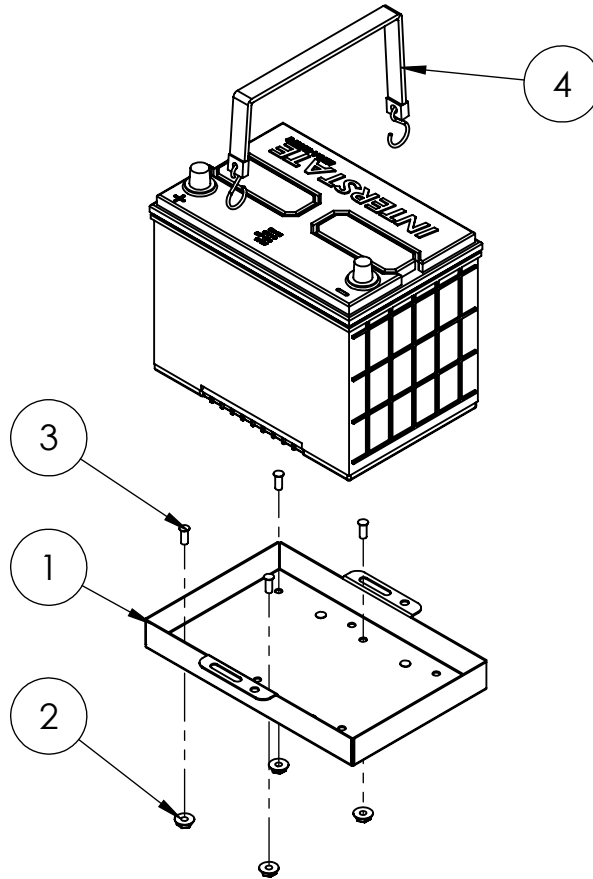
| ITEM NO. | PART NUMBER | DESCRIPTION                                                                    | QTY. |
|----------|-------------|--------------------------------------------------------------------------------|------|
| 1        | 1000-0549   | DE FUEL TANK SIDE RAIL                                                         | 2    |
| 2        | 350041-142  | FUEL TANK, 47 USEABLE GALLON, PLASTIC<br>FUEL TANK WITH DIP TUBES              | 1    |
| 3        | 57580-000   | .5-13X2.0 HHB                                                                  | 14   |
| 4        | 1516-000    | .5-13X1.25 HHB                                                                 | 9    |
| 5        | 21867-001   | FLAT WASHER .51 X .88 X .05                                                    | 30   |
| 6        | 93564-000   | PIPE PLUG 3/4 SQUARE HEAD                                                      | 1    |
| 7        | 1000-0548   | DE FUEL TANK END CAP                                                           | 2    |
| 8        | 92242-000   | NUT HEX .500-13 NYLOCK                                                         | 7    |
| 9        | 1000-0550   | DE CENTER FUEL TANK CROSSMEMBER                                                | 1    |
| 10       | 94319-008   | HOSE FIT. .500-14NPT X .375 HOSE BARB                                          | 2    |
| 11       | 55505-028   | HOSE 3/8 ID X 55" LONG                                                         | 1    |
| 12       | 81018-006   | HOSE CLAMP 7/8 TO 3/8 X 1/2 WIDE                                               | 4    |
| 13       | 15482-010   | FUEL NECK ADAPTER 2.25" FILL                                                   | 1    |
| 14       | 15482-011   | FUEL CAP, 2.25 INCH, 2-WAY VENTED,<br>TETHERED, DIESEL ONLY, GREEN, 8IN TETHER | 1    |
| 15       | 352125-3    | RIVET NUT 0.5-13, .063 - .200 (SHEET METAL<br>HOLES SIZE .6875)                | 20   |
| 16       | 636-000     | LOCKWASHER 1/2 SPLIT                                                           | 16   |
| 17       | 55505-024   | HOSE 3/8 ID X 50" LONG                                                         | 1    |
| 18       | 1000-0551   | DE CENTER FUEL TANK STOP                                                       | 1    |

## 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    |

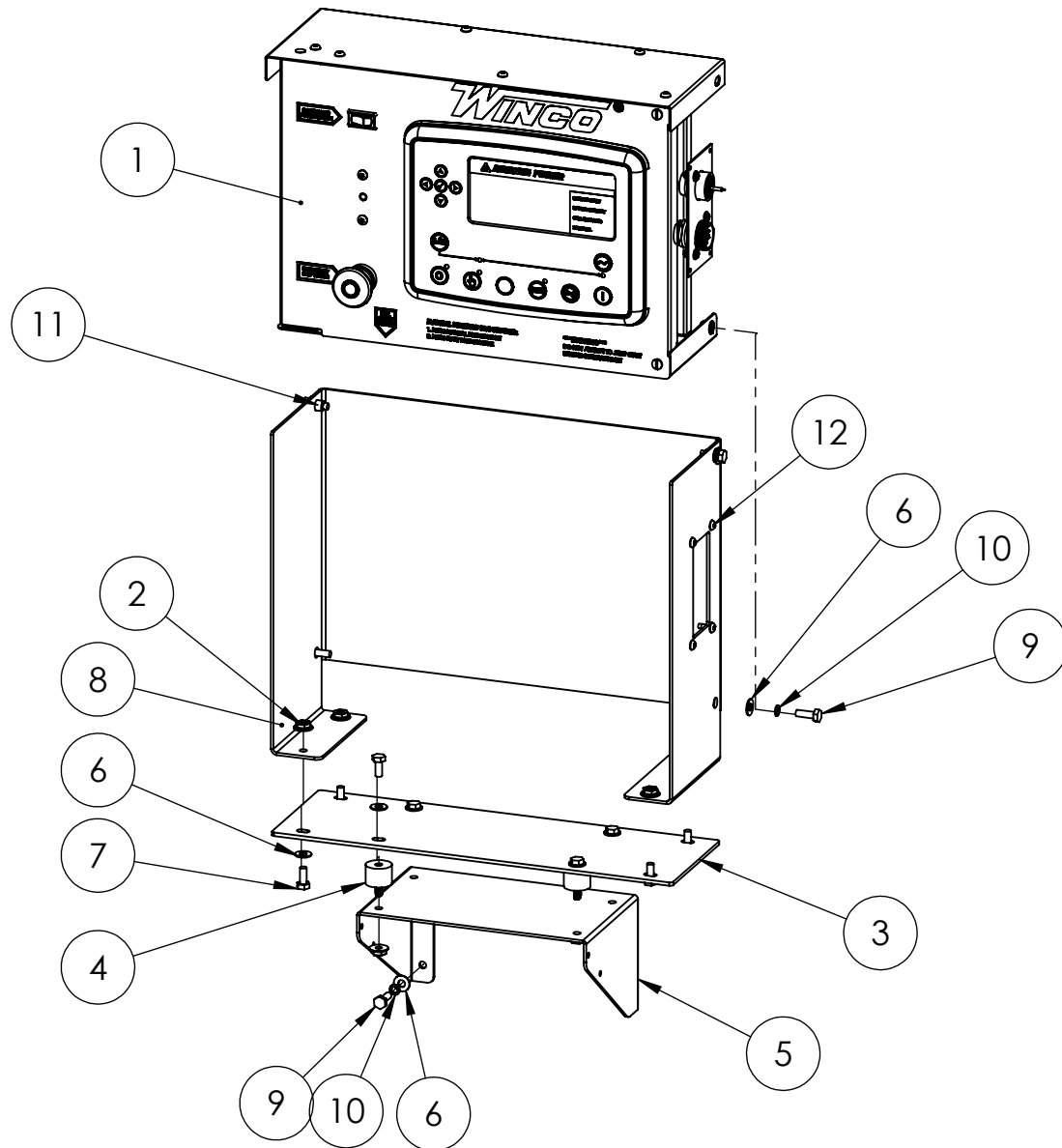
## Battery Kit



| ITEM NO. | PART NUMBER | DESCRIPTION                        | QTY. |
|----------|-------------|------------------------------------|------|
| 1        | 805050-001  | BATTERY TRAY                       | 1    |
| 2        | 16248-000   | .25-20 FLANGE NUT                  | 8    |
| 3        | 94980-001   | THREAD STUD .25-20X.625            | 8    |
| 4        | 16329-001   | RUBBER STRAP, BATTERY HOLD DOWN    | 1    |
| 5        | 53220-038   | BATTERY CABLE ASSY                 | 1    |
| 6        | 53220-079   | BATTERY CABLE POS ASSY 1GA 18 INCH | 1    |

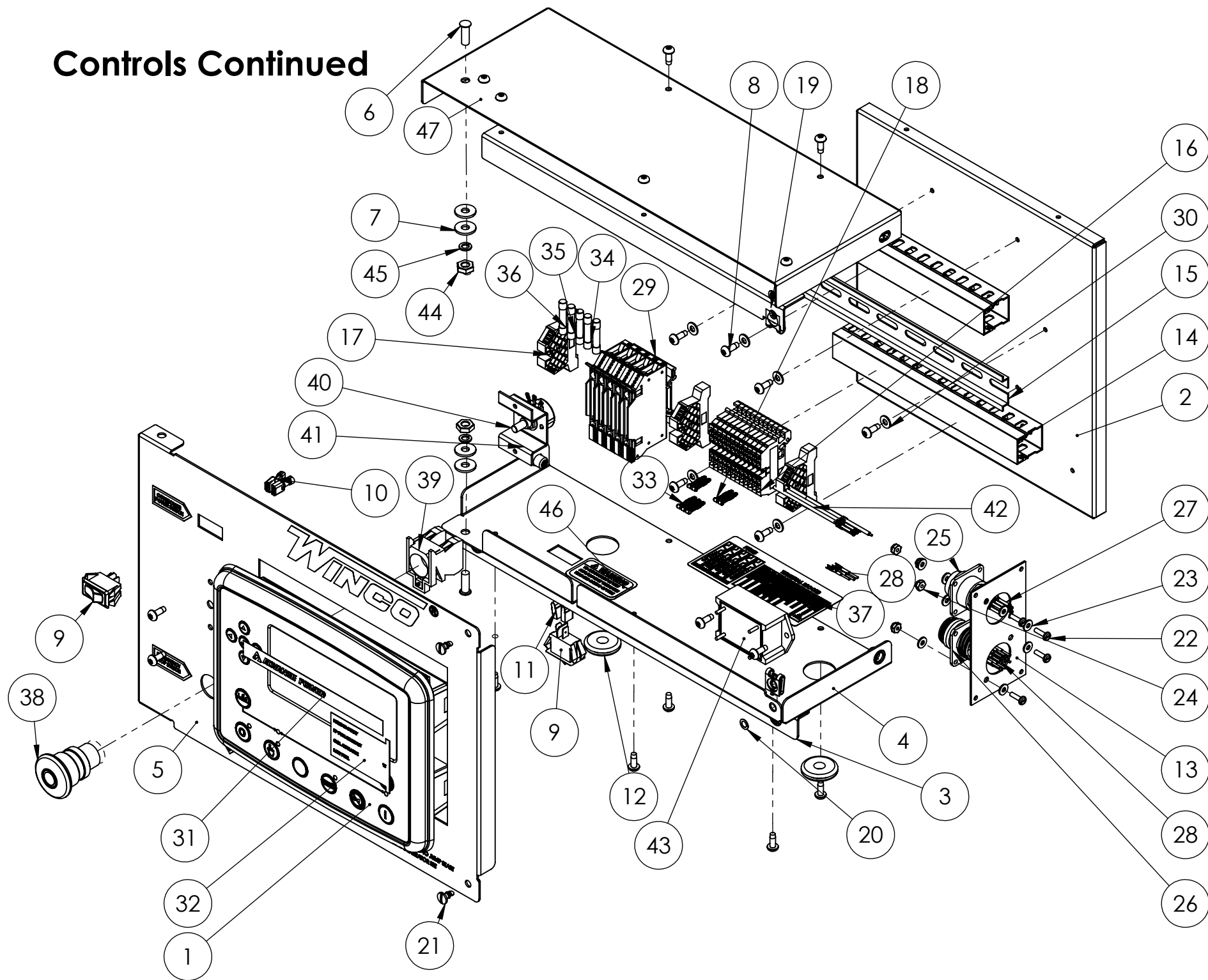


# Controls



| 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        | 476-000     | .25-20X.625 HHB             | 8    |
| 8        | 1000-0568   | CONTROLLER BOX MOUNT        | 1    |
| 9        | 466-000     | .25-20X.75 HHB              | 8    |
| 10       | 479-000     | LOCK WASHER, .25" SPLIT     | 8    |
| 11       | 352125-1    | 1/4-20 RIVET NUT 22 GA-10GA | 2    |
| 12       | 21698-001   | TORX PAN HEAD SCREW #10     | 4    |

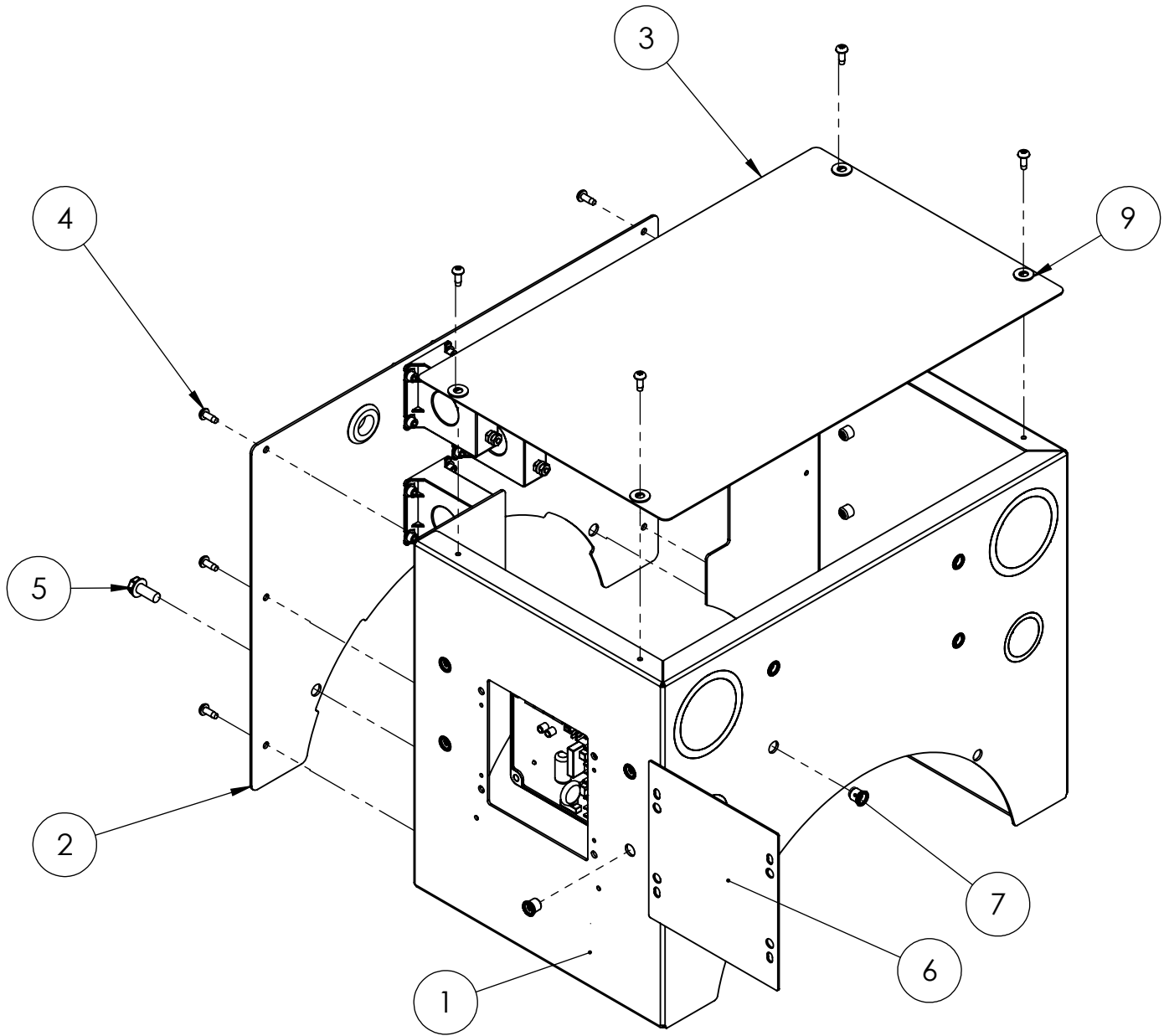
# Controls Continued



## Controls continued

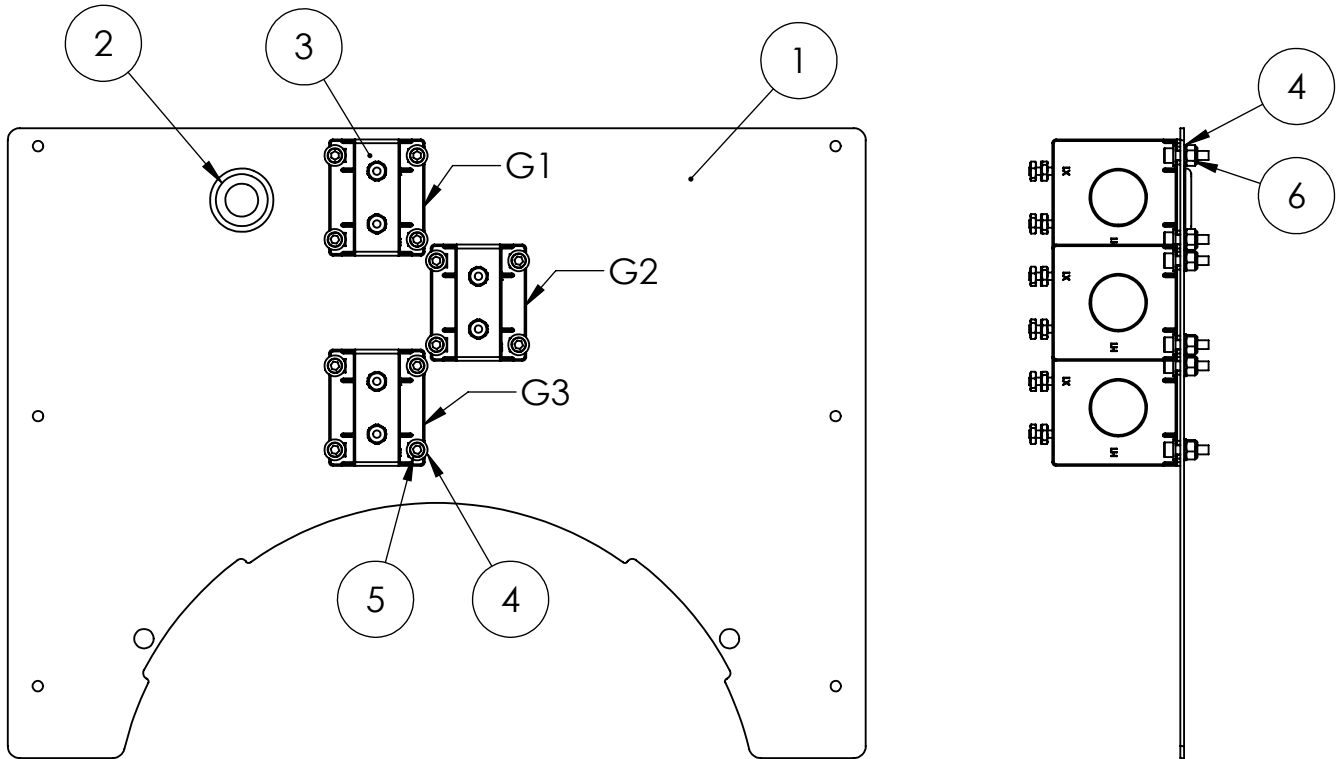
| ITEM NO. | PART NUMBER | DESCRIPTION                              |    |
|----------|-------------|------------------------------------------|----|
| 1        | 351112-29   | DEEP SEA ELECTRONICS 7310 MKII           | 1  |
| 2        | 351900-42   | DIN RAIL MOUNTING PLATE                  | 1  |
| 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       | 2  |
| 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       | 91683-000   | 1/4 TURN CLIP NUT                        | 2  |
| 20       | 91684-000   | RETAINER RING 1/4 TURN SPLIT RING        | 2  |
| 21       | 91682-001   | STUD 1/4 TURN SLOTTED                    | 2  |
| 22       | 24988-000   | SCREW 6-32 X 1/2 BIND                    | 4  |
| 23       | 425-000     | #6 FLATWASHER                            | 8  |
| 24       | 51802-000   | NUT HEX #6-32 NYLOCK                     | 4  |
| 25       | 96925-002   | 14 PIN CONNECTOR                         | 1  |
| 26       | 96925-006   | 16 PIN CONNECTOR                         | 1  |
| 27       | 96923-001   | TERMINAL, SOCKET, 18-16AWG               | 10 |
| 28       | 96924-001   | TERMINAL, PIN, 18-16AWG                  | 16 |
| 29       | 2489-003    | DIN RAIL FUSE HOLDER 1-1/4 X 1/4IN       | 5  |
| 30       | 598-000     | #10 WASHER                               | 6  |
| 31       | 16600-005   | DSE MKII ADVANCE POWER LOGO INSERT       | 1  |
| 32       | 16601-007   | DSE 8610 MKII LIGHT LEGEND CARD INSERT   | 1  |
| 33       | 80623-012   | 3-POLE TERMINAL BLOCK JUMPER             | 1  |
| 34       | 95064-008   | FUSE AGC 2 AMP                           | 3  |
| 35       | 95064-000   | FUSE AGC 3 AMP                           | 1  |
| 36       | 95064-006   | FUSE AGC 10 AMP                          | 1  |
| 37       | 351095-16   | DECAL, FUSES AND TERMINAL BLOCKS         | 1  |
| 38       | 99783-001   | SWITCH, PUSH-PULL                        | 1  |
| 39       | 99783-002   | SWITCH CONTACT                           | 1  |
| 40       | 97517-001   | RHEOSTAT                                 | 1  |
| 41       | 351900-36   | RHEOSTAT MOUNTING BRACKET                | 1  |
| 42       | 96923-101   | PLUG TERMINAL                            | 4  |
| 43       | 96333-001   | LOW COOLANT MODULE                       | 1  |
| 44       | 638-000     | HEX NUT, .25IN                           | 2  |
| 45       | 479-000     | LOCK WASHER, .25" SPLIT                  | 2  |
| 46       | 63941-004   | DECAL FUSE WARNING (ENGLISH)             | 1  |
| 47       | 351900-52   | DSE CONTROL BOX TOP                      | 1  |
| 48       | 351900-53   | DSE PANEL STOP                           | 1  |
| 49       | 11067-000   | 18 GA WIRE                               | 1  |

# Terminal Box Assembly



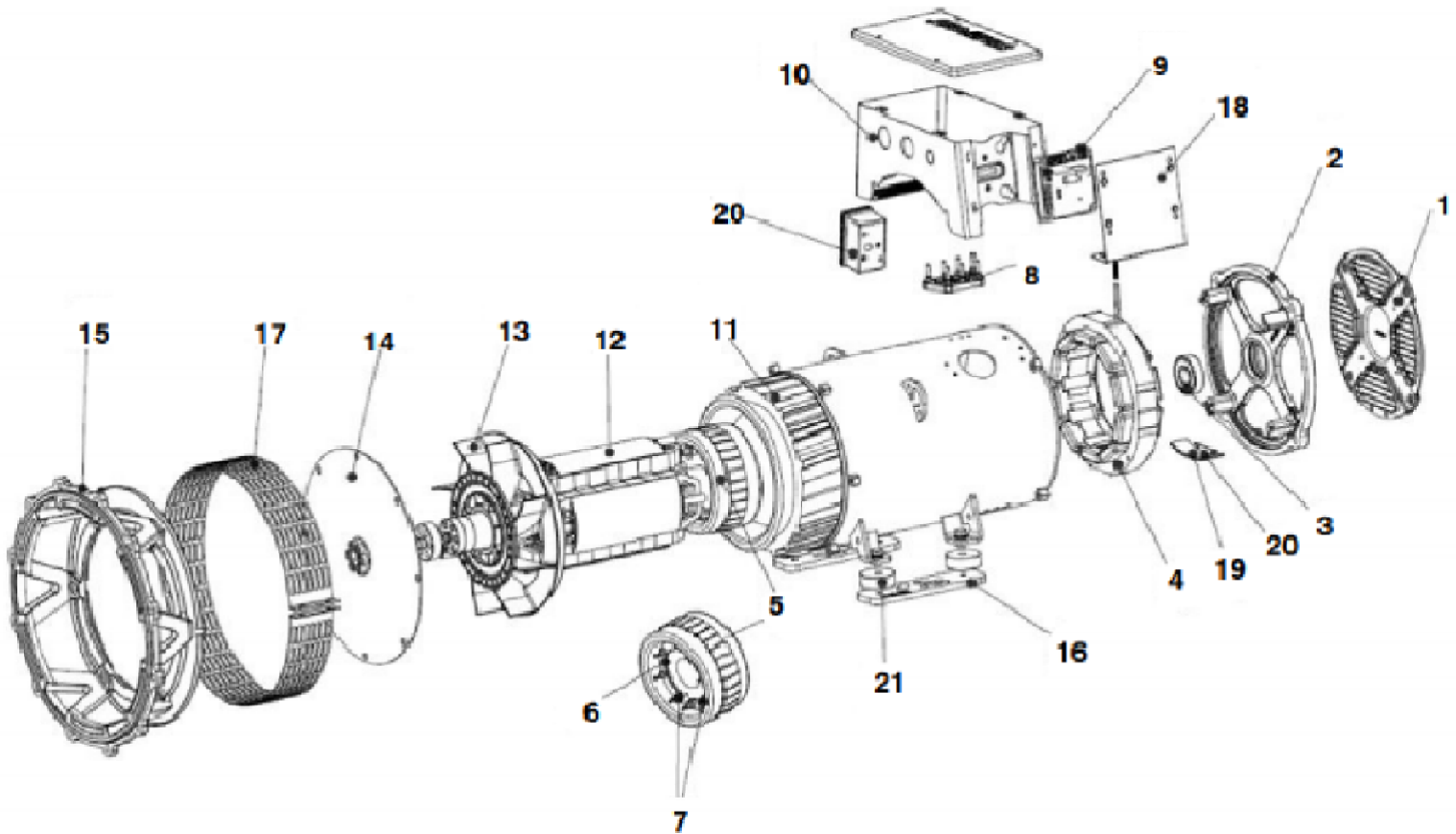
| ITEM NO. | PART NUMBER | DESCRIPTION                    | QTY. |
|----------|-------------|--------------------------------|------|
| 1        | 1000-0566   | DE30 TERMINAL BOX              | 1    |
| 2        | 801025-009  | TERMINAL BOX CT PANEL ASSEMBLY | 1    |
| 3        | 1000-0237   | DE40 TERMINAL BOX COVER        | 1    |
| 4        | 21698-001   | TORX PAN HEAD SCREW #10        | 10   |
| 5        | 62173-001   | SELF TAP.SC. 5/16-18X.75       | 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        | 23917-000   | GROMMET .6875ID X 1                | 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

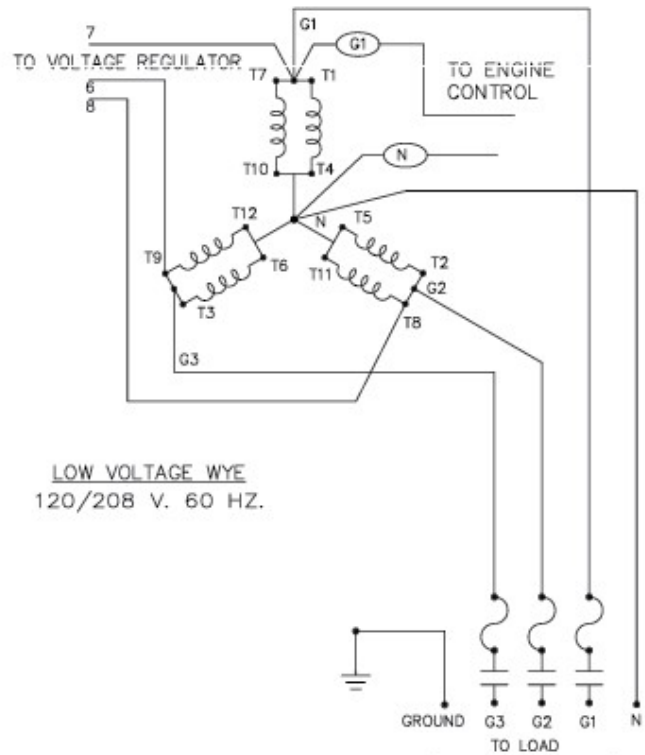
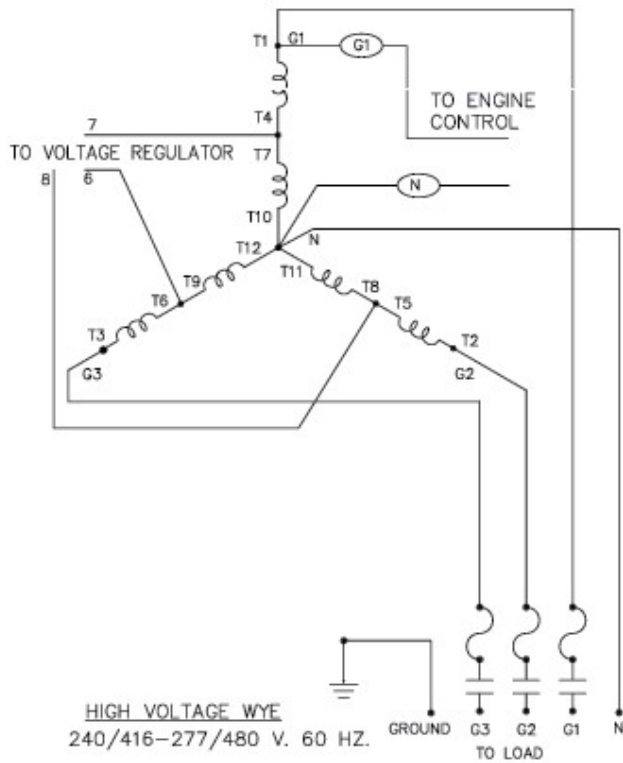


| ITEM                                                  | DESCRIPTION            | DE40      | QTY |
|-------------------------------------------------------|------------------------|-----------|-----|
| --                                                    | COMPLETE GENERATOR END | 350023-19 | 1   |
| --                                                    | STAMFORD MODEL         | S1L2-R1   | --  |
| --                                                    | WINDING                | 711       | --  |
| 9                                                     | AVR AS540              | 8-101     | 1   |
| --                                                    | RECTIFIER SERVICE KIT  | 8-818     | 1   |
| Contact Winco for additional generator parts support. |                        |           |     |

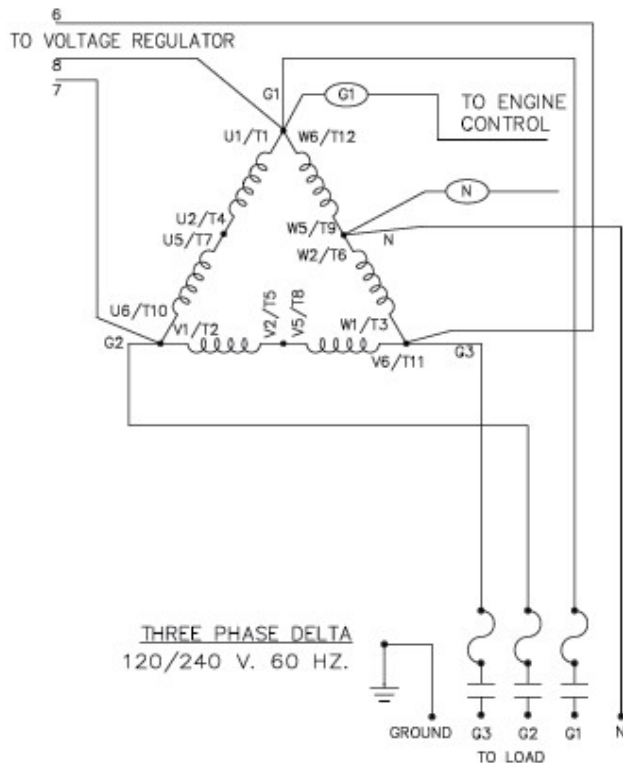
| EXPECTED RESISTANCE ( $\Omega$ )@ 20°C (+/-10%) |         |
|-------------------------------------------------|---------|
| MODEL                                           | S1L2-R1 |
| STATOR WINDING (LEAD TO LEAD)                   | 0.1140  |
| ROTOR WINDING                                   | 1.100   |
| EXCITER STATOR                                  | 14.60   |
| EXCITER ROTOR (LEAD TO LEAD)                    | 0.2240  |
| AUX WINDING                                     | 3.72    |

# Generator Connections

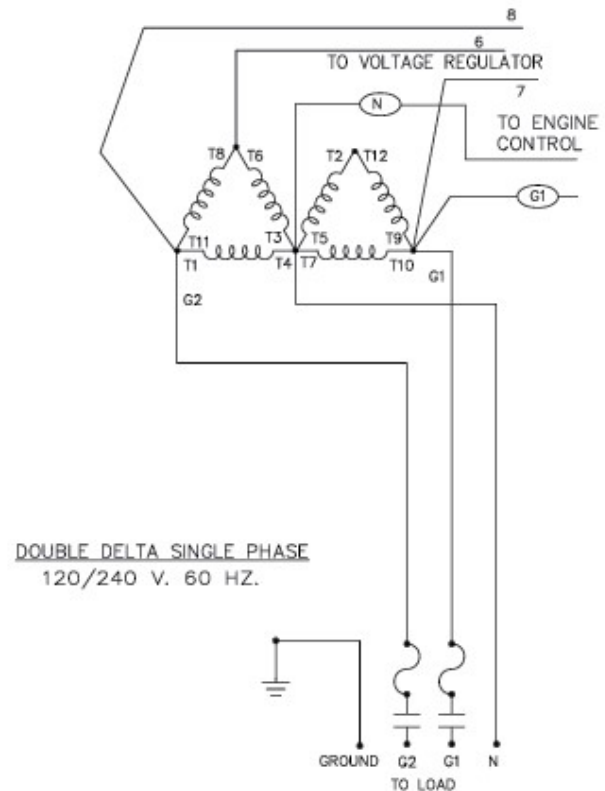
## THREE PHASE AC WIRE HIGH AND LOW WYE



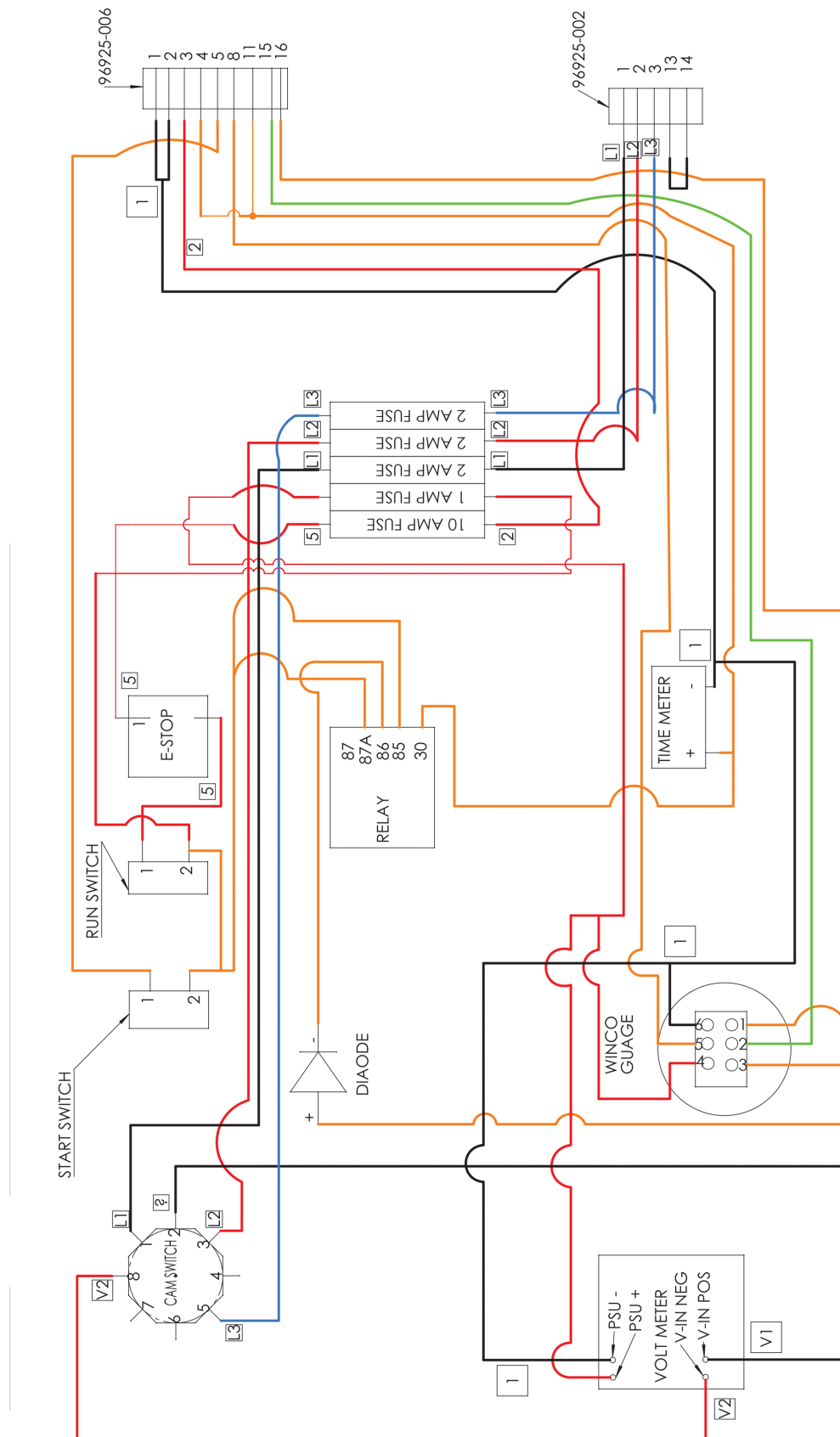
## THREE PHASE AC WIRING-DELTA



## SINGLE PHASE 311 WINDING

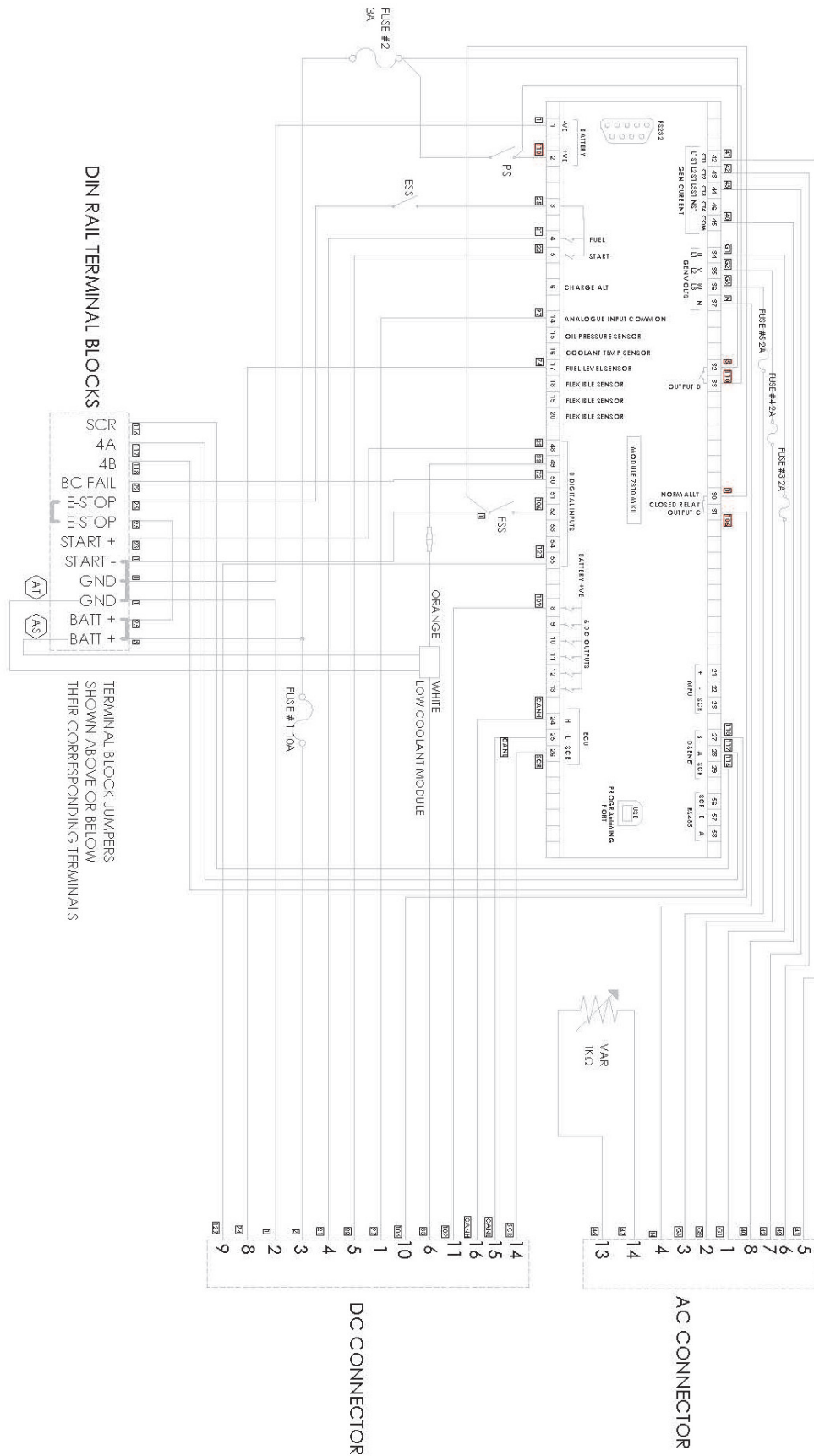


# Manual Generator Control Schematic





# DSE7310 Generator Control Schematic



# Engine Wiring Schematic

Aug.21/2014 rev.3

5.4 ECM タイプ別 ECM Diagram

ECM DIAGRAM for Industrial 4L12V - Engine (U4S)

