

INSTRUCTION SHEET

Fuel Field Kit Installation Instructions

G007219
 G007049
 G007048
 G007047

Overview

This procedure is for the installation of a required externally controlled fuel shutoff to meet Australian agency requirements, specifically AS/NZS 3814-2015 clause 2.27.3(a)—Safety Systems, and AS/NZS 5263.1.11 clauses 2.7.103 and 2.8.2.

IMPORTANT NOTE: This generator set is not Type A compliant within Australia without this kit installed.

Note 5—Provision of back-up hard-wired hardware safety systems can be used to reduce PES system SIL requirements as determined by the SIL analysis of the overall safety system.

Table 1. Fuel Field Kit Components and Specifications

Description	Quantity
Parts Included	
Standard Relay (12VDC / NO / SPST)	2
DIN Rail 6 in (Standard 33 mm wide–7.5 mm depth)	1
Timer Module (12VDC / 1-10 sec / SPDT / Off Delay)	1
Wiring—300VAC 18g UL rated Black	7.5 m (24.6 ft)
Wiring—600VAC 18g UL rated Green/Yellow	1.5 m (4.9 ft)
5A Fuse	1
Fuse Holder	1
Low gas pressure switch (auto reset) (2.5–50 mbar / NO)	1
Braided Hose SS 13 mm x 1/2 F&F x 600 mm	1
Regulator 1/2 in x 250MJ complete w/ test point - AGA Certified	1
Parts Not Included	
Manual Shutoff Gas Valve - AGA Certified	1
Seal-Tite® or comparable flexible liquid-tight conduit and fittings	Part number and quantity based on size of conduit and length from fuel pressure switch installation.
14-16 Gauge Fast-On Terminal – Female	2
18-20 Gauge Fast-On Terminal – Male	1
18-20 Gauge Fast-On Terminal – Female	9
14-16 Gauge Butt Splice	2
M5 Ring Terminal	1
M8 Ring Terminal	2

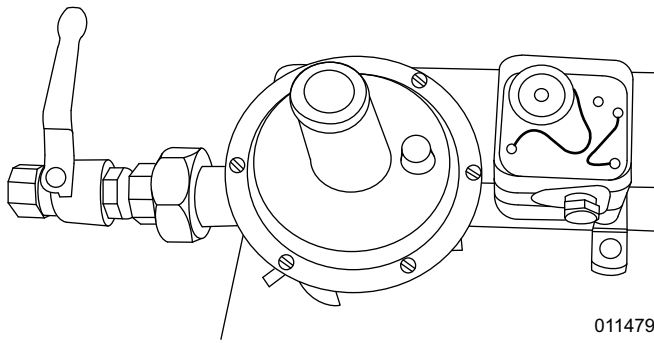


Figure 1. Completed Gas Train

Installation Instructions

⚠ DANGER

Automatic start-up. Disconnect utility power and render unit inoperable before working on unit. Failure to do so will result in death or serious injury.

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Throughout this procedure, see Wire Gauge and Length Chart, wiring diagram, schematic diagram, and splice diagram at the end of this section.

Preparing Generator



⚠ WARNING

Explosion. Batteries emit explosive gases. Always disconnect negative battery cable first to avoid spark. Failure to do so could result in death or serious injury.

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NOTE: This fuel field install kit requires components to be installed in the fuel supply piping to generator set. Verify fuel is correctly shut off prior to installing fuel pressure switch(es).

Proceed as follows to prepare generator set for fuel field kit installation:

1. Set mains main line circuit breaker (MLCB) to OFF (OPEN).
2. Lift enclosure lid and set generator set MLCB (generator set disconnect) to OFF (OPEN).
3. Press OFF button on controller.
4. Remove 7.5 amp fuse from control panel.
5. Remove intake side panel.
6. Disconnect battery cables, removing negative battery cable first.

Installing DIN Rail and Relays

Proceed as follows to install DIN rail and relays:

1. See **Figure 2** or **Figure 3**. Drill two 5 mm (0.20 in) holes in upper right corner of engine divider panel under controller.

NOTE: Avoid damaging harness wires and decals while drilling.

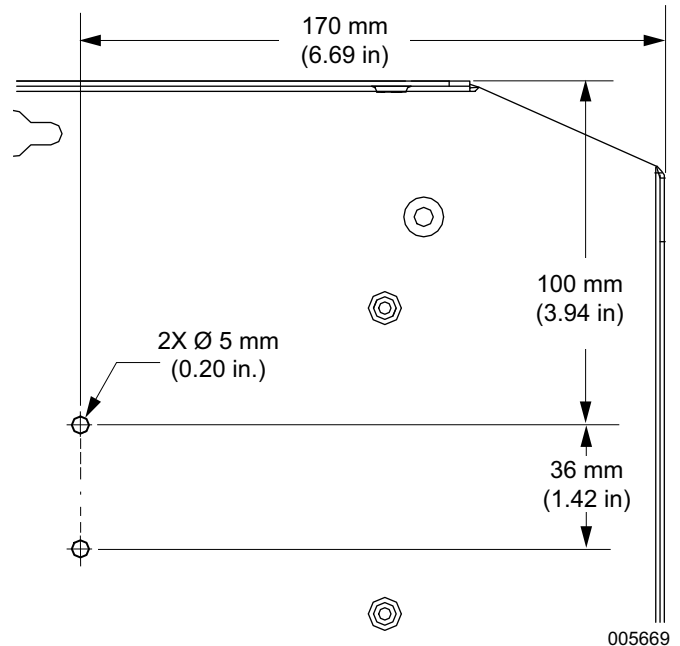


Figure 2. Hole Locations—8 kVA Engine Divider Panel

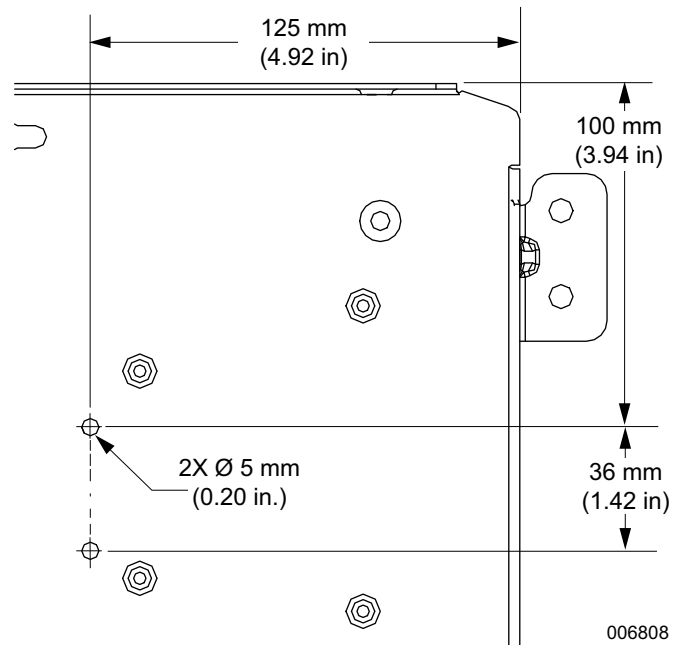


Figure 3. Hole Locations—10, 13, & 20 kVA Engine Divider Panel

- See **Figure 4**. Mount DIN rail (A) to drilled holes in engine divider panel with two M4-0.7 X 10 (8-32 x 0.5 in) fasteners and nuts.

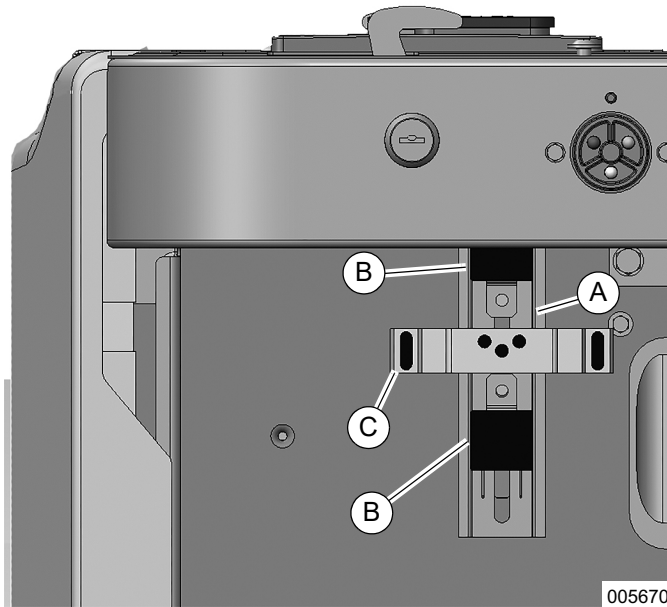


Figure 4. Mount DIN Rails and Relays

NOTE: Both control relays (B) mount to DIN rail through eyelets provided on the relays.

- Clip timer relay (C) onto DIN rail between the two control relays.

Timer Relay Settings

See **Figure 5**. Timer relay includes an adjustable timing dial (1), a fine time dial (2) to be set full clockwise, and a function dial (3) to be set at “D.”

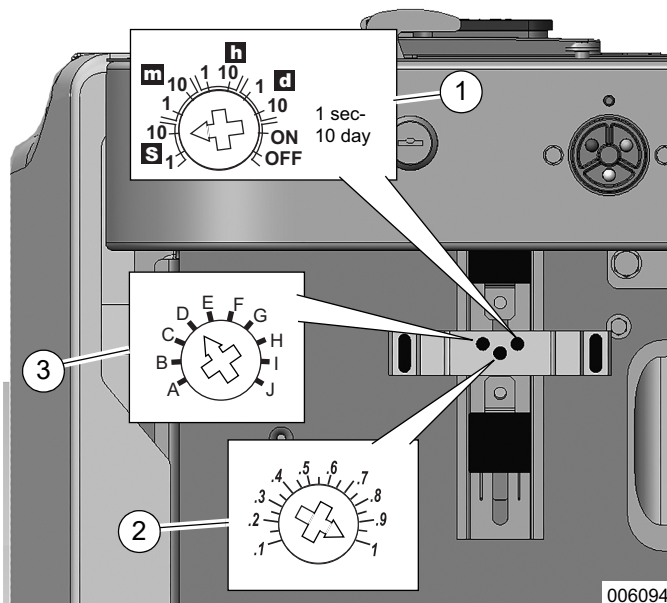


Figure 5. Timer Relay Settings

Connecting the Wires

Proceed as follows to connect kit wires:

- Wire control relays and timer relay per **Wiring Diagram—AU Fuel Field Install Kit** and **Wire Gauge and Length Chart**.
- Connect kit wire Q to unit harness wire #86 by inserting and crimping the 6 mm stripped end of kit wire Q into factory connected bullet connector hanging near battery charger plug.
- Disconnect unit harness #14 wire (red) at the fuel solenoid and connect it to kit wire D.
- Connect kit wire C to exposed fuel solenoid terminal.
- Connect kit wire P to unit harness wire #56 by inserting and crimping the 6 mm stripped end of kit wire P into factory connected blade connector hanging near battery charger plug.
- Install fuel pressure sensor(s) in line with fuel supply. Configure to correct setting for desired fuel type using fuel pressure switch manual.
- Route kit wires G, H, and S from inside unit out to fuel pressure sensor switch(es).
- Verify all other wire connections per wire diagram.

Complete Installation



CAUTION

Equipment damage. Do not make battery connections in reverse. Doing so will result in equipment damage.

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Proceed as follows to complete installation:

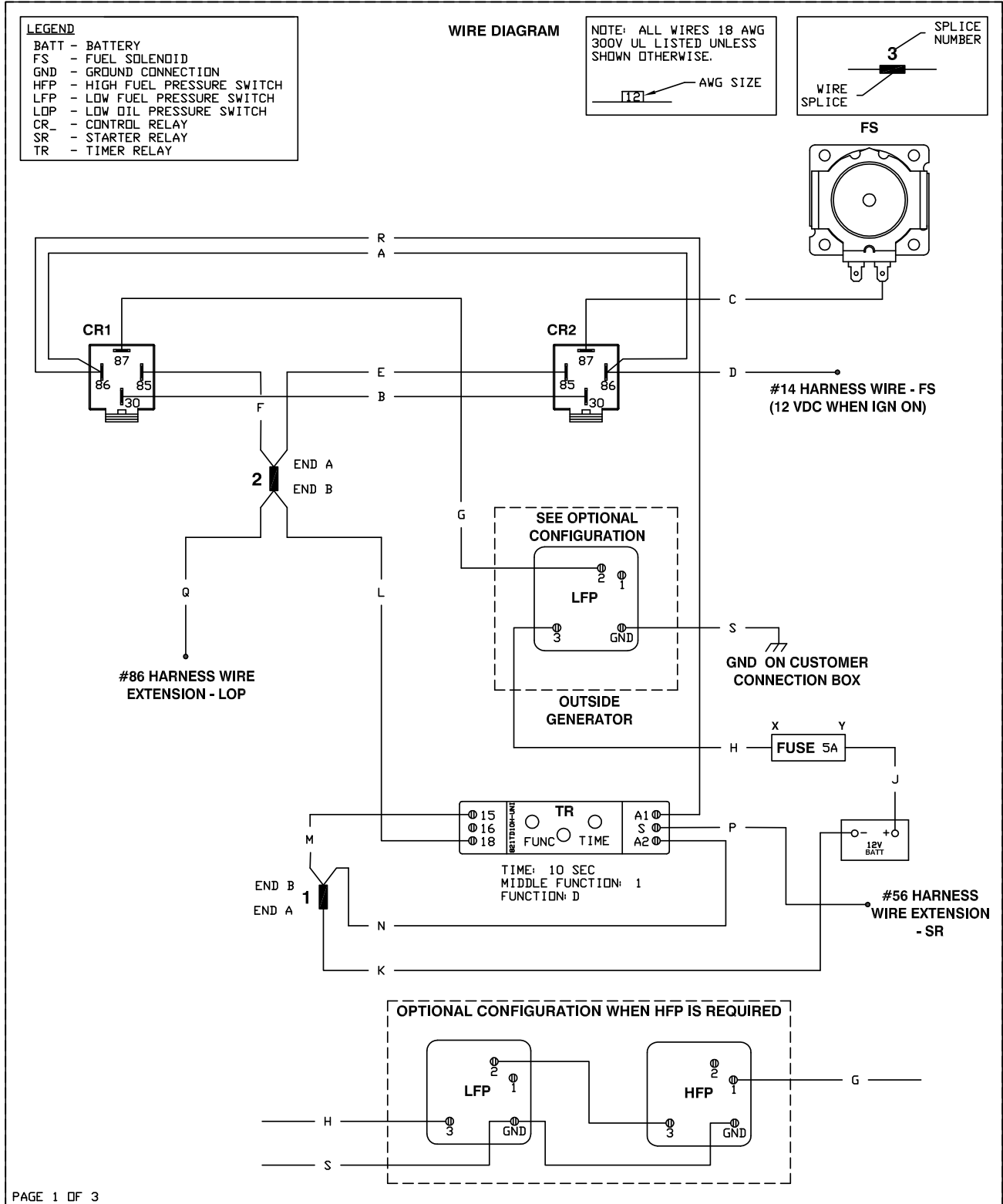
- Clean drilling and other debris from enclosure.
- Connect positive battery cable first, then negative battery cable.
- Install intake side panel.
- Install 7.5 amp fuse in control panel.
- Set generator set MLCB (generator set disconnect) to ON (CLOSED).
- Set mains MLCB to ON (CLOSED).

NOTE: Verify functionality of fuel kit prior to completing installation and leaving unit in AUTO mode.

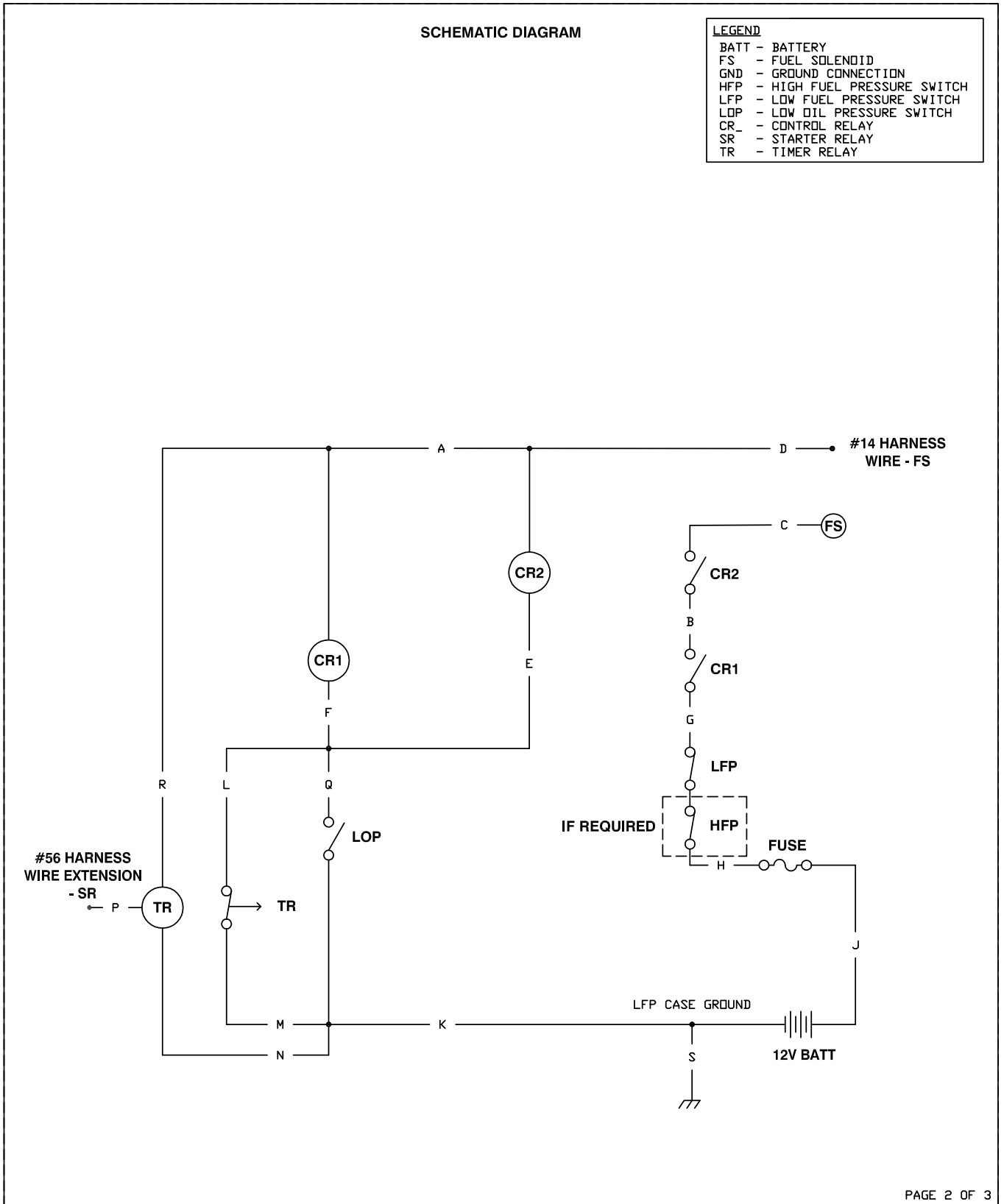
Wire Gauge and Length Chart

Wire Number	From—Connection	To—Connection	Wire Length (mm)
A	Female Fast-On (14-16 Gauge) [Wires R & A intertwined]	Female Fast-On (14-16 Gauge) [Wires D & A intertwined]	300
B	Female Fast-On (18-20 Gauge)	Female Fast-On (18-20 Gauge)	300
C	Female Fast-On (18-20 Gauge) [Must fit male 4.75 mm x 0.5 mm]	Female Fast-On (18-20 Gauge)	500
D	Male Fast-On (18-20 Gauge) [Must fit female 4.75 mm x 0.5 mm]	Female Fast-On (14-16 Gauge) [Wires D & A intertwined]	500
E	Female Fast-On (18-20 Gauge)	Butt Splice 2 end A (14-16 Gauge) [Wires E & F intertwined]	300
F	Female Fast-On (18-20 Gauge)	Butt Splice 2 end A (14-16 Gauge) [Wires E & F intertwined]	300
G	Female Fast-On (18-20 Gauge)	6 mm Strip	1500
H	6 mm Strip	Female Fast-On (18-20 Gauge) [Or Butt Splice to fuse leads]	1500
J	Female Fast-On (18-20 Gauge) [Or Butt Splice to fuse leads]	M8 Ring Terminal (18-20 Gauge)	300
K	M8 Ring Terminal (18-20 Gauge)	12 mm strip folded over in half Butt Splice 1 end A (14-16 Gauge)	300
L	6 mm Strip	Butt Splice 2 end B (14-16 Gauge) [Wires Q & L intertwined]	300
M	6 mm Strip	Butt Splice 1 end B (14-16 Gauge) [Wires M & N intertwined]	150
N	6 mm Strip	Butt Splice 1 end B (14-16 Gauge) [Wires M & N intertwined]]	150
P	6 mm Strip	6 mm Strip	300
Q	6 mm Strip	Butt Splice 2 end B (14-16 Gauge) [Wires Q & L intertwined]	300
R	6 mm Strip	Female Fast-On (14-16 Gauge) [Wires R & A intertwined]	300
S	6 mm Strip	M5 Ring Terminal (18-20 Gauge)	1500 (Green/Yellow wire)

Wiring Diagram—AU Fuel Field Install Kit



Schematic Diagram—AU Fuel Field Install Kit



Splice Sheet—AU Fuel Field Install Kit

