

SMALL FRAME

Installing the REDI-LINE Retrofit Kit (40PA71-PCBSF)

Topics covered are:

- Inspection Procedure
- Installation Instructions

Tools Required:

- Wire cutter / wire stripper / terminal crimper
- Phillips head screwdriver
- 7/16" open end wrench
- 7/16" drill bit
- Electric drill

Inspection Procedure

1. Refer to the packing list. Check that all parts were received.
2. Also inspect the parts for any damage that may have been sustained in shipment. If you find damage or missing parts, contact your supplier within 10 days of receipt of the kit.

You have the option to purchase a new cover. See "New Cover" and "Use Old Cover" below.

Installation Instructions

Remove Power



WARNING

Disconnect the power cables from the battery before beginning any disassembly of the REDI-LINE.

Remove Cover Assembly

1. Remove the front cover (See Fig. 2) by removing the (2) acorn nuts. Pull the cover straight out, being careful that lead wires are attached.
2. Three wires must be removed from the cover assembly to detach it from the REDI-LINE. (See Fig. 3)
 - a. Disconnect white wire to the PC board assembly.
 - b. Disconnect black wire to the circuit breaker.
 - c. Disconnect green ground wire from the solenoid bracket.

Remove Solenoid Assembly

1. Remove (2) nuts on the studs coming out of generator that hold solenoid assembly.
2. Two wires must be disconnected to completely detach solenoids. (See Fig. 4)
 - a. Disconnect orange wire from the motor assembly.
 - b. Disconnect white wire from the quick connect tab.
3. Remove existing solenoid assembly from the generator housing.

Installation of Retro-fit Kit

1. Place new circuit board assembly on (2) studs coming out of generator.
 2. Re-install (2) nuts and tighten to secure assembly.
 3. Plug black lead wire onto the PC board. (See Fig. 1)
 4. Remove existing 1/8" quick connect tab from orange wire and install new 1/4" quick connect.
 5. Attach orange wire to new PC board. (See Fig. 1)
 6. Attach other end ("pig tail") of orange wire to circuit breaker inside electrical cover.
 7. Re-connect white neutral wire (from the AC outlet) to new PC board. (See Fig. 1)
 8. Attach quick connect tab to tie rod.
 9. Connect green wire to quick connect tab.
- The electrical connection of the new PC board is now complete. (See Fig. 5)

New Cover

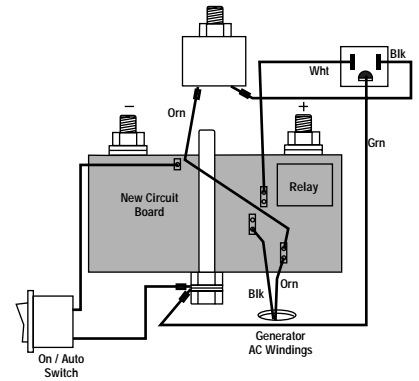
1. You may have already purchased a new cover (Part # YP63231) which has a hole to accommodate the new location of the circuit breaker.
2. Remove circuit breaker from old cover and install in new cover.
3. Proceed with assembly.

Use old cover

1. To re-use old cover, drill a hole using the paper template supplied. Plug the original hole with a 7/16" hole cap.
2. Move circuit breaker to new hole.
3. Proceed with assembly.

Re-Installation of Cover

1. Replace cover just as you took it off, sliding it back onto tie rods.
 2. Replace (2) acorn nuts and tighten. Be sure not to pinch wires between cover and end bell. (See Fig. 6)
 3. Re-connect battery power.
- Note:** If generator is not operating, verify your black, orange and white wires are connected properly on new PC board. (See Fig. 1)



Schematic For New PC Board

Fig. 1

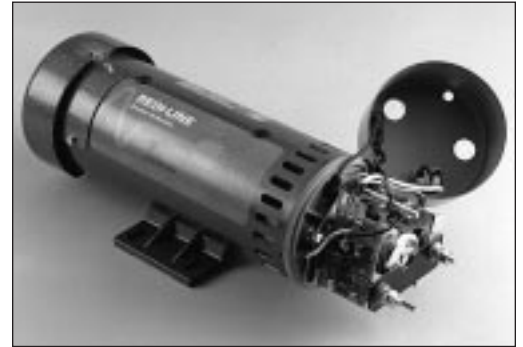


Fig. 2

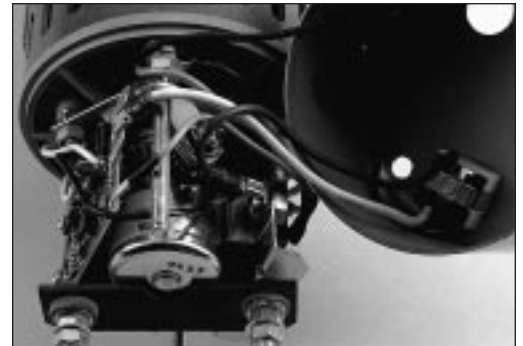


Fig. 3

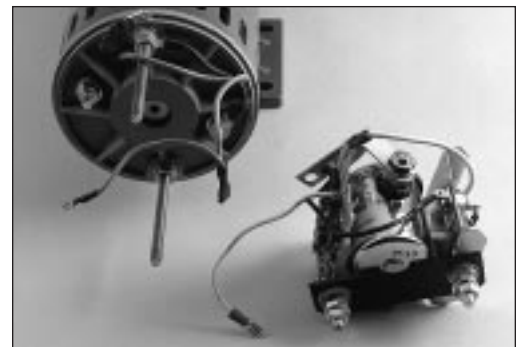


Fig. 4



Fig. 5



Fig. 6

LARGE FRAME

Installing the REDI-LINE Retrofit Kit (40PA72-PCBLF12)

Topics covered are:

- Inspection Procedure
- Installation Instructions

Tools Required:

- Wire cutter
- 7/16" open end wrench
- Electric drill
- Phillips head screwdriver
- 7/16" & 5/32" drill bit

Inspection Procedure

1. Refer to the packing list. Check that all parts were received.
2. Also inspect the parts for any damage that may have been sustained in shipment. If you find damage or missing parts, contact your supplier within 10 days of receipt of the kit.

You have the option to purchase a new cover. See "New Cover" and "Use Old Cover" below.

Installation Instructions

Remove Power



WARNING

Disconnect the power cables from the battery before beginning any disassembly of the REDI-LINE.

Remove Cover Assembly

1. Remove (4) hex head screws holding electrical cover assembly to generator shell.
2. Eight wires must be disconnected to remove electrical cover from the REDI-LINE. (See Fig. 8)
 - a. Disconnect (2) green ground wires from quick connect terminals on motor shell.
 - b. Disconnect (2) white wires from PC board.
 - c. Disconnect (1) orange wire from PC board.
 - d. Disconnect (1) white wire (from bridge diode) from PC board.
 - e. Disconnect (1) white wire from circuit breaker.
 - f. Disconnect (1) black wire (from bridge diode) at mating connector.

Remove PC board Assembly

Note: Cover power wire holes to prevent anything from dropping into generator.

1. Remove (2) Phillips head screws holding PC board assembly to generator shell.
2. Disconnect red wire from solenoids.
3. Disconnect white wire from solenoids.
4. The old PC board can now be discarded. (See Fig. 9)

Remove Solenoid Assembly

1. Remove remaining nuts on each end of solenoid assembly, disconnecting motor lead wires.
2. Remove (4) hex head screws holding the solenoids to shell.
3. Old solenoids can now be discarded. (See Fig. 10)

Attach new 12 Volt Solenoids

1. Attach (2) new 12 Volt solenoids to shell with same (4) screws old solenoids were mounted with.
2. Attach (2) quick connect tabs to screws holding solenoid assembly.
3. Re-attach motor lead wires with ring terminals and nuts.
4. Re-attach red wire to forward terminal on new solenoid. (See Fig. 11)

Note: Bend solenoid brackets to meet curve of motor shell.

Attach Cover/PC Board Assembly

- Note:** The new PC board is part of the cover assembly.
1. Attach blue wires from PC board to solenoid assembly.

Note: There are two sets of blue lead wires coming from the PC board. Each one has two ring terminals attached. Attach one ring terminal of each wire to each solenoid.

Note: For Retro-Fitting 24 and 36 Volt generators only one solenoid is used. The extra lead end terminals on the blue wires must be cut off.

 - a. Attach one ring terminal of blue wire to bottom terminal of one solenoid.
 - b. Attach other ring terminal of same blue wire to bottom terminal of second solenoid. (See Fig. 7)
 - c. Attach one ring terminal of second blue wire to top terminal of first solenoid.
 - d. Attach other ring terminal of second blue wire to top terminal of second solenoid. (See Fig. 7)

Note: Polarity is not critical. Blue wires can be attached to either solenoid terminal.
 2. AC connection is made by attaching white wires to mating connectors from PC board. (See Fig. 11)
 3. Connect black wires to mating connectors from PC board. (See Fig. 11)
 4. Attach (2) green ground wires to quick connect tabs on shell assembly. (See Fig. 7)
- The electrical connection of the new PC board is now complete. (See Fig. 11)

New Cover

1. You may have already purchased a new cover (Part # YP63238) which has a hole to accommodate the new location of the circuit breaker.
2. Remove circuit breaker from old cover and install in new cover.
3. Proceed with assembly.

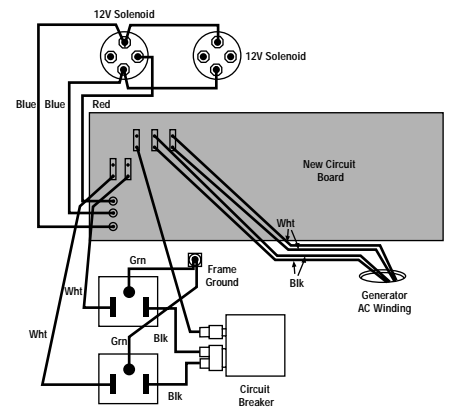
Use old cover

1. To re-use old cover, drill (3) holes using the paper template supplied. Plug the original hole with 7/16" hole cap.
2. Move circuit breaker to new hole.
3. Proceed with assembly.

Re-attach Cover

1. Place cover over solenoids while being sure not to pinch wires between cover and shell.
2. Re-attach cover with (4) hex head screws.
3. Re-attach battery power.

Note: If generator is not operating, make sure wiring connections are correct. Be sure blue lead wires have an end attached to each solenoid.



Schematic For New PC Board

Fig. 7

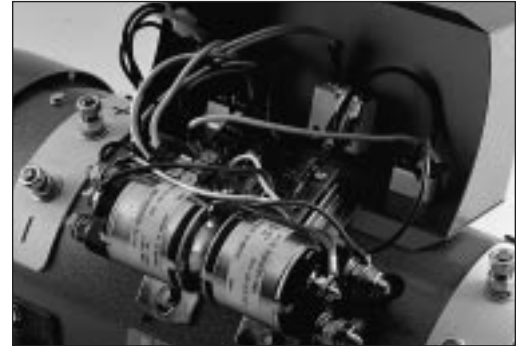


Fig. 8



Fig. 9



Fig. 10



Fig. 11



Fig. 12