POWER TRIM

Section 5C - Dual Power Trim System

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5 C

Lubricants / Sealants / Adhesives

Description	Where Used	Part Number
Liquid Neoprene	All terminal connections	92-25711-3

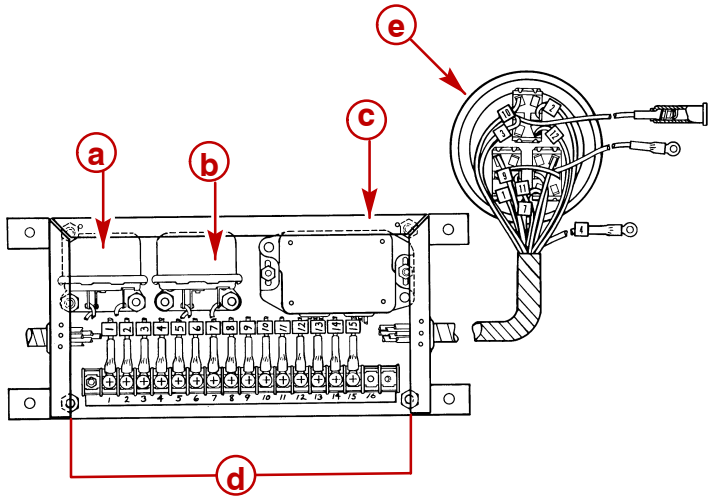
Important Information

When testing this Dual Power Trim system, take special note of the following:

- The control box harness connectors must be disconnected and the key switch must be OFF.
- Ensure that the jumper lead used between terminals 3 and 5 is used only when specified.

The following tests are listed in order of probable component failure. It is recommended, however, that all tests be performed even if a faulty component is detected early in the sequence. This precaution will guard against repeat failure if there is more than one failed component.

Testing Dual Power Trim System



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Dual trim control panel electrical box

a - Relay No. 1
b - Relay No. 2
c - Diode module
d - Terminal block
e - Control panel

Relay Test

Testing Relay No. 1

Step	Action	Yes	No
1.	Test for 12 volts at terminal 2, using only terminal 4 as a ground. **Is there a Voltage indicated?**	Proceed to 2.	Replace relay
2.	Connect a jumper wire between terminals 3 and 5. Test for 12 volts at terminal 2, using only terminal 4 as a ground. **Is there a Voltage indicated?**	Replace relay.	Relay OK

Testing Relay No. 2

Step	Action	Yes	No
1.	Test for continuity between terminals 13 and 9. **Is continuity indicated?**	Proceed to 2.	Replace relay
2.	Connect a jumper wire between terminals 3 and 5. Test for continuity between terminals 13 and 9. **Is continuity indicated?**	Replace relay.	Relay OK

Diode Module Test

Perform the following diode tests using an ohmmeter set on the Rx1 scale. When testing diodes, take 2 readings. Note the first reading; then, reverse the meter leads and, again, note the reading.If the diode is good, the meter should indicate a high or infinite resistance (no meter movement) when connected one way and a low reading (below 60 ohms) when connected the other way. If both readings are high or infinite, the diode is open. Replace the diode module.

Diode No. 1

Step	Action	Yes	No
1.	Connect a jumper wire between terminals 3 and 5. Test the diode between terminals 9 and 10. **Are both readings high or infinite?**	Replace the diode module.	Module OK

Diode No. 2

Step	Action	Yes	No
1.	Connect a jumper between terminals 3 and 5. Test diode between terminals 10 and 13. **Are both readings high or infinite?**	Replace the diode module.	Module OK

⚠ CAUTION
Before proceeding with further diode testing, remove fuse from red/purple harness lead so that it will not be possible to short either control box or VOA meter.

Diode No. 3

Step	Action	Yes	No
1.	Test the diode between terminals 6 and 12. **Are both readings high or infinite?**	Replace the diode module.	Module OK

Diode No. 4

Step	Action	Yes	No
1.	Test the diode between terminals 12 and 7. **Are both readings high or infinite?**	Replace the diode module.	Module OK

Diode No. 5

Step	Action	Yes	No
1.	Test the diode between terminals 8 and 11. **Are both readings high or infinite?**	Replace the diode module.	Module OK

Diode No. 6

Step	Action	Yes	No
1.	Test the diode between terminals 14 and 15. **Are both readings high or infinite?**	Replace the diode module.	Module OK

Diode No. 7

Step	Action	Yes	No
1.	Test the diode between terminals 8 and 5. **Are both readings high or infinite?**	Replace the diode module.	Module OK

Diode No. 8

Step	Action	Yes	No
1.	Test the diode between terminals 5 and 15. **Are both readings high or infinite?**	Replace the diode module.	Module OK

Trailer Switch Test

⚠ CAUTION
Remove fuse from RED/PURPLE harness lead before proceeding with test.

Step	Action	Yes	No
1.	Set the ohmmeter on the Rx1 scale. Push down on the “Trailer” switch and check for continuity between terminals 10 and 3. **Is continuity indicated?**	Proceed to 2.	Replace the switch.
2.	Push up on the trailer switch and check for continuity between terminals 2 and 12. **Is continuity indicated?**	Switch OK	Replace the switch.

Starboard Trim Switch Test

Step	Action	Yes	No
1.	Set ohmmeter on Rx1 scale. Push down on STARBOARD TRIM switch and check for continuity between terminals 1 and 9. **Is continuity indicated?**	Proceed to 2.	Replace the switch.
2.	Push up on STARBOARD TRIM switch and check for continuity between terminals 11 and 6. **Is continuity indicated?**	Switch OK	Replace the switch.

Port Trim Switch Test

Step	Action	Yes	No
1.	Set ohmmeter on Rx1 scale. Push down on PORT TRIM switch and check for continuity between terminals 2 and 13. **Is continuity indicated?**	Proceed to 2.	Replace the switch.
2.	Push up on PORT TRIM switch and check for continuity between terminals 14 and 7. **Is continuity indicated?**	Switch OK	Replace the switch.

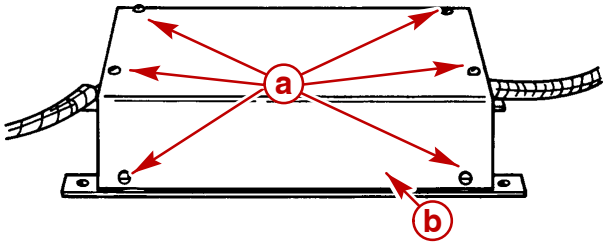
Dual Power Trim System Component Repair

Use care when removing and installing components. Do not force or pull wiring during replacement. Use care to prevent wiring from stretching, pinching, or chafing. Coat all terminals with lubricant.

Description	Where Used	Part Number
Liquid Neoprene	All terminal connections	92-25711-3

Relay Removal

1. Remove control box cover.



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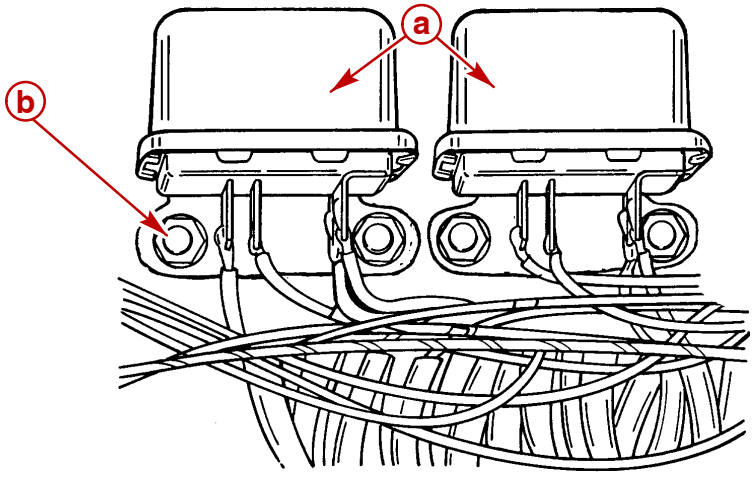
a - Screws
b - Cover

2. Unsolder wires from relay to be replaced.
3. Remove relay.



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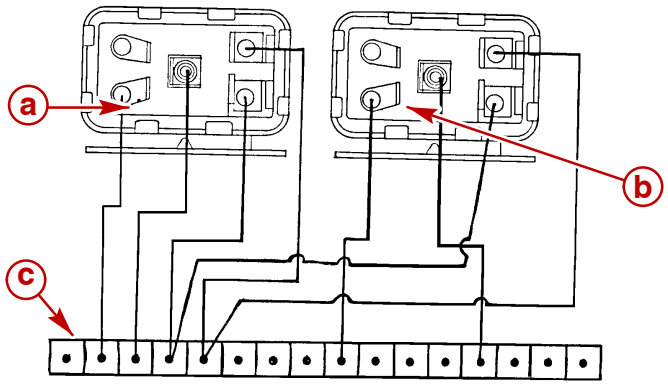
a - Relay assemblies (1 and 2)
b - Fasteners

Relay Installation

1. Install new relay.

IMPORTANT: Use 63/67 (Tin/Lead) alloy solder. Do not use acid core solder as damage to relay can result. Coat terminal connections with Liquid Neoprene.

2. Using 63/67 (Tin/Lead) alloy solder, solder wires from terminal block to relay as shown.
3. Coat terminal connections with lubricant.



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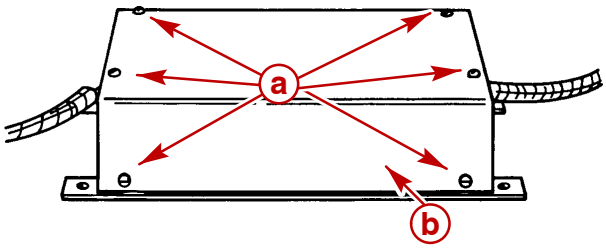
a - Relay number 1
b - Relay number 2
c - Terminal block

Description	Where Used	Part Number
Liquid Neoprene	All terminal connections	92-25711-3

4. Install control box cover.
5. Tighten screws securely.



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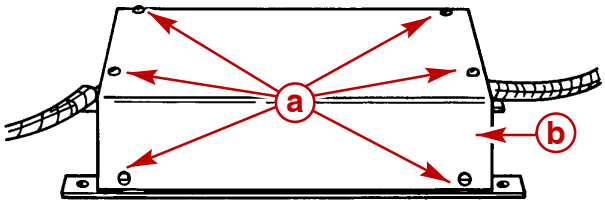
a - Screws
b - Cover

Diode Module Removal

1. Remove control box cover.



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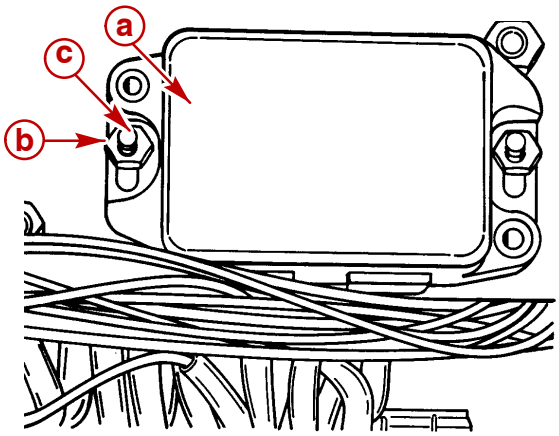
a - Screws
b - Cover

2. Disconnect leads from terminal block.

Diode Module Installation

1. Replace diode module.



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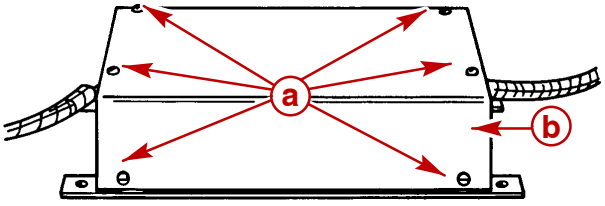
a - Diode module
b - Nut
c - Bolt

2. Reconnect numbered leads to respective terminals.
3. Install control box cover.
4. Tighten screws securely.



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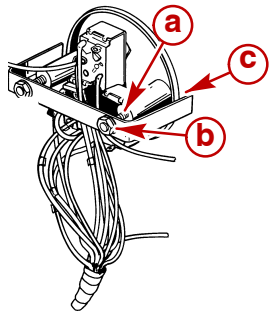
a - Screws
b - Cover

Trim Control Panel Switch Removal

1. Remove trim control panel from dash.
2. Cut leads from switch to be replaced as close to switch terminals as possible.



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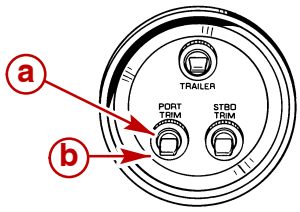
a - Number 10-24 studs
b - Flat washers and nuts
c - U-bracket

3. Remove bezel nut.

Trim Control Panel Switch Installation

1. Replace switch.



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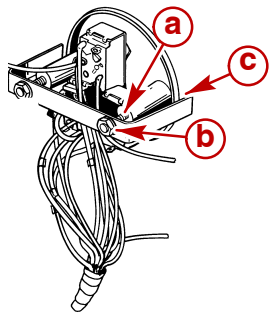
a - Bezel nut
b - Switch

2. With new switch properly positioned in control panel, loop leads through their respective terminal eyelets. Refer to Wiring Diagram.
3. Using 60/40 (Tin/Lead) alloy rosin core solder, solder leads to terminals.
4. Secure trim control panel to dash.



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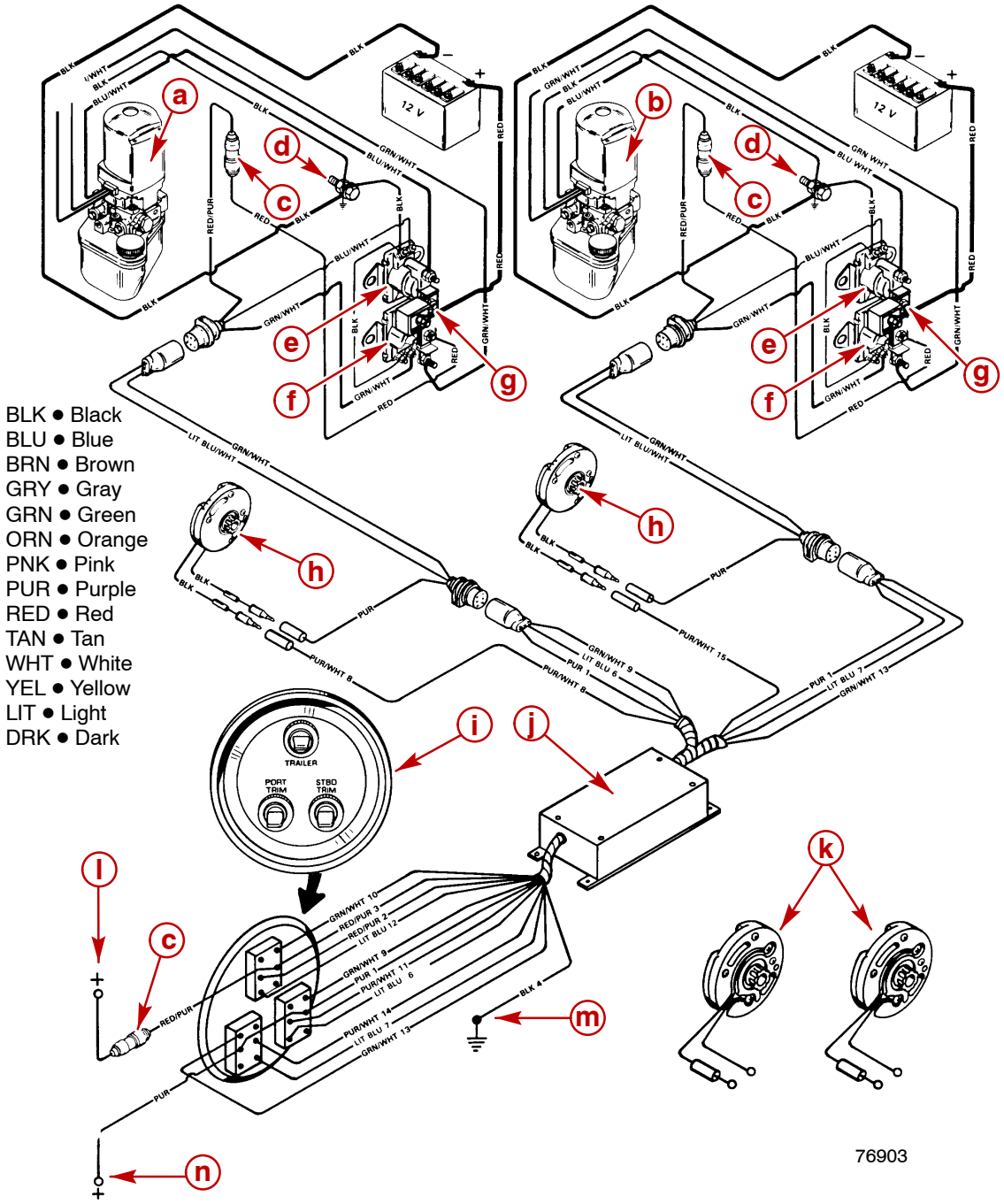
a - Number 10-24 studs
b - Flat washers and nuts
c - U-bracket

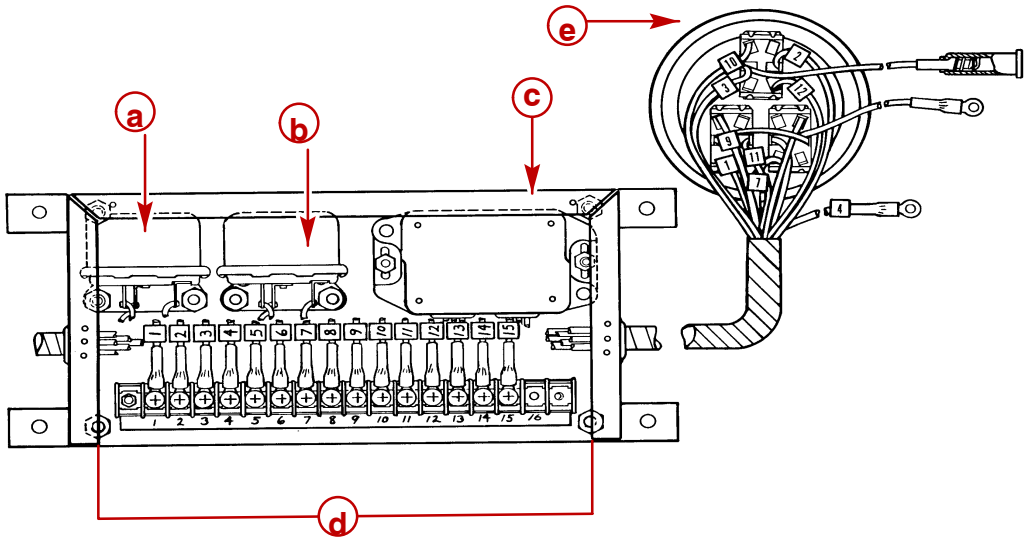
Wiring Diagrams

Dual Trim



a - Starboard trim pump
b - Port trim pump
c - 20 amp fuse
d - Ground bolt (floor mount)
e - UP solenoid
f - DOWN solenoid
g - 110 amp fuse
h - Trim limit switch
i - Trim switch (various styles)
j - Control module
k - Trim position sender
l - 12 Volt power from battery
m - Ground wire
n - 12 Volt power from switched side of ignition switch

Dual Trim Harness Control Module



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Dual trim control panel electrical box

- **a** - Relay No. 1
- **b** - Relay No. 2
- **c** - Diode module
- **d** - Terminal block
- **e** - Control panel

NOTES: