

Dual Range Electrical Installation

ALL MODELS

Please read these instructions completely before you start the installation. Familiarizing yourself with all of the components mentioned will make the installation much easier.

(Graphics appear at bottom of document.)

AUTOMATIC TRANSMISSION

The Dual Range electrical wiring for the automatic consists of a two-circuit system. The first, the control circuit, includes the shift control module, and gray signal switches, protected by an in-line, low amperage fuse. The second, the power circuit, includes the control module and the shift motor protected by a 15 amp automatic re-set circuit breaker.

Under Vehicle

With the Dual Range installed and the vehicle raised, start the harness installation at the right side cover of the Dual Range as follows:

Plug the green terminal with the brown and white wire into the motor (Fig. 1). Attach the green ground wires to the existing screw at the rear of the shift motor.

Plug the signal switch wires on to the appropriate gray switch:

Underdrive: Orange and green wire to front side switch, black and green wire to rear switch.

Overdrive: Orange and green wire to rear switch, black and green wire to front side switch.

Circle harness up and forward and attach with "J" clip to upper top side cover bolt (Fig. 1 or Fig. 2).

Run the main harness up the back of the transmission and through the engine compartment in the left rocker cover area. Pickup trucks exit at point 1, vans and Class "C" motor homes point 2 and Class "A" motor coaches point 3 (Fig. 3). Lower the vehicle and continue the underhood procedure.

Under Hood

Locate a cool area for the control module and mount (Fig. 4 and Fig. 5). Pickup trucks have adequate firewall or side panel room, but vans and Class "C" homes are tight. We suggest wire tying the control module to an existing object (harness, etc.) located in an active air area. Ground the green wires to an appropriate body panel and mount the circuit breaker within the length of red harness wire. Attach the red harness wire to the "Aux" side of the circuit breaker and within the length of red harness wire. Attach the red harness wire to the "Aux" side of the circuit breaker and attach loose red wire provided to the "Bat" side of the circuit breaker and attach to an appropriate 12-volt source (direct to "+" post of battery or junction block).

Run the harness for the shift module through the firewall using existing openings or provide a new hole for same. **Caution:** Be very sure that all wires are properly protected where they pass through the firewall.

Passenger area

Install the shift module on the gear shift lever in the most comfortable position for the thumb to reach and for viewing the high and low lights. Wire tie the wiring harness to the shift lever and pass under the dash and plug into the main harness. Run the in-line fuse holder wire to a 12-volt source that is off when the ignition key is in the "off" position.

Caution: Do not shift the Dual Range while in park or neutral or when the vehicle's cruise control is engaged.

MANUAL TRANSMISSION

The Dual Range electrical wiring for the manual transmission uses a simple power circuit consists of a vertical push-pole shift switch, a six wire version of the control module, and the shift motor, all again protected by a 15 amp automatic re-set circuit breaker. No indicator lights are used; the gear selection is indicated by the up or down position of the shift switch.

Under Vehicle

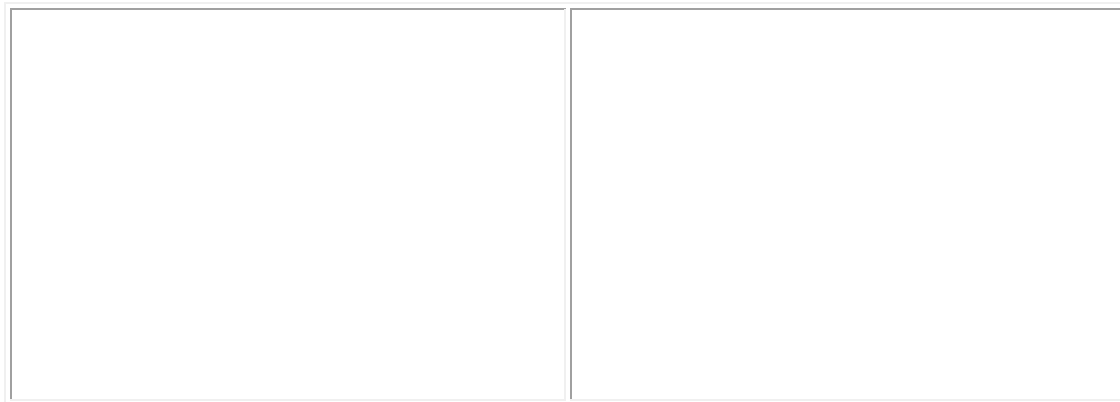
The manual transmission harness has only two wires to be connected to the Dual Range. Plug the green terminal with the brown and white wire into the motor as shown in Fig. 1 of the automatic transmission.

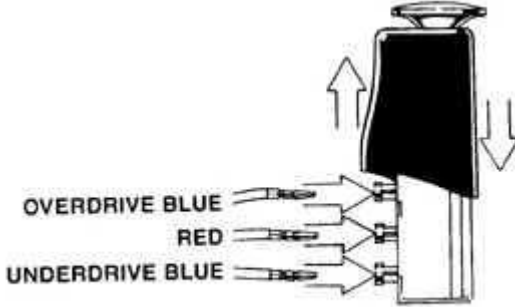
Underdrive: White wire to front terminal.

Overdrive: Brown wire to front terminal.

Use the "J" clip in the upper front screw of the side cover. Feed the two-wire harness to the transmission and up the shift lever through the rubber boot, position the shift switch as preferred. Plug the wires in the switch as pictured (Fig. 6). Blue wire to the *top* for overdrive...Blue wire to the *bottom* for underdrive. Wire tie the harness to the shift lever.

Run the four wire harness under the vehicle following the floor pan to the firewall. Plug the six-wire male terminal into the female terminal of the control module in a cool active air area (firewall, fender panel, etc.). Run red wire from control module to "Aux" post of the circuit breaker; green wire remaining, to a good ground. Attach red wire provided to the "Bat" side of the circuit breaker and attach to an appropriate 12-volt source (direct to "+" battery or junction block).



	 <p>FIG. 6</p>
<p>Typical Class "C" Motorhome or van with automatic transmission</p> <p><i>Click on the picture or here to access a full-sized graphic.</i> <i>Use the "back" button on your browser to return to this page.</i></p>	<p>Typical pickup truck with manual transmission</p> <p><i>Click on the picture or here to access a full-sized graphic.</i> <i>Use the "back" button on your browser to return to this page.</i></p>

Parts List (Automatic)			
Item	Part Number	Description	Qty.
1	59-80007	Shift module	1
2	93-80042	Main wiring harness	1
3	59-80011	Control module	1
4	80-80024	Circuit breaker kit	1
5	*	Power lead	1
6	59-80004	Gray limit switch	2
7	80-80031	Gray limit switch, gasket	2
8	*	Wire ties	6
* Included with wiring harness (Numbers refer to rendering for automatic)			

Parts List (Manual)

Item	Part Number	Description	Qty.
1	93-80029	Push-pull shift switch	1
2	90-80144	Mounting bracket	2
3	93-80043	Main wiring harness	1
4	59-80012	Control module	1
5	80-80024	Circuit breaker kit	1
6	*	Power lead	1
7	*	Wire ties	6
* Included with wiring harness (Numbers refer to rendering for manual)			

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