

TURN SIGNAL AND FLASHERS

CONTENTS

	page		page
GENERAL INFORMATION		FLASHER LOCATION	1
HAZARD WARNING SYSTEM	1	DIAGNOSIS AND TESTING	
INTRODUCTION	1	MULTI-FUNCTION SWITCH TESTS	2
DESCRIPTION AND OPERATION		REMOVAL AND INSTALLATION	
TURN SIGNAL AND HAZARD WARNING		MULTI-FUNCTION SWITCH	4

GENERAL INFORMATION

INTRODUCTION

WARNING: ON VEHICLES EQUIPPED WITH AIR-BAG, SEE GROUP 8M, RESTRAINT SYSTEMS FOR AIRBAG REMOVAL PROCEDURES.

The turn signals are part of the multi-function switch. Which contains:

- Electrical circuitry for turn signals
- Hazard warning switch
- Headlamp beam select switch
- Headlamp optical horn
- Windshield wiper switch
- Pulse wipe and windshield washer switching

The integrated switch assembly is mounted to the left hand side of the steering column. When the driver wishes to signal his intentions to change direction of travel, he moves the lever upward to cause the right signals to flash and downward to cause the left signals to flash. After completion of a turn the system is deactivated automatically. As the steering wheel returns to the straight ahead position, a canceling cam molded to the clockspring mechanism comes in contact with the cancel actuator on the turn signal multi-function switch assembly. The cam lobe, pushing on the cancel actuator, returns the switch to the off position.

If only momentary signaling such as indication of a lane change is desired, the switch is actuated to a left or right intermediate detent position. In this position the signal lamps flash as described above, but the switch returns to the OFF position as soon as the lever is released.

When the system is activated, one of two indicator lamps mounted in the instrument cluster flashes in unison with the turn signal lamps, indicating to the driver that the system is operating.

HAZARD WARNING SYSTEM

The hazard warning system is actuated by a push button located on the top of the steering column

between the steering wheel and the instrument panel. The hazard switch is identified with a double triangle on top of the button. Push and release the button to turn the hazard function ON or OFF. The button will move out from the steering column in the ON position and will remain in toward the column in the OFF position.

DESCRIPTION AND OPERATION

TURN SIGNAL AND HAZARD WARNING FLASHER LOCATION

The turn signal flasher and the hazard warning flasher are combined into one unit called a Combination Flasher (Combo-Flasher). The combo-flasher controls the flashing of the hazard warning system and the turn signal system. An inoperative bulb or incomplete turn signal circuit will result in an increase in flasher speed.

The combo-flasher is mounted to the in-line bracket which is located to the of right the Junction Block. The flasher can be removed by pulling in an rearward direction. The left under panel silencer duct must be removed to access the flasher. The combo-flasher is black in color for ease of identification (Fig. 1).

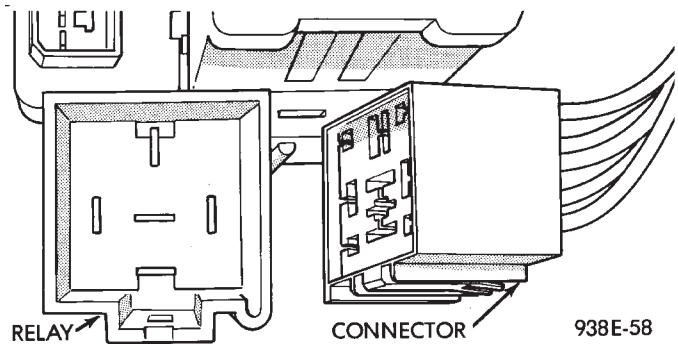


Fig. 1 Combo-Flasher

DIAGNOSIS AND TESTING

MULTI-FUNCTION SWITCH TESTS

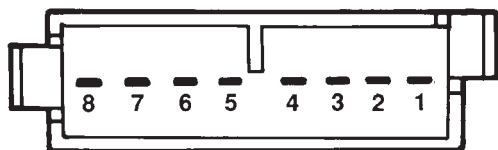
The multi-function switch contains electrical circuitry for turn signal, hazard warning, headlamp beam select, headlamp optical horn, windshield wiper, pulse wipe, and windshield washer switching. Refer to Group 8K, Windshield Wiper and Washer Systems for Wiper and Washer functions. This integrated switch assembly is mounted to the left hand side of the steering column. Should any function of the switch fail, the entire switch assembly must be replaced. Refer to (Fig. 2) for diagnosis.

To test the switch, first disconnect the battery negative cable, then remove the upper and lower column covers to gain access to the switch connector. Remove switch from the column and remove the switch connector. Using an ohmmeter, test for continuity (no resistance) between the terminals of the switch as shown in the following continuity charts (Fig. 3) or (Fig. 4).

CONDITION	POSSIBLE CAUSES	CORRECTION
SYSTEM DOES NOT FLASH ON ONE SIDE, INDICATOR LAMP FLASHES AT DOUBLE NORMAL RATE.	1. Faulty external lamp. 2. Poor ground at lamp. 3. Open circuit in wiring to external lamp. 4. Faulty contact in switch.	1. Replace lamp. 2. Check and/or replace wiring. 3. Replace wiring/harness. Check connectors. 4. Replace multifunction switch.
INDICATOR LAMP FLASHES AT DOUBLE NORMAL RATE. EXTERNAL LAMP-DIM AND FLASHES RAPIDLY OR NO FLASH.	1. Loose or corroded external lamp connection. 2. Poor ground circuit at external lamp.	1. Replace socket/harness. 2. Replace wiring/harness. Check connectors.
HAZARD WARNING MALFUNCTION/SYSTEM DOES NOT FLASH	1. Faulty fuse. 2. Faulty flasher. 3. Open circuit in feed wire to switch. 4. Faulty contact in switch. 5. Open or grounded circuit in wiring to external lamps.	1. Replace fuse. 2. Replace flasher. 3. Replace wiring/harness. Check connectors. 4. Replace multifunction switch. 5. Replace wiring/harness.
INDICATOR LAMP FLASHES AT DOUBLE NORMAL RATE. EXTERNAL LAMP DOES NOT LIGHT	1. Open circuit in wire to external lamp. 2. Burned out lamp.	1. Replace wiring/harness. 2. Replace lamp.
SYSTEM DOES NOT FLASH ON EITHER SIDE	1. Faulty fuse. 2. Faulty flasher unit. 3. Loose bulkhead connector. 4. Loose or faulty rear wiring Harness or terminals. 5. Open circuit to flasher unit. 6. Open circuit in feed wire to turn signal switch. 7. Faulty switch connection in switch. 8. Open or grounded circuit in wiring to external lamps. 9. Burned out lamps.	1. Replace fuse. 2. Replace flasher. 3. Tighten connector. 4. Replace wiring/harness. 5. Check connectors, replace wiring/harness. 6. Check connectors, replace wiring/harness. 7. Replace switch. 8. Replace wiring/harness. 9. Replace lamps.
SYSTEM DOES NOT CANCEL AFTER COMPLETION OF TURN	1. Broken cancelling finger on switch. 2. Broken or missing cancelling cam on clockspring. 3. Sticking cancelling finger on multifunction switch.	1. Replace multifunction switch. 2. Replace clockspring. 3. Replace multifunction switch.
EXTERNAL LAMPS OPERATE PROPERLY, NO INDICATOR LAMP OPERATION	1. Faulty indicator lamp in instrument cluster.	1. Replace lamp.

Fig. 2 Combination Flasher Diagnosis

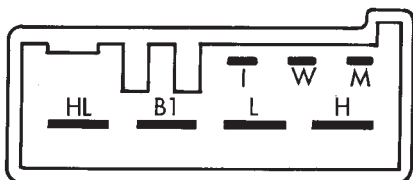
REMOVAL AND INSTALLATION (Continued)



SWITCH POSITION		CONTINUITY BETWEEN
TURN SIGNAL	HAZARD WARNING	
NEUTRAL	OFF	1 and 3
LEFT	OFF	7 and 6
RIGHT	OFF	7 and 8
NEUTRAL	ON	2 and 3 7 and 8 7 and 6 4 and 5

938J-8

Fig. 3 Turn Signal and Hazard Switch Continuity



SWITCH POSITION	CONTINUITY BETWEEN
LOW BEAM	HL and L
HIGH BEAM	HL and H
OPTICAL HORN	B1 and H

938J-9

Fig. 4 Beam Select Switch Continuity

REMOVAL AND INSTALLATION

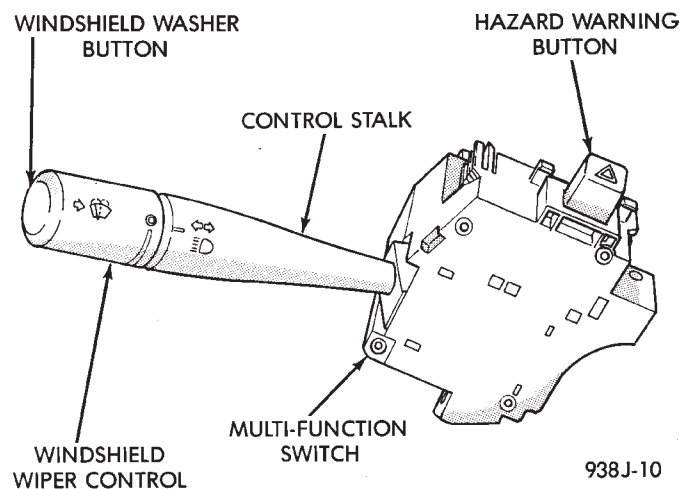
MULTI-FUNCTION SWITCH

REMOVE

- (1) Disconnect battery negative cable.
- (2) Remove tilt lever.
- (3) Remove both upper and lower steering column shrouds.
- (4) Remove multi-function switch mounting screws (Fig. 5).

INSTALLATION

- For installation, reverse the above procedures.
- (1) Tighten multi-function switch to column retaining screws to 2 N·m (17 in. lbs.) torque.
 - (2) Tighten steering column cover retaining screws to 2 N·m (17 in. lbs.) torque.



938J-10

Fig. 5 Multi-Function Switch