

118. RANGE TRANSMISSION SENSING SWITCHES. Before adjusting transmission sensing switches, make certain shifting linkage is adjusted as in paragraph 117. Disconnect wiring connectors at transmission sensing switches (Fig. 144). Identify and tag all connectors for aid in reassembly.

NOTE: If necessary to renew switches, apply a drop of Loctite 242 to the switch threads.

To adjust and test the 1st/2nd range sensing switch (1—Fig. 145), shift 1st/2nd shift lever to 1st range position. Attach multimeter leads to terminals (C and D) of switch connector. Loosen the jam nut and turn switch (1) counterclockwise until multimeter shows no continuity. Then, turn switch clockwise until continuity is shown. Carefully turn the switch clockwise an additional 1/2 turn. Tighten jam nut to a torque of 35-40 N·m (26-30 ft.-lbs.). Using the chart shown in Fig. 145, test the 1st/2nd switch (1). If unable to obtain continuity as shown, renew the switch.

To adjust and test 3rd/4th range sensing switch (2—Fig. 146), move 3rd/4th shift lever to 3rd range position. Attach multimeter leads to terminals (C and D) of switch connector. Loosen the jam nut and turn switch (2) counterclockwise until multimeter shows no continuity. Then, turn switch clockwise until continuity is shown. Carefully turn switch clockwise an

additional 1/2 turn. Tighten jam nut to a torque of 35-40 N·m (26-30 ft.-lbs.). Using the chart shown in Fig. 146, complete the tests. If unable to obtain continuity as shown, renew the switch.

To adjust and test the 4th range sensing switch (3—Fig. 147), shift 3rd/4th shift lever to 3rd range position. Attach multimeter leads to terminals (C and D) of switch connector. Loosen jam nut and turn switch (3) counterclockwise until multimeter shows no continuity. Then, turn switch clockwise until con-

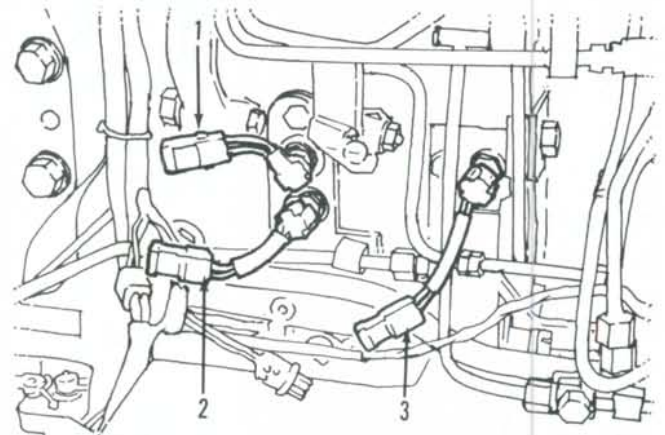
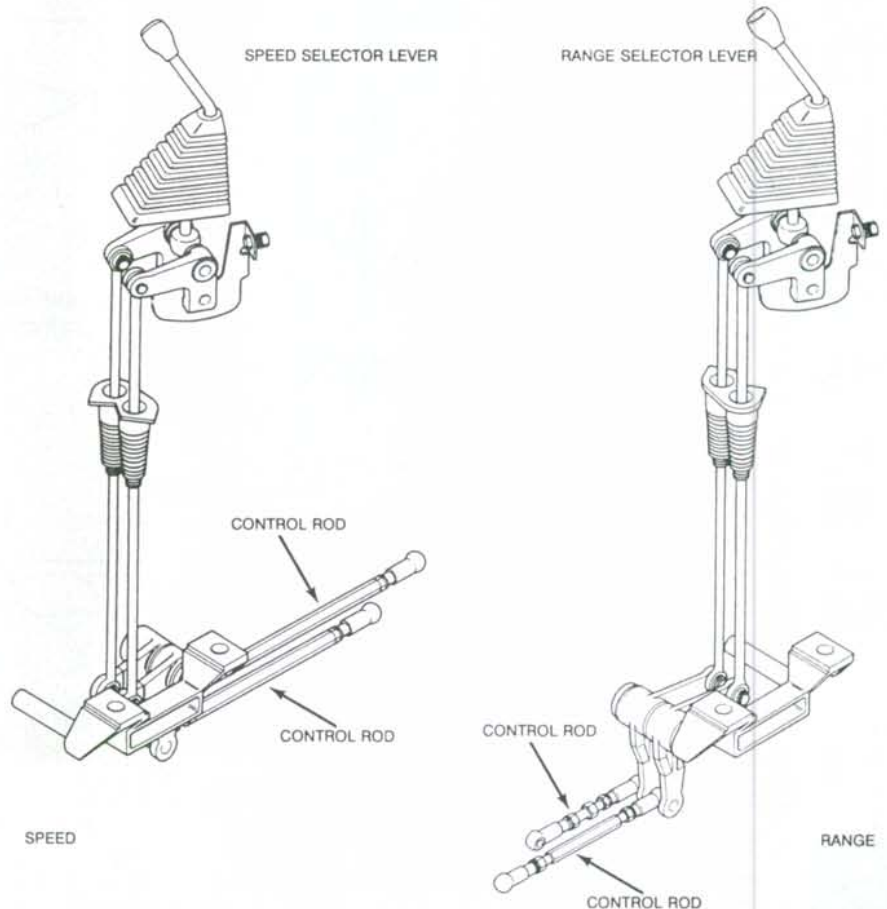
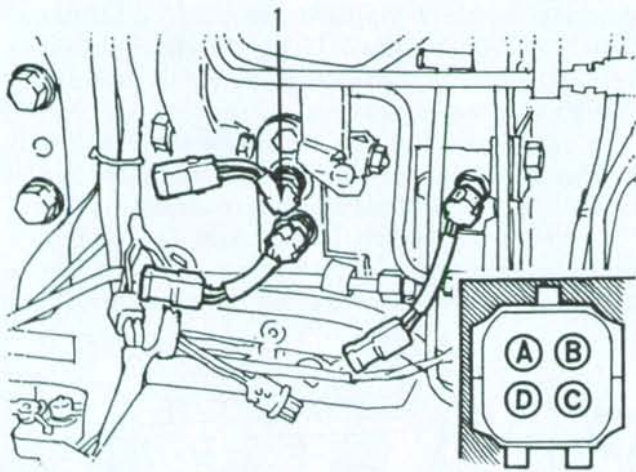


Fig. 144—Disconnect range sensing switch connectors at locations (1, 2 and 3).

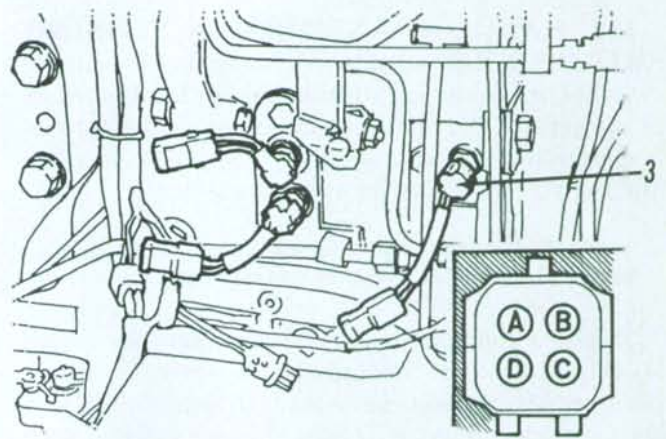
Fig. 143—View showing control rods and selector lever linkage for synchromesh speed and range transmissions.





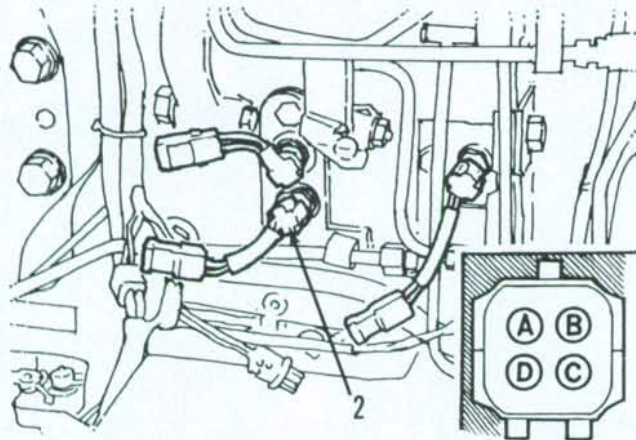
Range Selection	Terminals	Continuity Reading
1st Range	D and C	Yes
1st Range	A and B	No
Neutral	D and C	No
Neutral	A and B	Yes
2nd Range	A and B	No
2nd Range	D and C	Yes

Fig. 145—View of 1st and 2nd range switch (1), switch connector terminals and test chart.



Range Selection	Terminals	Continuity Reading
3rd Range	D and C	Yes
3rd Range	A and B	No
Neutral	D and C	Yes
Neutral	A and B	No
4th Range	A and B	Yes
4th Range	D and C	No

Fig. 147—View of 4th range sensing switch (3), switch connector terminals and test chart.



Range Selection	Terminals	Continuity Reading
3rd Range	D and C	Yes
3rd Range	A and B	No
Neutral	D and C	No
Neutral	A and B	Yes
4th Range	A and B	No
4th Range	D and C	Yes

Fig. 146—View of 3rd/4th range sensing switch (2), switch connector terminals and test chart.

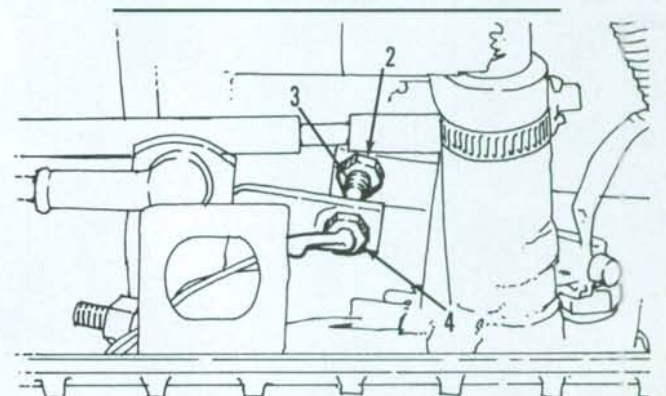
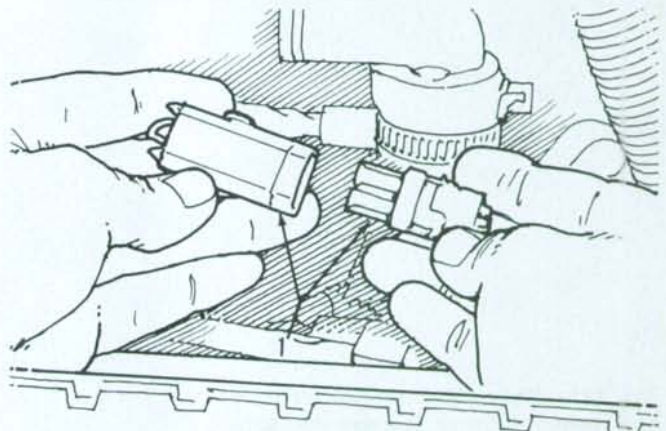


Fig. 148—Upper view shows synchromesh neutral sensing switch connector (1). Lower view shows jam nut (2), magnet (3) and reed switch (4) of the synchromesh neutral sensing switch.

tinuity is shown. Carefully turn switch clockwise an additional $\frac{1}{2}$ turn. Tighten jam nut to a torque of 35-40 N·m (26-30 ft.-lbs.). Using the chart shown in Fig. 147, complete the tests. If unable to obtain continuity as shown, renew the switch.

119. SYNCHROMESH SPEED NEUTRAL SENSING SWITCH. To adjust and test the synchromesh speed neutral switch, refer to Fig. 148 and disconnect switch connector (1). With speed selector lever in neutral position, loosen magnet jam nut (2). Turn magnet (3) clockwise until it touches the reed switch (4). Then, turn the magnet counterclockwise two turns and tighten the jam nut (2) to a torque of 3.4 N·m (2.5 ft.-lbs.). Attach multimeter leads to terminals (A and B—Fig. 149) of switch connector. Using the chart shown, check the continuity readings. If unable to obtain correct continuity readings, renew the switch.

NOTE: If switch is being renewed, apply a drop of Loctite 242 to threads of switch and magnet.



Speed Selection	Terminals	Continuity Reading
Neutral	A and B	Yes
1st	A and B	No
2nd	A and B	No
3rd	A and B	No
4th	A and B	No

Fig. 149—View of connector terminals and test chart for synchromesh neutral sensing switch.