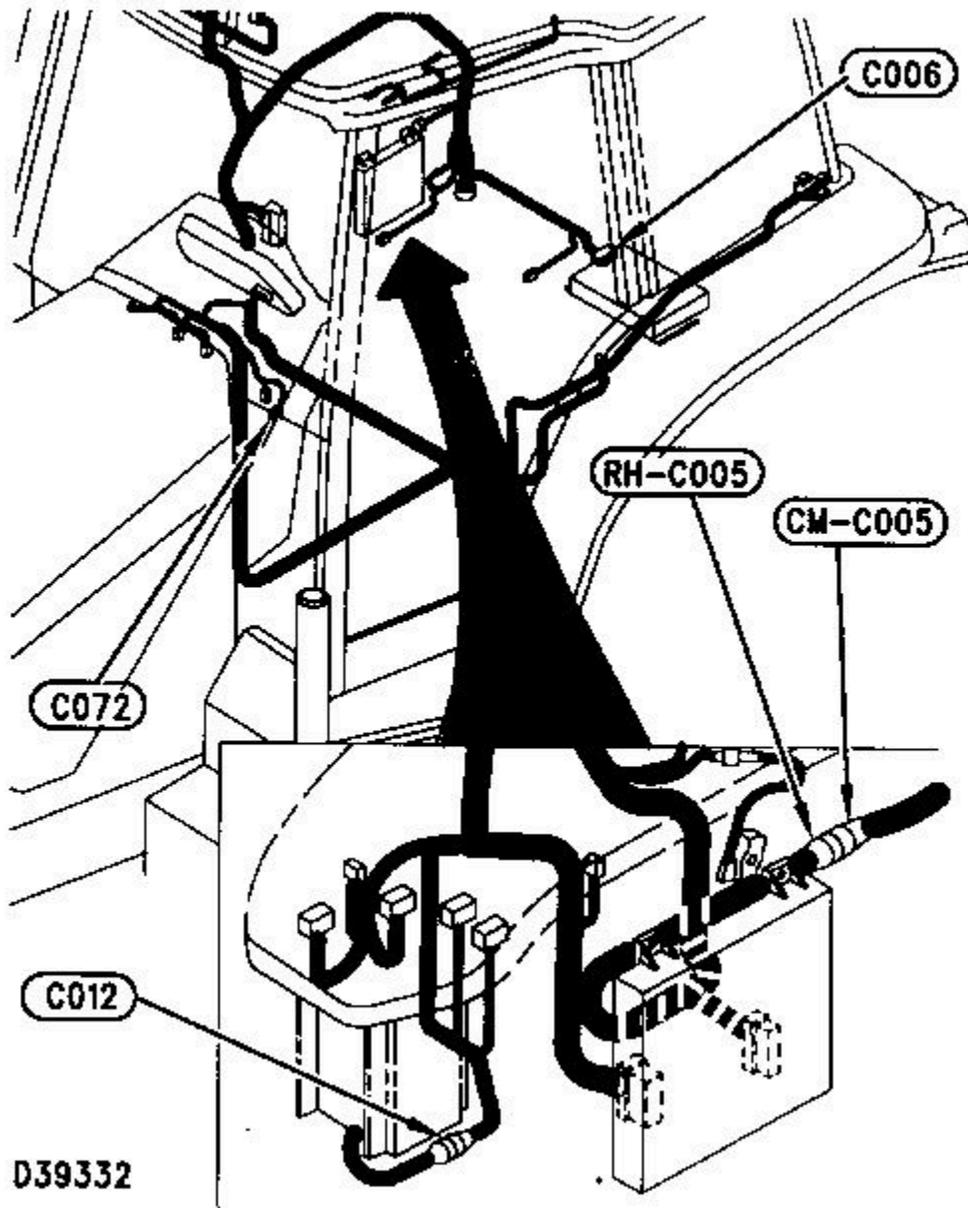


Fault Code F393

(1) Chassis Control Module (CCM). (2) Directional interrupt relay. (3) Transmission F/R solenoid fuse (MDP-F20). (4) Clutch switch. (5) Gear shift.



F393 Procedure Directional Input And Gearshift Disagree

This fault code appears when power is detected at the directional clutch input and the gearshift is detected in the neutral position.

1. Place the gear shift in NEUTRAL and depress the inching pedal. Is fault code cleared?

- * YES, go to Step 2.
- * NO, go to Step 4.

2. With the inching pedal released, disconnect the C012 from the gear shift. Is fault code cleared?

- * YES, replace gear shift assembly. Check fault code and if no longer active the repair is complete.
- * NO, go to Step 3.

3. Check for short circuit to a positive voltage supply or battery from C012-8 or from RH-C005-9 in the Right Hand Console harness. Is there a short circuit?

- * YES, locate and repair short circuit in the Right Hand Console harness. Check fault code and if no longer active the repair is complete.
- * NO, locate and repair short circuit to a positive voltage supply or battery from CM-C005-9 or from C072-2 (clutch switch) in Cab Main harness. Check fault code and if no longer active the repair is complete.

4. Disconnect the clutch switch from the harness. Check switch function with pedal out (closed switch) and pedal in (open switch). Does clutch switch function normally?

- * YES, go to Step 5.
- * NO, replace clutch switch. Check fault code and if no longer active the repair is complete.

5. Unplug the directional interrupt relay (MDP-R6). Is the fault code cleared?

- * YES, go to Step 6.
- * NO, go to Step 7.

6. Replace the directional interrupt relay (MDP-R6) with a new part. Recheck fault code. Is fault code no longer active?

- * YES, repair complete.
- * NO, locate and repair short circuit to a positive voltage supply or battery from C072-1 (clutch switch) or from directional interrupt relay (terminal 2 of MDP-R6). Check fault code and if no longer active the repair is complete.

7. Check for short circuit to a positive voltage supply or battery from C006-9 in the Cab Main harness. Is there a short circuit?

- * YES, locate and repair short circuit in Cab Main harness. Check fault code and if no longer active the repair is complete.
- * NO, go to Step 8.

8. Replace the Chassis Control Module (CCM). Is the fault code active?

- * YES, install the original CCM and repeat this troubleshooting procedure.
- * NO, go to Step 9.

9. Install the original CCM. Is the fault code active?

- * YES, original CCM was faulty. Replace original CCM with new CCM. If fault code is not active, repair is complete. Download latest control module software into all modules. Calibrate