Instruction sheet

IS-17910 A

MESSAGE CENTER DISPLAY (MCD) REPLACEMENT

REVISION: A This revision replaces all previous versions

2019-06-05 **Procedure made clearer.**

Effectivity: all vehicles with digital cluster.

MATERIEL

Kit #IS17910 includes the following parts:

Part No.	Description	Qty
19519274	MESSAGE CENTER DISPLAY (CURCUIT BOARD)	1
IS-17910	INSTRUCTION SHEET	1
FI-17910	FEUILLE D'INSTRUCTIONS	1

NOTE

Material can be obtained through regular channels.

PROCEDURE



Park vehicle safely, apply parking brake, stop the engine. Prior to working on the vehicle, set the ignition switch to the OFF position and trip the main circuit breakers equipped with a trip button. On Commuter type vehicles, set the battery master switch (master cut-out) to the OFF position.

General Work Practices

Note: Individual gages or modules in the H3/XL2 instrument cluster are not serviceable during the warranty period. Attempts to service or replace individual modules or gages during the warranty period will void the cluster warranty.

Caution: To prevent electrostatic discharge (ESD), which may damage the sensitive electronic components in the instrument cluster, make sure the workbench has an anti-static mat which is grounded to the nearest electrical outlet when working on the instrument cluster. Failure to use an anti-static mat may result in permanent damage to the printed circuit boards in the instrument cluster. When working at the anti-static workbench, always keep a wrist strap connected to the anti-static mat.

When dealing with circuits designed to sense differences smaller than 1 volt, electrostatic discharge can be a subtle but destructive problem. Circuit boards mounted in the instrument cluster or in modules mounted elsewhere may not fall immediately after being hit with a static discharge. Rather they may work for a while, then fall for no apparent reason. The culprit then is often the normal warming up and cooling down the process of the module, engine or cab interior.

Grounding straps and anti-static mats are available for minimal cost from electronic supply stores. Grounding straps consists of a wrist strap, a coiled extension wire and an alligator clip. Be sure to purchase one with a long enough extension wire to allow freedom of movement.



FIGURE 1: SPECIAL EQUIPMENT

NEW DISPLAY PREPARATION

1. Remove the new PC board with the new display from the delivery box.



FIGURE 2

2. Place the new PC board on the static mat.

NOTE

A static bracelet must be worn for all operations.



FIGURE 3

3. Remove the new display from the new PC board (2 screws Torx T7).



FIGURE 4

- 4. Keep the new display and screws.
- 5. Discard the new PC board.



FIGURE 5

INSTRUMENT CLUSTER REMOVAL

CAUTION

When servicing or troubleshooting, do not leave the cluster face-down for more than 15 minutes, or damage to the gages may occur. Gage oil can run out the front of the gage faces and make the gages inaccurate.

- 6. Remove the air from the air tank by applying the brakes repeatedly.
- 7. Remove the dashboard cover.
- 8. Disconnect the instrument cluster cabling.
- 9. Disconnect the 3 air hoses.
- Remove the nuts fixing the instrument cluster to the dashboard housing (Figure 6).
- 11. Remove the instrument cluster.
- 12. Place the instrument cluster on a static mat for repairs.

instrument cluster nuts/ écrous du panneau des instruments

FIGURE 6



FIGURE 7

NOTE

A static bracelet must be worn for all bench repairs.

EXISTING DISPLAY REMOVAL

13. On the cluster, remove the cover over the existing PC board (3 screws).



FIGURE 8

14. Remove screws (2) that hold the existing PC board to the cluster.



FIGURE 9

- 15. Turn the existing PC board over.
- 16. Disconnect the ribbon cable then remove the existing PC board.



FIGURE 10

17. Remove the existing display from the existing PC board (2 screws Torx T7).



FIGURE 11

REINSTALLATION

- 18. Install the new display on the existing PC board (2 screws).
- 19. Connect the ribbon cable of the existing PC board with the new display on the cluster.
- 20. Turn the existing PC board in place.

FIGURE 12

21. Install screws (2) to hold the existing PC board on the cluster.



FIGURE 13

- 22. On the cluster, reinstall the cover over the existing PC board (3 screws).
- 23. Reinstall the instrument cluster into the dashboard housing.
- 24. Insert the lower part of the instrument cluster into the housing. Exert a pressure on the lower part of the instrument cluster to avoid jamming the instrument cluster glass pane. Rest the leaf spring against the supports.



FIGURE 14

NOTE

The instrument panel supports may be lowered from 1 mm to 2 mm maximum if, after tightening, the pane does not clear the housing (Figure 15).

- 25. Bring back the top of the instrument cluster, insert the screws and tighten the nuts until the instrument cluster rests against the housing (Figure 15).
- 26. Reconnect the 3 air hoses.



FIGURE 15

- 27. Reconnect the instrument cluster cabling.
- 28. Reinstall the dashboard cover.
- 29. Bulletin is complete.

PARTS / WASTE DISPOSAL

Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)