

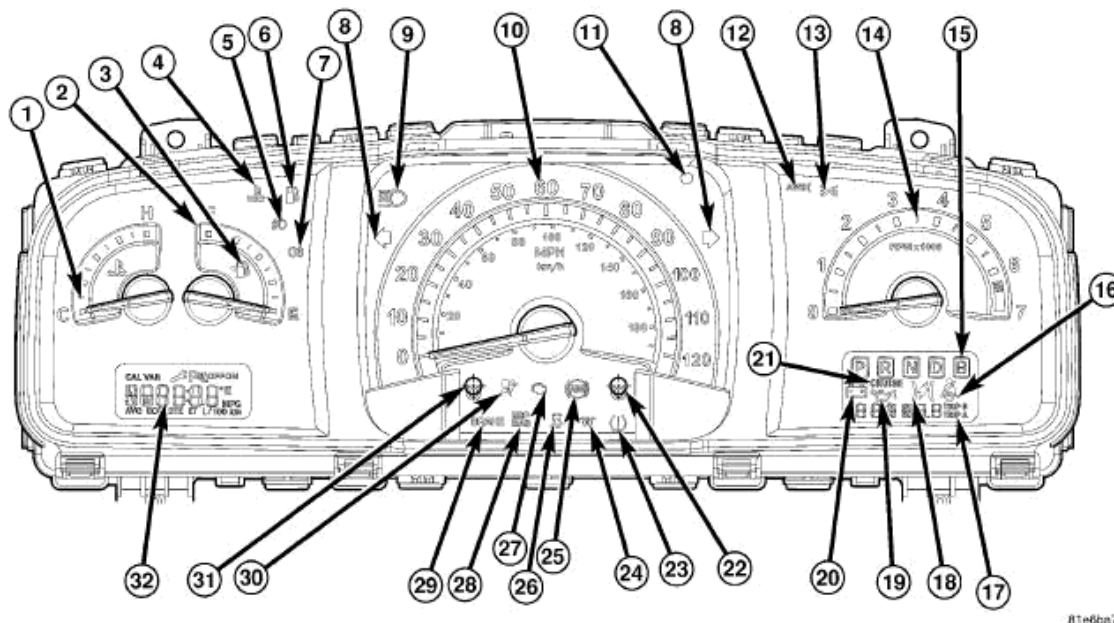
2009 ACCESSORIES AND EQUIPMENT**Instrument Cluster - Service Information - Journey****DESCRIPTION****DESCRIPTION**

The instrument cluster contains the necessary hardware and software to serve as the vehicle electronic body control module and is commonly referred to as the Cab Compartment Node (CCN). The CCN utilizes integrated circuitry and information carried on the Controller Area Network (CAN) data bus and the Local Interface Network (LIN) data bus, along with several hardwired analog and multiplexed inputs to monitor sensors and switches throughout the vehicle. The CCN also contains various indicators, analog gauges, and a standard blue-green digital Vacuum Fluorescent Display (VFD) unit. The standard VFD is a fixed segment unit that displays odometer information, automatic transmission gear selector position (PRNDL), and several other indicators, some of which are model dependant.

There are several versions of the CCN offered for this vehicle. These versions accommodate all of the variations of optional equipment for the various markets in which the vehicle is offered. The CCN may also contain a separate reconfigurable blue-green digital VFD unit that has either a Compass Mini-Trip Computer (CMTTC) option or an Electronic Vehicle Information Center (EVIC) option. Both of these options provide the outside ambient temperature, compass headings, average fuel economy, and elapsed time. The EVIC option also offers a user interface for customer programmable features, audio system setting displays, numerous textual warnings, reminder indicators, and certain diagnostic information.

A dedicated Light Emitting Diode (LED) soldered onto the circuit board illuminates each indicator in the CCN, except those within a VFD unit. Several dimmable LED units illuminate each gauge dial face for visibility when the exterior lighting is turned on. These LED units are not available for service replacement and, if damaged or ineffective, the entire CCN must be replaced.

The CCN is serviced only as a complete unit and cannot be adjusted or repaired. If a gauge, LED unit, VFD unit, electronic circuit board, circuit board hardware, cluster overlay, or cluster housing is damaged or ineffective, the entire CCN must be replaced. The cluster lens is available for separate service replacement.



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Fig. 1: Mechanical Instrument Cluster
 Courtesy of CHRYSLER LLC

The mechanical instrument cluster is an electromechanical module that receives most of its information directly from the various control modules, with the data bus.

The cluster includes:

- A speedometer (10)
- A tachometer (14)
- A fuel gauge (2)
- A coolant Temperature gauge (1)

The warning and information indicators include the following:

- Coolant temperature warning (4)
- Front fog lamp indicator, front (5), and rear (7) (export only)
- Low fuel (6)
- Turn signal indicator (8)
- High beam (9)
- Vehicle theft security system alarm LED indicator (if equipped) (11)
- All-Wheel Drive (AWD) failure indicator (12)
- Front position lamps (13) (export only)
- Transaxle range indicator (15)
- Seat belt reminder (16)
- Odometer/Trip odometer (17)

- Electronic Throttle Control (ETC) warning lamp (18)
- Low oil pressure (19)
- Charging system (20)
- Cruise (if equipped) (21)
- Trip odometer reset button (cycle to change display; Trip A, Trip B, Outside Temperature for base vehicle) (22)
- Tire Pressure Monitoring (TPM) (23)
- Wait to Start Indicator (Export Diesel) (24)
- Anti-lock brake system (If equipped) (25)
- Electronic Stability Program (ESP) and Traction Control System (TSC) (26)
- Check engine (27)
- Electronic Stability Program (ESP) and / Brake Assist System (BAS) Malfunction Lamp (28)
- Brake/park brake warning (29) (Export will display an ICON)
- Airbag (30)
- Compass/Temp display and calibrate button (CMTC Only) (31)
- Vacuum Fluorescent Display (VFD) (32) (if equipped) - For CMTC option, use 31 Compass/Temp display and calibrate button to interface with display. For EVIC option, use front mounted steering wheel switches to interface with display.

Vehicle Warning Messages

When the appropriate conditions exist, messages such as "HOOD" (hood ajar), "DOOR" (door ajar), "GATE" (liftgate ajar), "LoCOOL" (low engine coolant), "LoWASH" (low washer fluid), "GASCAP" (fuel cap fault), "ESPOFF" (ESP in partial off mode), "NoBUS" (data bus communication fault), "NoFUSE" (IOD fuse out), "HotOIL" (2.4L engine oil temp too hot), or "CHANGE OIL" displays in the odometer.

Change Oil Message (Base and mid line clusters only)

Your vehicle is equipped with an engine oil change indicator system. The "CHANGE OIL" message flashes in the instrument cluster odometer for approximately 12 seconds after a single chime has sounded to indicate the next scheduled oil change interval. The engine oil change indicator system is duty cycle based, which means the engine oil change interval may fluctuate dependent upon your personal driving style.

Unless reset, this message continues to display each time you turn the ignition switch to the ON position. To turn off the message temporarily, press and release the TRIP ODOMETER button on the instrument cluster. To reset the oil change indicator system, (after performing the scheduled maintenance) perform the following procedure:

1. Turn the ignition switch to the ON position. (Do not start the engine).
2. Fully press the accelerator pedal slowly three times within 10 seconds.
3. Turn the ignition switch to the LOCK position.

NOTE: If the indicator message illuminates when you start the vehicle, the oil change indicator system did not reset. If necessary, repeat this procedure

OPERATION

OPERATION

The instrument cluster contains the necessary hardware and software to serve as the vehicle's electronic body control module and is commonly referred to as the Cab Compartment Node (CCN). The following information deals primarily with the instrument cluster functions of this unit. Additional details of the electronic body control functions may be found within the service information for the system or component that the CCN controls. For example, additional details of the audible warning functions of the CCN are found within the **CHIME/BUZZER - SERVICE INFORMATION**.

The CCN is designed to allow the vehicle operator to monitor the conditions of many of the vehicle components and operating systems. The gauges and indicators in the CCN provide valuable information about the various standard and optional powertrains, fuel and emissions systems, cooling systems, lighting systems, safety systems and many other convenience items. The CCN is installed in the instrument panel so that the operator of the vehicle can view all of these monitors easily, yet still allow relative ease of access for service.

The microprocessor-based CCN hardware and software uses various inputs to control the gauges and indicators visible on the face of the cluster. Some of these inputs are hard wired, but most are in the form of electronic messages that are transmitted by other electronic modules over the Controller Area Network (CAN) data bus and the Local Interconnect Network (LIN) data bus. The CCN is the master of the LIN bus. These four modules talk to the CCN: The Heated Seat Module (HSM); the Remote Compass Module (RCM); the Steering Control Module (SCM); and the Accessory Switch Bank Module (ASBM). Refer to **Electrical - Electronic Control Modules/Electronic Control Modules/COMMUNICATION - Operation**.

The CCN microprocessor smooths the input data using algorithms to provide gauge readings that are accurate, stable, and responsive to operating conditions. These algorithms are designed to provide gauge readings during normal operation that are consistent with customer expectations. However, when abnormal conditions exist such as high coolant temperature, the algorithm can drive the gauge pointer to an extreme position and the microprocessor can sound a chime through the on-board audible tone transducer to provide distinct visual and audible indications of a problem to the vehicle operator. The CCN may also produce audible warnings for other electronic modules in the vehicle based upon electronic tone request messages received over the CAN/LIN data bus. Each audible warning is intended to provide the vehicle operator with an audible alert to supplement a visual indication.

The CCN circuitry operates on battery current received through a fused B(+) fuse on a non-switched fused B(+) circuit, and on battery current received through a fused ignition switch output (run-start) fuse on a fused ignition switch output (run-start) circuit. This arrangement allows the CCN to provide some features regardless of the ignition switch position, while other features will operate only with the ignition switch in the On or Start positions. The CCN circuitry is grounded through a ground circuit of the instrument panel wire harness.

The CCN also has a self-diagnostic actuator test capability that tests each of the CAN bus message-controlled functions of the cluster. This test illuminates the appropriate indicators, positions the gauge needles at several predetermined calibration points across the gauge faces, and illuminates all segments of the odometer/trip

odometer/gear selector indicator Vacuum-Fluorescent Display (VFD) unit and Electronic Vehicle Information Center (EVIC). The EVIC will display the hardware/software version, and the CAN and LIN Vehicle Maintenance Monitor (VMM) used in the CCN. See **Diagnosis and Testing** .

The CCN collects data and provides control signals for the following electrical equipment via the CAN data bus:

- Gauges
- Interior lighting controls
- Variable-intensity cluster lighting and illumination of instrument panel mounted equipment
- Vehicle Theft Alarm and Sentry Key Theft Deterrent System
- Power door lock system controls (automatic locking, and Remote Keyless Entry locking and unlocking)
- Headlamp switch actuation signal
- Steering wheel radio actuation signals
- Accessory power delay relay control
- Wiper control
- Turn signal flasher audible click
- Heated seat actuation signal (if equipped)
- UConnect® Hands-Free, Voice-Actuated Communication system actuation signal (if equipped)
- Display of the outputs for the HomeLink® universal home security system and compass (if equipped)
- Illuminated entry system
- Key-in-ignition warning chime
- Seat belt warning chime and lamp (Including BeltAlert®)
- Door ajar warning indicator
- Liftgate/trunk ajar warning indicator
- LIN master module

The CCN also provides the following enhancements to the above features:

- Time-out for interior lamps left on inadvertently
- Driver programmability of the power locks to unlock only the driver's door or all doors with the first actuation of the RKE unlock button
- Ability to program vehicle response to lock and unlock commands from the RKE transmitter
- The improved BeltAlert® seatbelt warning indication
- Filtering of input signals to the fuel gauge, temperature gauge, and speedometer to avoid sudden, unexpected pointer movements
- Headlamp control for turning the headlamps on if the windshield wipers are operated in daylight as required by law in some states

GAUGES

All gauges receive battery current through the CCN circuitry only when the ignition switch is in the On or Start positions. With the ignition switch in the Off position, battery current is not supplied to any gauges, and the CCN circuitry is programmed to move all of the gauge needles back to the low end of their respective scales. Therefore, the gauges do not accurately indicate any vehicle condition unless the ignition switch is in the On or Start positions.

All of the CCN gauges are stepper motors. The gauges are diagnosed using the CCN self-diagnostic actuator test. See **Diagnosis and Testing** . Proper testing of the CAN data bus and the electronic data bus message inputs to the CCN that control each gauge require the use of a diagnostic scan tool. Refer to the appropriate diagnostic service information. Specific operation details for each gauge may be found elsewhere in this service information.

VACUUM-FLUORESCENT DISPLAYS

The Vacuum-Fluorescent Display (VFD) units are soldered to the CCN electronic circuit board. With the ignition switch in the Off or Accessory positions, the standard left and optional right VFD displays are activated when the driver door is opened and is deactivated when the driver door is closed. Otherwise, the display units are active when the ignition switch is in the On or Start positions, and inactive when the ignition switch is in the Off or Accessory positions.

The illumination intensity of the VFD units are controlled by the CCN circuitry based upon an input from the headlamp switch and a dimming level input received from the panel dimmer switch. The CCN synchronizes the illumination intensity of other VFD units with that of the unit in the CCN by sending electronic dimming level messages to other electronic modules in the vehicle over the CAN/LIN data bus.

The CCN VFD units have several display capabilities. The standard VFD unit displays odometer, trip odometer, engine hours, gear selector indication (PRNDL) for models with an automatic transmission, several warning or reminder indications, and various diagnostics information when certain fault conditions exist. An odometer/trip odometer switch on the CCN circuit board is used to control some of the display modes of the standard VFD. This switch is actuated manually by depressing the odometer/trip odometer switch button, which extends through the cluster lens below the speedometer at the bottom right hand side. Actuating this switch momentarily with the ignition switch in the On position will toggle the VFD between odometer, trip odometer modes, and outside ambient temperature (for base vehicle only). Depressing the switch button for about two seconds while the VFD is in the trip odometer mode will reset the trip odometer value to zero. The optional VFD unit on the left hand side displays the Compass Mini-Trip Computer (CMTC) or the Electronic Vehicle Information Center (EVIC). The left switch button, which extends through the cluster lens below the speedometer at the bottom left hand side, is used as a STEP button for the CMTC display and for customer programmable features. Refer to **Electrical - Message Systems/Message Center/CENTER, Electronic Vehicle Information - Operation** .

The front mounted steering wheel switches are used to interface with the EVIC display.

NOTE: If the vehicles OnBoard Diagnostic (OBD) system determines that the fuel filler cap is loose, improperly installed, or damaged; a "GASCAP" message will be displayed in the Odometer/Trip Odometer. In this instance, tighten the fuel filler cap and press the odometer/trip odometer reset button once to turn the message OFF. The key must be in the Run/Start position during the reset, or you may just cycle the key. If left loose for three trips, or key cycles, a DTC will set and the MIL lamp will illuminate.

Holding the right switch depressed while turning the ignition switch from the Off position to the On position will initiate the CCN self-diagnostic actuator test. Refer to **Diagnosis and Testing** service information for additional details on this cluster function. The CCN microprocessor remembers which display mode is active when the ignition switch is turned to the Off position, and returns the VFD display to that mode when the ignition switch is turned On again.

The VFD unit is diagnosed using the CCN self-diagnostic actuator test. See **Diagnosis and Testing**. Proper testing of the CAN data bus and the electronic data bus message inputs to the CCN that control some of the VFD functions requires the use of a diagnostic scan tool. Refer to the appropriate diagnostic service information. Specific operation details for the odometer, the trip odometer, the gear selector indicator, and the various warning and reminder indicator functions of the VFD unit may be found elsewhere in this service information. Refer to the vehicle owner's manual for further information on various readout messages.

ODOMETER/TRIP ODOMETER DISPLAY

The odometer and trip odometer give an indication to the vehicle operator of the distance the vehicle has traveled. The engine hours give an indication of the cumulative engine-ON time. This indicator is controlled by the instrument cluster circuitry based upon cluster programming and electronic messages received by the cluster from the Powertrain Control Module (PCM) or Engine Control Module (ECM) over the Controller Area Network (CAN) data bus.

The odometer/trip odometer will display some warning messages such as "DOOR" and "GATE" ajar. If equipped with the optional Electronic Vehicle Information Center (EVIC), the EVIC will display all messages except GASCAP.

The odometer, trip odometer, and engine hours information is displayed by the instrument cluster Vacuum Fluorescent Display (VFD). The VFD will display the odometer information whenever the driver side front door is opened with the ignition switch in the OFF or ACCESSORY positions, and will display the last previously selected odometer or trip odometer information when the ignition switch is turned to the ON or START positions. If your vehicle is equipped with an engine oil change indicator system, the "Change Oil" message will flash in the instrument cluster odometer for approximately 12 seconds after a single chime has sounded to indicate the next scheduled oil change interval. The instrument cluster circuitry controls the VFD and provides the following features:

- **Odometer/Trip Odometer Display Toggling** - Actuating the trip odometer reset switch button momentarily with the VFD illuminated will toggle the display between the odometer and trip odometer information. Each time the VFD is illuminated with the ignition switch in the ON or START positions, the display will automatically return to the last mode previously selected (odometer or trip odometer).
- **Engine Hours Display Toggling** - When the trip odometer reset switch button is pressed and held for 10 seconds with the ignition switch in the ON position and the engine not running and the engine speed message from the PCM is zero, the trip odometer information will be momentarily displayed, then the engine hours information will be displayed. The VFD must be displaying the odometer information when the trip odometer reset switch button is pressed in order to toggle to the engine hours display. The engine hours will remain displayed for about 30 seconds, until the engine speed message is greater than zero, or until the ignition switch is turned to the OFF position, whichever occurs first.
- **Trip Odometer Reset** - When the trip odometer reset switch button is pressed and held for longer than about two seconds with the ignition switch in the ON or START position, the trip odometer will reset to

0.0 kilometers (miles). The VFD must be displaying the trip odometer information in order for the trip odometer information to reset.

- **GASCAP Message Display** - For vehicles manufactured with a United States country code, each time the cluster receives an electronic message from the PCM indicating a monitored leak in the evaporative emissions system the cluster replaces the displayed odometer/trip odometer value with the textual message, **GASCAP** . This message serves as a reminder to the vehicle operator to check that the gas cap is properly installed and tightened, but could also indicate another source of air leakage in the on-board evaporative and vapor recovery emissions systems. Unless the leak is corrected, this message will latch and remain displayed during the current and each subsequent ignition cycle until the trip odometer reset button is pressed and released momentarily, which will revert the display to the odometer/trip odometer information that was last displayed for the remainder of that ignition cycle. Once the source of a leak has been corrected, the GASCAP message display will stay illuminated until the evaporative emission system runs the next leak check and passes.
- **Change Oil Indicator** A change oil indicator is standard equipment on all instrument clusters built for the US market. The change oil indication appears within the fixed segment odometer Vacuum Fluorescent Display (VFD) unit on vehicles not equipped with an optional Electronic Vehicle Information Center (EVIC). On vehicles equipped with the optional EVIC, the change oil indication in the odometer VFD is electronically suppressed so as not to duplicate indications that are provided by the EVIC. The odometer VFD change oil indicator consists of cycling textual **CHANGE** then **OIL** messages, which appear in place of the odometer/trip odometer information. The EVIC change oil indicator consists of a textual **Oil Change Required** message that appears within the EVIC VFD
- **Communication Error** - If the cluster fails to receive an electronic **distance** message during normal operation, it will hold and display the last data received until the ignition switch is turned to the OFF position. If the cluster does not receive a **distance** message within one second after the ignition switch is turned to the ON position, it will display the last distance value stored in the cluster memory. If the cluster is unable to display distance information due to an error internal to the cluster, the VFD will display **Error** .
- **Actuator Test** - Each time the cluster is put through the actuator test, the odometer VFD will display all of its segments simultaneously, and then step through each character segment individually during the VFD portion of the test to confirm the functionality of the VFD and the cluster control circuitry.

The PCM continually monitors the vehicle speed pulse information received from the Vehicle Speed Sensor (VSS) or the Controller Anti-lock Brake (CAB) and engine speed pulse information received from the crankshaft position sensor, and then sends the proper messages to the CCN. For further diagnosis of the odometer/trip odometer or the instrument cluster circuitry that controls these functions. See **Diagnosis and Testing** .

For proper diagnosis of the VSS, the crankshaft position sensor, the CAB, the PCM, the CAN data bus, or the electronic communication related to odometer/trip odometer operation a diagnostic scan tool is required. Refer to the appropriate diagnostic service information.

COMPASS MINI-TRIP COMPUTER (CMTC) DISPLAY

The CMTC system conveniently allows the driver to select a variety of useful information by pressing the Compass/Temp Display and Calibrate button, which extends through the cluster lens below the speedometer at the bottom left hand side. The CMTC displays the following information:

- **Compass display**
- **Outside temperature display**
- **Trip computer functions**
- **Elapsed time**

For additional information. Refer to **Electrical - Message Systems/Message Center/CENTER, Electronic Vehicle Information - Operation** .

ELECTRONIC VEHICLE INFORMATION CENTER (EVIC) DISPLAY

The EVIC system conveniently allows the driver to select a variety of useful information by pressing the **MENU** button and **STEP/SELECT** button, which are located on the front of the steering wheel. The EVIC displays information related to the following:

- **Audio mode display**
- **Compass display**
- **Navigation system screens (if equipped)**
- **Outside temperature display**
- **Personal Settings (customer programmable features)**
- **System Status**
- **Trip computer functions**
- **UConnect™ hands-free communication system displays (if equipped)**
- **Vehicle information warning message displays**

For additional information. Refer to **Electrical - Message Systems/Message Center/CENTER, Electronic Vehicle Information - Operation** .

INDICATORS

Indicators are located in various positions within the CCN and are all connected to the CCN electronic circuit board. All indicators, except the inverter indicator (if equipped), are controlled by CAN data bus messages. The brake indicator is controlled by CAN data bus messages from the Controller Antilock Brake (CAB) as well as by hard-wired park brake switch inputs to the CCN. The seatbelt indicator is controlled by the CCN and is turned on and off depending upon the CAN message received. The Malfunction Indicator Lamp (MIL) is normally controlled by CAN data bus messages from the Powertrain Control Module (PCM); however, if the CCN loses CAN data bus communication, the CCN circuitry will automatically turn the MIL on and display NoBUS in the right VFD until CAN data bus communication is restored. The CCN uses CAN data bus messages from the Totally Integrated Power Module (TIPM), the ORC, the CAB, and the Sentry Key Remote Entry Module (SKREEM) to control all of the remaining indicators.

The various CCN indicators are controlled by different strategies. Some receive fused ignition switch output from the CCN circuitry and have a switched ground. Others are grounded through the CCN circuitry and have a switched battery feed. However, all indicators are completely controlled by the CCN microprocessor based upon various hard wired and electronic message inputs. The cruise indicator located within the VFD unit is

dimnable. All other indicators are illuminated at a fixed intensity, which is not affected by the selected illumination intensity of the CCN general illumination LED's. The illumination intensity of the dimmable indicators is synchronized with that of the CCN general illumination LED's.

In addition, certain indicators in this instrument cluster are automatically configured or self-configured. This feature allows the configurable indicators to be enabled by the CCN circuitry for compatibility with certain optional equipment. The CCN defaults for the ABS indicator and airbag indicator are enabled, and these configuration settings must be programmatically disabled in the CCN using a diagnostic scan tool for vehicles that do not have this equipment. The automatically configured or self-configured indicators remain latent in each CCN at all times and will be active only when the CCN receives the appropriate CAN message inputs for that optional system or equipment.

The hard-wired indicator inputs may be diagnosed using conventional diagnostic methods. However, the CCN circuitry and CAN/LIN bus message controlled indicators are diagnosed using the CCN self-diagnostic actuator test. Some indicators are requested to be turned on via the LIN bus. See **Diagnosis and Testing** . Proper testing of the CAN/LIN data bus and the electronic message inputs to the CCN that control an indicator requires the use of a diagnostic scan tool. Refer to the appropriate diagnostic service information. Specific details of the operation for each indicator may be found elsewhere in this service information.

CLUSTER ILLUMINATION

The CCN has several illumination lamps that are illuminated whenever the exterior lighting is turned On. The illumination intensity of these lamps is adjusted when the left multifunction dimming control ring is rotated (down to dim, up to brighten) to one of five available minor detent positions. The CCN monitors a resistor-multiplexed input from the headlamp switch on a dimmer input circuit. In response to that input, the CCN electronic circuitry converts a fused 12-volt input it receives on a hard-wired panel lamps dimmer switch signal circuit into a 12-volt Pulse Width Modulated (PWM) output.

The CCN uses this PWM output to control the illumination intensity of the cluster, the instrument panel center stack illumination, and the VFD unit on the CCN circuit board. The CCN also transmits electronic dimming level messages over the LIN data bus to other electronic modules (such as the ASBM, HVAC control head, the radio, and the clock) in the vehicle to control and synchronize their illumination intensity.

In addition, the dimming control ring on the headlamp switch has a Parade Mode position to provide a parade or funeral mode. The CCN monitors the request for this mode from the headlamp switch, then transmits an electronic dimming level message to illuminate all VFD units in the vehicle at full (daytime) intensity for easier visibility when driving in daylight with the exterior lighting turned on.

The hard-wired headlamp switch and panel lamps dimmer inputs to and outputs from the CCN may be diagnosed using conventional diagnostic methods. However, proper testing of the PWM processing of the CCN and the electronic dimming level messages sent by the CCN over the CAN data bus requires the use of a diagnostic scan tool. Refer to the appropriate diagnostic service information.

DIAGNOSIS AND TESTING

INSTRUMENT CLUSTER

As a quick diagnosis, the cluster will perform a functional check of the odometer display, transmission range display and warning indicators after the ignition is switched to RUN/START. If the cluster is not receiving any bus messages, the cluster will appear non-functional and "no bus" will appear in the odometer display.

A self-test of the cluster can also be initiated by pressing and holding the odometer reset button and switching the ignition from lock to unlock. The cluster will then step through several displays for functional verification. By pressing the trip odometer reset button while going through the self-test, you can temporarily freeze the test. Pressing the bottom again will continue sequence. The cluster will store bus communication faults with other modules. It will also store faults for the AIRBAG and ABS lamps. During the self-diagnostics, the AIRBAG and ABS lamps are tested.

If the cluster is not functioning properly, refer to **BODY** article.

If the cluster is not receiving bus messages, refer to **BODY** article.

In order to diagnose the instrument cluster functions, a scan tool and the proper Body Diagnostic article are required.

If the diagnostic procedure determines that a replacement of an instrument cluster component is required, refer to **Removal** and **Installation** .

REMOVAL

REMOVAL

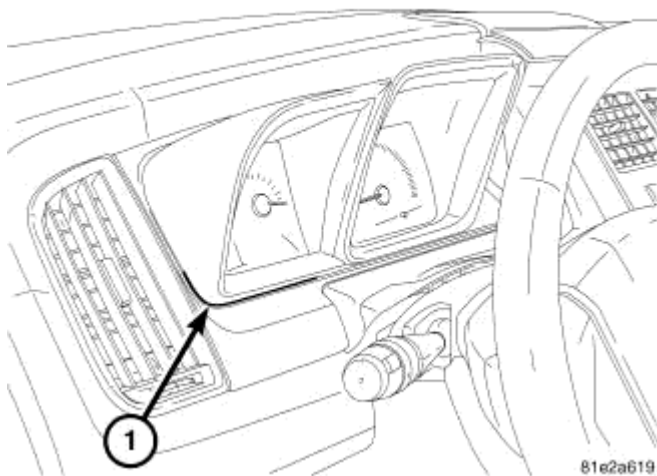


Fig. 2: Instrument Cluster
Courtesy of CHRYSLER LLC

1. Disconnect and isolate the battery negative cable.

NOTE: The left hand side of the instrument cluster trim bezel is under the AC vent

on the inboard side. When removing the instrument cluster trim bezel, it may be necessary to flex the AC vent slightly to relieve the bezel from under the AC vent.

2. Remove the instrument cluster trim bezel using a trim stick or equivalent and gently prying at point (1).

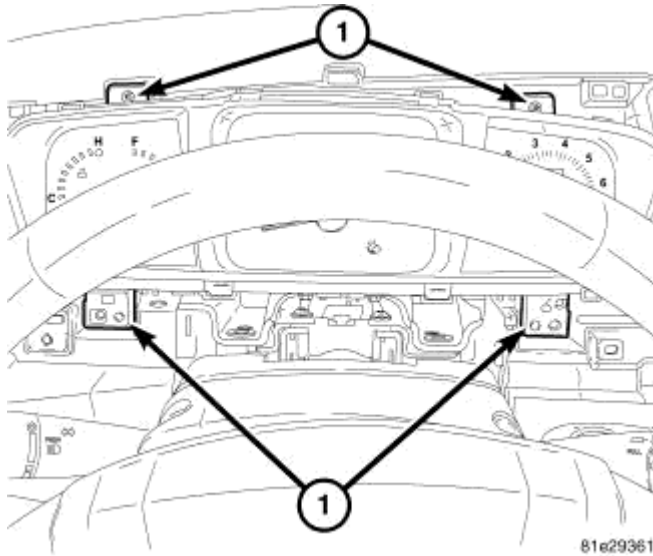


Fig. 3: Instrument Cluster
Courtesy of CHRYSLER LLC

3. Remove the four attaching screws (1) from the cluster.

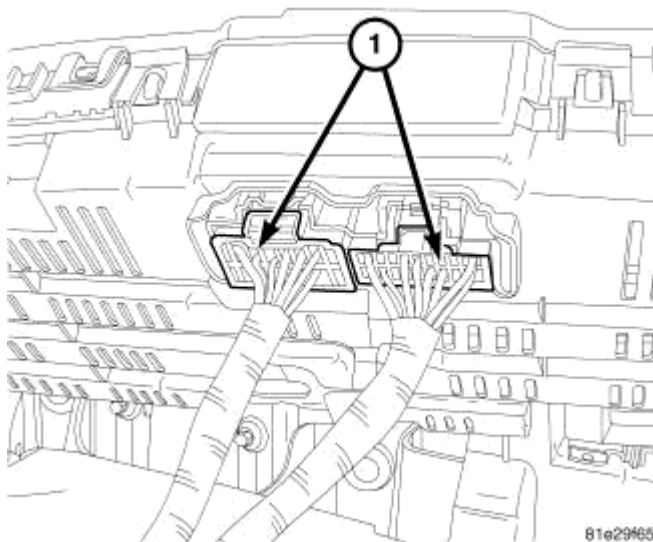


Fig. 4: Instrument Cluster & Electrical Connectors
Courtesy of CHRYSLER LLC

4. Pull the cluster forward and disconnect the two electrical connectors (1).

5. Remove the cluster from the instrument panel.

INSTALLATION

INSTALLATION

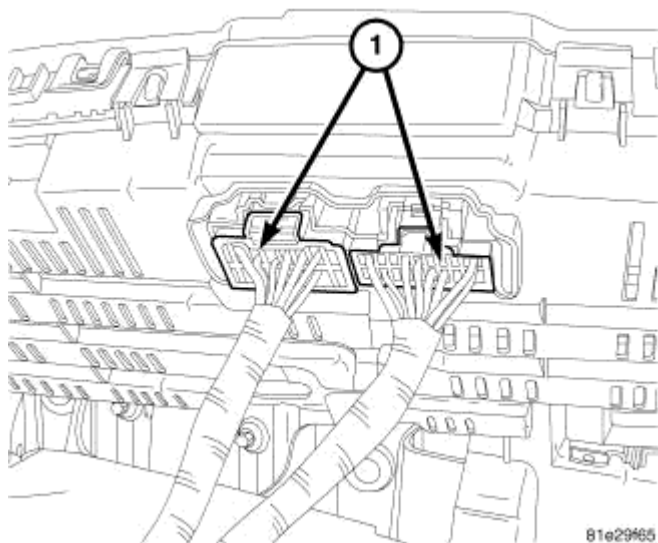


Fig. 5: Instrument Cluster & Electrical Connectors
Courtesy of CHRYSLER LLC

1. Carefully slide the cluster into its location and connect the two electrical connectors (1) to the cluster.

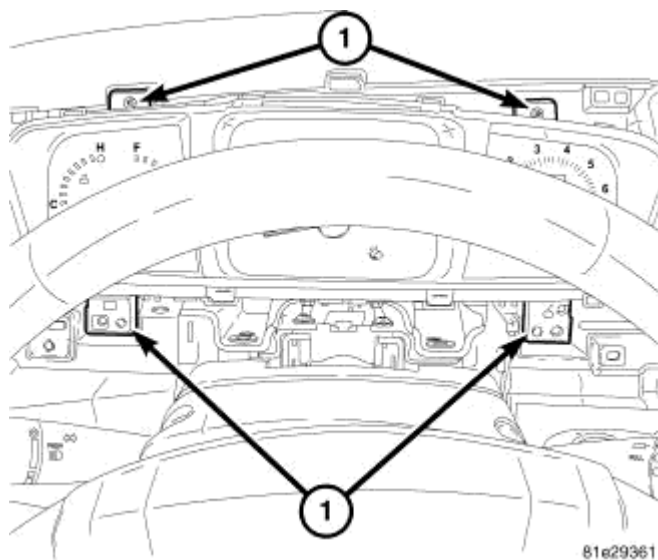


Fig. 6: Instrument Cluster
Courtesy of CHRYSLER LLC

2. Position the cluster in the instrument panel and Install the four cluster attaching screws (1).

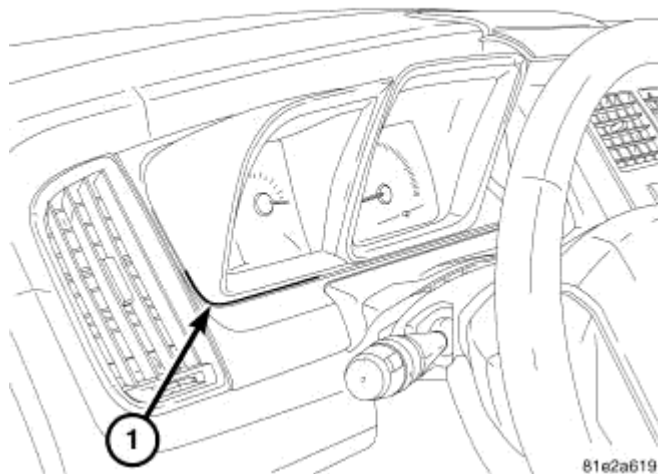


Fig. 7: Instrument Cluster
Courtesy of CHRYSLER LLC

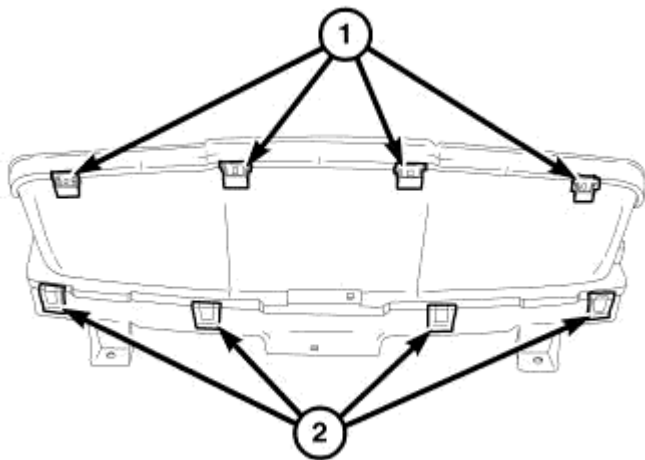
NOTE: When installing the cluster trim bezel, be sure to place the left hand side of the bezel underneath the AC vent. It may be necessary to flex the trim on the AC vent slightly to allow the cluster trim bezel locking clips secure entry into the instrument panel.

3. Install the cluster trim bezel.
4. Connect the battery negative cable.

LENS, INSTRUMENT CLUSTER

REMOVAL

REMOVAL



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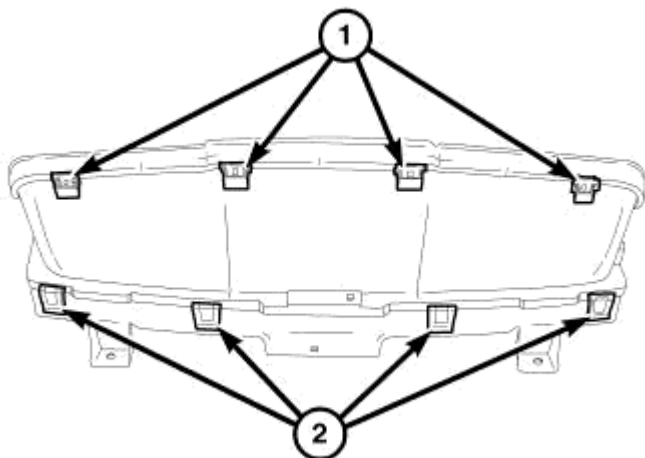
Fig. 8: Instrument Cluster Lens Locking Tabs

Courtesy of CHRYSLER LLC

1. Remove instrument cluster from vehicle. See **Removal** .
2. Separate the lens from the cluster by gently prying on the locking clips (1) around the perimeter of the lens.
3. Separate lens from instrument cluster and remove.

INSTALLATION

INSTALLATION



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Fig. 9: Instrument Cluster Lens Locking Tabs

Courtesy of CHRYSLER LLC

1. Align lens locking tabs (1) with instrument cluster mask assembly and snap securely into place.
2. Install the instrument cluster into vehicle. See **Installation** .
3. Connect battery negative cable.

POD, SWITCH

DESCRIPTION

DESCRIPTION

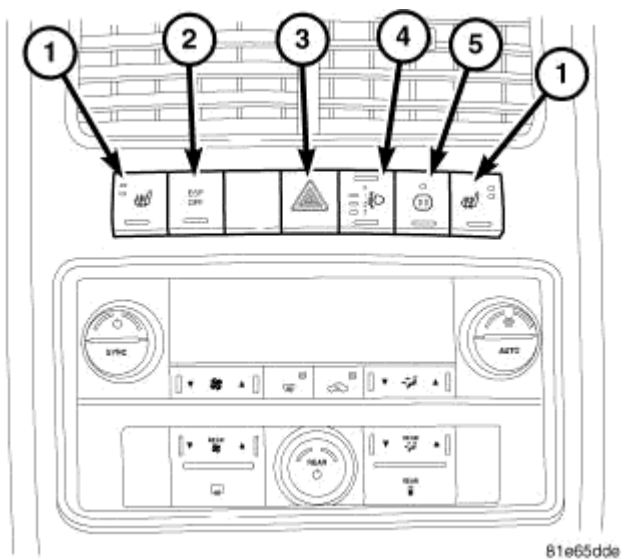


Fig. 10: Accessory Switch Bank Module
Courtesy of CHRYSLER LLC

The Accessory Switch Bank Module (ASBM) is located in the center stack area of the instrument panel just below the heater and air conditioner duct and above the radio. This switch is available in multiple configurations, which vary from a single momentary push button switch to as many as six momentary push button switches, depending upon the optional equipment in the vehicle. The pod may include the following switches:

- **Heated Seats (if equipped) (1)**
- **Electronic Stability Program Off (2)**
- **Hazard Warning (3)**
- **Headlamp Leveling (export only) (4)**
- **Electrical Inverter On/Off (domestic only) (5)**

The switch housing and the push buttons are constructed of molded plastic. Each push button has a smooth finish and is clearly identified with the appropriate text and International Control and Display Symbol icons. Several of the push buttons feature Light Emitting Diode (LED) units to give the vehicle operator an indication when the function of that switch is currently active.

Four screws secure the switch to the back of the instrument panel center bezel through integral mounting tabs that are molded into each corner of the switch housing. The back of the switch housing has an integral connector receptacle containing terminal pins that connect the switch to the vehicle electrical system through a dedicated take out and connector of the instrument panel wire harness.

Panel lamps dimmer controlled illumination lamps integral to the circuit board within the switch provide back lighting for visibility at night, but these lamps are not serviceable. The individual switches in the ASBM cannot be repaired and are not serviced individually. If any component within the switch pod is ineffective or damaged, the entire switch pod must be replaced.

The Domestic version of the ASBM is as follows:

- **Heated Seat Switches** (if equipped) -. Refer to **Electrical - Heated/Cooled Systems/Heated Seats/SWITCH, Heated Seat - Description** .
- **ESP Off** -. Refer to **Brakes - Description** .
- **Hazard Switch** (all models) -. Refer to **Electrical - Lamps and Lighting/Lamps/Lighting - Exterior/SWITCH, Hazard Warning - Description** .
- **Electrical Inverter** (domestic models).

The Export version of the ASBM will vary from the domestic:

- **Heated Seat Switches** (if equipped) -. Refer to **Electrical - Heated/Cooled Systems/Heated Seats/SWITCH, Heated Seat - Description** .
- **Hazard Switch** (all models) -. Refer to **Electrical - Lamps and Lighting/Lamps/Lighting - Exterior/SWITCH, Hazard Warning - Description** .
- **Headlamp Leveling Switch** (if equipped) -. Refer to **Electrical - Lamps and Lighting/Lamps/Lighting - Exterior/SWITCH, Headlamp Leveling - Description** .

Each individual switch is not available for service replacement. If one or more switches are inoperative, the entire ASBM must be replaced. See **Removal** . To diagnose the ASBM switches, use a scan tool and the appropriate diagnostic service information.

OPERATION

OPERATION

For information covering details of operation for the individual switches or indicator contained within the instrument panel switch pod, refer to the specific service information covering the system to which that switch or indicator belongs.

- **Heated Seat Switches** (if equipped) -. Refer to **Electrical - Heated/Cooled Systems/Heated Seats/SWITCH, Heated Seat - Description** .
- **ESP On/Off** (domestic models) -. Refer to **Brakes - Description** .
- **Hazard Switch** (all models) -. Refer to **Electrical - Lamps and Lighting/Lamps/Lighting - Exterior/SWITCH, Hazard Warning - Description** .

- **Electrical Inverter** (domestic models)
- **Headlamp Leveling Switch** (if equipped) -. Refer to **Electrical - Lamps and Lighting/Lamps/Lighting - Exterior/SWITCH, Headlamp Leveling - Description** .

REMOVAL

REMOVAL

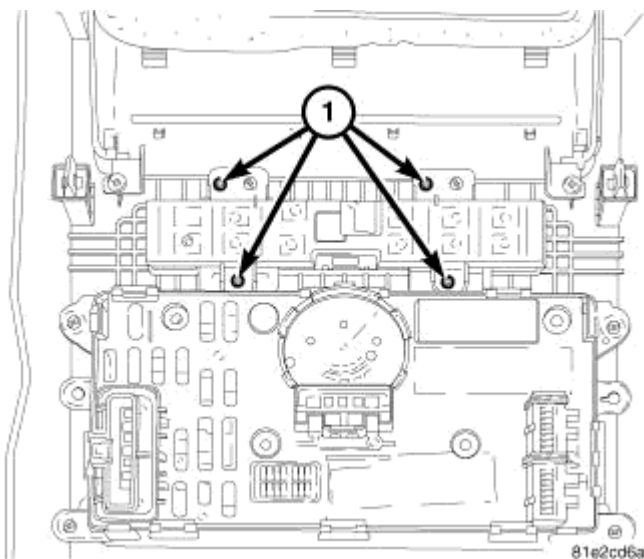


Fig. 11: Instrument Panel Center Bezel
Courtesy of CHRYSLER LLC

1. Disconnect and isolate the battery negative cable.
2. Remove the instrument panel center bezel. Refer to **Body/Instrument Panel/BEZEL, Instrument Panel - Removal** .
3. Disconnect the electrical connector from the switch by depressing the lock tab and pulling connector from the ASBM.
4. Remove the four screws (1) to the Accessory Switch Bank Module (ASBM).
5. Remove the ASBM from the instrument panel center bezel.

INSTALLATION

INSTALLATION

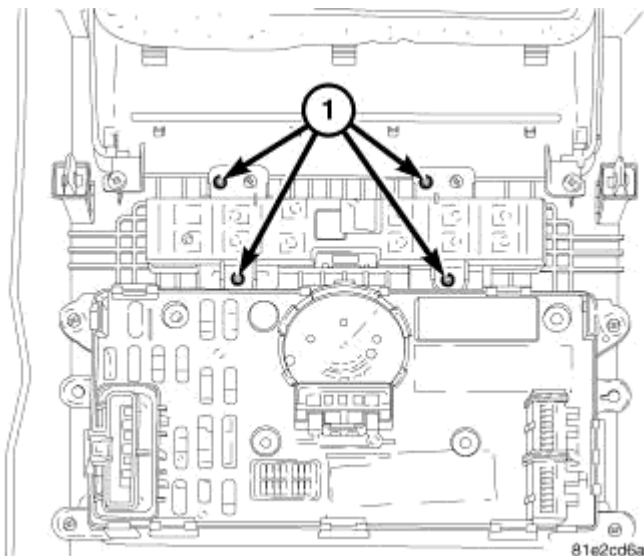


Fig. 12: Instrument Panel Center Bezel

Courtesy of CHRYSLER LLC

1. Position the accessory switch bank module (ASBM) in the center bezel and install the four screws (1).
2. Connect the electrical connector to the ASBM. Be sure the lock tab engages securely into the ASBM.
3. Install the instrument panel center bezel. Refer to **Body/Instrument Panel/BEZEL, Instrument Panel - Installation** .
4. Connect the battery negative cable.