



**NUMBER:** 08-018-03

**GROUP:** Electrical

**DATE:** June 13, 2003

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**SUBJECT:**

Electrical System and General Information

**MODELS:**

2004                      (ZH)              Crossfire

**DISCUSSION:**

The following highlights some of the new and unique features of the Crossfire vehicles. These items are contained in the Crossfire Owners Manual (publication no. 81-026-0445), Service Manual (publication no. 81-270-04036), and the Quick Reference Guide (publication no. 81-316-0450) as well.

**INSTRUMENT PANEL:**

**Ignition Switch:**

A starter non-repeat feature prevents the car from being restarted unless the key is rotated all the way to OFF before restarting.

**Ignition Key - Cutting & Programming:**

The vehicle is equipped with a theft deterrent locking system requiring a special key manufacturing process. For security reasons, replacement keys can only be obtained through the dealer from the key processing center.

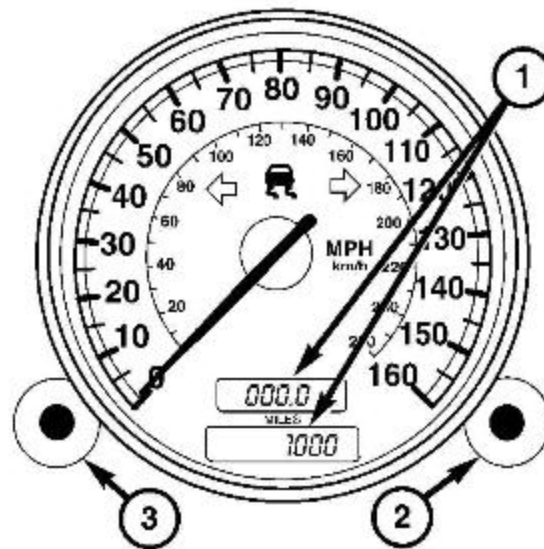
**Telescoping Steering Column:**

The handle for this feature is located directly below the steering column. Pull the handle out to adjust the steering wheel - pull the wheel to lengthen, push to shorten. Lock the column in place by pushing the handle in until it properly engages.

**CAUTION: A WARNING LIGHT WILL APPEAR ON THE INSTRUMENT PANEL IF THE STEERING COLUMN IS NOT LOCKED. NEVER ADJUST THE STEERING WHEEL WHILE DRIVING.**

**Outside Temperature Display:**

This display is located on the left side of the instrument cluster, below the fuel and engine temperature gauges.



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**Fig. 1 SPEEDOMETER**

- 1 - TRIP ODOMETER (TOP) & CUMULATIVE ODOMETER (BOTTOM)
- 2 - RIGHT ROTARY BUTTON
- 3 - LEFT ROTARY BUTTON

**Instrument Panel Lighting:**

Rotate the left rotary button (Fig. 1) while the parking lights or headlights are on to increase or decrease the brightness of the panel.

**Flexible Service Indicator:**

The Flexible Service System monitors actual vehicle condition to tell you how many miles (or kilometers) remain before your next suggested service. Notification symbols will appear in the main odometer display for approximately 10 seconds after the key is turned to the ON position and continuously after reaching the next service interval. You can push the left rotary button once to call up the display again with the key in the ON position. The display shows you miles to next service or days to next service depending on the proximity to the next service interval. See Crossfire Service Manual (publication 81-270-04036) Volume 1 page 0-11 for more detail.

**Trip Odometer:**

Press the left rotary button (Fig. 1) once while the engine is running to reset. To reset before inserting the key and starting the engine, press the button twice. See the Crossfire Service Manual (publication 81-270-0403) page 0-11 for more details.

**Clock:**

Located within the tachometer with the ignition in the ON/RUN or ACCESSORY (ACC) position, pull the right rotary button (Fig. 1) out; turn it to the left to adjust the hour; turn it to the right to adjust the minutes.

**Ash Tray & Coin Tray:**

Lightly touch the bottom of the ash tray cover, located below the driver heated seat switch; the ash tray will open automatically. Pull the top of the cover back and down to reveal the coin tray.

**Oil Level:**

A sensor in the oil pan allows oil level to be checked without opening the hood. It provides an accurate measurement of oil level, whereas the low engine oil level indicator warns that oil level is definitely too low. With the vehicle parked on a level surface, the engine is warmed up and shut off for approximately five minutes. When the ignition switch is turned to the "RUN" position, after 5 - 15 seconds, an ISO oil level icon appears in the trip odometer display and a "clock" icon in the cumulative odometer display. Pressing the left rotary knob twice displays one of the following messages (Fig. 1):

- OK
- -1.0 Q (-1.0L)
- -1.5 Q (-1.5L)
- -2.0 Q (-2.0L)
- HI

The indicated amount of oil must be added to the engine if the message -2.0 Q (-2.0L) blinks and a signal sounds. The HI message indicates that the excess oil must be removed from the pan to avoid possible engine or catalytic converter damage. If the ISO oil level icon and "clock" icon remain on when attempting to check oil level and no message follows, or if the low engine oil level warning lamp comes on, a malfunction in the engine oil level system is indicated. A conveniently located dipstick, in the engine compartment, allows manual checking of the oil level.

**High Beams & Wipers:**

To activate the high beams, push the multi-function control lever toward the instrument panel, past the point of resistance. Turn the end of the lever to choose between off, intermittent, normal and fast wiper operation. Push in briefly on the end of the lever to activate the mist function. Push the end of the lever in and hold it to operate the wiper and washer function.

**Cruise Control:**

Cruise control can automatically maintain any speed above 40 kph (25 mph). To establish a speed, or set a higher speed, accelerate to the desired speed, lift or depress the lever and release. You may also hold the lever up to accelerate to a higher speed, then release to set. To set a lower speed, hold the lever down to decelerate to the desired speed, then lift or depress the lever and release. Braking will temporarily deactivate speed control. To resume a previously set speed, pull the speed control lever toward you and release. A single tap on the lever up or down will change the speed in 1 kph (0.6 mph) increments. Pushing the speed control lever forward, depressing the brake pedal, moving the gear selector to "N" or turning the ignition off will deactivate speed control. Always leave the system OFF when you are not using it. Pushing the lever forward will turn off the system and erase the set speed.

**EXTERIOR LIGHTING SYSTEMS:****Headlight operation:**

Turn the headlight switch clockwise to the first position to illuminate the parking, tail, side marker, license plate, and instrument panel lights; turn to the second position to turn on the headlights. Pull the headlight switch out one position to operate the fog lights; if the headlight switch is pulled out to the second position the operation is the same as the first position: **DO NOT REPLACE THE HEADLAMP SWITCH!** The second position is used for rear fog lamps which are used in international markets. Push the headlight switch back in, or turn on the high beams (push the multi-function control lever toward the instrument panel) to deactivate the fog lamps.



**Night Security Illumination:**

After the last door is closed, the exterior lights will illuminate for approximately 30 seconds.

**Standing Lights:**

With the key in the OFF position and the vehicle parked, rotate the headlight switch counter-clockwise one position from the OFF position to activate the parking lights on only the right side of the vehicle. Rotate the headlight switch counter-clockwise two positions from the OFF position to activate the parking lights on only the left side of the vehicle. This feature is used in international markets when the vehicle is double parked. **DO NOT REPLACE THE HEADLAMP SWITCH!**

**NOTE: THE STANDING LIGHTS WILL NOT OPERATE WITH THE IGNITION IN THE ON POSITION.**

**NOTE: IF THE HEADLIGHTS OR PARKING LIGHTS ARE LEFT ON AFTER THE IGNITION IS TURNED OFF, A WARNING WILL SOUND IF THE DRIVER'S DOOR IS OPENED. IF THE STANDING LIGHTS ARE LEFT ON, NO WARNING WILL SOUND!**

**NOTE: THE BATTERY WILL GO DEAD IF THE HEADLAMP SWITCH REMAINS IN EITHER STANDING LIGHTS POSITION (COUNTER CLOCK-WISE FROM THE OFF POSITION) WITH THE KEY IN THE OFF POSITION (NO BATTERY DRAIN PROTECTION).**

**CENTER CONSOLE:****Heated seats:**

The switches are located below the radio, these controls allow you to choose three settings, HI, LO, or OFF for the driver and passenger seats. If you choose HI, the system will automatically switch to LO after ten minutes.

**Spoiler:**

The front fascia, rear spoiler and underbody diffuser shapes of the vehicle have been specially tuned to provide optimal aerodynamic balance at all speeds. The spoiler deploys automatically when the vehicle reaches approximately 100 kph (60 mph). It takes the electric motor 2 to 5 seconds to fully deploy the spoiler.

The rear spoiler can also be manually deployed at lower speeds by pressing the top portion of the spoiler override switch, located to the right of the drivers heated seat switch. The spoiler will not retract automatically after being manually deployed. To retract, press and hold the bottom of the spoiler switch until you hear a short beep, confirming that the spoiler has fully retracted and that automatic control has been restored.

A chime will sound at approximately 136 kph (85 mph) if the spoiler does not automatically deploy.

**Electronic Stability Program (ESP):**

This system enhances direction control and reduces driving wheel spin under various driving conditions; it activates automatically every time the vehicle is started, to improve the vehicle's traction when starting off in deep snow, sand, or gravel. Switch the system off by pressing the upper half of the ESP switch.

**Central Locking:**

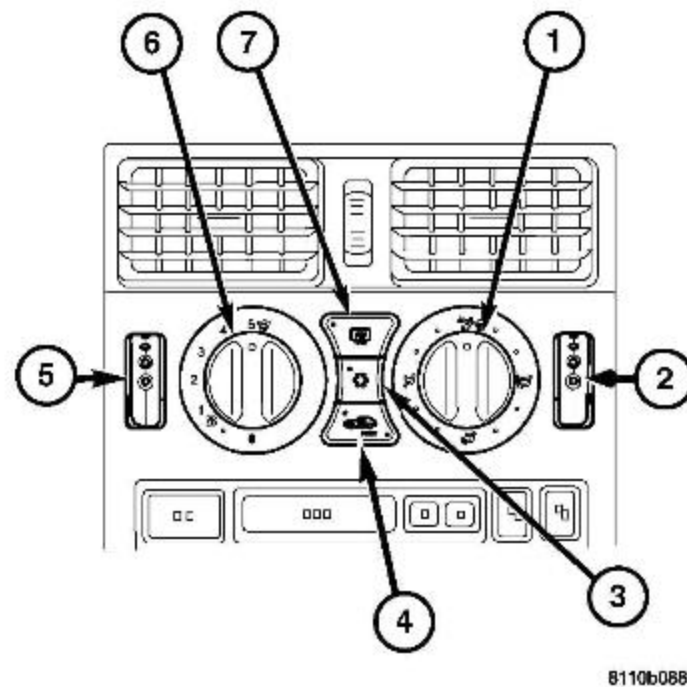
With both doors closed, press the bottom of the central locking switch, located to the right of the hazard switch, to lock doors and rear lift gate; press the top to unlock. If the vehicle was initially locked with the central locking switch, the door and rear liftgate will automatically unlock when a door is opened from the inside.

**Anti Tow-Away Alarm:**

If any attempt is made to raise the vehicle, the exterior lights will flash and the alarm will sound for three minutes (even if the vehicle is immediately lowered to its original position). To cancel the alarm, insert the key into the ignition. The tow-away alarm switch is located on the console: press and release the lower portion of the switch to activate; press and release the upper portion to deactivate the alarm.

**Transmission Program Mode Switch (W/S on the console):**

The vehicle is equipped with a Program Mode Selector switch. For all regular driving, use Standard mode - the "S" symbol on the switch. For Winter/Wet (snow and ice) mode, press the "W" symbol on the switch; "W" mode helps to improve traction and driving stability of the vehicle.

**CLIMATE CONTROL:**

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**Fig. 2 HEATER CONTROL MODULE**

- 1 - AIR DISTRIBUTION CONTROL
- 2 - PASSENGER TEMPERATURE CONTROL
- 3 - A/C COMPRESSOR CONTROL (SNOWFLAKE)
- 4 - AIR RECIRCULATION CONTROL
- 5 - DRIVER TEMPERATURE CONTROL
- 6 - BLOWER SPEED CONTROL
- 7 - REAR WINDOW DEFROST BUTTON

**Temperature Controls:**

Turn the driver temperature control (Fig. 2) or passenger temperature control to the blue area for a cooler temperature, or the red area for a warmer temperature. The temperature controls adjust the cabin air temperature not the outlet air temperature. Moderate adjustments are best.

**Defog/Defrost:**

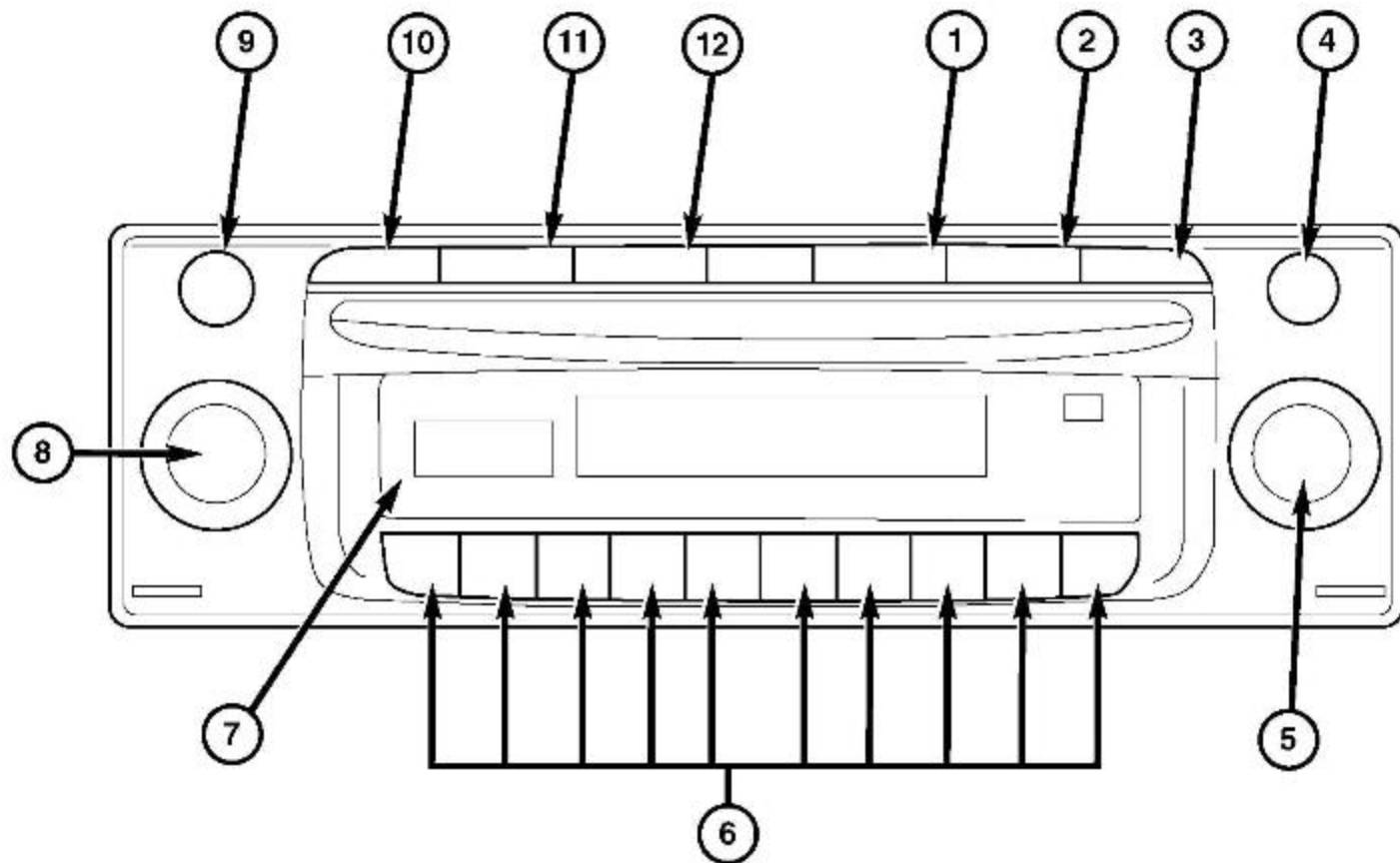
To defrost the windshield's interior press the A/C (snowflake) icon (Fig. 2) until it illuminates and switch off the air recirculation control. Set the air distribution control straight up to direct air to the windshield and increase the air volume with the fan control switch. For best operation, close the left, center, and right panel air outlets; turn the left side window defroster outlet left to the point of resistance and the right side window defroster outlet right to the point of resistance.

To defrost the windshield's exterior turn on the windshield wipers, set the air distribution control to defrost position and increase the air volume with the fan control switch.

To defrost the rear windshield press the rear window defroster button (Fig. 2). To turn it off, press the button again, or allow it to turn off automatically in 12 minutes.

**Air Recirculation (REST):**

Press the recirculation button (Fig. 2) to prevent outside air (dust and annoying odors) from entering the vehicle's interior. To cancel, press the button again. Use this feature to continue warming the vehicle's interior for up to 30 minutes after the engine is shut off. To initiate, simply remove the key or turn it to the ACC or OFF/LOCK position - then press the recirculation button. This feature will turn off automatically after 30 minutes.

**AUDIO SYSTEM**

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**Fig. 3 RADIO FACE**

- 1 - CD BUTTON
- 2 - FM RADIO BUTTON
- 3 - AM RADIO BUTTON
- 4 - MANUAL FREQUENCY SETTING BUTTON
- 5 - RIGHT ROTARY CONTROL/PUSH BUTTON
- 6 - MULTIFUNCTION BUTTONS
- 7 - DISPLAY
- 8 - VOLUME CONTROL — ON/OFF SWITCH
- 9 - CD EJECT BUTTON
- 10 - TP/MUTE BUTTON
- 11 - AUDIO (AUD) BUTTON
- 12 - SUB-MENU SELECTION BUTTON

**Radio Display**

The radio display illumination is fixed. No adjustment is provided.

**On/Off Volume:**

Press On/Off, turn to adjust the volume.

**TP Button:**

To mute the audio system press the TP button. To listen to the audio system after muting, either press the TP button again, or adjust the volume to disengage mute.

**AUD Button:**

To adjust BASS: press AUD repeatedly until "BASS" is displayed; rotate the right rotary control knob to the desired level.

To adjust the TREBLE: press AUD repeatedly until "TREB" is displayed; rotate the right rotary control knob to the desired level.

To adjust the BALANCE: press AUD repeatedly until "BAL" is displayed; rotate the right rotary control knob to the desired level.

**Compact Disc (CD) Player:**

Press the CD button to activate; if a CD is present, "CDS" will appear in the display. If no disc is present, "NO CDS" will appear in the display. When a CD is inserted, the unit will display the number of tracks and total playback time and begin to play. After the last track has been played, the unit will automatically begin to play the first track again.

To skip tracks backward or forward: turn the right rotary control push button.

Turn further in either direction to skip multiple tracks.

To scan tracks: push the right rotary control until SC appears; press again to cancel.

To fast forward: press/hold the multi-function button below the right arrow icon; to fast rewind, press/hold the multi-function button below the left arrow icon. For random play, press the multi-function button directly under "RP" on the display; to cancel random, press again.

To eject a disc: briefly press the eject button.

**AM/FM Selecting and Saving:**

This system has two AM modes and four FM modes. Press the AM or FM button repeatedly until the desired mode appears, AM, AM AS, FM1, FM2, BEST FM, or FM AS.

To search: turn the right rotary control/push button.

To scan stations: push the right rotary control until SC appears; press again to cancel.

To find a station manually: press MAN; turn the right rotary control until the desired station is located; press MAN again to exit manual operating.

To store : press any of the 10 multi-function buttons until a beep is heard. AM/FM Autostore (AS) automatically stores 9 current stations based on the strongest signal each time the multi-function button below AS is pressed; the station buttons rank 1-9 in order of quality.



**Best FM:** This feature continuously updates and automatically saves station frequencies based on signal strength. The strongest is displayed to the left of the current station, and can be selected by pressing the right rotary knob. Stations with stronger or weaker signals can be selected by turning the right rotary knob.

## **SAFETY AND SECURITY:**

### **The Tire Pressure Monitor (TPM) System:**

The system has sensors in each valve stem that monitor the individual tire pressure. When a sensor detects a low tire, a signal to the instrument cluster illuminates the Low Tire Pressure warning indicator that shows a tire cross-section with an exclamation point in the middle. The Tire Pressure Monitor System has been optimized for the original equipment tires and wheels, but it is not intended to replace normal tire maintenance. You should check your tire pressure regularly. Inflation pressures specified on the label are always "Cold Inflation Pressure." Cold inflation pressure is defined as the tire pressure after the vehicle has not been driven for at least 3 hours, or driven less than a mile after being parked for 3 hours. Be sure to use a high quality gauge when adjusting tire pressure.

The Low Tire Pressure Warning indicator will illuminate if the tire pressure drops below 179.3 kpa (26 psi).

In stop & go city traffic, if the vehicle sits in traffic for more than 10 minutes, a TPM sensor may go to sleep & then turn on the Low Tire Pressure Warning indicator upon driving. This is a false indication of a system malfunction, and does not require repair or replacement. Refer to the Crossfire Service Manual (publication 81-270-04036) page 22-53 for more information.

### **Air Bags:**

The driver's airbag is mounted in the steering wheel and the passenger front airbag is mounted in the instrument panel. Side airbags are located in the driver and passenger doors.

To turn the passenger front airbag on or off, open the passenger side door; the on/off switch is located at the end of the instrument panel. To shut off the passenger airbag, place the ignition key in the on/off switch, turn the key clockwise, and remove the key from the switch. To turn on the passenger airbag, place the ignition key in the on/off switch, turn the key counterclockwise, and remove the key from the switch. When the passenger airbag is turned off, the yellow Passenger Airbag Off light will illuminate. When the passenger airbag is turned back on, the light will not illuminate.

### **Brake Assist System (BAS):**

Designed to maximize the vehicle's braking capability during emergency braking maneuvers, the BAS applies maximum power to the brakes, which complements the ABS and can help reduce braking distances. As in ABS, continuously apply full pressure to the brake pedal when you encounter emergency braking situations. The brake assist system will automatically deactivate when you release the brake pedal.

### **Child Seat Anchors:**

The passenger seat is equipped with the child restraint anchorage system called Lower Anchors and Tether for Children (LATCH). The LATCH system provides for the installation of a child restraint without using the vehicle's belts, instead securing the child restraint using the lower anchorages and upper tether straps from the child restraint to the vehicle structure.

LATCH lower anchors are located between the rear of the cushion and the bottom of the seat back. LATCH compatible child restraints are now available.

Child restraints that are not LATCH equipped can be installed using the passenger seat belt. To secure the child restraint, the seat belt must be switched to the automatic locking feature by extending the belt from the retractor as far as it will go. To return the belt to "normal" operation, allow the belt to fully retract.

For both LATCH and non-LATCH child restraints, the vehicle has a tether strap anchor behind the passenger seat. To attach the tether strap to the anchor, move the seat back fully forward. Install the child restraint according to the manufacturer's directions. Pass the child restraint tether over the top of the seat through the fixing loop and attach it to the anchor on the bar behind the passenger seat, below the seat back. Attach the tether hook to the bar, return the seat back to the upright/reclined position, and move the seat to its most rearward position.

**NOTE: AN INCORRECTLY ANCHORED TETHER STRAP COULD LEAD TO INCREASED HEAD MOTION AND POSSIBLE INJURY TO THE CHILD. USE ONLY THE ANCHOR POSITION DIRECTLY BEHIND THE CHILD SEAT TO SECURE A CHILD RESTRAINT TOP TETHER STRAP.**

**CAUTION: NEVER INSTALL A REAR FACING CHILD RESTRAINT IN THIS VEHICLE UNLESS THE AIRBAG IS TURNED OFF.**

**CONVENIENCE FEATURES:**

**Remote Keyless Entry (RKE):**

The hand held transmitter allows you to lock or unlock the vehicle doors, rear lift gate, and fuel filler door from remote location; there is no need to point the transmitter at the vehicle.

**NOTE: THE RKE WILL NOT SOUND THE HORN WHEN ACTIVATING OR DEACTIVATING THE SYSTEM.**

Press and release the unlock button one time to unlock the drivers door, rear liftgate and fuel door; press the button twice to unlock both doors, rear liftgate and fuel filler door (the system will automatically re-lock after 40 seconds, if neither door is opened, the key is not inserted in the ignition, or the central locking switch is not activated within 40 seconds).

After all doors are closed, press and release the lock button one time to lock both doors, rear liftgate and fuel filler door. The turn signals will blink three times to confirm the vehicle is locked; if the blinking doesn't occur, one of the doors hasn't been properly closed.

**NOTE: IF A DOOR IS OPEN WHEN THE RKE LOCK BUTTON IS PRESSED, THE DOOR MAY NOT LOCK AFTER IT IS CLOSED, HOWEVER THE THEFT ALARM WILL BE ACTIVATED. IF THE UNLOCKED DOOR IS OPENED THE ALARM WILL SOUND.**

Press and hold the panic button to activate the alarm. Press and hold the panic button or unlock the door with the key to deactivate the system.

**Power Remote Control Outside Mirrors:**

The mirrors can be adjusted by using the remote control located in the console. Rotate the switch to the right to select the right mirror, rotate to the left to select the left mirror. Use the switch to adjust the selected mirror to the desired position.

**Power Windows:**

The power window controls are located in the center console. To operate, turn the key in the ignition to the ACC or ON/RUN position. Press the top of the switch down to the resistance point to open; release the switch when the window is at the desired position. For express opening, press the switch past the resistance point and release; the window will lower fully, to interrupt the procedure, briefly press the switch again and release.

Reversing window direction, while operating in the auto down mode, the switch will not work until it is released and then pressed a second time. This is normal.

**DO NOT REPLACE THE WINDOW SWITCH!**

**Driver Eight-way Power Seat:**

The switches to adjust the power seats are located on the outboard side of the seat. The drivers seat features eight-way power adjustment - horizontal, vertical, cushion tilt and back angle. To move the seat closer to the wheel (or further back from it), push the lower lever forward or backward. To raise or lower the seat cushion, pull the lever up to raise or push it down to lower. To recline, push the recline lever rearward and adjust the seat back to the desired position.

**Passenger Four-way Power Seat:**

The switches to adjust the passenger seat are between the door and the seat. Push the horizontal switch forward or backward; adjust the seat back switch to tilt forward or backward.

**NOTE: THE PASSENGER SEAT SWITCH HAS 6 POSITIONS, HOWEVER ONLY FOUR POSITIONS ARE OPERATIONAL. DO NOT REPLACE THE POWER SEAT SWITCH.**

**Cup Holder:**

The cup holder is located in the center console. To open the cup holder, gently press downward on the front edge of the top panel, and then release. The cup holder will open automatically. To close, push forward on the top edge of the door and rotate it down into the console until it engages.

**Map lights:**

There is a single overhead switch, between the map lights, that operates both lights simultaneously. This switch can also be used to deactivate the light function when opening the doors.

**OTHER USEFUL INFORMATION:****Wiring harness:**

Some electrical connectors/terminals are serviceable. Please consult the Mopar parts catalog.

**Wheels:**

Because of the design of the speed rated low profile tires; the wheel is exposed to possible damage from curbs etc. Advise the customer to be careful when approaching a curb.



**Plastic Trim:**

Use Care - Be sure to use the appropriate trim tools on plastic parts.

**Fuel Door:**

In a car wash the car wash blower may open the fuel door.

**Manual Fuel Door Release:**

Open the access panel in the right rear interior quarter trim panel. Release the lock pin from the lock actuator by pulling the handle rearward. NOTE: Excessive force will break the handle! See Volume 1 of the Crossfire Service Manual (publication 81-270-04036) page 8N-44 for more detail.

**Fluids:**

Various fluids are different from those specified for other DCX vehicles - Oil - P/S fluid - Brake Fluid - Coolant, etc., be sure to use the proper fluids as called for in the Crossfire Service Manual (publication 81-270-04036) Volume 1 Section 0 Lubrication & Maintenance.

***POLICY:***

Information Only.