

CONTROL MODULES

The most significant change on the new 2004MY XJ is the higher number of control modules due to the addition of new systems such as ACC, Air suspension, HIDs, 4 zone A/C, rear seat memory, rear ICE, etc. Therefore it is very important for the dealer technician to know the location and properties of each control module in regards to programming options.

The illustration on the following page shows the location of all vehicle modules used on the 2004MY XJ.

NOTE:

The illustration on the following page does not show the location of the optional rear sunblind module which is part of the sunblind mechanism.

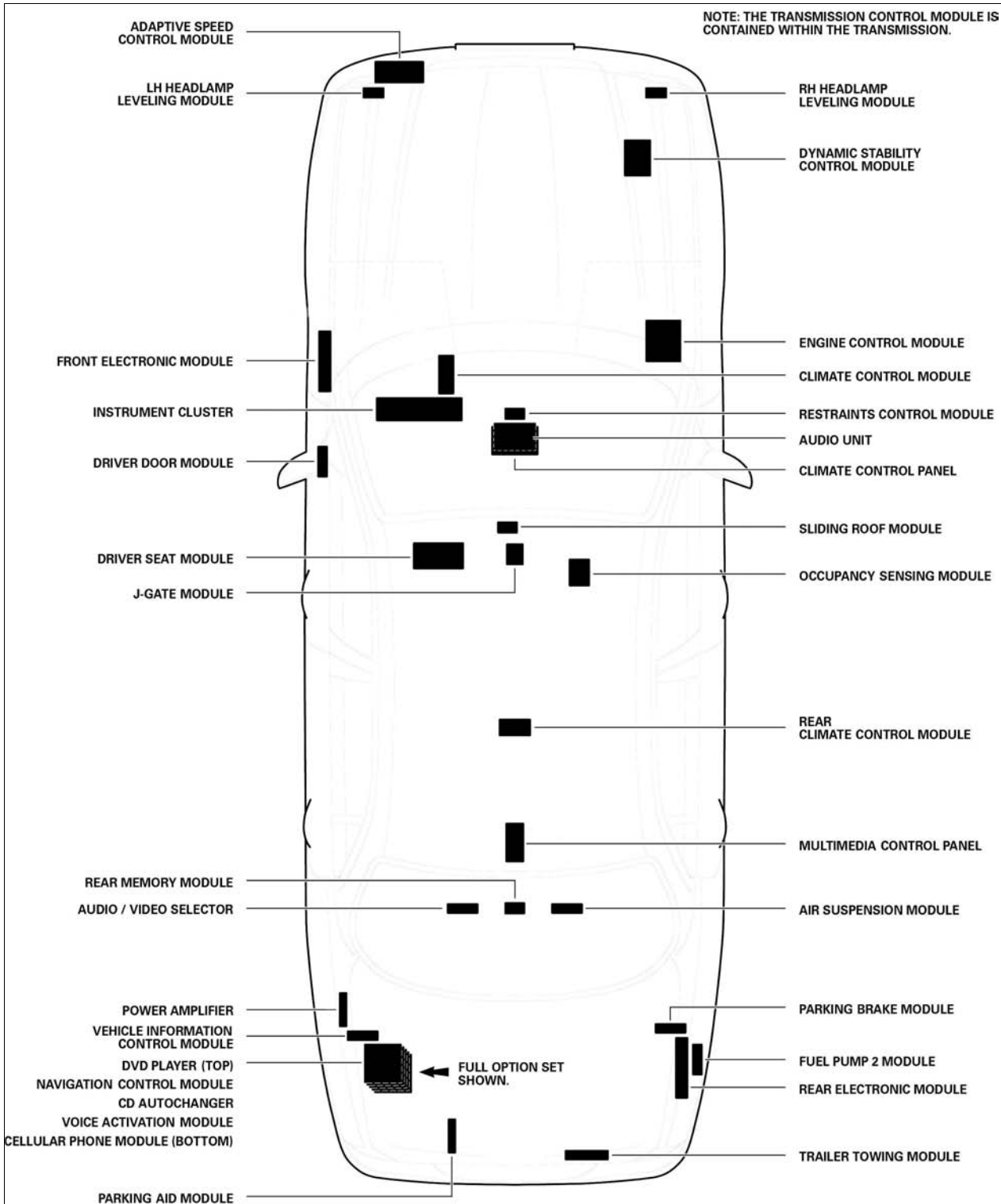


Fig. 58 Control module locations

Body Control Module Functions

The body control modules are all connected to the SCP communication network.

The five main body control modules are:

- Front Electronic Module (FEM)
- Rear Electronic Module (REM)
- Driver's Door Module (DDM)
- Driver's Seat Module (DSM)
- Rear Memory Module (RMM)

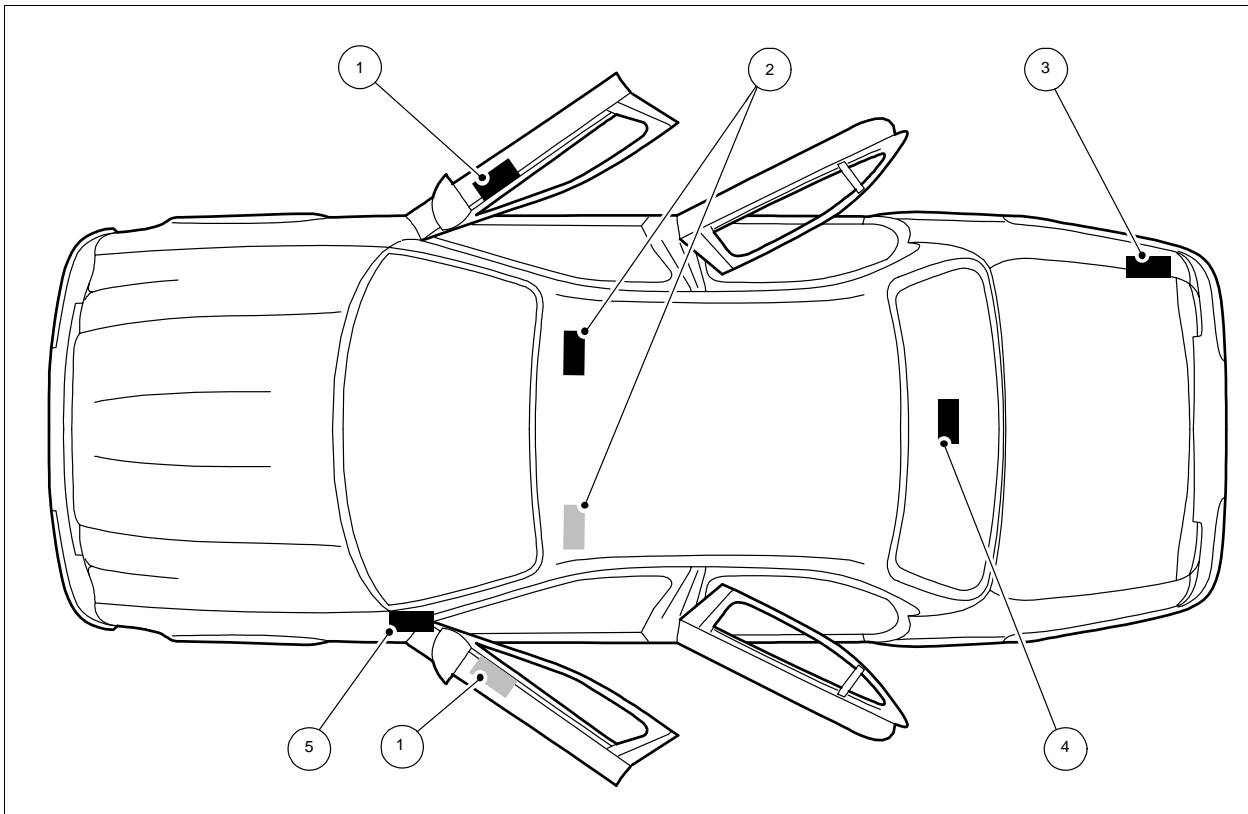


Fig. 59 Body control module location

1. DDM
2. DSM
3. REM
4. RMM
5. FEM

The following table lists the functions of each control module.

Table 7 Body Control Module Functions

FEM	REM	DDM	DSM	RMM
Security & Locking <ul style="list-style-type: none"> • Bonnet ajar switch • Master lock switch • Valet mode switch • Electric glove box • Front passenger door ajar • Anti-theft lines (FEM, REM, DDM, radio unit) • Central door locking switch • Interior luggage compartment release 	Security & Locking <ul style="list-style-type: none"> • Passive sounder • Passenger rear door lock • Luggage compartment latch • Fuel filler flap • Inertia switch • Anti-theft lines (FEM, REM, DDM, radio unit) • Rear doors ajar • luggage compartment ajar • luggage compartment closed status • PATS ID transfer 	Security & Locking <ul style="list-style-type: none"> • RF receiver for RKE (remote keyless entry) function • Drivers door locking • Anti-theft lines (FEM, REM, DDM, radio unit) • Drivers door ajar • RES (remote entry system), Rooker interface • Central door locking • Two Stage unlocking 	Seat Control <ul style="list-style-type: none"> • Driver seat movement • Drivers Seat memory recall 	Seat Control <ul style="list-style-type: none"> • Movement of the rear seat • Rear seat memory recall

FEM	REM	DDM	DSM	RMM
<p>Exterior Lighting</p> <ul style="list-style-type: none"> • Front direction indicators • Side repeaters • Front side lamps • Dip beam • Main beam • Front fog lamps • Front direction indicator bulb fail detection • Side repeater direction indicator bulb fail detection • Auto lamps • Exit delay • Headlamp convenience • Daylight running lamps • Hazard warning lamps 	<p>Exterior Lighting</p> <ul style="list-style-type: none"> • Rear fog lamps • Rear side markers • Tail lamps • Reverse lamps • Stop lamps (including HMSL) • Registration plate lamps • Rear direction indicator lamps • Rear direction indicator bulb fail detection 	<p>Convenience features</p> <ul style="list-style-type: none"> • Drivers door mirror movement and memory functions • Folding mirror control • Memory switch pack interface • Rear window lockout • Memory set LED 	<p>Miscellaneous</p> <ul style="list-style-type: none"> • Connection to SCP network • Diagnostics • VIN storage 	<p>Miscellaneous</p> <ul style="list-style-type: none"> • Connection to SCP network • Power park headrest (when available) • Diagnostics • VIN storage
<p>Interior Lighting</p> <ul style="list-style-type: none"> • Interior lighting switch • Front puddle lamps • Courtesy fade output • Approach lamps • Halo lighting 	<p>Interior Lighting</p> <ul style="list-style-type: none"> • Courtesy fade • Puddle lamps • Luggage compartment lamps 	<p>Miscellaneous</p> <ul style="list-style-type: none"> • Connection to SCP network • Diagnostics • Personalization • VIN storage 		

FEM	REM	DDM	DSM	RMM
<p>Wipers & Washers</p> <ul style="list-style-type: none"> • Wiper control • Power wash • Screen wash • Washer fluid level • Lights on with wipers 	<p>Miscellaneous</p> <ul style="list-style-type: none"> • Fuel pump • Rear seat heaters • Fuel level sender • Brake pedal switch • Electrochromic rear view mirror • Connection to SCP network • VIN storage • Diagnostics • Load management • Bulb fail monitor for tow bar connection 			
<p>Convenience features</p> <ul style="list-style-type: none"> • Passenger door mirror movement functions and memory • Adjustable pedals • Window enable output • Heated steering wheel 				
<p>Miscellaneous</p> <ul style="list-style-type: none"> • Three level seat heater (front seats) • Back lighting PWM output • Horn output • Connection to SCP • VIN storage • Diagnostics • Load management 				

Control module programming

There are two modes of configuration data. The first type requires configuration information so that the module can interact with the vehicle correctly. This information will be transferred to the new module using the Jaguar WDS, so that it will contain the same settings as the old module.

The second type of configuration data is customer preference driven. These are items that the customer may or may not want to have enabled. Typically, customer preference items can be toggled on or off by the use of a compatible scan tool. You may need to ask the customer which preferences they had enabled prior to installation of the new module, although after installation they will automatically learn the settings by receiving information from existing modules.

To carry out the customer configuration process, use the Jaguar WDS. Refer to the Dealer Options Index for modules on the vehicle that have customer preference items.

Table 8 Control Module Properties

Module	Flash Programmable using WDS	Configurable	Dealer Options available	Full VIN storage supported
Driver's Seat Module	No	No	No	Yes
Driver's Door Module	No	Yes	Yes	Yes
Front Electronic Module	No	Yes	Yes	Yes
Rear Electronic Module	No	Yes	Yes	Yes
Rear Memory Module	No	No	No	Yes
Parking Aid Module	No	No	No	No
Navigation Module	No	No	No	No
Voice	No	Yes	Yes	Yes
Phone	No	No	No	Yes
In Car Entertainment	No	Yes	Yes	Yes
Restraints Control Module	No	No	No	No
Adaptive Cruise Control	No	Yes	Yes	Yes
Air Suspension Unit	No	Yes	No	No
DSC / ABS / TCS	No	No	No	No
Electronic Park Brake	No	Yes	Yes	No
Auto-Levelling Module (HID)	No	Yes	No	No
Instrument Cluster	No	Yes	Yes	Yes
Engine Control Module	Yes	Yes	Yes	Yes
Amplifier Module	No	Yes	Yes	Yes
Rear Entertainment Module	No	No	No	No

ELECTRICAL SYSTEMS

Module	Flash Programmable using WDS	Configurable	Dealer Options available	Full VIN storage supported
Transmission Control Module	Yes	No	No	Yes
Climate Control Module	Yes	Yes	No	Yes

WORKSHEET – CONTROL MODULE LOCATION

Using the control module location diagram in the beginning of the section, locate as many control modules as possible. Place a check mark in the appropriate box below once you have visually located the module.

Table 9 Control Modules

Control Module	Visually locate (if not possible, note the location)
Driver's Seat Module	
Driver's Door Module	
Front Electronic Module	
Rear Electronic Module	
Rear Memory Module	
Parking Aid Module	
Navigation Module	
Voice	
Phone	
In Car Entertainment	
Intrusion Sensor Module	
Restraints Control Module	
Steering Column Lock Module	
Adaptive Cruise Control	
Air Suspension Unit	
DSC / ABS / TCS	
Electronic Park Brake Module	

Control Module	Visually locate (if not possible, note the location)
Auto-Levelling Module (HID)	
Instrument Cluster	
Engine Control Module	
Amplifier Module	
Rear Entertainment Module	
Transmission Control Module	
Climate Control Module	