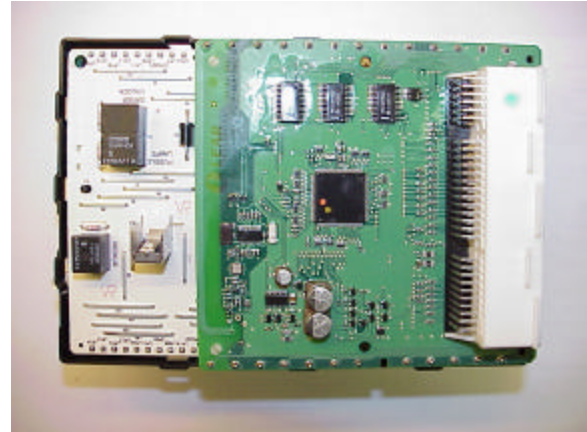


## D186 MY04 Smart Junction Box



The SJB described herein forms the foundation of the Body Electrical/Electronic Subsystem. The SJB combines the Generic Electronics Module (GEM) and Junction Box (JB) into a single entity for the 2004 Taurus. The SJB is an electronic assembly consisting of two separate PCBs – one for high current loads (HCB) and the other for the low current electronics (LCB). The HCB is single sided with components populated on one side while the LCB is doubled sided with components populated on both sides. All relays are located on the HCB or external to the SJB in the Power Distribution Center (PDC). The SJB monitors and controls vehicle functions as described below:

- Replaces currently used Junction Box/Electronic module combinations
- Uses standard 4 Layer PCB that supports the low current electronics
- Uses 400 micron PCB that supports the high current loads
- Provides diagnostic capability via the ISO-9141 protocol
- Flash micro-controller allows software updates via the vehicles OBDII connector using standard Ford tools.
- Provides features such as battery saver, courtesy lighting, remote keyless entry, daytime running lamps, front wiper and washer control, front fog lighting, CAN Bus communication, driver's one-touch-down and power door locks via solid state electronics and electromechanical relays.
- Provides fused pass through circuits from 5A to 30A for power distribution
- Reduces vehicle assembly time by reducing the number of components - Size, weight, and cost of multiple modules is optimized
- Vehicle key off load is optimized when combining multiple sleep nodes such as RF and GEM into a single module.
- Compliant with Ford's Electronic Component Electromagnetic Compatibility (EMC) standard ES-XW7T-1A278-AB



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