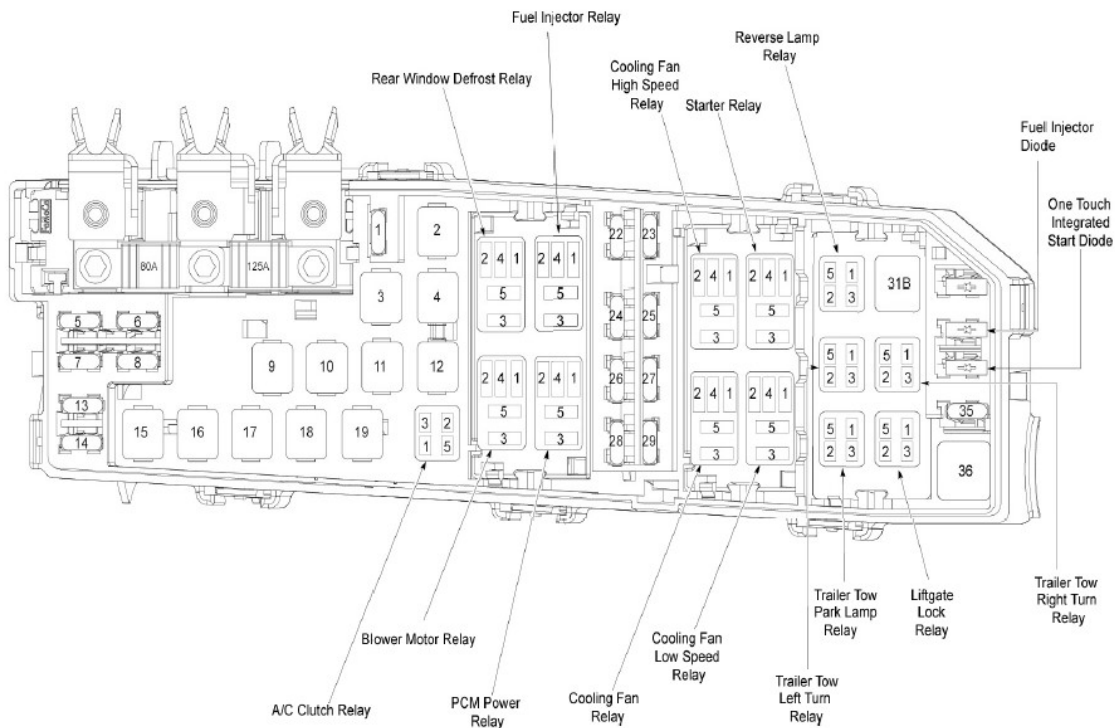


# BATTERY JUNCTION BOX (BJB)

**CAUTION:** When battery is disconnected, vehicle computer and memory systems may lose memory data. Driveability problems may exist until computer systems have completed a relearn cycle. See **COMPUTER RELEARN PROCEDURES** article in **GENERAL INFORMATION** before disconnecting battery.

**NOTE:** For component location, see **ELECTRICAL COMPONENT LOCATOR - (EXCEPT HYBRID)** article.



**Fig. 1: Battery Junction Box (BJB)**  
Courtesy of FORD MOTOR CO.

## COMPONENT TESTING PROCEDURE

| Fuse/Relay Location | Fuse Amp Rating      | Battery Junction Box Description     |
|---------------------|----------------------|--------------------------------------|
|                     | 80A<br>MIDI<br>(WH)  | Power Steering Control Module (PSCM) |
|                     | 125A<br>MIDI<br>(PK) | Smart Junction Box (SJB)             |
| 1                   | 15A <sup>(1)</sup>   | Heated Mirror                        |

|    |                    |  |
|----|--------------------|--|
| 2  | 30A <sup>(2)</sup> | Rear Defroster   |
| 3  | 20A <sup>(2)</sup> | Rear Power Point (Center Console)  |
| 4  | -                  | Not Used   |
| 5  | 10A <sup>(1)</sup> | Keep Alive Power (PCM), EVAP Canister Vent Control Solenoid, PCM Power Relay   |
| 6  | 15A <sup>(1)</sup> | Generator  |
| 7  | 15A <sup>(1)</sup> | Liftgate Lock Relay  |
| 8  | 20A <sup>(1)</sup> | Trailer Tow Park Lamp Relay  |
| 9  | 50A <sup>(2)</sup> | Anti lock Brake System (ABS) Module  |
| 10 | 30A <sup>(2)</sup> | Windshield Wiper Motor   |
| 11 | 30A <sup>(2)</sup> | Starter Relay  |
| 12 | 40A <sup>(2)</sup> | Blower Motor Relay   |
| 13 | 10A <sup>(1)</sup> | A/C Clutch Relay   |
| 14 | 15A <sup>(1)</sup> | Trailer Tow Turn Relay, Left and Right   |
| 15 | -                  | Not Used   |
| 16 | 40A <sup>(2)</sup> | Cooling Fan Relay  |
| 17 | 40A <sup>(2)</sup> | Cooling Fan Low Speed Relay  |
| 18 | 20A <sup>(2)</sup> | Anti lock Brake System (ABS) Module  |
| 19 | 30A <sup>(2)</sup> | Seat Control Switch, Left  |
| 22 | 20A <sup>(1)</sup> | Inertia Fuel Shutoff (IFS) Switch  |
| 23 | 15A <sup>(1)</sup> | Fuel Injector 1, 2, 3, 4, 5, and 6, Powertrain Control Module (PCM)  |
| 24 | -                  | Not Used   |
| 25 | 5A                 | ABS Module, ABS Test connector   |
| 26 | 15A <sup>(1)</sup> | Coil on Plug (COP) 1, 2, 3, 4, 5, and 6, Ignition Transformer Capacitor  |
| 27 | 10A <sup>(1)</sup> | Reverse Lamp Relay, Floor Shifter, Heated Positive Crankcase Ventilation (PCV) Valve   |
| 28 | 20A <sup>(1)</sup> | Powertrain Control Module (PCM), Brake Pedal Position Switch, Evaporative Emission (EVAP) Canister Purge Valve, Variable Camshaft Timing (VCT) Solenoid, Heated Oxygen Sensor (HO2S) #11, #12, #21, and #22. EGR Stepper Motor, Mass Air Flow/Intake Air Temperature (MAF/IAT) Sensor, Variable Camshaft Timing (VCT) Solenoid 1, and 2, |
| 29 | 15A <sup>(1)</sup> | Powertrain Control Module (PCM)  |
| 32 | -                  | Not Used   |
| 33 | -                  | Fuel Injector Relay  |
| 34 | -                  | One Touch Integrated Start Diode   |
| 35 | 10A <sup>(1)</sup> | Rear Window Defrost Relay, Reverse Lamp Relay  |

(1) Mini fuse

(2) Cartridge fuse

## CABLE PRO/FUSE LINK

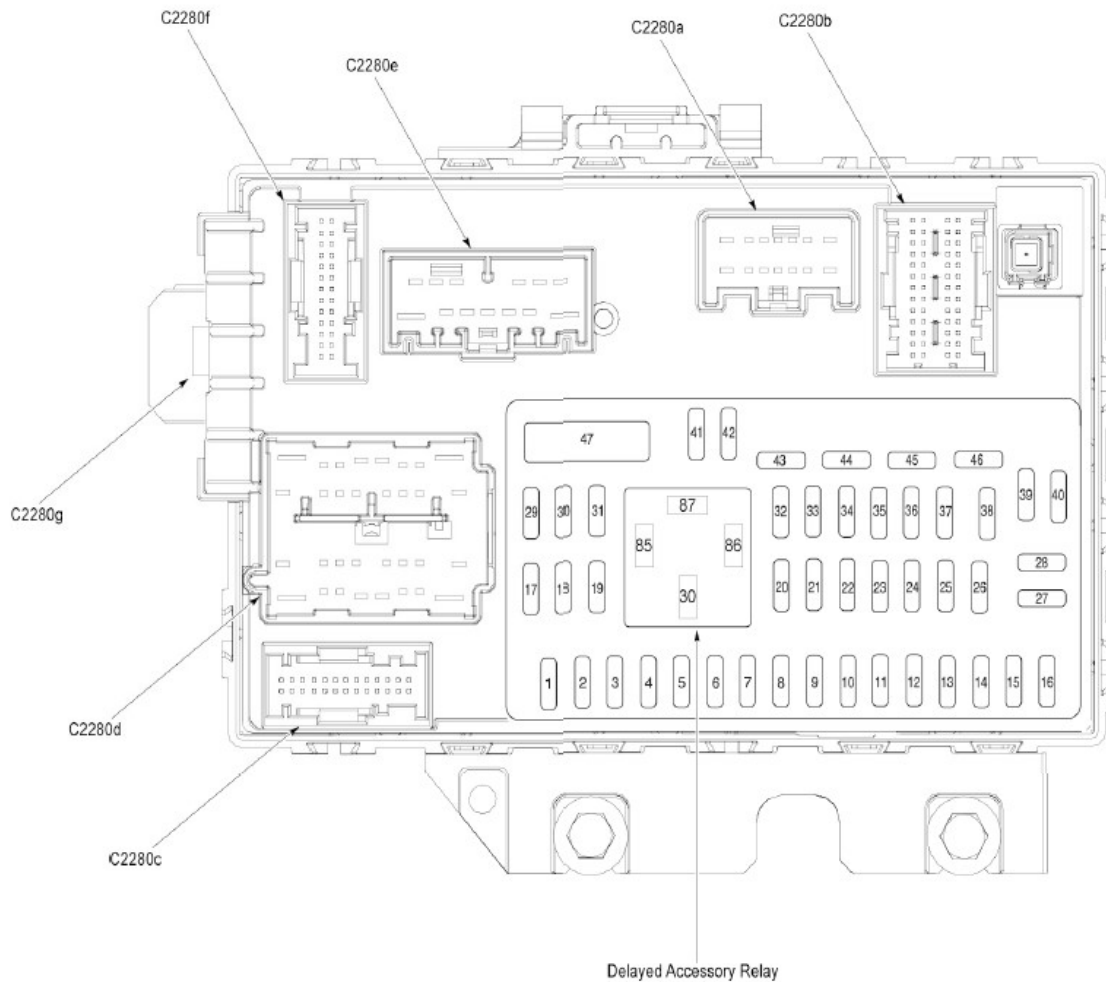
**NOTE:** A 175-amp, Red wire, cable pro/fuse link exists between the generator, starter motor, Battery Junction Box (BJB) and battery. No additional information is available from manufacturer.

## HEATED SEAT RELAYS

**NOTE:** For component location, see ELECTRICAL COMPONENT LOCATOR - (EXCEPT HYBRID) article.

## SMART JUNCTION BOX (SJB)

**NOTE:** For component location, see ELECTRICAL COMPONENT LOCATOR - (EXCEPT HYBRID) article.



**Fig. 2: Smart Junction Box (SJB)**  
Courtesy of FORD MOTOR CO.

### COMPONENT TESTING PROCEDURE

| Fuse/Relay Location | Fuse Amp Rating | Smart Junction Box Description |
|---------------------|-----------------|--------------------------------|
|                     |                 |                                |

|    |      |  |
|----|------|--|
| 1  | 30A  | Not Used (SPARE)   |
| 2  | 15A  | Brake Pedal Position Switch  |
| 3  | 15A  | Accessory Protocol Interface Module (APIM)   |
| 4  | 30A  | Roof opening Panel Module  |
| 5  | 10A  | Keypad Illumination, Brake Shift Interlock   |
| 6  | 20A  | Park/Stop/Turn lamp, LR and RR, Park/Turn lamp, LF and RF  |
| 7  | 10A  | Low Beam, Headlamp Left  |
| 8  | 10A  | Low Beam, Headlamp Right   |
| 9  | 15A  | Cargo Lamp, Interior/Map Lamp, Interior Lamp   |
| 10 | 15A  | Traction Assist, Parking Aid, Main Light, Message Center, Floor Shifter, Clockspring, Ambient Lighting |
| 11 | 10A  | 4x4 Control Module   |
| 12 | 7.5A | Exterior Rear View Mirror Switch   |
| 13 | 5A   | Not Used   |
| 14 | 10A  | FCIM (Radio Buttons), GPS module, Front Display Interface Module (FDIM)                                |
| 15 | 10A  | HVAC-EMTC, HVAC-DATC   |
| 16 | 15A  | Not Used (SPARE)   |
| 17 | 20A  | All Lock Relay, All Unlock Relay, Driver Unlock Relay, Liftgate Glass Release Relay                    |
| 18 | 20A  | Heated Seat Relays, Driver and Passenger   |
| 19 | 25A  | Rear Wiper Motor Assembly  |
| 20 | 15A  | Datalink Connector   |
| 21 | 15A  | Fog Lamp Relay, Fog Lamps, Main Light Switch   |
| 22 | 15A  | Park Lamp Relay, Park/Turn Lamp, LF and RF, Side Lamps, Trailer Tow Park Lamp Relay                    |
| 23 | 15A  | High Beam Relay, Headlamps   |
| 24 | 20A  | Horn Relay, Horn Switch, Horn  |
| 25 | 10A  | Battery Saver Relay, Cargo Lamp, Interior/Map Lamp, Interior Lamp, Vanity Mirrors                      |
| 26 | 10A  | Instrument Cluster (IC)  |
| 27 | 20A  | Ignition Switch  |
| 28 | 5A   | Audio Control Module (ACM)   |
| 29 | 5A   | Instrument Cluster (IC)  |
| 30 | -    | Not Used   |
| 31 | 10A  | Restraints Control Module (RCM)  |
| 32 | 10A  | Rear View Camera   |
| 33 | 10A  | Not Used   |
| 34 | -    | Not Used   |
| 35 | 10A  | Parking Aid Module, 4x4 control Module, Power Steering Control Module (PSCM)                           |
| 36 | 5A   | PATS Transceiver   |
| 37 | 10A  | HVAC-EMTC, HVAC-DATC   |
| 38 | 20A  | Subwoofer Amplifier  |
| 39 | 20A  | Audio Control Module (ACM), Audio Amplifier  |

|    |          |  |
|----|----------|--|
| 40 | 20A      | Power Point  |
| 41 | 15A      | Driver/Passenger, Door Lock Switches, Ambient Lighting Module, Roof Opening Panel Module, Electrochromatic Rear View Mirror, Ambient Lighting Switch, Multi-Media Inside Mirror, Roof opening Panel Switch |
| 42 | 10A      | Not Used (SPARE)   |
| 43 | 10A      | Rear Wiper Motor, Heated Seat Relays Driver, and Passenger, Instrument Cluster (IC)  |
| 44 | 10A      | Not Used (SPARE)   |
| 45 | 5A       | Windshield Wiper Motor, Blower Motor Relay   |
| 46 | 7.5A     | OCS Module, Passenger Air Bag Deactivation Switch  |
| 47 | 30A C.B. | Master Window Control Switch   |