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2012 FORD Fiesta ST OEM Service and Repair Workshop Manual

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#### **K8 CHECK THE BRAKE FLUID LEVEL SWITCH INPUT CIRCUIT FOR AN OPEN**

- Ignition OFF.
- Disconnect Brake Fluid Level Switch C124.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C135-34	Ω	C124-2

#### Is the resistance less than 3 ohms?



**No** REPAIR the circuit.

# K9 CHECK THE LOW BRAKE FLUID LEVEL SWITCH GROUND CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition ON.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C124-1	Ÿ	Ground

# Is any voltage present?

Yes GO to K10

**No** REPAIR the circuit.

Positive Lead	Measurement / Action	Negative Lead
C135-32	Ω	Ground

#### Is the resistance greater than 10,000 ohms?

	INSTALL a new brake fluid level switch.
Yes	REFER to: Brake Fluid Reservoir
	(206-06 Hydraulic Brake Actuation, Removal and Installation).

**No** REPAIR the circuit.

# K13 CHECK FOR CORRECT ABS (ANTI-LOCK BRAKE SYSTEM) MODULE OPERATION

- Ignition OFF.
- Disconnect and inspect the ABS (anti-lock brake system) module connectors.
- Repair:
  - corrosion (install new connector or terminals clean module pins)
  - damaged or bent pins install new terminals/pins
  - pushed-out pins install new pins as necessary
- Reconnect the ABS (anti-lock brake system) module connectors. Make sure they seat and latch correctly.
- Operate the system and determine if the concern is still present.

# Is the concern still present?

Yes

CHECK OASIS (Online Automotive Service Information System) for any applicable service articles: TSB (Technical Service Bulletin), GSB (General Service Bulletin), SSM (special service message), or FSA (Field Service Action). If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern,

REFER to: Anti-Lock Brake System (ABS) and Stability Control - Electric (206-09 Anti-Lock Brake System (ABS) and Stability Control, Diagnosis and Testing).

If the battery low state of charge message is missing for less than 5 seconds, the IPC (instrument panel cluster) defaults the charging system RTT (reconfigurable telltale) indicator to the last indication state (on or off), based upon on the last message received.

If the battery low state of charge message is missing for 5 seconds or longer, the IPC (instrument panel cluster) defaults the charging system RTT (reconfigurable telltale) indicator on.

#### **Possible Sources**

- Charging system concern
- Message center concern
- BCM (body control module) concern
- GWM (gateway module A) concern
- IPC (instrument panel cluster)

#### L1 CHECK THE MESSAGE CENTER OPERATION

- Ignition ON.
- Close all doors, hood and the tailgate.
- Clear all message center warnings by pressing the OK button for each warning present.
- Monitor the door ajar RTT (reconfigurable telltale) indicator.
- Open the driver door.
- Clear the message center popup warning.
- Monitor the door ajar RTT (reconfigurable telltale) indicator.

# Is the door ajar RTT (reconfigurable telltale) indicator off with the door closed, and on with the door open?



## L2 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST

• Using a diagnostic scan tool, perform the IPC (instrument panel cluster) self-test.

## Are any Diagnostic Trouble Codes (DTCs) recorded?

**Yes** REFER to the DTC (diagnostic trouble code) Chart in this section.

Chimes, Description and Operation).

If the cruise control status, cruise control override or cruise control set speed display message is missing or deemed invalid by the IPC (instrument panel cluster) for less than 5 seconds, the IPC (instrument panel cluster) defaults the cruise control RTT (reconfigurable telltale) indicator to the last indication state (on or off), based upon the last message received.

If the cruise control status, cruise control override or cruise control set speed display message is missing or if the data is deemed invalid by the IPC (instrument panel cluster) for 5 seconds or longer, the IPC (instrument panel cluster) defaults the cruise control RTT (reconfigurable telltale) indicator off.

#### **Possible Sources**

- Communication concern
- Cruise control concern
- GWM (gateway module A) concern
- IPC (instrument panel cluster)

#### M1 CHECK THE MESSAGE CENTER OPERATION

- Ignition ON.
- Close all doors, hood and the tailgate.
- Clear all message center warnings by pressing the OK button for each warning present.
- Monitor the door ajar RTT (reconfigurable telltale) indicator.
- Open the driver door.
- Clear the message center popup warning.
- Monitor the door ajar RTT (reconfigurable telltale) indicator.

# Is the door ajar RTT (reconfigurable telltale) indicator off with the door closed, and on with the door open?



## M2 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST

• Using a diagnostic scan tool, perform the IPC (instrument panel cluster) self-test.

# Are any Diagnostic Trouble Codes (DTCs) recorded?

**Yes** REFER to the DTC (diagnostic trouble code) Chart in this section.

DTC (diagnostic trouble code)	Description	Fault Trigger Condition
BCM (body control module) B1178:01	Boot/Trunk Ajar Switch: General Electrical Failure	Sets in the BCM (body control module) when the BCM (body control module) detects a fault in the power tailgate ajar switch.

#### **Possible Sources**

- Communication concern
- Interior lighting concern
- Message center concern
- GWM (gateway module A) concern
- BCM (body control module) concern
- IPC (instrument panel cluster)



- Ignition ON.
- Clear all message center warnings by pressing the OK button for each warning present.
- Monitor the charging system warning RTT (reconfigurable telltale) indicator.
- Start the engine.
- Monitor the charging system warning RTT (reconfigurable telltale) indicator.

Does the charging system warning RTT (reconfigurable telltale) indicator turn on with the KOEO (key on, engine off) and turn off with the KOER (key on, engine running)?



#### **N2 CHECK THE INTERIOR LIGHTING OPERATION**

• Open and close each door while monitoring the interior lamps.

Do the interior lamps operate correctly with each door?



Diagnostic Trouble Codes (DTCs) (always on condition).

REFER to: Perimeter Anti-Theft Alarm

(419-01A Perimeter Anti-Theft Alarm, Diagnosis and Testing).

If the tailgate ajar indication is never on, GO to N9

# N6 CHECK THE POWER TAILGATE A JAR INPUT CIRCUIT FOR AN OPEN AT THE BCM (BODY CONTROL MODULE)

- Ignition OFF.
- Disconnect BCM (body control module) C2280E.
- Disconnect Tailgate Cinch Latch C4627.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280E-34	Ω	Ground

#### Is the resistance less than 3 ohms?



**No** GO to N7

# N7 BYPASS THE TAILGATE A JAR INPUT AT THE TAILGATE CINCH LATCH AND CHECK FOR OPEN AT THE BCM (BODY CONTROL MODULE)

• Connect a fused jumper wire:

Positive Lead	Measurement / Action	Negative Lead
C4627-2		Ground

- Disconnect Tailgate Module C4623.
- Disconnect Tailgate Cinch Latch C4627.
- Open the tailgate.
- Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280E-34	Ω	Ground

# Is the resistance greater than 10,000 ohms?



No	GO to	N11

# N10 CHECK THE TAILGATE AJAR INPUT CIRCUIT FOR A SHORT TO GROUND AT THE BCM WITH THE TAILGATE LATCH OR POWER TAILGATE MODULE DISCONNECTED

• Measure:

Positive Lead	Measurement / Action	Negative Lead
C2280E-34	Ω	Ground

# Is the resistance greater then 10,000 ohms?

Yes INSTALL a new tailgate cinch latch.

**No** REPAIR the circuit.

## N11 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

• IPC (instrument panel cluster)

#### **O1 CHECK THE MESSAGE CENTER OPERATION**

- Ignition ON.
- Close all doors, hood and tailgate.
- Clear all message center warnings by pressing the OK button for each warning present.
- Monitor the door ajar RTT (reconfigurable telltale) warning indicator.
- Open the driver door.
- Clear the message center popup warning.
- Monitor the door ajar RTT (reconfigurable telltale) warning indicator.

Is the door ajar RTT (reconfigurable telltale) warning indicator off with the door closed, and on with the door open?



**No** GO to Pinpoint Test A

# **O2 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST**

• Using a diagnostic scan tool, perform the IPC (instrument panel cluster) self-test.

# Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes REFER to the DTC (diagnostic trouble code) Chart in this section.

No GO to O3

O3 PERFORM THE ABS (ANTI-LOCK BRAKE SYSTEM) MODULE SELF-TEST

- Communication concern
- Message center concern
- Locking differential concern
- GWM (gateway module A) concern
- IPC (instrument panel cluster)

#### P1 CHECK THE MESSAGE CENTER OPERATION

- Ignition ON.
- Close all doors, hood and the tailgate.
- Clear all message center warnings by pressing the OK button for each warning present.
- Monitor the door ajar RTT (reconfigurable telltale) indicator.
- Open the driver door.
- Clear the message center popup warning.
- Monitor the door ajar RTT (reconfigurable telltale) indicator.

# Is the door ajar RTT (reconfigurable telltale) indicator off with the door closed, and on with the door open?



## P2 PERFORM THE IPC (INSTRUMENT PANEL CLUSTER) SELF-TEST

- Ignition ON.
- Using a diagnostic scan tool, perform the IPC (instrument panel cluster) self-test.

#### Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes REFER to the DTC (diagnostic trouble code) Chart in this section.

No GO to P3

#### P3 CHECK THE GWM (GATEWAY MODULE A) DIAGNOSTIC TROUBLE CODES (DTCS)

• Using a diagnostic scan tool, check the GWM (gateway module A) Continuous Memory Diagnostic Trouble Codes (CMDTCs).