

Wireless Accessory Charging Module (WACM)

Diagnostic Trouble Code (DTC) Chart

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

Diagnostic Trouble Code Chart

Module	DTC	Description	Action <i>New: hover over Pinpoint Test links to show title</i>
BCM	B1554:11	Wireless Accessory Charger Enable\Disable:Circuit short to ground	GO to Pinpoint Test A
BCM	B1554:13	Wireless Accessory Charger Enable\Disable:Circuit open	GO to Pinpoint Test A
WACM	U0140:00	Lost Communication With Body Control Module:No Sub Type Information	GO to Pinpoint Test D
WACM	U0184:00	Lost Communication With Radio:No Sub Type Information	GO to Pinpoint Test F
WACM	U0257:00	Lost Communication With Front Controls / Display Interface Module:No Sub Type Information	GO to Pinpoint Test E
WACM	U201A:51	Control Module Main Calibration Data:Not Programmed	GO to Pinpoint Test H
WACM	U2100:00	Initial Configuration Not Complete:No Sub Type Information	GO to Pinpoint Test H
WACM	U2101:00	Control Module Configuration Incompatible:No Sub Type Information	GO to Pinpoint Test H
WACM	U3000:41	Control Module:General Checksum	GO to Pinpoint Test G
WACM	U3000:42	Control Module:General Memory Failure	GO to Pinpoint Test G
WACM	U3000:49	Control Module:Internal Electronic Failure	GO to Pinpoint Test G
WACM	U3003:16	Battery Voltage:Circuit Voltage Below Threshold	GO to Pinpoint Test C
WACM	U3003:17	Battery Voltage:Circuit Voltage Above Threshold	GO to Pinpoint Test C

Symptom Chart(s)

Symptom Chart: WACM (Wireless Accessory Charging Module)

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

Condition	Possible Sources	Actions

Condition	Possible Sources	Actions
A module does not communicate with the diagnostic scan tool	• Fuse(s) • Wiring terminals or connectors • ACM • APIM • BCM • WACM	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
The WACM is permanently disabled or is not being disabled during interior key searches	REFER to Pinpoint Test	GO to Pinpoint Test A
The WACM Is Inoperative	REFER to Pinpoint Test	GO to Pinpoint Test B

Pinpoint Test(s)

☐ [PINPOINT TEST A : B1554:11, B1554:13](#)



NOTE: There may be intermittent passive engine start attempts if the wireless charging feature is in use and the remote key FOB is placed in close proximity to the wireless charger.

Refer to Wiring Diagrams Cell [44](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Wireless Accessory Charging Module (WACM) - System Operation and Component Description (414-06 Accessory Charging, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
BCM B1554:11	Wireless Accessory Charger Enable/Disable: Circuit Short To Ground	This DTC sets when the module senses lower than expected voltage on the WACM hardwired status circuit, indicating a short to ground. The primary method of configuring WACM off during an interior key search may not work; the CAN signal backup is the only mechanism to prevent WACM from interfering with an interior key search.
BCM B1554:13	Wireless Accessory Charger Enable/Disable: Circuit Open	This DTC sets when the module senses no voltage on the WACM hardwired status circuit, indicating an open circuit. The primary method of configuring WACM off during an interior key search may not work; the CAN signal backup is the only mechanism to prevent WACM from interfering with an interior key search.

Possible Sources

- Wiring, terminals or connectors
- WACM

Visual Inspection and Pre-checks

- Recheck wireless charging process with a known good smart phone that contains the built-in wireless charging technology. Or test wireless charging process with a cell phone with a wireless-capable back cover or adapter.
- With a known compatible cell phone resting on the WACM pad, monitor the FCIM (if equipped) or IPC message center (if equipped) for the WACM charging status message "Wireless Charger Active". This message displays after a cell phone has been laid on the charging pad and has started a wireless charging session (may only appear on first charging session of a given ignition cycle). A recheck of this message can be performed by turning the ignition off, then back on, then placing the compatible phone back on the charging pad.
- The "Charge Terminated" message will typically appear within 25 seconds after a foreign object /phone misaligned is detected on the charging pad.
- Inspect for loose or corroded WACM connections.
- A list of compatible devices can be found at <https://owner.ford.com/WirelessPhoneCharging>. If a customer's device is not on the list, they should check with their phone manufacturer to determine if it supports wireless charging. Not all phones are compatible with wireless charging. The referenced website also includes information about how cases can affect wireless charging, and many other relevant FAQs.

NOTICE: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

A1 CHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) OPERATION

- Place a known compliant cell phone onto the WACM charging pad.
- Observe for the "Wireless Charger Active" message to display through the FCIM (if equipped) or IPC message center (if equipped).

Does the charging pad operate?

Yes	REFER to Owner's Manual for proper use and operation.
No	GO to A2

A2 CHECK THE COMMUNICATION NETWORK

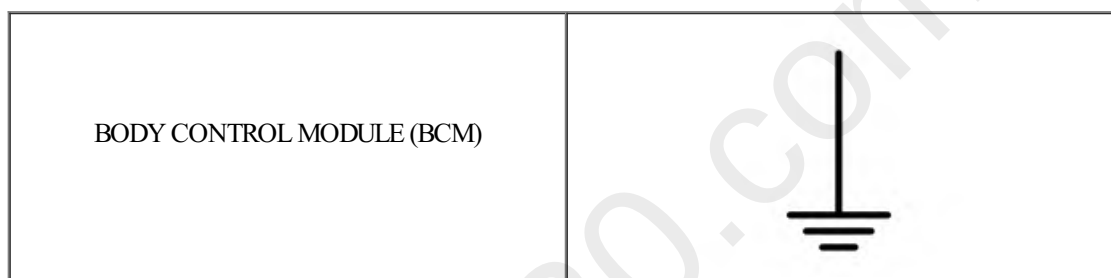
- Ignition ON.
- Using a diagnostic scan tool, carry out the network test.

Does the WACM pass the network test?

Yes	GO to A3
No	DIAGNOSE the WACM does not communicate with the diagnostic scan tool. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

A3 CHECK THE BCM (BODY CONTROL MODULE) WACM (WIRELESS ACCESSORY CHARGING MODULE) STATUS CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM [C2280B](#).
- Ignition ON.
- Measure:



Positive Lead	Measurement / Action	Negative Lead
C2280B-11		Ground

Is there any voltage present?

Yes	REPAIR the circuit.
No	GO to A4

A4 CHECK THE BCM (BODY CONTROL MODULE) WACM (WIRELESS ACCESSORY CHARGING MODULE) STATUS CIRCUIT FOR A SHORT TO GROUND

- Measure:

BODY CONTROL MODULE (BCM)	
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Positive Lead	Measurement / Action	Negative Lead
C2280B-11	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to A5
No	REPAIR the circuit.

A5 CHECK THE BCM (BODY CONTROL MODULE) WACM (WIRELESS ACCESSORY CHARGING MODULE) STATUS CIRCUIT FOR AN OPEN

- Disconnect BCM [C2280B](#) .
- Measure:

WIRELESS ACCESSORY CHARGING MODULE	BODY CONTROL MODULE (BCM)
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Positive Lead	Measurement / Action	Negative Lead
C390-3	Ω	C2280B-11

Are the resistances less than 3 ohms?

Yes	GO to A6
No	REPAIR the circuit.

A6 CHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) VBAT CIRCUIT AND WACM (WIRELESS ACCESSORY CHARGING MODULE) STATUS CIRCUIT FOR A SHORT TOGETHER

- Measure:

BODY CONTROL MODULE (BCM)	BODY CONTROL MODULE (BCM)
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Positive Lead	Measurement / Action	Negative Lead
C2280B-11	Ω	C2280C-29

Are the resistances greater than 10,000 ohms?

Yes	GO to A7
No	REPAIR the circuit.

A7 CHECK FOR CORRECT BCM (BODY CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the BCM connectors.
- Repair:
 - corrosion (install new connector or terminals â€ clean module pins)
 - damaged or bent pins â€ install new terminals/pins
 - pushed-out pins â€ install new pins as necessary
- Reconnect all BCM 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 for any applicable service articles: TSB, GSB, SSM or FSA. If no service articles address this concern, Install a new BCM. REFER to: Body Control Module (BCM) (419-10 Multifunction Electronic Modules, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST B : THE WACM (WIRELESS ACCESSORY CHARGING MODULE) IS INOPERATIVE

Refer to Wiring Diagrams Cell [44](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Wireless Accessory Charging Module (WACM) - System Operation and Component Description (414-06 Accessory Charging, Description and Operation).

Possible Sources

- Wiring, terminals or connectors
- Environmental Interference
- WACM

Visual Inspection and Pre-checks

- Recheck wireless charging process with a known compatible smart phone. Verify phone charges for at least 30 seconds. It is recommended to place the cell phone as close to the center of the charging surface as possible and to use a cell phone with a battery state of charge of less than 80 percent.
- With a known compatible cell phone resting on the WACM pad, monitor the FCIM (if equipped) or IPC message center (if equipped) for the WACM charging status message "Wireless Charger Active". This message displays after a cell phone has been laid on the charging pad and started a wireless charging session (may only appear on first charging session of a given ignition cycle). A recheck of this message can be performed by turning the ignition off, then back on, then placing the compatible phone back on the charging pad.
- The "Charge Terminated" message will typically appear within 25 seconds after a foreign object /phone misaligned is detected on the charging pad.
- Inspect for loose or corroded WACM connections.
- A list of compatible devices can be found at <https://owner.ford.com/WirelessPhoneCharging>. If a customer's device is not on the list, they should check with their phone manufacturer to determine if it supports wireless charging. Not all phones are compatible with wireless charging. The referenced website also includes information about how cases can affect wireless charging, and many other relevant FAQs.

NOTICE: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

B1 CHECK FOR WACM (WIRELESS ACCESSORY CHARGING MODULE) DTCS (DIAGNOSTIC TROUBLE CODES)

- Ignition ON.
- Using a diagnostic scan tool, carry out the WACM self-test.

Are any diagnostic trouble codes (DTCs) present?

Yes	GO to B2
No	REFER to Owner's Manual for proper use and operation.

B2 CHECK THE COMMUNICATION NETWORK

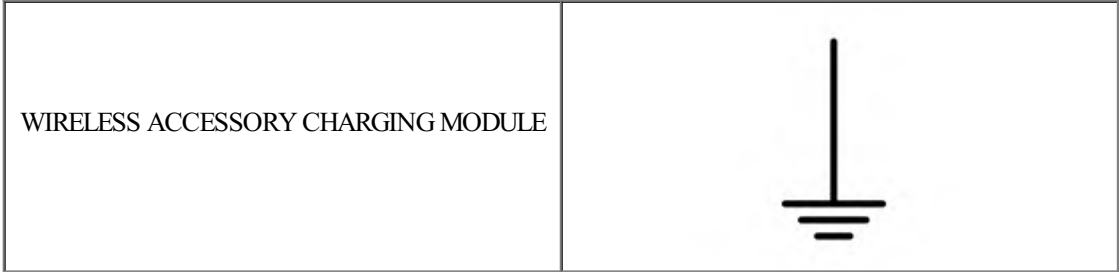
- Ignition ON.
- Using a diagnostic scan tool, carry out the network test.

Does the WACM pass the network test?

Yes	GO to B3
No	DIAGNOSE the WACM does not communicate with the diagnostic scan tool. REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

B3 CHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) STATUS CIRCUIT FOR A SHORT TO VOLTAGE

- Ignition OFF.
- Disconnect BCM [C2280B](#) .
- Disconnect Wireless Accessory Charging Module [C390](#) .
- Ignition ON.
- Measure:



Positive Lead	Measurement / Action	Negative Lead
C390-3		Ground

Is there any voltage present?

Yes	REPAIR the circuit.
No	GO to B4

B4 CHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) STATUS CIRCUIT FOR A SHORT TO GROUND

- Measure:

WIRELESS ACCESSORY CHARGING MODULE	
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Positive Lead	Measurement / Action	Negative Lead
C390-3	Ω	Ground

Are the resistances greater than 10,000 ohms?

Yes	GO to B5
No	REPAIR the circuit.

B5 CHECK THE BCM (BODY CONTROL MODULE) WACM (WIRELESS ACCESSORY CHARGING MODULE) STATUS CIRCUIT FOR AN OPEN

- Disconnect BCM [C2280B](#) .
- Measure:

	BODY CONTROL MODULE (BCM)
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Positive Lead	Measurement / Action	Negative Lead
C3853-3	Ω	C2280B-11

Are the resistances less than 3 ohms?

Yes	GO to B6
No	REPAIR the circuit.

B6 CHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) VBAT CIRCUIT AND WACM (WIRELESS ACCESSORY CHARGING MODULE) STATUS CIRCUIT FOR A SHORT TOGETHER

- Measure:

WIRELESS ACCESSORY CHARGING MODULE

Positive Lead	Measurement / Action	Negative Lead
C390-1	Ω	C390-3

Are the resistances greater than 10,000 ohms?

Yes	GO to B7
No	REPAIR the circuit.

B7 CHECK FOR CORRECT WACM (WIRELESS ACCESSORY CHARGING MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the WACM connectors.
- Repair:
 - corrosion (install new connector or terminals â€ clean module pins)
 - damaged or bent pins â€ install new terminals/pins
 - pushed-out pins â€ install new pins as necessary
- Reconnect all WACM 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 for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new WACM. REFER to: Wireless Accessory Charging Module (WACM) (414-06 Accessory Charging, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

Refer to Wiring Diagrams Cell [44](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Wireless Accessory Charging Module (WACM) - System Operation and Component Description (414-06 Accessory Charging, Description and Operation).

The WACM requires an operating voltage that is between 9 and 15.5 volts. The WACM receives this voltage from the BCM. The WACM has a single ground circuit located in the passenger compartment wiring harness. Excessive resistance or an open in one or more of these circuits, a discharged battery, and overcharging condition or a inoperative charging system results in the WACM setting a DTC.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
WACM U3003:16	Battery Voltage: Circuit Voltage Below Threshold	Sets in the WACM if it detects battery voltage below 9 volts on the voltage supply circuit for 2.5 seconds or longer.
WACM U3003:17	Battery Voltage: Circuit Voltage Above Threshold	Sets in the WACM if it detects battery voltage above 15.5 volts on the voltage supply circuit for 2.5 seconds or longer.

Possible Sources

- Fuses
- Wiring, terminals or connectors
- Charging system concern
- Battery
- WACM

Visual Inspection and Pre-checks

- Make sure the vehicle battery terminals and cables are free of any corrosion and other contaminants.
- Make sure the vehicle battery terminals are tightened to their correct torque specifications.
- Make sure BCM fuse 3 (7.5A) is OK.
- Inspect for loose or corroded WACM connections.

NOTE: DTC U3003:17 may be stored in the module memory due to past battery charging or vehicle jump starting events.

Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may cause damage to the connector.

C1 CARRY OUT THE WACM (WIRELESS ACCESSORY CHARGING MODULE) SELF-TEST

- Start the engine.
- Using a diagnostic scan tool, perform the WACM self-test.
- Using a diagnostic scan tool, clear the WACM Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Wait 10 seconds.
- Start the engine.
- Using a diagnostic scan tool, perform the WACM self-test.

Is DTC U3003:16 or U3003:17 still present?

Yes	GO to C2
No	The system is operating normally at this time. The DTC may have been set previously during battery charging or while jump starting the vehicle.

C2 : CHECK THE BATTERY CONDITION AND STATE OF CHARGE

- Carry out the Battery Condition Test diagnostic routine.
REFER to: Battery (414-01 Battery, Mounting and Cables, Diagnosis and Testing).

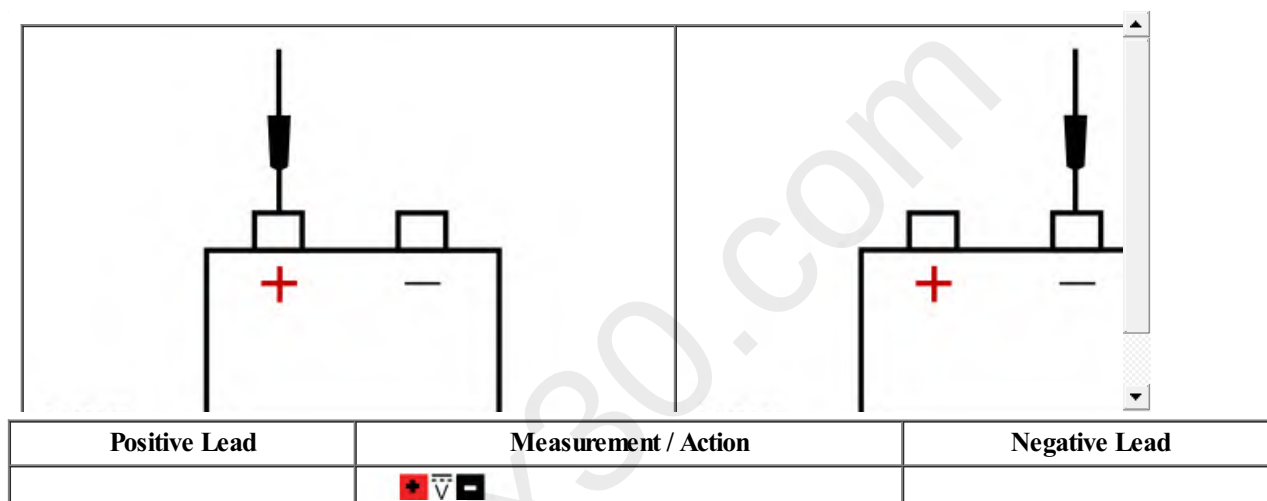
Did the battery pass the condition test?

Yes	GO to C3
No	INSTALL a new battery. REFER to: Battery (414-01 Battery, Mounting and Cables, Removal and Installation).

C3 CHECK THE CHARGING SYSTEM VOLTAGE

NOTE: Do not allow the engine Revolutions Per Minute (RPM) to exceed 2,000 Revolutions Per Minute (RPM) while carrying out this step or the generator may self-excite, resulting in default charging system output voltage. If engine Revolutions Per Minute (RPM) exceeds 2,000 Revolutions Per Minute (RPM), shut the vehicle off and restart the engine before carrying out this step.

- Start the engine.
- Measure:

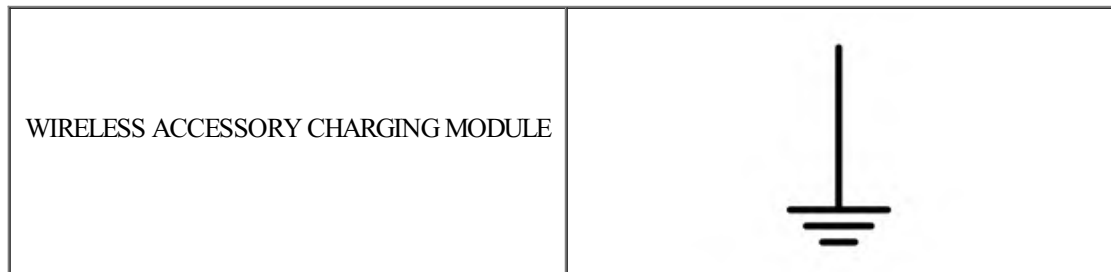


Does the battery voltage rise above 15.5 volts or higher?

Yes	For DTC U3003:17, DIAGNOSE the charging system. REFER to: Battery (414-01 Battery, Mounting and Cables, Diagnosis and Testing).
No	For DTC U3003:16, GO to C4

C4 CHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) VOLTAGE SUPPLY CIRCUIT FOR HIGH RESISTANCE

- Turn off all interior/exterior lights and accessories.
- Ignition OFF.
- Disconnect WACM [C390](#) .
- Ignition ON.
- Measure:



Positive Lead	Measurement / Action	Negative Lead
C390-1		Ground

Is the voltage greater than 11 volts?

Yes	GO to C5
No	REPAIR the circuit.

C5 CHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) GROUND CIRCUIT FOR HIGH RESISTANCE

- Ignition OFF.
- Measure:

WIRELESS ACCESSORY CHARGING MODULE	
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Positive Lead	Measurement / Action	Negative Lead
C390-5	Ω	Ground

Is the resistance less than 3 ohms?

Yes	GO to C6
No	REPAIR the circuit.

C6 CHECK FOR CORRECT WACM (WIRELESS ACCESSORY CHARGING MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the WACM and all related in-line 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 WACM and all related in-line 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 for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new WACM. REFER to: Wireless Accessory Charging Module (WACM) (414-06 Accessory Charging, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.

Refer to Wiring Diagrams Cell [44](#) for schematic and connector information.

Normal Operation and Fault Conditions

- REFER to: Wireless Accessory Charging Module (WACM) - System Operation and Component Description (414-06 Accessory Charging, Description and Operation).
- Modules send messages on the vehicle communication networks. If data messages from the BCM are missing for 5 seconds or longer, the WACM sets a DTC.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
WACM U0140:00	Lost Communication With Body Control Module: No Sub Type Information	Sets in continuous memory in the WACM if data messages received from the BCM are missing for 5 seconds or longer.

Possible Sources

- Wiring, terminals or connectors
- WACM
- BCM

NOTICE: Use the correct probe adapter(s) when making measurements. Failure to use the correct probe adapter(s) may damage the connector.

D1 VERIFY THE CUSTOMER CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is there an observable symptom present?

Yes	GO to D2
No	CLEAR the DTC. The system is operating normally at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

D2 CHECK THE COMMUNICATION NETWORK

- Ignition ON.
- Using a diagnostic scan tool, perform the network test.

Does the WACM pass the network test?

Yes	GO to D3
No	DIAGNOSE the WACM does not communicate with the diagnostic scan tool. REFER to: Wireless Accessory Charging Module (WACM) (414-06 Accessory Charging, Diagnosis and Testing).

D3 PERFORM THE WACM (WIRELESS ACCESSORY CHARGING MODULE) SELF-TEST

- Using a diagnostic scan tool, perform the WACM self-test.

Are any non-network Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to DTC Chart: WACM in this section.
No	GO to D4

D4 CHECK THE GWM (GATEWAY MODULE A) DTCS (DIAGNOSTIC TROUBLE CODES)

- Using a diagnostic scan tool, check the GWM CMDTCs (Continuous Memory Diagnostic Trouble Codes).

Are any DTCS (Diagnostic Trouble Codes) recorded?

Yes	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
No	GO to D5

D5 PERFORM THE BCM (BODY CONTROL MODULE) SELF-TEST

- Using a diagnostic scan tool, perform the BCM self-test.

Are any non-network DTCS (Diagnostic Trouble Codes) present?

Yes	REFER to DTC Chart: WACM in this section.
No	GO to D6

D6 RECHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) DTCS (DIAGNOSTIC TROUBLE CODES)

- Using a diagnostic scan tool, clear the WACM DTCs (Diagnostic Trouble Codes).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, perform the continuous memory self-test.
- Check the WACM DTCs (Diagnostic Trouble Codes).

Is DTC U0140:00 still present?

Yes	GO to D7
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

D7 CHECK FOR OTHER CAUSES OF COMMUNICATION NETWORK CONCERN

NOTE: If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI, or the PMI may not have been carried out.

- CHECK the vehicle service history for recent service actions related to the BCM or WACM. If recent service history is found:
 - verify correct replacement module was installed
 - HVBOM may be used to verify correct part fitment
 - verify the configuration of replacement module was correct
 - re-configure module using as-built data if prior configuration is suspect
 - verify the module was not obtained from a like vehicle and installed into customer vehicle
 - return the swapped module to source vehicle and obtain new replacement module
- Operate the system and determine if the observable symptom is still present.

Is the observable symptom still present?

Yes	GO to D8
No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.

D8 CHECK FOR CORRECT WACM (WIRELESS ACCESSORY CHARGING MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect all the WACM 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 all WACM 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 for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new WACM. REFER to: Wireless Accessory Charging Module (WACM) (414-06 Accessory Charging, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST E : U0257:00

Refer to Wiring Diagrams Cell [44](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Information and Entertainment System - System Operation and Component Description (415-00 Information and Entertainment System - General Information, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
WACM U0257:00	Lost Communication With Front Controls / Display Interface Module: No Sub Type Information	Sets in continuous memory in the WACM if data messages received from the FCDIM through the GWM are missing for 5 seconds or longer.

Possible Sources

- Communication concern
- FCDIM

E1 VERIFY THE CUSTOMER'S CONCERN

- Ignition ON.
- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to E4
No	CLEAR the DTC. The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

E2 CHECK THE COMMUNICATION NETWORK

- Using a diagnostic scan tool, perform the network test

Does the FCDIM pass the network test?

Yes	GO to E3
No	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).

E3 PERFORM THE WACM (WIRELESS ACCESSORY CHARGING MODULE) SELF-TEST

- Using a diagnostic scan tool, perform the WACM network test

Are any non-network Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to DTC Chart WACM in this section.
No	GO to E4

E4 CHECK THE GWM (GATEWAY MODULE A) DIAGNOSTIC TROUBLE CODES (DTCs)

- Using a diagnostic scan tool, check the GWM CMDTCs (Continuous Memory Diagnostic Trouble Codes).

Are any Diagnostic Trouble Codes (DTCs) recorded?

Yes	REFER to: Communications Network (418-00 Module Communications Network, Diagnosis and Testing).
No	GO to E5

E5 PERFORM THE FCDIM (FRONT CONTROL/DISPLAY INTERFACE MODULE) SELF-TEST

- Using a diagnostic scan tool, perform the FCDIM self-test:

Are any non-network Diagnostic Trouble Codes (DTCs) present?

Yes	REFER to: Information and Entertainment System (415-00 Information and Entertainment System - General Information, Diagnosis and Testing).
No	GO to E6

E6 RECHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) DIAGNOSTIC TROUBLE CODES (DTCs)

- Using a diagnostic scan tool, clear the WACM Diagnostic Trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, perform the continuous memory self-test.
- Check the WACM Diagnostic Trouble Codes (DTCs).

Is U0257:00 still present?

Yes	GO to E7
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

E7 CHECK FOR OTHER CAUSES OF COMMUNICATION NETWORK CONCERN

NOTE: If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI, or the PMI may not have been carried out.

- CHECK the vehicle service history for recent service actions related to the FCDIM or WACM. If recent service history is found:
 - verify correct replacement module was installed
 - HVBOM may be used to verify correct part fitment
 - verify the configuration of replacement module was correct
 - re-configure module using as-built data if prior configuration is suspect
 - verify the module was not obtained from a like vehicle and installed into customer vehicle
 - return the swapped module to source vehicle and obtain new replacement module
- Operate the system and determine if the observable symptom is still present.

Is the observable symptom still present?

Yes	GO to E8
No	The system is operating correctly at this time. The concern may have been due to incorrect parts replacement procedures or incorrect module configuration.

E8 CHECK FOR CORRECT FCDIM (FRONT CONTROL / DISPLAY INTERFACE MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the FCDIM connector.
- 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 all FCDIM 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 for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new FCDIM. REFER to: Front Control/Display Interface Module (FCDIM) (415-00 Information and Entertainment System - General Information, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

PINPOINT TEST F : U0184:00

Refer to Wiring Diagrams Cell [44](#) for schematic and connector information.

Normal Operation and Fault Conditions

- REFER to: Wireless Accessory Charging Module (WACM) - System Operation and Component Description (414-06 Accessory Charging, Description and Operation).
- See Network Message Chart.

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
WACM U0184:00	Lost Communication With Radio: No Sub Type Information	Set by the WACM when network messages are missing from the ACM for more than 5 seconds with the ignition in RUN.

Possible Sources

- ACM

F1 VERIFY THE CUSTOMER'S CONCERN

- Verify there is an observable symptom present.

Is an observable symptom present?

Yes	GO to F2
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

F2 RECHECK FOR DTC (DIAGNOSTIC TROUBLE CODE) U0184:00

- Ignition ON.
- Using a diagnostic scan tool, clear all Continuous Memory Diagnostic Trouble Codes (CMDTCs).
- Ignition OFF.
- Ignition ON.
- Wait at least 10 seconds.
- Using a diagnostic scan tool, retrieve all Continuous Memory Diagnostic Trouble Codes (CMDTCs).

Is DTC U0184:00 set in the WACM?

Yes	GO to F3
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

F3 CHECK FOR BATTERY VOLTAGE OUT-OF-RANGE DTCS (DIAGNOSTIC TROUBLE CODES)

- Using a diagnostic scan tool, perform the self-test for the following modules:
 - ACM
 - WACM

Are any low or high voltage Diagnostic Trouble Codes (DTCs) recorded in the ACM, or WACM?

Yes	For DTCs (Diagnostic Trouble Codes)U3003:16 and U3003:17, GO to Pinpoint Test C
No	GO to F4

F4 CHECK FOR CORRECT ACM (AUDIO FRONT CONTROL MODULE) OPERATION

- Ignition OFF.
- Disconnect and inspect the ACM connector.
- 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 all ACM 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 for any applicable service articles: TSB, GSB, SSM or FSA. If a service article exists for this concern, DISCONTINUE this test and FOLLOW the service article instructions. If no service articles address this concern, INSTALL a new ACM. REFER to: Audio Front Control Module (ACM) (415-00 Information and Entertainment System - General Information, Removal and Installation).
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.

[PINPOINT TEST G : U3000:41, U3000:42, U3000:49](#)

Refer to Wiring Diagrams Cell [44](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Wireless Accessory Charging Module (WACM) - System Operation and Component Description (414-06 Accessory Charging, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
WACM U3000:41	Control Module: General Checksum Failure	This DTC sets due to incomplete or improper PMI procedures.
WACM U3000:42	Control Module: General Memory Failure	This DTC sets due to incomplete or improper PMI procedures.
WACM U3000:49	Control Module: Internal Electronic Failure	This DTC sets in the WACM Field-Effect Transistor (FET) protective circuit strategy for its actuator outputs has reached 100%.

Possible Sources

- Vehicle communication bus
- Incomplete or improper PMI procedures
- WACM

G1 RECHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) DTCS (DIAGNOSTIC TROUBLE CODES)

NOTE: If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been carried out.

- Using a diagnostic scan tool, clear the Diagnostic trouble Codes (DTCs).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, perform the WACM self-test.

Is 2100:00, U3000:41 or U3000:49 present?

Yes	For DTC U3000:41, U3000:42, PERFORM the PMI procedure on the WACM. REFER to: Module Programming (418-01 Module Configuration, General Procedures). For DTC U3000:49, INSTALL a new WACM REFER to: Wireless Accessory Charging Module (WACM) (414-06 Accessory Charging, Removal and Installation).
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.

☐ PINPOINT TEST H : U2100:00, U2101:00, U201A:51

Refer to Wiring Diagrams Cell [44](#) for schematic and connector information.

Normal Operation and Fault Conditions

REFER to: Wireless Accessory Charging Module (WACM) - System Operation and Component Description (414-06 Accessory Charging, Description and Operation).

DTC Fault Trigger Conditions

DTC	Description	Fault Trigger Condition
WACM U2100:00	Initial Configuration Not Complete: No Sub Type Information	This DTC sets due to incomplete or improper PMI procedures.
WACM U2101:00	Control Module Configuration Incompatible: No Sub Type Information	This DTC sets due to incomplete or improper PMI procedures.
WACM U201A:51	Control Module Main Calibration Data: Not Programmed	This DTC sets due to incomplete or improper PMI procedures.

Possible Sources

- Vehicle communication bus
- Incomplete or improper PMI procedures
- WACM

H1 CHECK FOR RECENT SERVICE ACTIONS RELATED TO THE WACM (WIRELESS ACCESSORY CHARGING MODULE)

- CHECK vehicle service history for recent service actions related to the WACM.

Has there been recent service issues against the WACM?

Yes	GO to H2
No	INSTALL a new WACM to correct the failure to retain configuration data. REFER to: Wireless Accessory Charging Module (WACM) (414-06 Accessory Charging, Removal and Installation).

H2 RECHECK THE WACM (WIRELESS ACCESSORY CHARGING MODULE) DTCS (DIAGNOSTIC TROUBLE CODES)

NOTE: *If new modules were installed prior to the DTC being set, the module configuration may be incorrectly set during the PMI or the PMI may not have been carried out.*

NOTE: *CHECK vehicle service history for recent service actions related to this module.*

- Using a diagnostic scan tool, clear the DTCs (Diagnostic trouble Codes).
- Ignition OFF.
- Ignition ON.
- Wait 10 seconds.
- Using a diagnostic scan tool, perform the WACM self-test.

Is U2100:00, U2101:00, or U201A:51 present?

Yes	PERFORM the PMI procedure on the WACM. REFER to: Module Programming (418-01 Module Configuration, General Procedures). INSTALL a new WACM. REFER to: Wireless Accessory Charging Module (WACM) (414-06 Accessory Charging, Removal and Installation).
No	The system is operating correctly at this time. The DTC may have been set due to high network traffic or an intermittent fault condition.