PRODUCT GUIDE
HCX

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WELCOME

Congratulations on the purchase of your HCX solution. You are now a few simple steps away from enjoying your new remote starter unit with enhanced features.

Before starting your installation, please ensure that your HCX module is programmed with the correct firmware for your vehicle and that you carefully review the install guide.

NEED HELP?

📞 **1 866 427-2999**

✉ **support@idatalink.com**

💬 **idatalink.com/support**
www.12voltdata.com/forum
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![idatastart logo]

MODULE CONNECTORS

FIRST GENERATION HCx [HCX-192]

M1 - 8 PIN BLACK

AUTOMATIC TRANSMISSION CUT LOOP

M2 - 12 PIN BLACK — M5 - 6 PIN BLUE
M3 - 10 PIN WHITE
TELEMATIC 1 - 4 PIN BLUE — M4 - 20 PIN BLACK
SMARTSTART - 4 PIN RED — 3 PIN BLACK - TEMP. SENSOR
NC - 4 PIN RED — PROGRAMMING BUTTON
LED 2 (RS) — LED 1 (BYPASS)
RF PORT/WEBLINK PORT - 4 PIN BLACK — USB

SECOND GENERATION HCx [HCA-320]

M1 - 8 PIN BLACK

M2 - 12 PIN BLACK — M5 - 6 PIN BLUE
M3 - 10 PIN WHITE
TELEMATIC 1 - 4 PIN BLUE — M4 - 20 PIN BLACK
PROGRAMMING BUTTON
LED 2 (RS) — LED 1 (BYPASS)
RF PORT/WEBLINK PORT - 4 PIN BLACK — USB

CONNECTOR PINOUT

M1
- 01 ORANGE - ACCESSORY (+)
- 02 RED - POWER (30A)
- 03 PURPLE - STARTER (+)
- 04 PINK/WHITE - PROG. RELAY #4 - IGNITION 2 (+) (DEFAULT)
- 05 PINK - IGNITION (+)
- 06 WHITE - PROG. RELAY #5 (10A) - PARKING LIGHTS (+) (DEFAULT)
- 07 RED - POWER (30A)
- 08 BLACK - GROUND

M2
- 01 GREEN•BLACK DOT - LOCK (-) OUTPUT
- 02 BLUE•BLACK DOT - UNLOCK (-) OUTPUT
- 03 RED/WHITE•BLACK DOT - TRUNK RELEASE (-) OUTPUT
- 04 GREEN/WHITE•BLACK DOT - ARM (-) OUTPUT
- 05 GREEN/BLACK•BLACK DOT - DISARM (-) OUTPUT
- 06 BLUE/WHITE•BLACK DOT - GWR (-) OUTPUT
- 07 EMPTY
- 08 WHITE/PURPLE•BLACK DOT - POC 1 - 2ND UNLOCK OTHER DOORS (-) OUTPUT
- 09 PURPLE/BLACK•BLACK DOT - POC 2 - RAP SHUTDOWN (-) OUTPUT
- 10 WHITE/BLACK•BLACK DOT - POC 3 - HORN (-) OUTPUT
- 11 BROWN/BLACK•BLACK DOT - POC 4 - STARTER KILL (-) OUTPUT
- 12 WHITE•BLACK DOT - PARKING LIGHTS (-) OUTPUT

M3
- 01 BROWN•SILVER DOT - BRAKE (+) INPUT
- 02 BLACK/WHITE•SILVER DOT - E-BRAKE (-) INPUT
- 03 PURPLE•SILVER DOT - DOOR (+) INPUT
- 04 GREEN•SILVER DOT - DOOR (-) INPUT
- 05 PURPLE/WHITE•SILVER DOT - TACH (-) INPUT
- 06 WHITE/BLUE•SILVER DOT - X-TRIGGER (-) INPUT
- 07 GRAY•SILVER DOT - HOOD (-) INPUT
- 08 BLUE•SILVER DOT - TRUNK (-) INPUT
- 09 GRAY/BLACK•SILVER DOT - GLOW PLUG (+) INPUT
- 10 EMPTY

M4
FUNCTIONS DEFINED BY FIRMWARE

M5
FUNCTIONS DEFINED BY FIRMWARE

01 START vehicle for 15 seconds.

02 Press and hold the brake pedal.

03 Press and release the module's programming button. (OR if the remotes are already programmed to the vehicle, press and hold the start button of the remote for 2.5 seconds.)

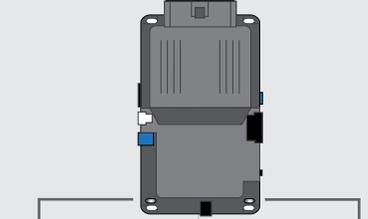**04** Wait, LED 2 will flash GREEN. (See the Module Diagnostics page)

05 Release the brake pedal.
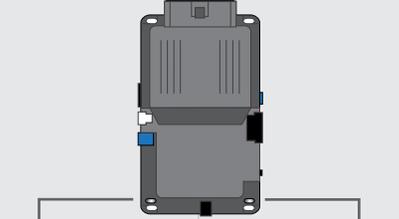
06 Module Programming Procedure completed.

MODULE STATUS DURING:

LED 2*	LED 1**	LED STATUS	DIAGNOSTIC
	●	Flashing RED	Missing/wrong information from firmware or vehicle. See firmware specific diagnostics, or contact technical support.
	●	Solid RED	Module waiting for more vehicle information. Programming incomplete.
	●	Flashing GREEN	Additional steps required to complete programming. Refer to install guide.
	●	Solid GREEN then OFF	Module programming completed successfully.
	○	OFF	No activity or module already programmed.
●		1 RED flash	No firmware on module. Connect to Weblink and flash device.
●		2 ORANGE flashes	Contact technical support.
●		3 ORANGE flashes	Module programming not completed.
●		4 ORANGE flashes	Contact technical support.
●		7 ORANGE flashes	Contact technical support.
●		8 ORANGE flashes	Loop not cut. Ensure loop is cut for automatic transmission. Reset and re-learn.
●		9 ORANGE flashes	Loop not cut. Ensure loop is cut for automatic transmission. Reset and re-learn.
●		10 ORANGE flashes	Boot loader update failed. Contact technical support.
●		11 ORANGE flashes	T-harness detection does not match install type selection in Weblink.
●		Solid RED	Tach learn in progress.
●		1 GREEN flash	Tach signal programmed in analog.
●		2 GREEN flashes	Tach signal programmed in data.
●		3 RED flashes	No tach signal detected
●		4 RED flashes	System is in valet mode. Turn off valet mode to program tach.
●		6 RED flashes	Engine sensing set for 'assumed start'. No tach programming required.
●		7 ORANGE flashes	Engine sensing not configured properly. Contact technical support.

(Rows 6–14 grouped under **MODULE PROGRAMMING**; rows 15–21 grouped under **TACH PROGRAMMING**)

* LED 2 (RS) displays generic diagnostic codes specific to the remote start module. Orange LED flashes may appear red.
** LED 1 (Bypass) displays diagnostic codes specific to the firmware loaded on the module.
Visit the programming diagnostics page for more information.

MODULE STATUS DURING:

	LED 2*	LED 1**	LED STATUS	DIAGNOSTIC
REMOTE START SEQUENCE	🔴		Flashing rapid RED	Remote start shutdown sequence.
	🔴		Flashing slow RED	Remote start shutdown error code. Contact technical support.
	🔴		Solid RED	Remote start crank delay.
	🟢		Flashing rapid GREEN	Remote start cycle in progress. Working correctly.
	🟢		1 GREEN flash	Remote start initiated successfully.
	🟢		3 GREEN flashes	Idle mode cycle in progress.
	🟢		4 GREEN flashes	Turbo mode cycle in progress.
		🟢	Flashing GREEN	Remote start cycle in progress. Displays vehicle platform during runtime.
		🟢	Rapid GREEN flashing	Secure takeover initiated. Waiting to complete takeover after brake press.
TRANSMITTER PROGRAMMING	🔴		Solid RED	Remote programming in progress, waiting for remote pairing.
	🟢		1 GREEN flash	Remote programmed.
	🔴		4 RED flashes	Shutdown remote starter before attempting remote programming.
	🔴		5 RED flashes	Engine must be off before attempting remote programming.
	🔴		6 RED flashes	System must be unlocked/disarmed before attempting remote programming.
	🔴		7 RED flashes	Module must be learned to the vehicle before attempting remote programming.

* LED 2 (RS) displays generic diagnostic codes specific to the remote start module. Orange LED flashes may appear red.
** LED 1 (Bypass) displays diagnostic codes specific to the firmware loaded on the module.
Visit the programming diagnostics page for more information.

REMOTE STARTER ERROR CODES: NOTES	PARKING LIGHT FLASHES	DIAGNOSTIC
I WARNING: The following applies only when the parking lights are connected and supported by the system. II After a remote starter failure, the parking lights will flash three [3x] times followed by the error code. See table.	3 + 1	Tach is not programmed OR engine is already running.
	3 + 2	Key is in ignition ON position.
	3 + 3	Door is open.
	3 + 4	Trunk is open.
	3 + 5	Foot brake is ON.
	3 + 6	Hood is open.
	3 + 7	Loop is not cut.
	3 + 8	Vehicle failed to remote start.
	3 + 9	Vehicle movement detected (VSS).
	3 + 10	System is in Valet Mode.
	3 + 11	CAN communication failure
	3 + 12	RS not synchronized. Start vehicle with OEM key for 15 sec before trying a new RS sequence.
	3 + 13	Bypass problem.
	3 + 14	Idle mode or takeover is not available on this vehicle.
	3 + 15	Overheat protection.

| REMOTE STARTER SHUTDOWN ERROR CODES: NOTES	PARKING LIGHT FLASHES	DIAGNOSTIC
I WARNING: The following applies only when the parking lights are connected and supported by the system. II If the engine shuts down after a remote starter sequence use the query command from a compatible aftermarket remote to display the shutdown error code. The parking lights will flash four [4x] times followed by the error code. See table.	4 + 1	Engine tach signal was lost.
	4 + 2	Emergency brake signal was lost.
	4 + 3	Foot brake ON detected.
	4 + 4	Hood open detected.
	4 + 5	Tach over rev detected.
	4 + 6	Glow plug timeout error.
	4 + 7	Vehicle movement detected (VSS).
	4 + 8	Check engine light ON.
	4 + 9	Low fuel level.
	4 + 10	Open door detected.
	4 + 11	CAN communication failure during RS sequence.
	4 + 12	RS not synchronized. Start vehicle with OEM key for 15 sec before trying a new RS sequence.
	4 + 13	Bypass problem.
	4 + 14	Idle mode or takeover is not available on this vehicle.
	4 + 15	Overheat protection.

| ALARM ERROR CODES: NOTES	PARKING LIGHT FLASHES	ANTENNA LED FLASHES	DIAGNOSTIC
I WARNING: The following applies only when the parking lights are connected and supported by the system.	5 + 1	1	Shock sensor triggered
	5 + 2	2	Door open
	5 + 3	3	Trunk open
II If the alarm has been triggered, the parking lights will flash five [5x] times followed by the alarm activation event.	5 + 4	4	Hood open
	5 + 5	5	Zone 2 input triggered
	5 + 6	6	Foot brake ON
III The alarm event code is also displayed in a repeating pattern on the antenna's LED when the alarm is triggered, until unlock is received.	5 + 7	7	Ignition ON
	5 + 8	8	Motion detected
	5 + 9	9	Tilt detected
	5 + 10	10	Warn away input triggered

>> The following procedure resets the module programming to the vehicle. It does not reset any settings configured online.
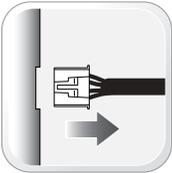
01 Disconnect all connectors from module except the M1 BLACK 8-pin connector and the M4 BLACK 20-pin connector.
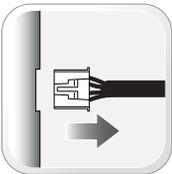
02 Disconnect the M1 BLACK 8-pin connector and the M4 BLACK 20-pin connector.

03 PRESS AND HOLD the module's programming button while connecting the M1 BLACK 8-pin connector and the M4 BLACK 20-pin connector.
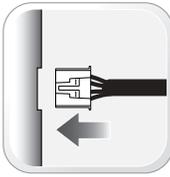
04 Wait, LED 1 and 2 will flash RED. RELEASE programming button.

05 Module RESET completed.

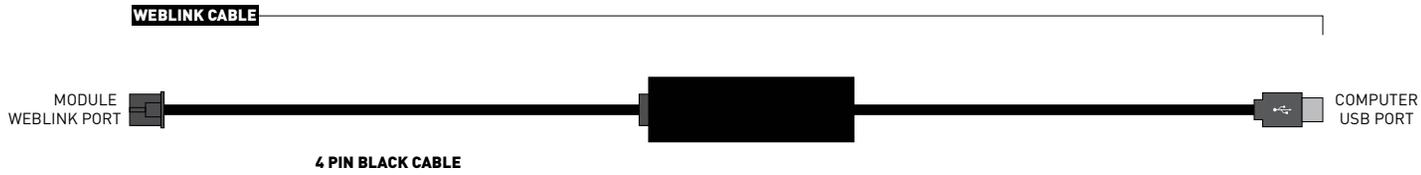**06** Reconnect all connectors.
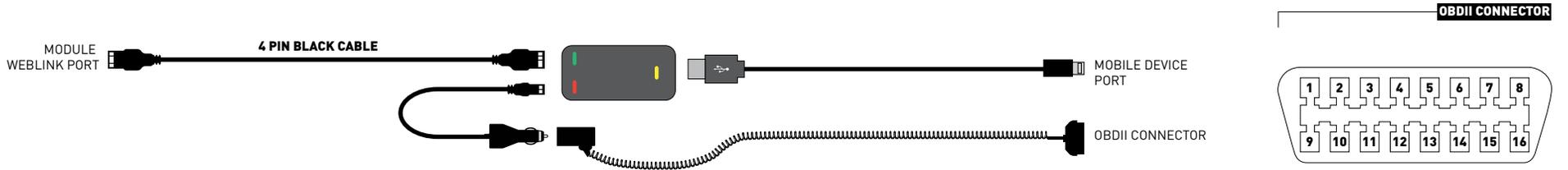
07 Repeat programming procedure.

>> Failure to follow procedure may result with a DTC or a CHECK ENGINE error message.

WEBLINK CABLE (required accessory sold separately)

WEBLINK CABLE

MODULE
WEBLINK PORT

COMPUTER
USB PORT

4 PIN BLACK CABLE

WEBLINK MOBILE (accessory sold separately)

MODULE
WEBLINK PORT

4 PIN BLACK CABLE

MOBILE DEVICE
PORT

OBDII CONNECTOR

OBDII CONNECTOR

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

RF KIT (accessory sold separately)

MODULE
RF PORT

4 PIN BLACK CABLE
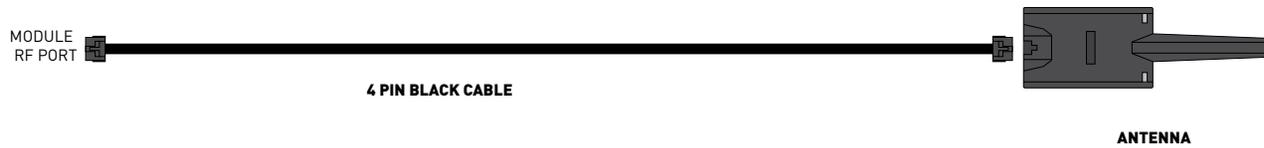
ANTENNA

TELEMATIC KIT (accessory sold separately)

MODULE
TELEMATIC PORT

(NC)

SMARTSTART with 1st generation HCx [HCX-192] (accessory sold separately)

WHITE
4 PIN

(NC)

BLACK
4 PIN

(NC)

DIRECTED SMARTSTART

MODULE
SMARTSTART PORT
RED 4 PIN

(NC)

(NC)

(NC)

(NC)
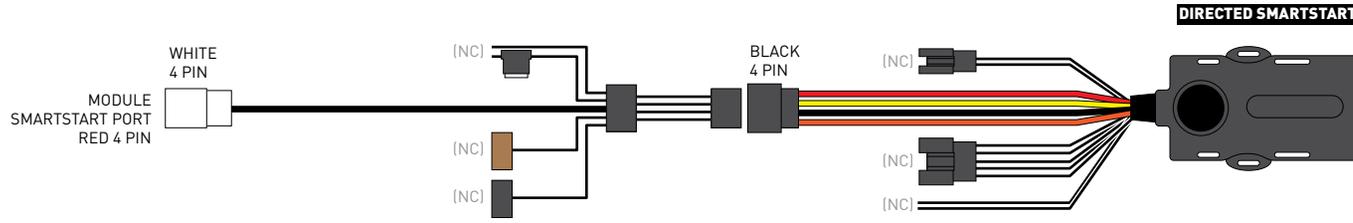
SMARTSTART with 2nd generation HCx [HCA-320] (accessories sold separately)

ADS-HRN(RS)-SM01

WHITE
4 PIN

(NC)

BLACK
4 PIN

(NC)

DIRECTED SMARTSTART

MODULE
TELEMATIC PORT
BLUE 4 PIN

(NC)

(NC)

(NC)

(NC)
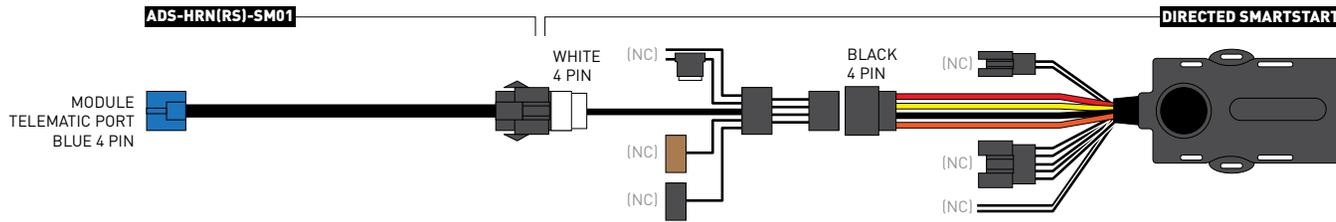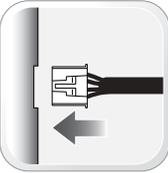
>> Plug the antenna into the RF/Weblink port of the module (4 pin black).

01 WARNING: Complete the module programming procedure and tach programming procedure before programming the remotes. A maximum of four [4x] aftermarket remotes per system.

02 Set ignition to ON position.

03 Press and release the antenna button, then press and hold the antenna button. The antenna's LEDs will turn ON solid.

04 Parking Light will flash once [1x].

05 Press once [1x] on the LOCK button of each aftermarket remote.

06 The antenna's LEDs will flash once [1x] for each successful pairing.

07 Release the antenna button. The antenna's LEDs will turn OFF.

08 Set ignition to OFF position.

09 Remote Programming Procedure completed.

>> To program an additional aftermarket remote as second vehicle mode: Follow steps 1 to 4. Press twice [2x] on the "F" button then press once [1x] on the LOCK button of the aftermarket remote. Follow steps 6 to 9.

>> Please visit www.idataguides.com to see all of our remote user manuals

>> NOTE: In Valet Mode, the Remote starter is not functional. Keyless entry, Lock and Unlock will remain functional. See RF kit user manual for alternate valet mode programming.

01 Time restriction. Complete next step within 7 seconds.

02 Cycle ignition ON twice [2x OFF/ON] rapidly.

03 Press and release the BRAKE pedal three times [3x].

04 Parking Light will flash once [1x] then will flash twice [2x].

05 Set ignition to OFF position.

06 Valet Mode Programming Procedure completed.

>> To exit valet mode: repeat steps 1 to 5.

CHECKLIST - WITH AFTERMARKET KEYFOB

1	WARNING: Vehicle engine will start many times. Test in a well ventilated area.
2	Close all vehicle doors, hood and trunk.
3	Press the LOCK button once [1x] on the aftermarket keyfob.
	Question 1: Do the doors lock?
☐	YES: Go to next step.
☐	NO: Verify the remote programming, the RF connections and the wired door lock/unlock connections as illustrated in the wiring diagram, if applicable. Repeat the test and call technical support, if the problem persists.
4	Press the UNLOCK button once [1x] on the aftermarket keyfob.
	Question 2: Do the doors unlock?
☐	YES: Go to next step.
☐	NO: Verify the remote programming, the RF connections and the wired door lock/unlock connections as illustrated in the wiring diagram, if applicable. Repeat the test and call technical support, if the problem persists.
5	Press the TRUNK release button once [1x] on the aftermarket keyfob if supported.
	Question 3: Does the trunk or hatch open/unlock?
☐	YES: Close trunk or hatch and go to next step.
☐	NO: Verify the remote programming, the RF connections and the wired trunk/hatch connections as illustrated in the wiring diagram, if applicable. Repeat the test and call technical support, if the problem persists.
6	Press the AUX 1 button once [1x] on the aftermarket keyfob if supported.
	Question 4: Does the driver side sliding door open?
☐	YES: Press the AUX 1 button once [1x] to close the driver sliding door and go to next step.
☐	NO: Verify the remote programming and the RF connections. Repeat the test and call technical support, if the problem persists.
7	Press the AUX 2 button once [1x] on the aftermarket keyfob if supported.
	Question 5: Does the passenger side sliding door open?
☐	YES: Press the AUX 2 button once [1x] to close the passenger sliding door and go to next step.
☐	NO: Verify the remote programming and the RF connections. Repeat the test and call technical support, if the problem persists.
8	Press the START/STOP button once [1x] on the aftermarket keyfob to remote start vehicle.
	Question 6: Does the vehicle remote start?
☐	YES: Go to next step.
☐	NO: Verify the remote programming, the RF connections and check the remote start error codes. Repeat the test and call technical support, if the problem persists.

9	Press the START/STOP button once [1x] on the aftermarket keyfob to shut down vehicle.
	Question 7: Does the vehicle shut down?
☐	YES: Go to next step.
☐	NO: Repeat step. If problem persists, press the brake pedal once [1x] to shut down the vehicle and call technical support.
10	RAP and auto light shutdown test
	Question 8: Did the radio, interior controls and headlights turn off within 60 seconds after remote start shutdown?
☐	YES: Go to next step.
☐	NO: Verify the RAP SHUTDOWN connections as illustrated in the wiring diagram. Repeat the test and call technical support if the problem persists.
11	Open hood.
12	If not already installed, affix the mandatory orange warning sticker under the hood and proceed to next step.
13	Press the START/STOP button once [1x] on the aftermarket keyfob to remote start vehicle.
	Question 9: Does the vehicle remote start?
☐	YES: The vehicle is not equipped with a factory hood pin. Install a mandatory aftermarket hood switch, then repeat the test.
☐	NO: Go to next step.
14	Close hood.
15	Enter vehicle and close the doors.
16	Press the START/STOP button once [1x] on the aftermarket keyfob to remote start vehicle.
17	Wait for the vehicle to start.
18	Press brake pedal.
	Question 10: Does the vehicle shut down?
☐	YES: Go to next step.
☐	NO: The module does NOT detect the brake pedal signal. Press the START/STOP button once [1x] on the aftermarket keyfob to shut down vehicle, check connection as illustrated in the wiring diagram, if applicable, and call technical support.
19	Exit vehicle.
20	Installation checklist completed.

	CHECKLIST - WITH OEM KEYFOB
1	WARNING: Vehicle engine will start many times. Test in a well ventilated area.
2	Close all vehicle doors, hood and trunk.
3	Press LOCK button three times [3x] rapidly on the OEM keyfob to remote start vehicle.
	Question 1: Does the vehicle remote start?
☐	YES: Go to next step.
☐	NO: The module doesn't detect OEM remote lock button from the vehicle communication network. Check all connections, repeat the test and call technical support, if the problem persists.
4	Press LOCK button three times [3x] rapidly on the OEM keyfob to shut down vehicle.
	Question 2: Does the vehicle shut down?
☐	YES: Go to next step.
☐	NO: Repeat step. If the problem persists, press on the brake pedal once [1x] to shut down the vehicle and call technical support.
5	RAP Shutdown test
	Question 3: Did the radio, interior controls, and headlights turn off within 60 seconds after remote start shutdown?
☐	YES: Go to next step.
☐	NO: Verify the RAP SHUTDOWN connections as illustrated in the wiring diagram. Repeat the test and call technical support, if the problem persists.
6	Open hood.
7	If not already installed, affix the mandatory orange warning sticker under the hood and proceed to next step.
8	Press LOCK button three times [3x] rapidly on the OEM keyfob to remote start vehicle.
	Question 4: Does the vehicle remote start?
☐	YES: The vehicle is not equipped with a factory hood pin. Install a mandatory aftermarket hood switch, then repeat the test.
☐	NO: Go to next step.
9	Close hood.
10	Enter vehicle and close the doors.
11	Press LOCK button three times [3x] rapidly on the OEM keyfob to remote start vehicle.
12	Wait for the vehicle to start.
13	Press brake pedal.
	Question 5: Does the vehicle shut down?
☐	YES: Go to next step.
☐	NO: The module does NOT detect the brake pedal signal. Press LOCK button three times [3x] rapidly on the OEM keyfob to shut down, check the brake connection as illustrated in the wiring diagram, if applicable, and call technical support.
14	Exit vehicle.
15	Installation checklist completed.