INSTALLATION GUIDE | DS4+

GM11

This product is intended for installation by a professional installer only! Attempts to install this product by a person other than a trained professional may result in severe damage to a vehicle's electrical system and components.

2017-12-28

DIRECTED®

Contents

Warning! Safety first 3
Introduction 4
- Pre-installation and application warnings 4
- Vehicle application guide 5

Wiring connections 6
- Main harness (H1), 12-pin black connector 6
- Relay harness (H2), 10-pin white connector 6
- Data harness (H3), 8-pin white connector 6
- Analog input/output harness (H4), 22-pin white connector 7
- RF Port harness (H5), 2-pin white connector 7
- D2D harness (H6), 4-pin white (1) and black (2) connectors 7
- Temperature sensor harness (H7), 2-pin black connector (optional, 8556T) 7

Installation (wiring diagrams, fuse selection & vehicle wiring reference charts) 8
- Type 1 with T-Harness (THGMN2) 8
- Type 1 9
- Type 2 with T-Harness (THGMN2) 14
- Type 2 15
- Type 3 20
- Type 4 22
- Type 5 24
- Configuring the system 27
- Important! 27
- Vehicles equipped with a manual transmission 27
- RF Systems 27
- 8504D Combo Sensor 27
- When used in conjunction with SmartStart 27
- D2D port configuration 28
- Module programming 28
- LED diagnostics and troubleshooting 29
- Soft reset 31
- Hard reset 31

Learning the Tach (not needed with Virtual Tach) 32
Initializing Virtual Tach (not needed with hardwired or data tach applications) 32
Limited lifetime consumer warranty 33
Quick Reference Guide 34

Warning! Safety first

⚠ The following safety warnings must be observed at all times:

- Due to the complexity of this system, installation of this product must only be performed by an authorized Directed dealer.
- When properly installed, this system can start the vehicle via a command signal from the remote control. Therefore, never operate the system in an area that does not have adequate ventilation.

The following precautions are the sole responsibility of the user; however, authorized Directed dealers should:

- Never use a test light or logic probe when installing this unit. Always use a multimeter.
- Never operate the system in an enclosed or partially enclosed area without ventilation (such as a garage).
- USER MUST INSTALL A CARBON MONOXIDE DETECTOR IN OR ABOUT THE LIVING AREA ADJACENT TO THE VEHICLE. ALL DOORS LEADING FROM ADJACENT LIVING AREAS TO THE ENCLOSED OR PARTIALLY ENCLOSED VEHICLE STORAGE AREA MUST REMAIN CLOSED AT ALL TIMES.

Use of this product in a manner contrary to its intended mode of operation may result in property damage, personal injury, or death. Except when performing the Safety Check outlined in this installation guide, (1) Never remotely start the vehicle with the vehicle in gear, and (2) Never remotely start the vehicle with the keys in the ignition. The user is responsible for having the neutral safety feature of the vehicle periodically checked, wherein the vehicle must not remotely start while the car is in gear. This testing should be performed by an authorized Directed dealer in accordance with the Safety Check outlined in this product installation guide. If the vehicle starts in gear, cease remote start operation immediately and consult with the user to fix the problem immediately.

OPERATION OF THE REMOTE START MODULE IF THE VEHICLE STARTS IN GEAR IS CONTRARY TO ITS INTENDED MODE OF OPERATION. OPERATING THE REMOTE START SYSTEM UNDER THESE CONDITIONS MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY. IMMEDIATELY CEASE THE USE OF THE UNIT AND REPAIR OR DISCONNECT THE INSTALLED REMOTE START MODULE. DIRECTED WILL NOT BE HELD RESPONSIBLE OR PAY FOR INSTALLATION OR REINSTALLATION COSTS.

Remote starters for manual transmission pose significant risks if not properly installed and operated. When testing to ensure the installation is working properly, only remote start the vehicle in neutral gear, on a flat surface and with a functional, fully engaged parking brake. Do not allow anyone to stand in front of or behind the vehicle.

This product should not be installed in any convertible vehicles, soft or hard top with a manual transmission. Installation in such vehicles may pose certain risk.

© 2017-12-28 Directed. All rights reserved.

Introduction

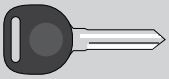
The GM11 firmware for DS4+ is compatible with specific Buick, Cadillac, Chevrolet, GMC, Hummer, Pontiac, Saturn, and Suzuki vehicles. It is a complete solution for remote start, security (when security features are enabled), bypass, and features built in Bluetooth 4.0 allowing you to configure and control your system. This guide provides information on the installation of the module using GM11. Please refer to the DirectLink application or www.directechs.com for more information about which configuration is best for your application.

Warning! This module is designed to be configured using the DirectLink application for mobile devices, however it can also be configured using the web tool located at www.directechs.com. To download the DirectLink mobile application, please visit the Google Play or Apple store.

Pre-installation and application warnings

Start here

Firmware notes: This section highlights important information for this specific firmware and will assist in pricing accordingly, as well as bringing awareness to any operational or vehicle limitations.

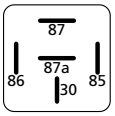
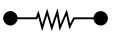
T-Harness compatible		Keys required for programming	Keys required for operation
Yes ☒ – THGMN2		1	0

- The optional Plug & Play **THGMN2** T-Harness is sold separately.
- The Cadillac SRX, Chevrolet Captiva Sport, Chevrolet Equinox, Pontiac Torrent, Saturn VUE and Suzuki XL7 are **NOT** compatible with optional T-Harness **THGMN2**.
- The Cadillac CTS, Chevrolet Impala/Impala Limited and Buick Lucerne require the trunk feature to be set to Electric Rear Hatch option for the trunk to work.
- The OBDII Diagnostic Connector features will remain the same even when the T-Harness is installed.
- Unless specified otherwise, all connectors are displayed from the wire side, with the exception of the OBDII diagnostic connector.
- It is important to check that the fuses are positioned correctly in the module. Proper fuse positioning is displayed on each wiring diagram.
- Refer to the "Vehicle wiring reference chart" following each installation type.

General notes: This section highlights important information for this specific firmware.

[1] The installation of an aftermarket hood pin is **ONLY** required on vehicles that are **NOT** equipped with a factory hood pin.
[2] The siren is **ONLY** required when enabling the security features during module flashing.

Additional parts required (maximum required):

0 x 1A Diodes	0 x Relay	0 x Resistor	0 x Fuse
			

© 2017-12-28 Directed. All rights reserved.

Vehicle application guide

The table below lists the vehicles and features which are compatible with this product. Refer to the following pages for more information on installation wiring, programming and troubleshooting for these vehicles.

Vehicles	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	PK-Immobilizer Bypass-Data No Key Req'd	CC-Heated Seats Activation	DL-Arm Factory Security	DL-Disarm Factory Security	DL-Door Lock Control	DL-Door Unlock	DL-Driver Priority Unlock	DL-Hatch Glass Release	DL-Trunk / Hatch Release	FOB-Control of aftermarket alarm with OEM remote	RS-3x LOCK START (Start control using OEM Remote)	RS-3x LOCK STOP (Stop control using OEM Remote)	RS-Accessory Activation	RS-Ignition Activation	RS-RAP Shut Down (Retained ACC Power)	RS-SmartStart	RS-Start (Crank) Activation	RS-Tach / RPM Output	SS-Entry Monitoring ALL Door Pins	SS-Entry Monitoring Hood Pin	SS-Entry Monitoring Trunk/Hatch Pin	SS-Factory Alarm Trigger Monitoring	ST-Brake Status (foot brake)	ST-Door Locks Status	ST-Ignition Status
Buick																																					
Enclave	1	1	1	1	1	1	1	1	1	1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Lucerne							1	1	1	1	1	1	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Cadillac	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**09**	**08**	**07**	**06**																									
CTS					1	1	1	1	1	1			•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CTS Coupe				1	1	1	1						•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CTS Wagon				1	1	1	1	1					•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DTS							1	1	1	1	1	1	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Escalade				2	2	2	2	2	2	2	2		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SRX									3	3	3		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Chevrolet	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**09**	**08**	**07**	**06**																									
Avalanche					2	2	2	2	2	2	2		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
Caprice					1	1	1						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Captiva Sport				4	4	4							•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Equinox									5	5	5		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Express Van	2	2	2	2	2	2	2	2	2	2			•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Impala					1	1	1	1	1	1	1	1	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Impala Limited		1	1	1									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Monte Carlo											1	1	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Silverado 1500					2	2	2	2	2	2	2		•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
Silverado 2500/3500				2	2	2	2	2	2	2	2		•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
Suburban				2	2	2	2	2	2	2	2		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tahoe				2	2	2	2	2	2	2	2		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Traverse	1	1	1	1	1	1	1	1	1				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GMC	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**09**	**08**	**07**	**06**																									
Acadia		1	1	1	1	1	1	1	1	1	1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Savana	2	2	2	2	2	2	2	2	2	2			•		•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Sierra 1500					2	2	2	2	2	2	2		•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
Sierra 2500/3500				2	2	2	2	2	2	2	2		•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•
Yukon				2	2	2	2	2	2	2	2		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Hummer	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**09**	**08**	**07**	**06**																									
H2								2	2	2			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Pontiac	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**09**	**08**	**07**	**06**																									
G8									1	1			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Torrent									5	5	5		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Saturn	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**09**	**08**	**07**	**06**																									
Outlook								1	1	1	1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VUE (4-Cylinder)								5	5	5			•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VUE (V6)								4	4	4			•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Suzuki	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**09**	**08**	**07**	**06**																									
XL7									5	5	5		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Legend:
CC: Comfort & Convenience Controls
DL: OE Door Lock & Alarm Controls
FOB: Sync CAN Interface w/ FOB Remote
PK: Transponder & Immobilizer Override
RS: Remote Start & Engine Controls
SS: Integrated Security & Monitoring
ST: Function/Feature Status

© 2017-12-28 Directed. All rights reserved.

Wiring connections

The wiring connections listed below are specific to this firmware.

Main harness (H1), 12-pin black connector

Conn./Pin	Color	Description
H1/1	Blue/White	Relay 1 – No Connection [1]
H1/2	Blue/Red	Relay 1 N.O. – (+) 12V Input[1]
H1/3	Blue	Relay 1 COM – (+) Ignition Output [1]
H1/4	White/Brown	Relay 3 N.C. – Parking Light Isolation [1]
H1/5	White	Relay 3 COM – Parking Light Output [1]
H1/6	Red	(+) 12V Input
H1/7	Lt. Green/Red	Relay 2 N.O. – No Connection [1]
H1/8	Lt. Green	Relay 2 COM – Immobilizer Interrupt (conn. side) [1]
H1/9	Lt. Green/White	Relay 2 N.C. – Immobilizer Interrupt (vehicle. side) [1]
H1/10	Black	(-) Ground
H1/11	White	Relay 3 COM – Parking Light Output [1]
H1/12	Red	(+) 12V Input

Relay harness (H2), 10-pin white connector

Conn./Pin	Color	Description
H2/1	N/A	No Connection
H2/2	Red/Black	(+) 12 Volt Input (Accessory/Starter relay)
H2/3	Pink/Black	Relay N.C. – Flex Relay Isolation [1]
H2/4	Pink/White	Relay COM – Flex Relay Output [1]
H2/5	Red	(+) 12 Volt Input (Ignition relay)
H2/6	Green	Relay COM – (+) Starter Disable (key side) [1]
H2/7	Violet	Relay N.C. – (+) Starter Output (vehicle side) [1]
H2/8	Orange	Relay COM – (+) Accessory Output [1]
H2/9	Red/White	(+) 12 Volt Input (flex relay)
H2/10	Pink	Relay COM – (+) Ignition Output

Data harness (H3), 8-pin white connector

Conn./Pin	Color	Description
H3/1	Tan	HS CAN Low
H3/2	Tan/Black	HS CAN High
H3/3	Orange/Brown	HS or FT CAN Low 2
H3/4	Orange/Green	HS or FT CAN High 2
H3/5	Lt. Green	Single Wire CAN
H3/6	Violet/Brown	(MUX) Analog Input/Output
H3/7	Orange/Black	ISO BUS 2
H3/8	Yellow/Black	ISO BUS 1

1. If these outputs are not used by the firmware, they can be configured by the installer when the module is flashed.

© 2017-12-28 Directed. All rights reserved.

Analog input/output harness (H4), 22-pin white connector

Conn./Pin	Color	Description
H4/1	Lt. Green/Black	(-) Parking Lights Output [1]
H4/2	Blue/White	(-) Ground When Running (status) Output [1]
H4/3	Dk. Green/Black	(-) Lock Output [1]
H4/4	Red/White	(-) Trunk Output [1]
H4/5	Brown/Black	(-) Horn Output [1]
H4/6	Brown/White	N/A
H4/7	White	(+) Accessory Output [1]
H4/8	Violet/Black	(+) AUX 4 Output [1]
H4/9	Dk. Blue/Black	(-) Unlock Output [1]
H4/10	Lt. Blue/Black	(-) RAP Off Output [1]
H4/11	Brown/Red	(+) Siren Output [1]
H4/12	Pink	(+) Ignition Sense Input
H4/13	Violet	(+) Door Sense Input [2]
H4/14	Brown	(+) Brake Input [2]
H4/15	White/Blue	(-) Activation Input [2]
H4/16	Red/Blue	(-) Valet Switch [2]
H4/17	Black/White	(-) E-Brake Input (manual transmission) [2]
H4/18	Orange/Black	(-) Instant Alarm Input [2]
H4/19	Blue	(-) Trunk Input [2]
H4/20	Green	(-) Door Sense Input [2]
H4/21	Gray	(-) Hood Pin Input [2]
H4/22	Violet/White	(AC) Tach Input

RF Port harness (H5), 2-pin white connector

Conn./Pin	Color	Description
H5/1	N/A	RF Loop
H5/2	N/A	RF Loop

D2D harness (H6), 4-pin white (1) and black (2) connectors

Conn./Pin	Color	Description
H6/1	Blue	(Data) TX
H6/2	Black	(-) Ground
H6/3	Green	(Data) RX
H6/4	Red	(+) 12 Volt

Temperature sensor harness (H7), 2-pin black connector (optional, 8556T)

Conn./Pin	Color	Description
H7/1	Black	Temperature Sensor
H7/2	Black	Temperature Sensor

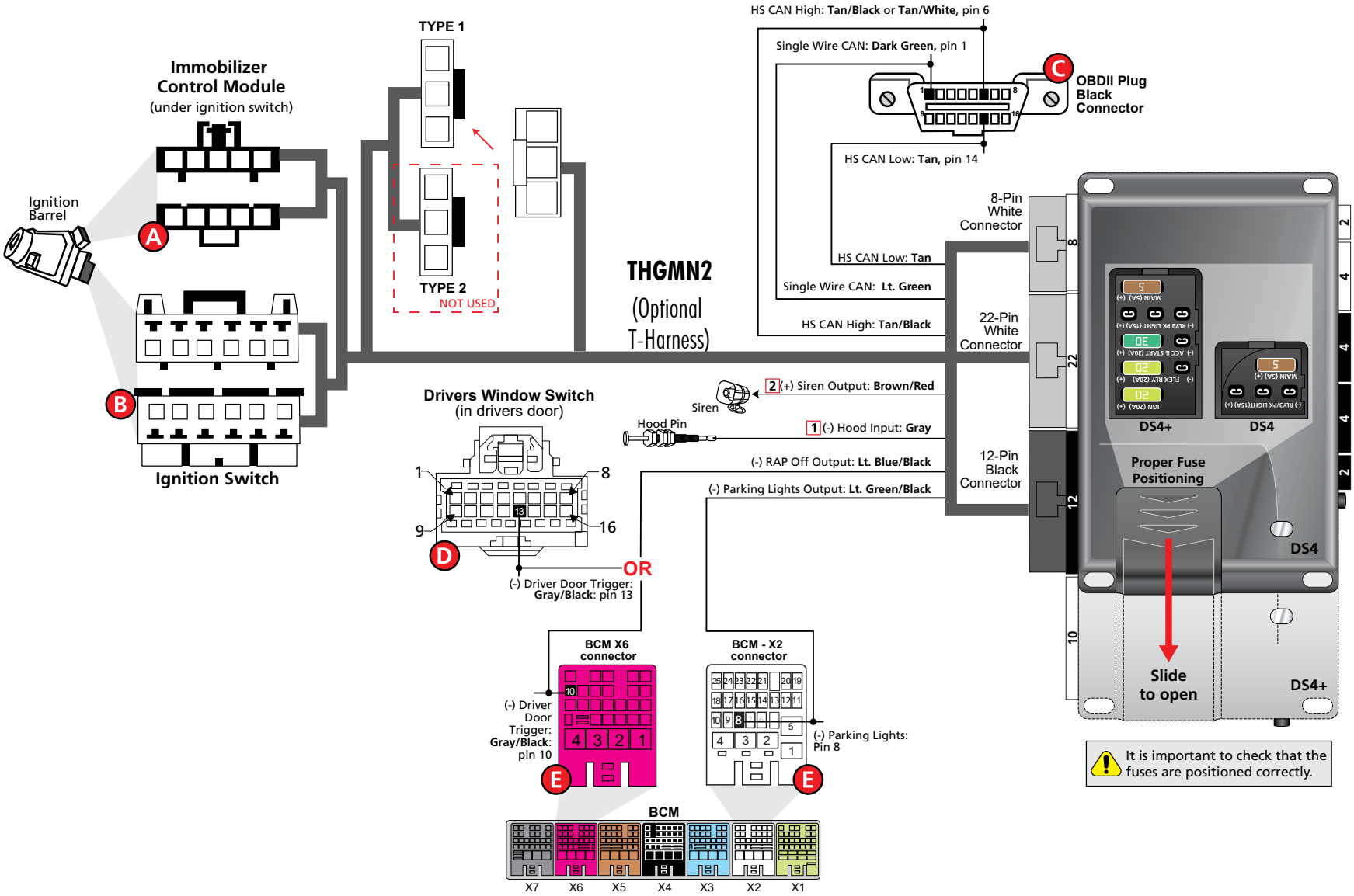
1. If these outputs are not used by the firmware, they can be configured by the installer when the module is flashed. Note that they are low current and a relay may be necessary.
2. These connections are only required if the corresponding statuses are not supported by the firmware. See "Vehicle application guide" on page 5 for a list of compatible features. If these outputs are not used by the firmware, they can be configured by the installer when the module is flashed. Note that they are low current and a relay may be necessary.

© 2017-12-28 Directed. All rights reserved.

Installation (wiring diagrams, fuse selection & vehicle wiring reference charts)

Type 1 with T-Harness (THGMN2)

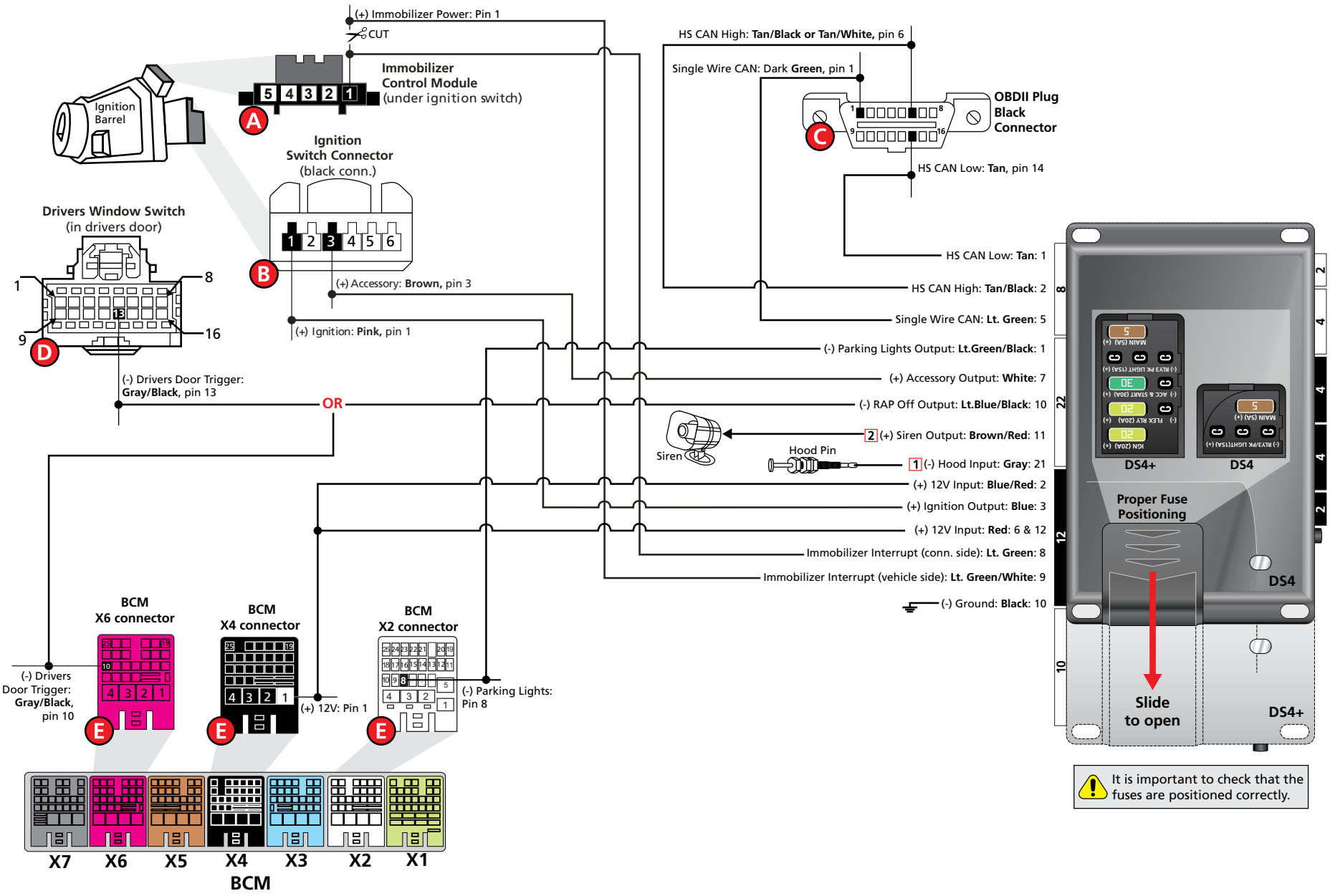
⚠ Refer to "Pre-installation and application warnings" on page 4 for important information, such as the description of each special note referenced in the diagram (1 2 3).



© 2017-12-28 Directed. All rights reserved.

Type 1

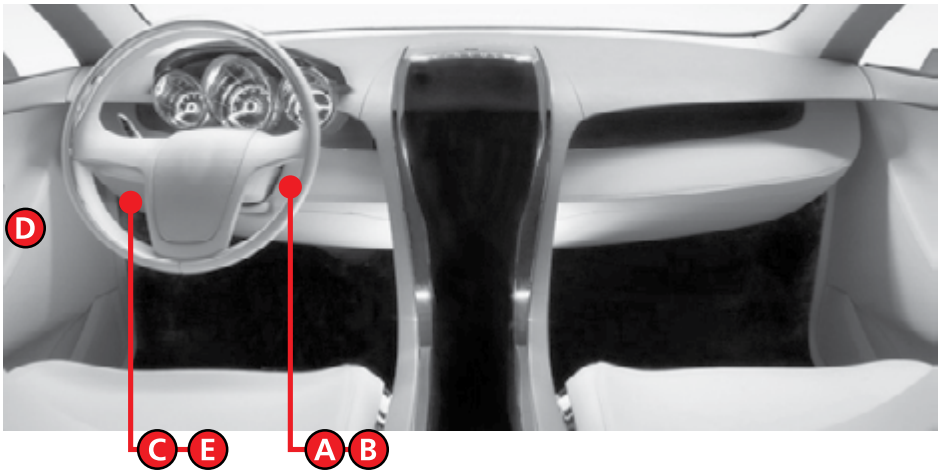
⚠ Refer to "Pre-installation and application warnings" on page 4 for important information, such as the description of each special note referenced in the diagram (1 2 3).



© 2017-12-28 Directed. All rights reserved.

Vehicle wiring reference chart

This section provides vehicle wiring information to guide you through the various stages of your installation. Refer to www.directechs.com for additional information.



Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Buick Enclave 2008-2017							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger (With express window **up & down**)	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Driver Door Trigger (With express window **down only**)	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Buick Lucerne 2006-2011							
Immobilizer Interrupt	Orange	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Lt. Blue/Tan	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/Yellow	1	(+)	BCM, X4 connector.	Black	25	E
Cadillac CTS 2008-2013							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Cadillac CTS Coupe 2011-2014							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Cadillac CTS Wagon 2010-2014							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Cadillac DTS 2006-2011							
Immobilizer Interrupt	Orange/Pink	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/Yellow	1	(+)	BCM, X4 connector.	Black	25	E
Chevrolet Caprice 2011-2013							
Immobilizer Interrupt	Orange/Black	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black or Brown/ White	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Orange/Red	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Chevrolet Impala 2006-2013							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Chevrolet Impala Limted 2014-2016							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Chevrolet Monte Carlo 2006-2007							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Chevrolet Traverse 2009-2017							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger (With express window **up & down**)	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Driver Door Trigger (With express window **down only**)	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

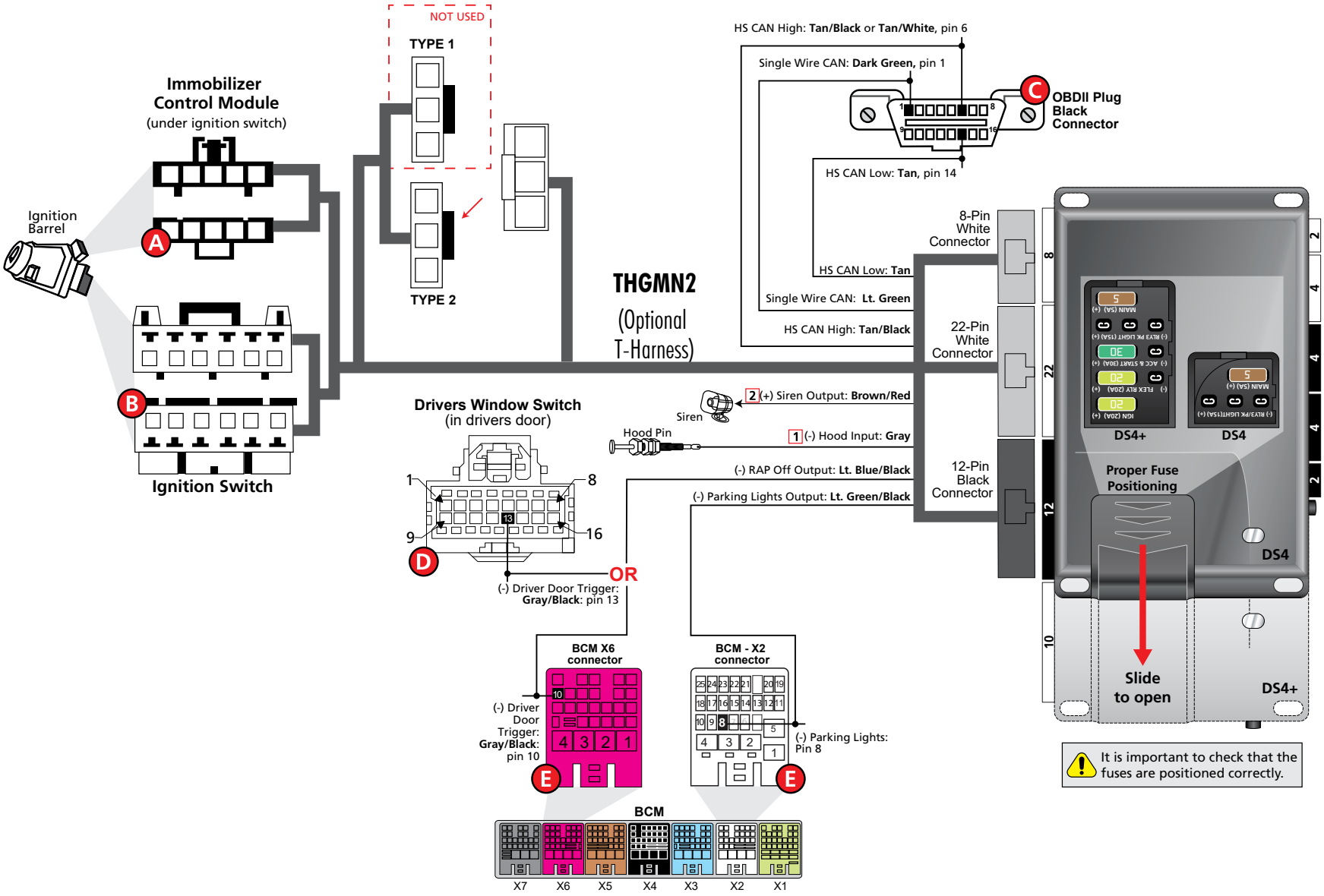
© 2017-12-28 Directed. All rights reserved.

Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
GMC Acadia 2007-2016							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger (With express window **up & down**)	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Driver Door Trigger (With express window **down only**)	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Pontiac G8 2008-2009							
Immobilizer Interrupt	Orange/Black	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Orange/Red	1	(+)	BCM, X4 connector.	Black	25	E
Saturn Outlook 2007-2010							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger (With express window **up & down**)	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Driver Door Trigger (With express window **down only**)	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Type 2 with T-Harness (THGMN2)

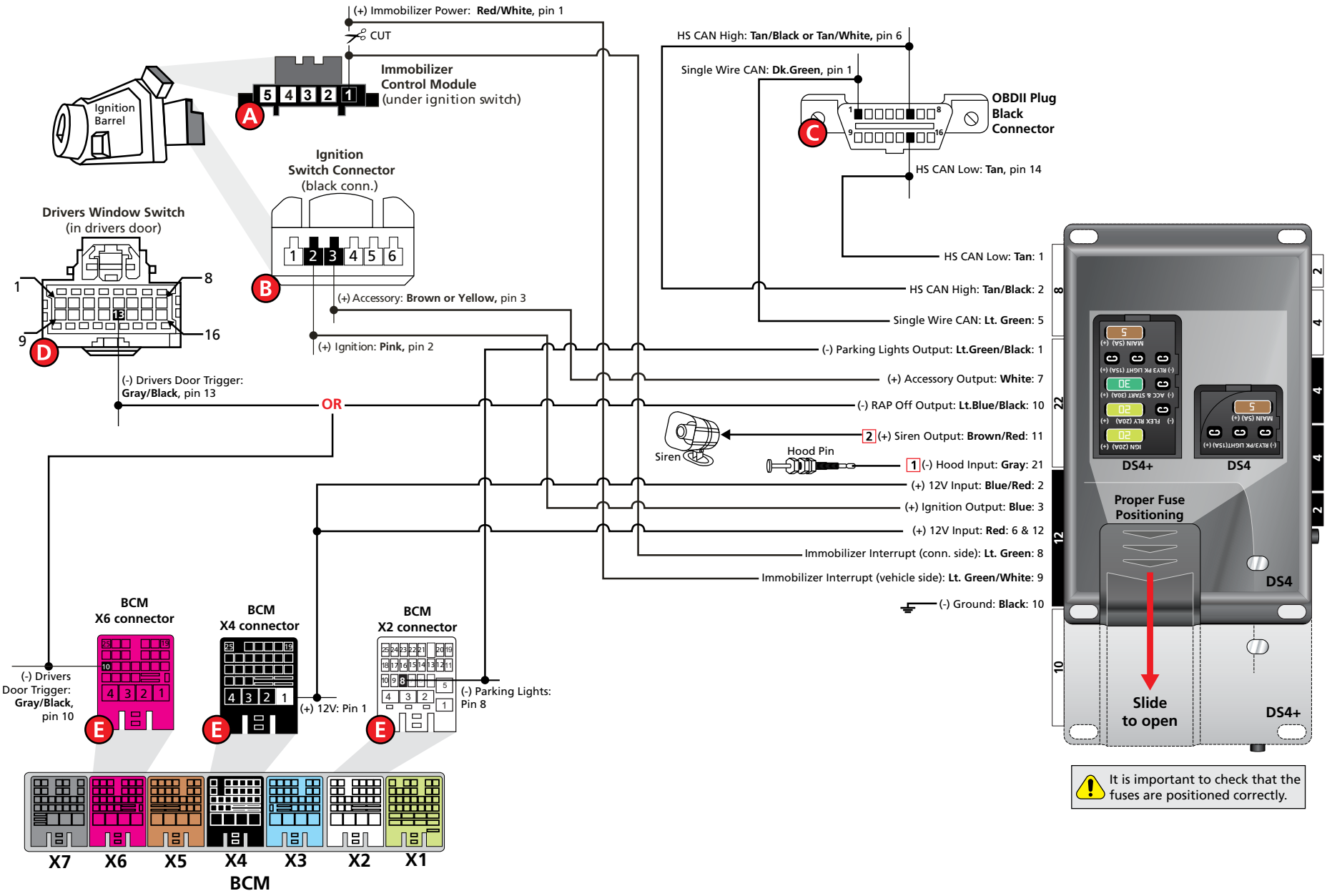
⚠ Refer to "Pre-installation and application warnings" on page 4 for important information, such as the description of each special note referenced in the diagram (1 2 3).



© 2017-12-28 Directed. All rights reserved.

Type 2

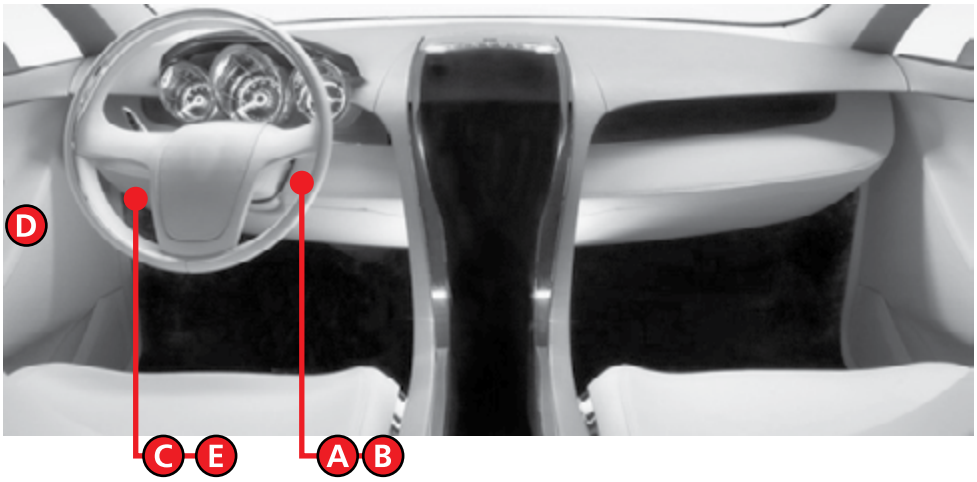
⚠ Refer to "Pre-installation and application warnings" on page 4 for important information, such as the description of each special note referenced in the diagram (1 2 3).



© 2017-12-28 Directed. All rights reserved.

Vehicle wiring reference chart

This section provides vehicle wiring information to guide you through the various stages of your installation. Refer to www.directechs.com for additional information.



Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Cadillac Escalade 2007-2014							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Green	6	B
Accessory	Brown	3	(+)	Ignition switch.	Green	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Chevrolet Avalanche 2007-2013							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Green	6	B
Accessory	Brown	3	(+)	Ignition switch.	Green	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Chevrolet Express Van 2008-2017							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Chevrolet Silverado 1500 2007-2013							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	B
Ignition	Pink	2	(+)	Ignition switch.	Black	6	B
Accessory	Brown or Yellow	3	(+)	Ignition switch.	Black	6	C
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger (Except premium models)	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Driver Door Trigger (Premium models)	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Chevrolet Silverado 2500/3500 2007-2014							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Black	6	B
Accessory	Brown or Yellow	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger (Except premium models)	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Driver Door Trigger (Premium models)	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Chevrolet Suburban 2007-2014							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Chevrolet Tahoe 2007-2014							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Black	6	B
Accessory	Brown or Yellow	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
GMC Savana 2008-2016							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Black	6	B
Accessory	Brown	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
GMC Sierra 1500 2007-2013							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Black	5	B
Accessory	Brown or Yellow	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger (Except premium models)	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Driver Door Trigger (Premium models)	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
GMC Sierra 2500/3500 2007-2014							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Black	6	B
Accessory	Brown or Yellow	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger (Except premium models)	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Driver Door Trigger (Premium models)	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
GMC Yukon 2007-2014							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Black	6	B
Accessory	Brown or Yellow	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

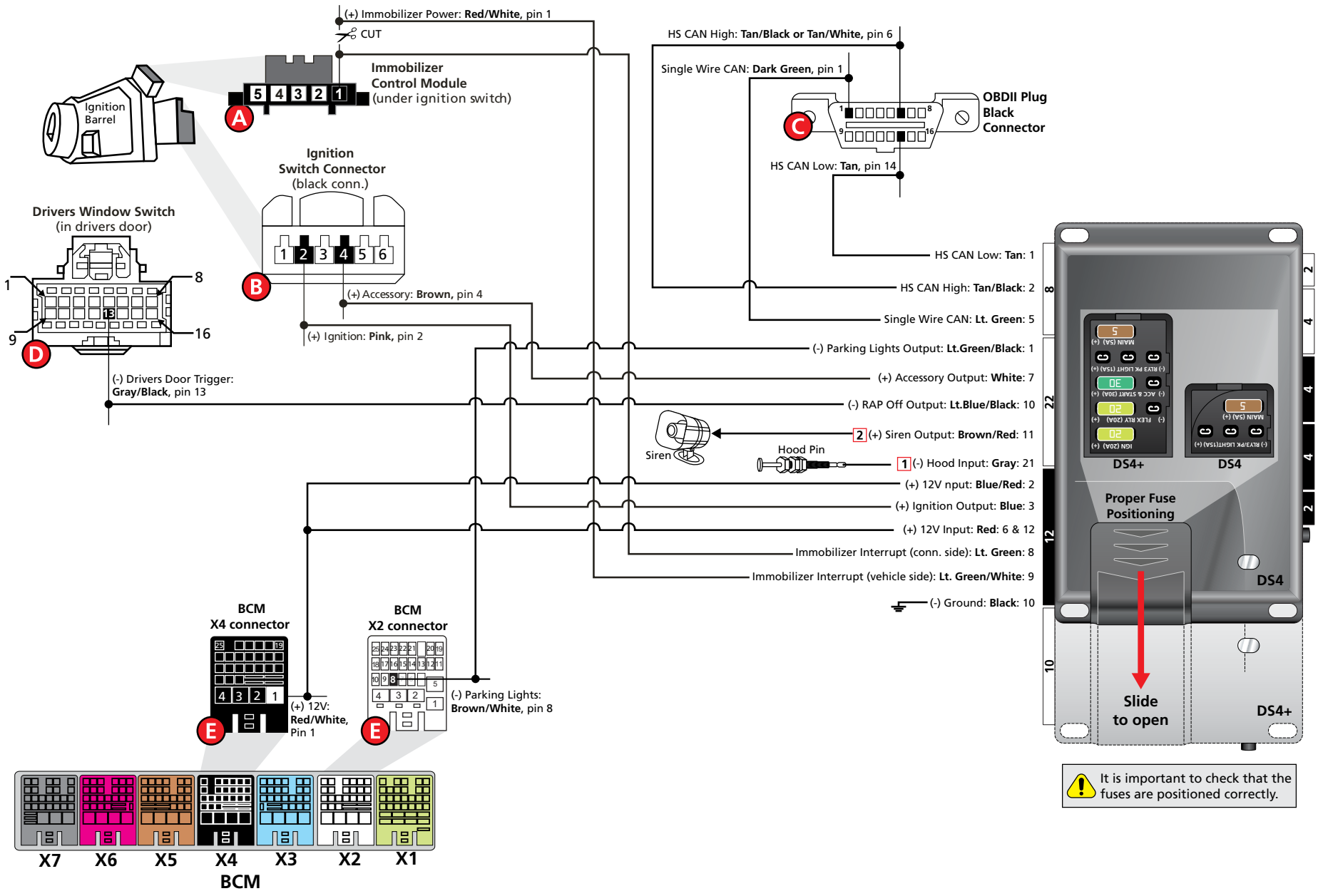
© 2017-12-28 Directed. All rights reserved.

Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Hummer H2 2008-2010							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Black	6	B
Accessory	Brown or Yellow	3	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Type 3

⚠ Refer to "Pre-installation and application warnings" on page 4 for important information, such as the description of each special note referenced in the diagram (1 2 3).

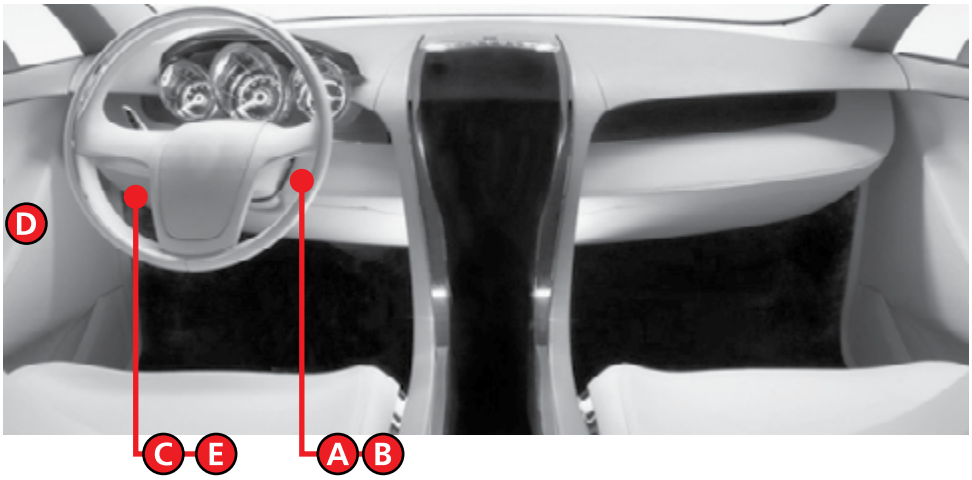


⚠ It is important to check that the fuses are positioned correctly.

© 2017-12-28 Directed. All rights reserved.

Vehicle wiring reference chart

This section provides vehicle wiring information to guide you through the various stages of your installation. Refer to www.directechs.com for additional information.

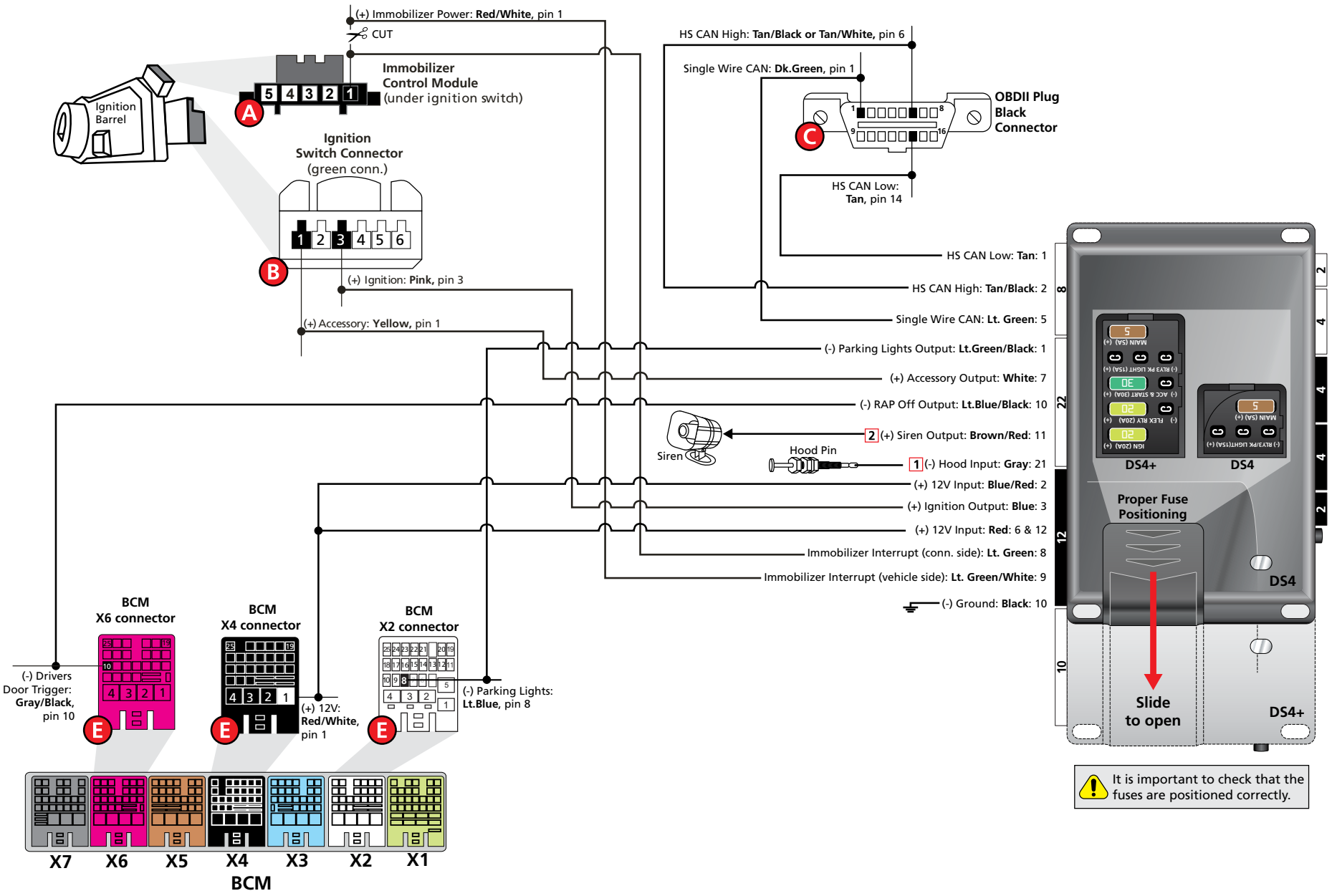


Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Cadillac SRX 2007-2009							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	2	(+)	Ignition switch.	Green	6	B
Accessory	Brown	4	(+)	Ignition switch.	Green	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	13	(-)	Drivers window switch.	Brown	16	D
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Type 4

⚠ Refer to "Pre-installation and application warnings" on page 4 for important information, such as the description of each special note referenced in the diagram (1 2 3).

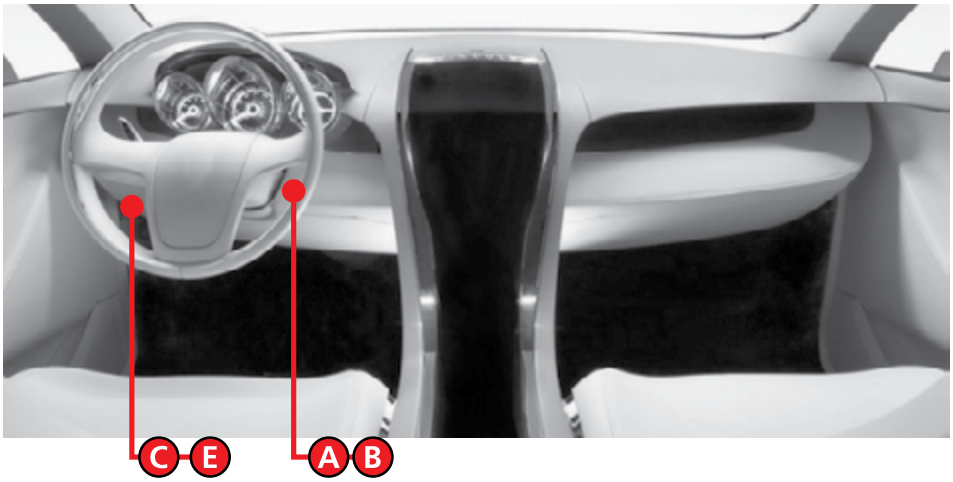


⚠ It is important to check that the fuses are positioned correctly.

© 2017-12-28 Directed. All rights reserved.

Vehicle wiring reference chart

This section provides vehicle wiring information to guide you through the various stages of your installation. Refer to www.directechs.com for additional information.

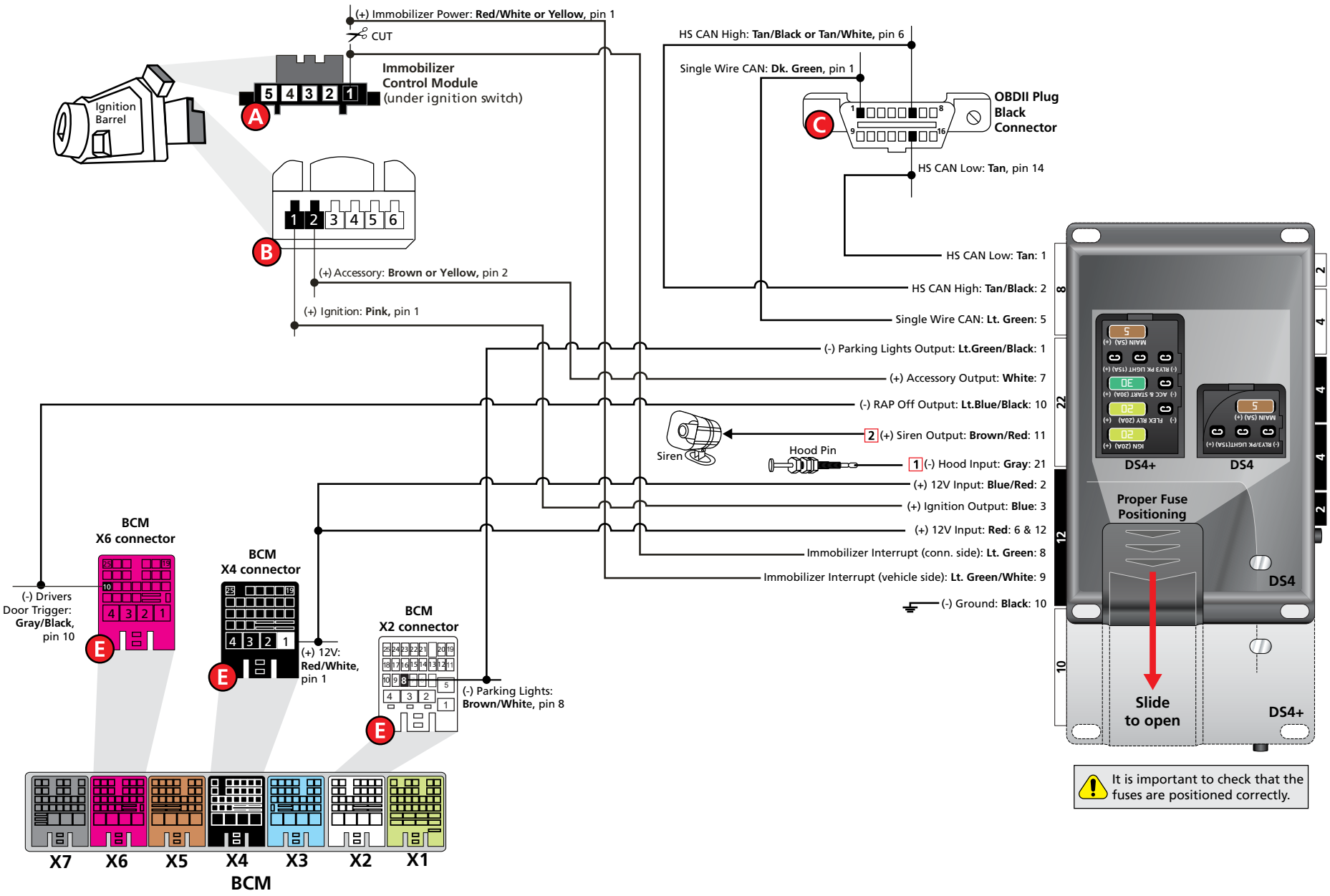


Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Chevrolet Captiva Sport 2012-2014							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	3	(+)	Ignition switch.	Green	6	B
Accessory	Yellow	1	(+)	Ignition switch.	Green	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Saturn VUE (V6) 2008-2010							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	3	(+)	Ignition switch.	Green	6	B
Accessory	Yellow	1	(+)	Ignition switch.	Green	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Type 5

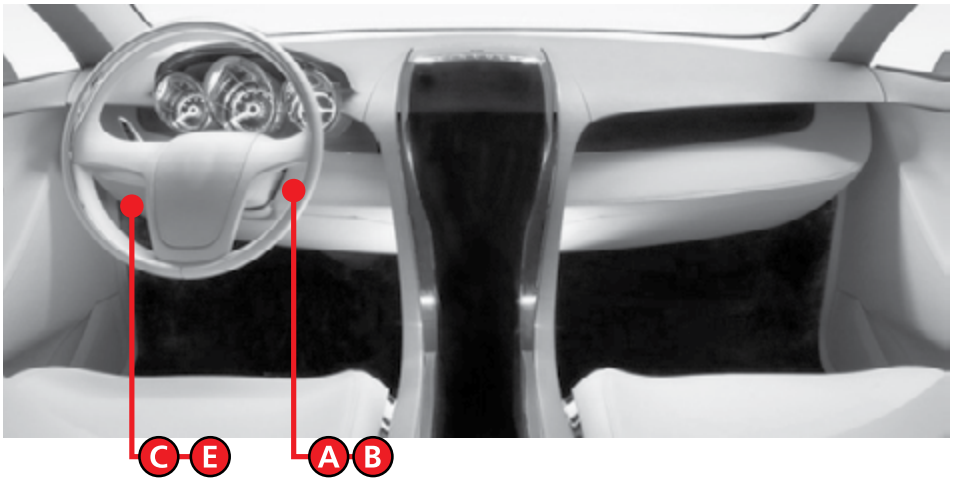
⚠ Refer to "Pre-installation and application warnings" on page 4 for important information, such as the description of each special note referenced in the diagram (1 2 3).



© 2017-12-28 Directed. All rights reserved.

Vehicle wiring reference chart

This section provides vehicle wiring information to guide you through the various stages of your installation. Refer to www.directechs.com for additional information.



Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Chevrolet Equinox 2007-2009							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	2	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Pontiac Torrent 2007-2009							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	2	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E
Saturn VUE (4-Cylinder) 2008-2010							
Immobilizer Interrupt	Red/White	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Yellow	2	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Lt. Blue	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Wire Information				Connector Information			
Function	**Color**	**Pin**	**Polarity**	**Location**	**Color**	**Pins**	**Ref.**
Suzuki XL7 2007-2009							
Immobilizer Interrupt	Yellow	1	(+)	Immobilizer control module .	Black	5	A
Ignition	Pink	1	(+)	Ignition switch.	Black	6	B
Accessory	Brown	2	(+)	Ignition switch.	Black	6	B
HS CAN High	Tan/Black or Tan/White	6	Data	OBDII diagnostic connector.	Black	16	C
HS CAN Low	Tan	14	Data	OBDII diagnostic connector.	Black	16	C
SW CAN	Dk. Green	1	Data	OBDII diagnostic connector.	Black	16	C
Driver Door Trigger	Gray/Black	10	(-)	BCM, X6 connector.	Pink	25	E
Parking Lights	Brown/White	8	(-)	BCM, X2 connector.	White	25	E
(+) 12V	Red/White	1	(+)	BCM, X4 connector.	Black	25	E

© 2017-12-28 Directed. All rights reserved.

Configuring the system

⚠ Important!

Once the DS4+ module is installed in the vehicle following the instructions in "Installation (wiring diagrams, fuse selection & vehicle wiring reference charts)" on page 8, **launch** the DirectLink application on your mobile device, and **select** Configure DS4/DS4+. **Follow** the on-screen instructions to configure the system.

Note: Your system can also be configured using XKLoader2 on www.directechs.com.

Vehicles equipped with a manual transmission

Additional connections may be required if these functions are not supported by the firmware.

Connection	Description
(-) E-Brake Status Input (Black/White, pin 17)	Must be connected to a working emergency brake in the vehicle. Although most vehicles have simple (-) trigger emergency brake circuits note some vehicles do not and may require unique integration methodologies.
(-) Door Trigger Input (Green, pin 20) OR (+) Door Input (Violet, pin 13)	Must be connected to a working door trigger in the vehicle, which monitors all doors. The unit must monitor the door pins to allow the Ready Mode process to be enabled. **Note**: Some vehicles may require unique integration methodologies for this circuit. For more information, refer to www.directechs.com.
(AC) Tachometer Input (Violet/White, pin 22)	Must be connected to a working tachometer signal in the vehicle (fuel injector, ignition coil, true tach, etc.) and learned successfully to the DS4+.

RF Systems

An RF System consists of one or multiple remotes, a Control Center (antenna), and an antenna cable – various combinations exist. An RF System allows the vehicle owner to control the system with enhanced range. Two-way models are available. Please follow the instructions included with the kit for appropriate installation and programming information.

8504D Combo Sensor

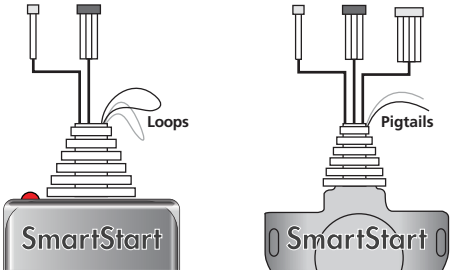
The 8504D Combo Sensor must be paired to the device before it can be used. To enter pairing, **turn** the vehicle ignition to the ON position, then **press** and **hold** the programming button on the Control Center (antenna) until the LED starts flashing. Once pairing mode has been entered, your Combo Sensor is ready to use.

Your Combo Sensor is preset for the majority of applications, however it can be adjusted using the DirectLink application, as well as a compatible LED or LCD remote. Please refer to the instructions included with your sensor for more information on how to make adjustments.

When used in conjunction with SmartStart

To enable D2D communication between the DS4+ and the SmartStart one of the following actions must be executed:

- SmartStart with **Loops** – The brown loop must be cut.
- SmartStart with **Pigtails** – The gray wire must be connected to a ground source.



⚠ **DO NOT** connect the SmartStart 2-pin power harness when using the DS4+. Power and ground will be provided by the D2D connector on main module. Refer to the SmartStart documentation for further details.

© 2017-12-28 Directed. All rights reserved.

D2D port configuration

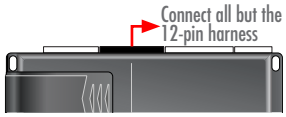
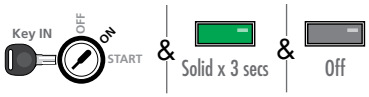
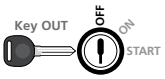
The system will automatically configure the D2D ports based on your selections in the module programming. The white D2D port is reserved for SmartStart. To ensure proper functionality with SmartStart, it is important that it is selected in the system programming of the DirectLink application or via the online web tool.

Note: Both black D2D ports are reserved for the Control Center (antenna) and 8504D Combo Sensor.

Module programming

⚠ Refer to "LED diagnostics and troubleshooting" on page 29 for more information and for troubleshooting purposes.

To connect the module:

1	Please **ensure** that the vehicle is in a safe location and cannot move forward during programming. For vehicles equipped with a manual transmission, make sure the gearshift lever is in the neutral position.	
2	**Connect** all the harnesses to the DS4+, **EXCEPT** the 12-pin main power harness.	
3	**Connect** the 12-pin main power harness, and wait until the LED turns ON solid red.	
4	**Insert** and **turn** the key to the ON position. The LED turns ON solid green for 3 seconds, then shuts off. It may take up to 1 minute.	
5	**Turn** vehicle ignition OFF once the module is successfully programmed.	
6	**Pair** remotes (if applicable). For information on how to pair a specific remote, please refer to its corresponding owner documentation, which can be found inside the product packaging of the complete system or on www.directechs.com.*	
7	By default, the tachometer is preprogrammed for the vehicle. For instructions on how to program tach, see page 32.	

* Your aftermarket remote may differ from the model shown in the illustrations.

You have successfully completed the module programming sequence.

© 2017-12-28 Directed. All rights reserved.

LED diagnostics and troubleshooting

This section provides LED diagnostics and troubleshooting information to guide you through the various stages of your installation.

Module programming

LED	Description	Troubleshooting
Off	Module has no power.	Make sure the D2D harness is connected and that 12 Volt is present between the red and black wires. If 12 Volt is present, the module may be defective.
Solid red	Waiting to begin the programming sequence.	Ensure the correct programming procedure is being followed.
Flashes red & green	Initialization failed.	Reset the module and complete the programming again. If the issue persists, please contact Technical Support.
Solid orange	Transponder functions were skipped.	(If compatible) when the RXT mode is not desired or convenience features are needed, please reset and reprogram the module.
Flashes green	All required CAN networks has been detected.	Normal operation.
Flashes orange	1 of 2 CAN networks has been detected.	Normal operation.
Flashes orange slowly	Key2GO initiated.	Please follow the steps indicated in "Pre-installation and application warnings" on page 4 to complete the Key2GO programming.
Solid green x 3 secs	Module was successfully programmed with all functions.	Normal operation.
Solid orange x 3 secs	Module was successfully programmed without transponder functions.	Normal operation.

Module programming – Error codes

LED	Description	Troubleshooting
Flashes red x 1	CAN2 not detected.	Check the CAN2 Orange/Green and Orange/Brown wire connections. Wake up the data bus by turning the ignition on and try again. If your installation does not require this connection, skip this step by pressing the programming button 5 times.
Flashes red x 1	J1850 not detected.	Check the J1850 wire connection. Wake up the data bus by turning the ignition on and try again.
Flashes red x 2	CAN1 not detected.	Check the CAN1 Tan and Tan/Black wire connections. Wake up the data bus by turning the ignition on and try again. If your installation does not require this connection, skip this step by pressing the programming button 5 times.
Flashes red x 3	Bypass data not detected.	Check the bypass line connection. If more than one wire is used, make sure they are not inverted. Ensure the vehicle still operates correctly using the factory key.
Flashes red x 4	Bypass processing error.	The bypass calculation failed. Reset the module and try again. If the condition persists, please contact Technical Support.
Flashes red x 5	ISO 1 not detected.	The Yellow/Black wire did not detect the expected signal. Refer to "Installation (wiring diagrams, fuse selection & vehicle wiring reference charts)" on page 8 to check the connections.
Flashes red x 6	ISO 2 not detected.	The Orange/Black wire did not detect the expected signal. Refer to "Installation (wiring diagrams, fuse selection & vehicle wiring reference charts)" on page 8 to check the connections.
Flashes red x 7	MUX not detected.	The Violet/Green or Violet/Brown wire did not detect the expected voltage value. Refer to "Installation (wiring diagrams, fuse selection & vehicle wiring reference charts)" on page 8 to check the connections.

External module synchronization

LED	Description	Troubleshooting
(Flashes red, red, then orange) x 10	OBDII feature not supported.	The diagnostic data bus was not detected, therefore the SmartStart features will be limited.

© 2017-12-28 Directed. All rights reserved.

Active Ground When Running (Status)

LED	Description	Troubleshooting
Flashes green	Ground When Running (Status) command received.	The module has initialized the remote start sequence.
Flashes red & orange	Ignition ON command received.	The module has received the Ignition ON command and is processing the remote start sequence.
Flashes green quickly	Start ON command received.	The module has received the Start ON command and is processing the remote start sequence.
Flashes red x 10	PTS shutdown error.	The PTS output from the module was not activated due to safety protection.
Flashes red x 21	CAN bus incorrectly detected.	Verify the CAN1 and CAN2 connections. Refer to "Installation (wiring diagrams, fuse selection & vehicle wiring reference charts)" on page 8 to check the connections.

Commands

LED	Description	Troubleshooting
Flashes orange x 1	LOCK command received.	If the bypass module fails to flash, it did not receive the signal. Commands can come from RF or D2D.
Flashes orange x 2	UNLOCK command received.	
Flashes orange x 3	TRUNK command received.	
Flashes orange x 4	AUX1 command received.	
Flashes orange x 5	AUX2 command received.	
Flashes orange x 6	AUX3 command received.	

Shutdown codes

LED	Description	Troubleshooting
Flashes green x 1	Takeover successful.	Normal operation.
Flashes red x 1	Runsafe was not disabled.	No UNLOCK command was received prior to opening the door, or the 45 second timer expired in takeover mode.
Flashes red x 2	Brake was not detected.	The brakes were not detected, which prevents the system from shutting down the vehicle.
Flashes red x 3	Smart key was not detected.	The smart key was not detected, which prevents the system from shutting down the vehicle.
Flashes red x 4	Speed was detected.	The vehicle was detected as moving, which prevents the system from shutting it down.

Analog error codes

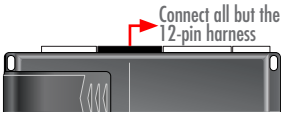
LED	Description	Troubleshooting
Flashes red, green & orange	DEI feature error.	A feature config file mismatch was detected. Please contact Technical Support.

© 2017-12-28 Directed. All rights reserved.

Soft reset

A module reset will only erase the steps performed in "Pre-installation and application warnings" on page 4. The firmware and settings flashed to the module will not be affected.

1 If required for your installation, **connect** all the harnesses to the DS4+, **EXCEPT** the 12-pin main power harness. **Press** and **hold** the programming button, then **connect** the 12-pin harness to the module.



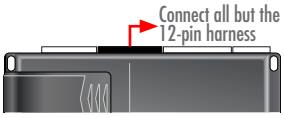
2 **Wait** 3 seconds until the LED turns ON solid orange then **release** the programming button. The LED turns ON solid red.

Hard reset

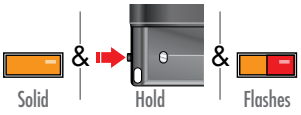
Warning Against Executing a Hard Reset!

A hard reset will revert the flashed firmware back to its default settings. Depending on the installation, some settings may need to be reconfigured. Connect your module to a computer and use the web configuration tool to edit its programmable features.

1 If required for your installation, **connect** all the harnesses to the DS4+, **EXCEPT** the 12-pin main power harness. **Press** and **hold** the programming button, then **connect** the 12-pin harness to the module.



2 After 3 seconds the LED turns ON solid orange. **Keep holding** the programming button until the LED flashes red, then orange slowly.



3 **Release** the programming button. The LED turns ON solid red.

© 2017-12-28 Directed. All rights reserved.

Learning the Tach (not needed with Virtual Tach)

Tach comes preprogrammed, therefore learning is not required; however, it can be readjusted with the following operations:

1. **Start** the vehicle using the key.
2. Within 5 seconds, **press** and **hold** the Control Center (antenna) or the main module programming button, until the LED on the Control Center (antenna) or the main module turns ON solid.
3. **Release** the button. The tachometer value is now stored in memory.

If the LED does not turn ON solid, find an alternate tach source.

Note: When the tachometer is programmed, the main module automatically enters the Tachometer engine checking mode.

Initializing Virtual Tach (not needed with hardwired or data tach applications)

To program Virtual Tach:

1. After the install is complete, **remote start** the engine. The programming operation may require 3 cranks of the starter before the engine starts and runs. Do not turn off the remote start if this happens, it is a normal programming operation.
2. Once the engine begins running, **let** it run for at least 30 seconds.
3. Using the Remote, **send** the Remote start command to turn remote start off. Virtual Tach is programmed. To reset Virtual Tach, a module reset must be done.

Note: Virtual Tach cannot be used in Manual Transmission Mode. It is also not recommended for diesel trucks.

Virtual Tach handles disengaging the starter motor during remote starting – it does not address over-rev. If the customer wants to have the over-rev protection capability, the tach wire or data tach must be used.

Important! After successfully learning Virtual Tach, a small minority of vehicle starters may over crank or under crank during remote start. Use the VirtualTach Fine tune feature using the DirectLink application for mobile devices to adjust the starter output time in 50mS increments to compensate for such an occurrence.

© 2017-12-28 Directed. All rights reserved.

Limited lifetime consumer warranty

Directed Electronics. ("Directed") promises to the original purchaser to repair or replace (at Directed's election) with a comparable reconditioned model any Directed unit (hereafter the "unit"), excluding without limitation the siren, the remote transmitters, the associated sensors and accessories, which proves to be defective in workmanship or material under reasonable use during the lifetime of the vehicle provided the following conditions are met: the unit was purchased from an authorized Directed dealer, the unit was professionally installed and serviced by an authorized Directed dealer; the unit will be professionally reinstalled in the vehicle in which it was originally installed by an authorized Directed dealer; and the unit is returned to Directed, shipping prepaid with a legible copy of the bill of sale or other dated proof of purchase bearing the following information: consumer's name, telephone number and address; the authorized dealers name, telephone number and address; complete product description, including accessories; the year, make and model of the vehicle; vehicle license number and vehicle identification number. All components other than the unit, including without limitation the siren, the remote transmitters and the associated sensors and accessories, carry a one-year warranty from the date of purchase of the same. ALL PRODUCTS RECEIVED BY DIRECTED FOR WARRANTY REPAIR WITHOUT PROOF OF PURCHASE FROM AN AUTHORIZED DEALER WILL BE DENIED. This warranty is non-transferable and is automatically void if: the unit's date code or serial number is defaced, missing or altered; the unit has been modified or used in a manner contrary to its intended purpose; the unit has been damaged by accident, unreasonable use, neglect, improper service, installation or other causes not arising out of defects in materials or construction. The warranty does not cover damage to the unit caused by installation or removal of the unit. Directed, in its sole discretion, will determine what constitutes excessive damage and may refuse the return of any unit with excessive damage.

TO THE MAXIMUM EXTENT ALLOWED BY LAW, ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, ARE EXPRESSLY EXCLUDED; AND DIRECTED NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY DUTY, OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS. DIRECTED DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING ITS AUTHORIZED DEALERS OR INSTALLERS. DIRECTED SECURITY SYSTEMS, INCLUDING THIS UNIT, ARE DETERRENTS AGAINST POSSIBLE THEFT. DIRECTED IS NOT OFFERING A GUARANTEE OR INSURANCE AGAINST VANDALISM, DAMAGE OR THEFT OF THE AUTOMOBILE, ITS PARTS OR CONTENTS; AND HEREBY EXPRESSLY DISCLAIMS ANY LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, LIABILITY FOR THEFT, DAMAGE AND/OR VANDALISM. THIS WARRANTY DOES NOT COVER LABOR COSTS FOR MAINTENANCE, REMOVAL OR REINSTALLATION OF THE UNIT OR ANY CONSEQUENTIAL DAMAGES OF ANY KIND. IN THE EVENT OF A CLAIM OR A DISPUTE INVOLVING DIRECTED OR ITS SUBSIDIARY, THE VENUE SHALL BE SAN DIEGO COUNTY IN THE STATE OF CALIFORNIA. CALIFORNIA STATE LAWS AND APPLICABLE FEDERAL LAWS SHALL APPLY AND GOVERN THE DISPUTE. THE MAXIMUM RECOVERY UNDER ANY CLAIM AGAINST DIRECTED SHALL BE STRICTLY LIMITED TO THE AUTHORIZED DIRECTED DEALER'S PURCHASE PRICE OF THE UNIT. DIRECTED SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGE TO VEHICLE, DAMAGES FOR THE LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, THE MANUFACTURER DOES OFFER A LIMITED WARRANTY TO REPLACE OR REPAIR THE CONTROL MODULE SUBJECT TO THE CONDITIONS AS DESCRIBED HEREIN. THIS WARRANTY IS VOID IF THE UNIT HAS NOT BEEN PURCHASED FROM DIRECTED, OR AN AUTHORIZED DIRECTED DEALER, OR IF THE UNIT HAS BEEN DAMAGED BY ACCIDENT, UNREASONABLE USE, NEGLIGENCE, ACTS OF GOD, NEGLECT, IMPROPER SERVICE, OR OTHER CAUSES NOT ARISING OUT OF DEFECT IN MATERIALS OR CONSTRUCTION.

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights that vary from State to State.

This warranty is only valid for sale of product(s) within the United States of America and in Canada. Product(s) sold outside of the United States of America or Canada are sold "AS-IS" and shall have NO WARRANTY, express or implied.

For further details relating to warranty information of Directed products, please visit the support section of Directed's website at: www.directed.com.

This product may be covered by a Guaranteed Protection Plan ("GPP"). See your authorized Directed dealer for details of the plan or call Directed Customer Service at 1-800-876-0800.

(920-10011-01 2011-06)

© 2017-12-28 Directed. All rights reserved.

Quick Reference Guide

Sending commands to your vehicle

Whether you want to remote start the engine, lock/unlock the doors or pop the trunk, there are 3 possible ways you can send commands to your vehicle, using the:

- Factory remote.
- Aftermarket remote.
- Directed SmartStart application via your smartphone.

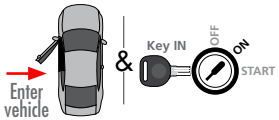
If applicable, you can also start the engine remotely by pressing the Lock button 3 times quickly on your factory remote.

Vehicle takeover with regular key

1. **Close** the vehicle doors, hood and trunk, then **send** the Remote Start command to start the vehicle.*

2. **Send** the Unlock command on the factory or aftermarket remote.*

3. **Enter** the vehicle, **insert** your key in the ignition barrel, and **turn** it to the ON position.



4. **Depress** the brake pedal, **put** the car in gear and **drive** off.

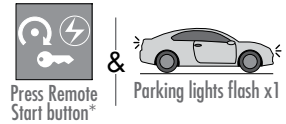
* Icon and remote appearance may differ depending on the model purchased.

Pit stop/idle mode

1. **Stop** the vehicle in a safe parking spot and **put** the gear in Park (P).

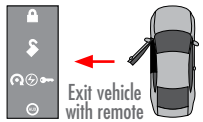
2. **Press** the Remote Start button on the transmitter.*

The parking lights will flash once to indicate the vehicle is now in Pit Stop Mode.



3. It is safe to **leave** the engine running and **exit** the vehicle with the factory remote in hand.

Note: We recommend that you always **lock** the doors of your vehicle when leaving it unattended.



* Icon and remote appearance may differ depending on the model purchased.

List of available commands

Note that the information below is for many Viper, Clifford, Python, Avital and Automate models. Icons and commands may differ depending on the model and options purchased. Refer to your authorized installation center for more specific information.

Button(s)	Actions
	Press & **hold** for 1 second to lock.
	Press & **hold** for 1 second to unlock.
*	**Press** & **hold** for 1 second to remote start.
AUX *	**Press** & **hold** for 5 seconds to activate the trunk release (optional).

* Icon and remote appearance may differ depending on the model purchased.

© 2017-12-28 Directed. All rights reserved.

SmartStart compatible

This system is equipped with a Bluetooth version of SmartStart offering up to 200' of range. The simple graphical interface gives you control over the following features of your installed remote start system or security with remote start system:

- Lock/Arm
- Unlock/Disarm
- Remote Car Starter
- Trunk Release
- Panic
- AUX Channels

You can also control multiple vehicles – great for families – and assign more than one user to control a vehicle. It's easy with SmartStart! But, this is only the beginning! SmartStart is loaded with additional features including GPS tracking, SmartSchedule, vehicle status, roadside assistance, parked car finder and more.

The application enables a "Cloud-Connected Car" like never before, providing 2-way interaction with your vehicle. Connectivity is managed through the Directed Cloud Services (DCS) network linking car, app, end user, and the Internet.

For more information, visit www.mysmartstart.com.

Notes

© 2017-12-28 Directed. All rights reserved.