



Update Alert: Firmware updates are posted on the web on a regular basis. We recommend that you check for firmware and/or install guide updates prior to installing this product.

Installation Guide

Door lock and transponder override firmware for specific Toyota and Lexus vehicles. Covers PTS models using an OBDII CAN bus, as well as a BRX/BTX. Door locks are also found on the OBDII CAN bus.

Refer to **Quick Reference Guide (QRG)** at the end of this guide for more information on how to use various features offered with this product.



WARNING

- No takeover feature is available.
- To remote start the engine, the hood, hatch, and all doors must be closed.



Important:

This guide is compatible with the TL6 firmware **version 1.26 and lower**.



Index

Vehicle Application Guide..... 02

OEM Remote Starter Detection..... 03

Installation (Wiring Diagrams & Vehicle Wiring Reference Charts)

Type 1..... 04

Type 2..... 06

Type 3..... 08

Type 4..... 10

Type 5..... 12

Type 6..... 14

Programming

Module Programming..... 16

Module Reset & Hard Reset..... 17

Features & Options List..... 18

Features Programming..... 18

LED Diagnostics & Troubleshooting..... 19

Limited One-Year Consumer Warranty..... 20

Quick Reference Guide..... 21

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Vehicle Application Guide

The following table lists the vehicles and features which are compatible with this product. The number assigned to each year allows you to determine which installation type should be used for your vehicle.

Vehicles	2016	2015	2014	2013	2012	PK-Immobilizer Bypass-Data No Key Req'd	DL-Arm Factory Security	DL-Disarm Factory Security	DL-Door Lock Control	DL-Door Unlock	DL-Driver Priority Unlock	DL-Trunk / Hatch Release	FOB-Control of aftermarket alarm with OEM remote	RS-Tach / RPM Output	SS-Entry Monitoring ALL Door Pins	SS-Entry Monitoring Driver Door Pin	SS-Entry Monitoring Hood Pin	SS-Entry Monitoring Trunk/Hatch Pin	ST-Brake Status (foot brake)	ST-E-Brake Status	ST-Ignition Status
Lexus																					
ES 300h (Smart Key)		3	3	3		•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•
ES 350 (Smart Key)		1	1	1		•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•
GS 350 (Smart Key)		2	2	2		•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•
GS 450h (Smart Key)		2	2	2		•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•
Toyota																					
Avalon (Smart Key)		4	4	4		•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•
Camry (Smart Key)	4	4	4	4	4	•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•
Camry Hybrid	4	4	4	4	4	•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•
Corolla (Smart Key)		5	5			•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•
Prius c (Smart Key)			4	4	4	•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•
RAV4 (Smart Key)	6	4	4	4		•	•	•	•	•	•	•	D	•	•	•	•	•	•	•	•

Notes:

- Keyless and Smart Key will remain functional during remote start.
- No takeover feature is available on Push-to-Start vehicles.
- * By default, the tach is set to 1000 rpm on hybrid vehicles.

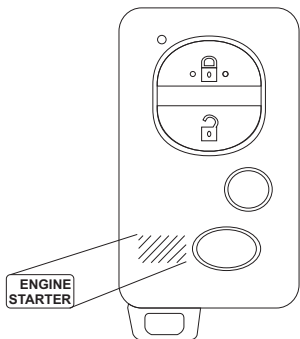
 If the vehicle is already equipped with an OEM remote starter, the installer must disconnect it before installing the DBALL2 otherwise it will not program.

Legend:

DL: OE Door Lock & Alarm Controls
PK: Transponder & Immobilizer Override
RS: Remote Start & Engine Controls
SS: Integrated Security & Monitoring
ST: Function/Feature Status

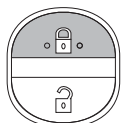
How to Know if the Vehicle is Equipped with an OEM Remote Starter

1- An “ENGINE STARTER” sticker should be on the remote.



2- Remote start the OEM remote starter:
Press the remote control's lock button twice within 2 seconds, then press and hold the lock button for 3 seconds.

The parking lights flash after 3 seconds. The engine starts and the parking lights flash repeatedly for 20 seconds.



x2

&



**Press & Hold
for 3 seconds**

If the Vehicle is Equipped with an OEM Remote Starter

If the vehicle is equipped with an OEM remote starter, the DBALL2 will detect it and will program into convenience only (no bypass)*. The reason for this is to allow aftermarket security to be installed while keeping the factory remote starter active. If you wish to use DBALL2 to control the remote start sequence, the factory remote starter must be disconnected before programming the DBALL2 as both modules cannot coexist.



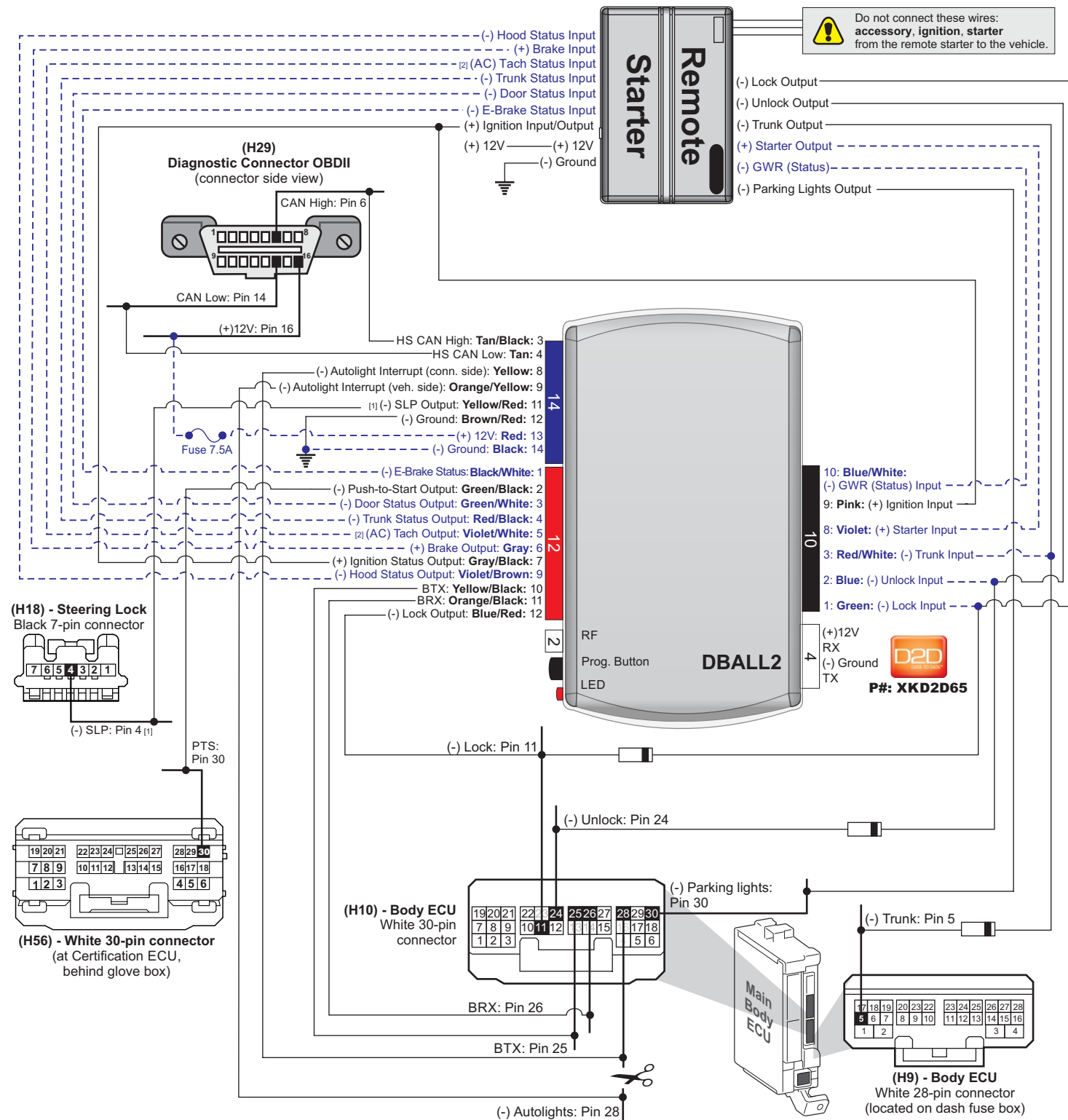
WARNING

No takeover feature is available. The engine will stop when a door is open. See Quick Reference Guide. To remote start the engine, the hood, hatch, and all doors must be closed.

* The DBALL will light up orange for 3 seconds after programming or power up to indicate the bypass is not active. Refer to LED Diagnostics and Troubleshooting section for more information.

Installation Type 1

⚠ See page 5 for help on locating components in the vehicle and wiring reference chart.



----- Not required in D2D mode.

[1] SLP: Steering Lock Actuator Position Signal.

[2] Tach wire is an optional connection required on some remote starters, which do not support a tach signal in D2D.

⚠ Unless specified otherwise, all connectors are displayed from the wire side, with the exception of the OBDII diagnostic connector.

Vehicle Wiring Reference Chart - Type 1

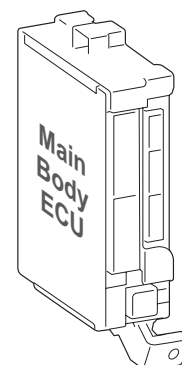


WARNING

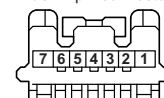
- No takeover feature is available.
- To remote start the engine, the hood, hatch, and all doors must be closed.

	Function	Connector	Pin	Wire
Lexus ES350 Smart Key 2013-2015	CAN High	OBDII (H29)	6	Blue
	CAN Low	OBDII (H29)	14	White
	(+) 12V	OBDII (H29)	16	Blue
	(-) SLP*	Steering Lock (H18)	4	Pink
	BTX	Body ECU (H10)	25	Blue
	BRX	Body ECU (H10)	26	Red
	(-) Parking lights	Body ECU (H10)	30	White
	(-) Autolights	Body ECU (H10)	28	Green
	(-) Push-to-Start	Certification ECU (H56)	30	Violet
	(-) Lock	Body ECU (H10)	11	Red
	(-) Unlock	Body ECU (H10)	24	Gray
	(-) Trunk	Body ECU (H9)	5	Red

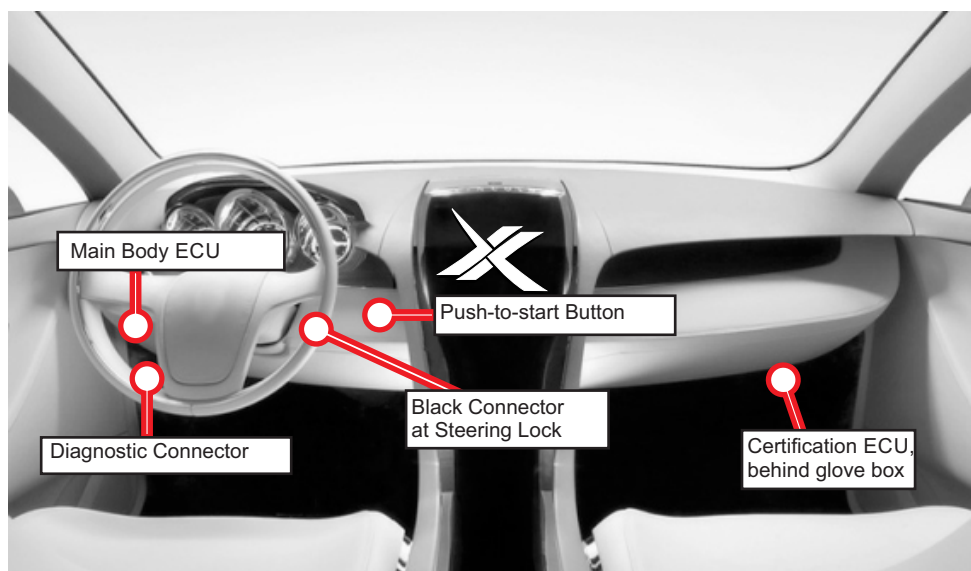
*SLP: Steering Lock actuator position signal



(H18)
Steering Lock
Black 7-pin connector



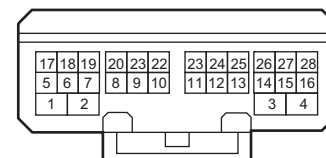
Locating Components in the Vehicle



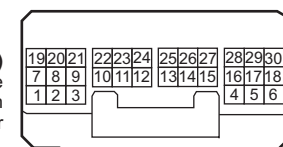
(H29)
Diagnostic Connector OBDII
(connector side view)



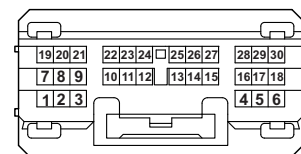
(H9)
White
28-pin
connector



(H10)
White
30-pin
Connector

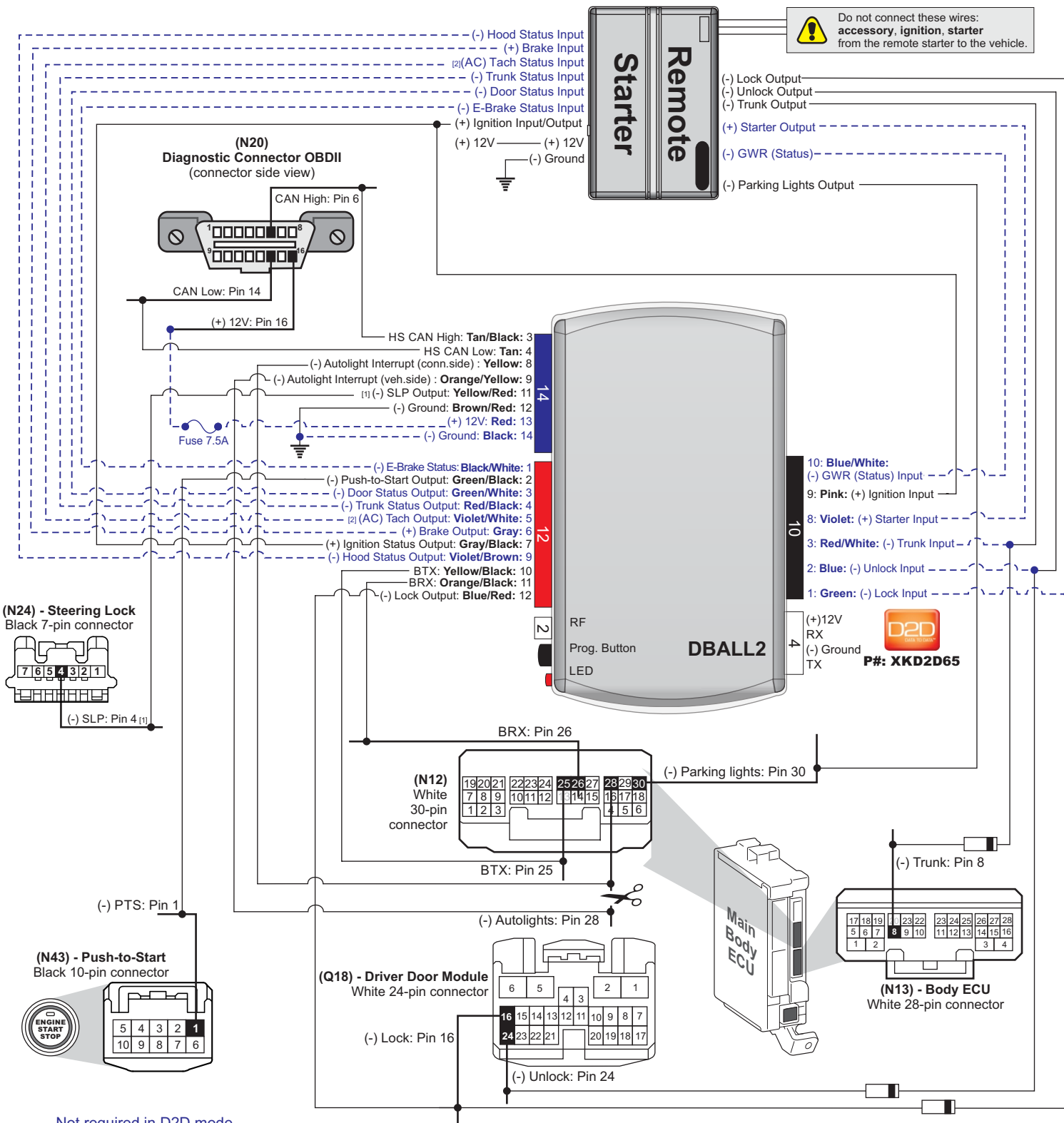


(H56)
White 30-pin connector
(at Certification ECU,
behind glove box)



Installation Type 2

⚠ See page 7 for help on locating components in the vehicle and wiring reference chart.



[1] SLP: Steering Lock Actuator Position Signal.

[2] Tach wire is an optional connection required on some remote starters, which do not support a tach signal in D2D.

⚠ Unless specified otherwise, all connectors are displayed from the wire side, with the exception of the OBDII diagnostic connector.

Vehicle Wiring Reference Chart - Type 2

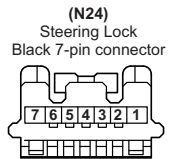
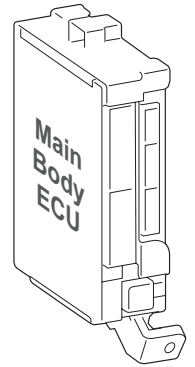


WARNING

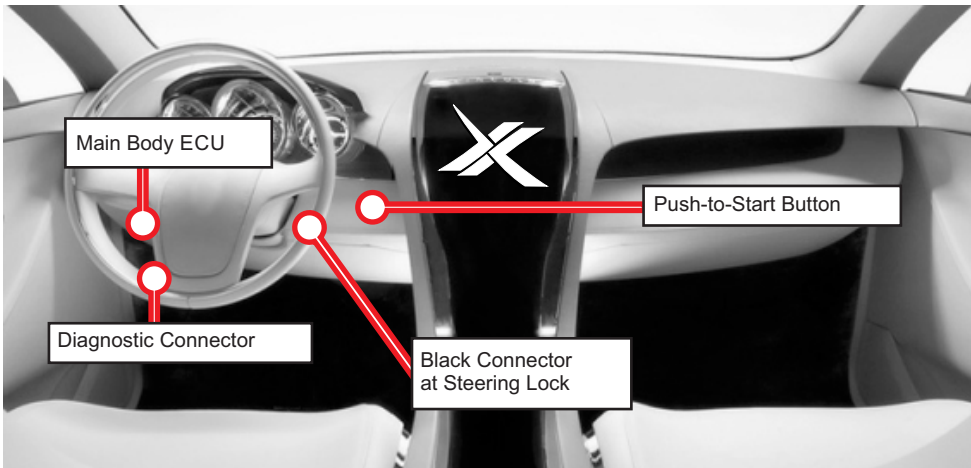
- No takeover feature is available.
- To remote start the engine, the hood, hatch, and all doors must be closed.

	Function	Connector	Pin	Wire
Lexus GS350 Smart Key / Lexus GS450h Smart Key 2013-2015	CAN High	ODBII (N20)	6	Green
	CAN Low	ODBII (N20)	14	White
	(+) 12V	ODBII (N20)	16	Yellow
	(-) SLP*	Steering Lock (N24)	4	Blue
	BTX	Body ECU (N12)	25	Black
	BRX	Body ECU (N12)	26	White
	(-) Parking Lights	Body ECU (N12)	30	Black
	(-) Autolights	Body ECU (N12)	28	Red
	(-) Push-to-Start	Push-to-Start (N43)	1	Green
	(-) Lock	Driver Door Module (Q18)	16	Gray
	(-) Unlock	Driver Door Module (Q18)	24	Violet
	(-) Trunk	Body ECU (N13)	8	Yellow

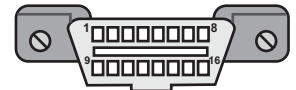
* SLP: Steering Lock actuator position signal.



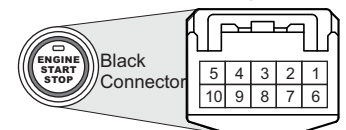
Locating Components in the Vehicle



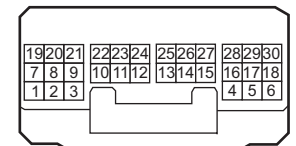
(N20) - Diagnostic Connector OBDII
(connector side view)



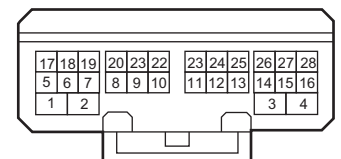
(N43)
PTS Button
Black 10-pin connector



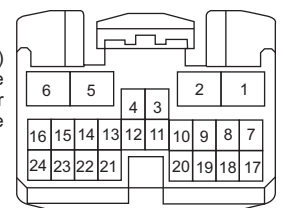
(N12)
White
30-pin connector



(N13)
White
28-pin connector

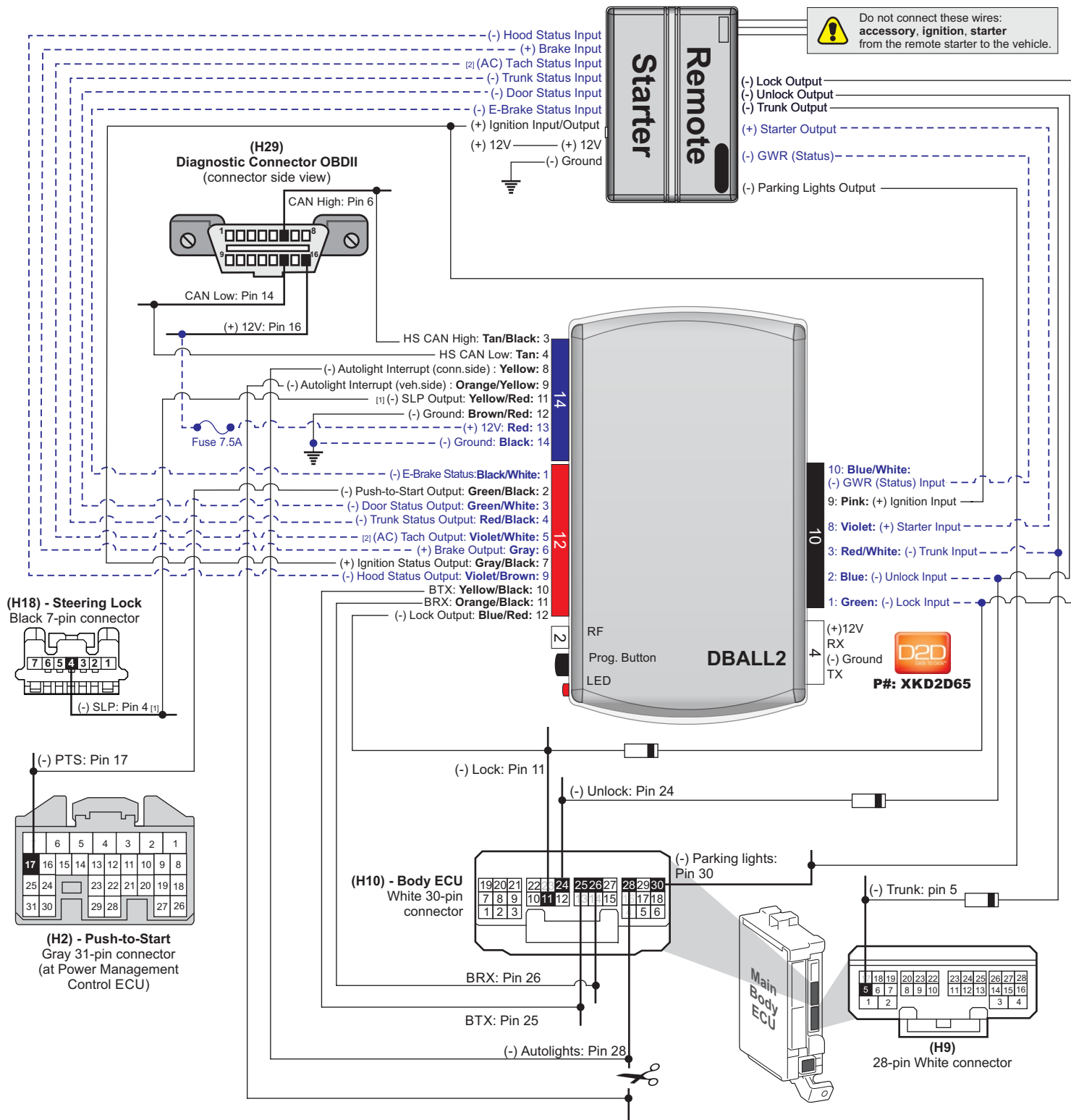


(Q18)
White
24-pin connector
Driver Door Module



Installation Type 3

⚠ See page 9 for help on locating components in the vehicle and wiring reference chart.



----- Not required in D2D mode.

[1] SLP: Steering Lock Actuator Position Signal.

[2] Tach wire is an optional connection required on some remote starters, which do not support a tach signal in D2D.

⚠ Unless specified otherwise, all connectors are displayed from the wire side, with the exception of the OBDII diagnostic connector.

Vehicle Wiring Reference Chart - Type 3

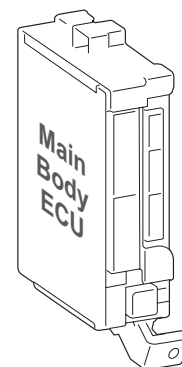


WARNING

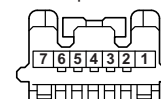
- No takeover feature is available.
- To remote start the engine, the hood, hatch, and all doors must be closed.

	Function	Connector	Pin	Wire
Lexus ES300h Smart Key 2013-2015	CAN High	OBDII (H29)	6	Blue
	CAN Low	OBDII (H29)	14	White
	(+) 12V	OBDII (H29)	16	Blue
	(-) SLP*	Steering Lock (H18)	4	Pink
	BTX	Body ECU (H10)	25	Blue
	BRX	Body ECU (H10)	26	Red
	(-) Parking Lights	Body ECU (H10)	30	White
	(-) Autolights	Body ECU (H10)	28	Green
	(-) Push-to-Start	Push-to-Start (H2)	17	Violet
	(-) Lock	Body ECU (H10)	11	Red
	(-) Unlock	Body ECU (H10)	24	Gray
	(-) Trunk Release	Body ECU (H9)	5	Red

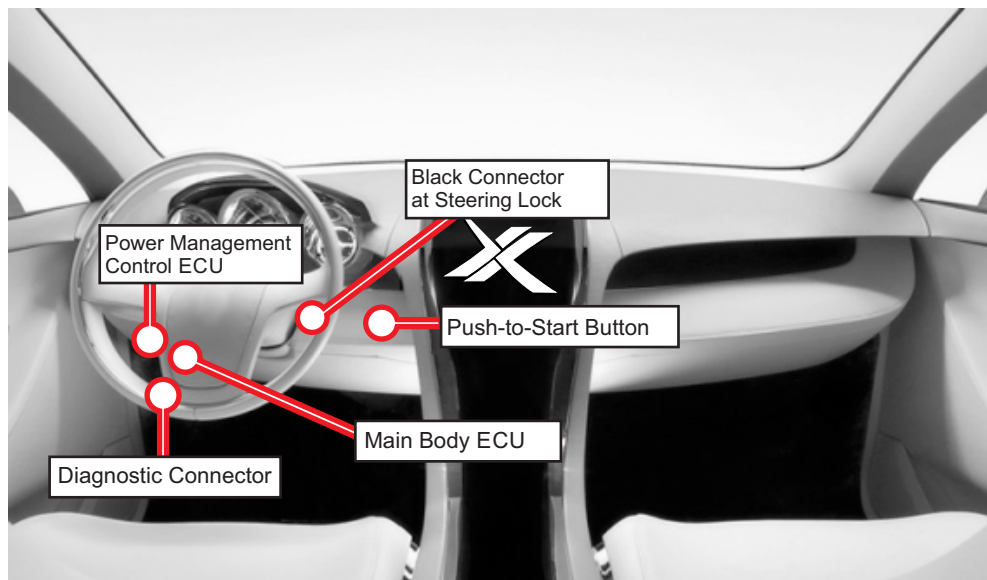
* SLP: Steering Lock actuator position signal.



(H18)
Steering Lock
Black 7-pin connector



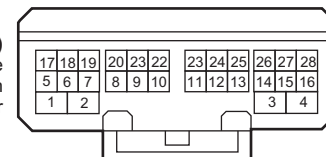
Locating Components in the Vehicle



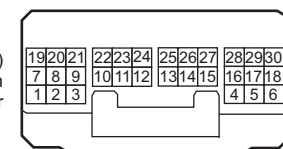
(H29) - Diagnostic Connector OBDII
(connector side view)



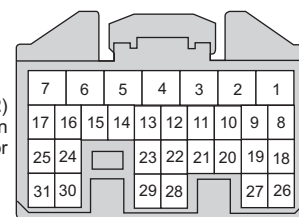
(H9)
White
28-pin
connector



(H10)
White 30-pin
connector

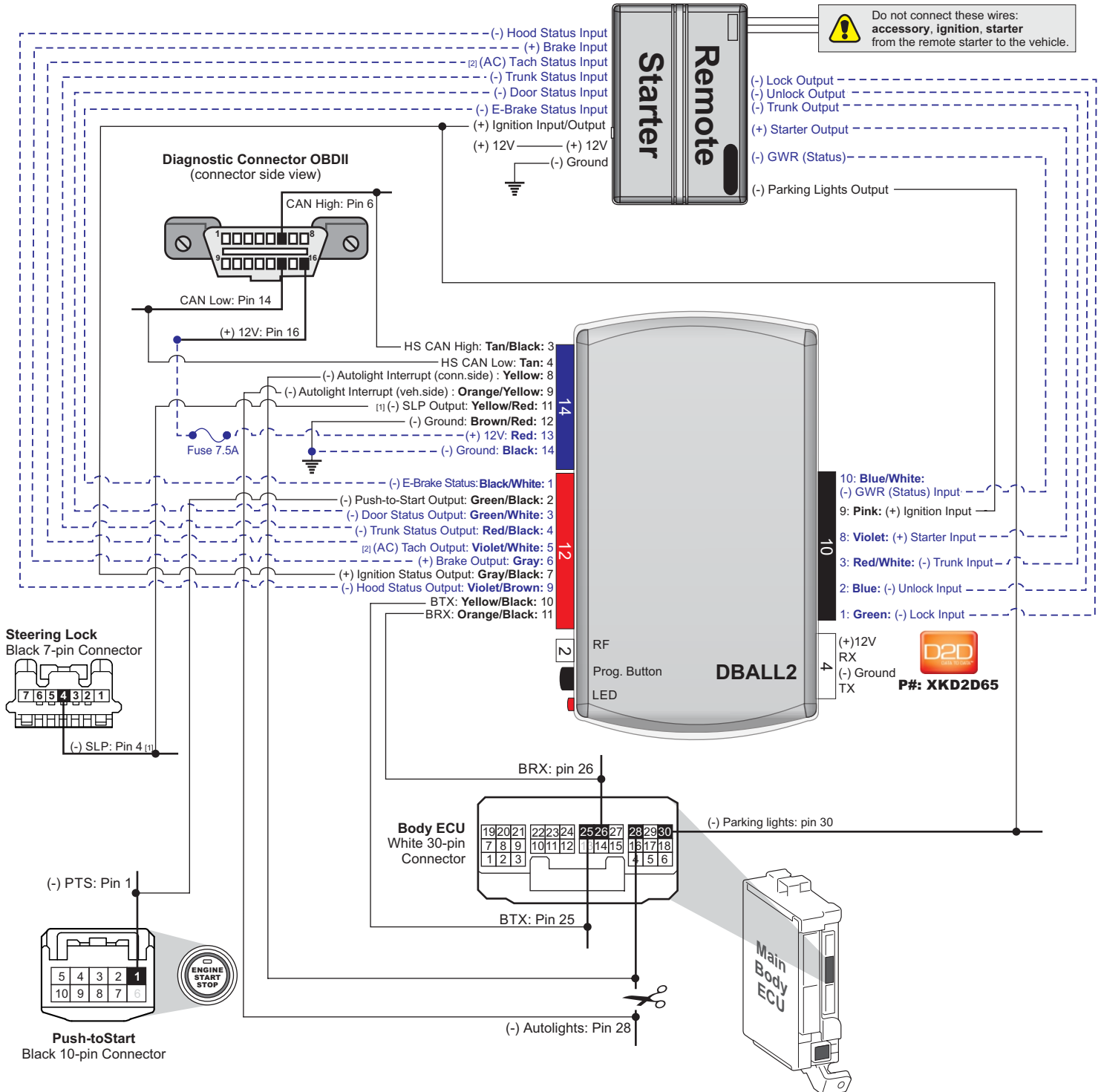


(H2)
Gray 31-pin
connector



Installation Type 4

⚠ See page 11 for help on locating components in the vehicle and wiring reference chart.



----- Not required in D2D mode.

[1] SLP: Steering Lock Actuator Position Signal.

[2] Tach wire is an optional connection required on some remote starters, which do not support a tach signal in D2D.

⚠ Unless specified otherwise, all connectors are displayed from the wire side, with the exception of the OBDII diagnostic connector.

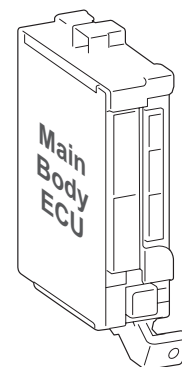
Vehicle Wiring Reference Chart - Type 4



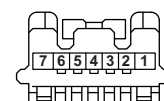
WARNING

- No takeover feature is available.
- To remote start the engine, the hood, hatch, and all doors must be closed.

	Function	Connector	Pin	Wire
Toyota Avalon Smart Key 2013-2015	CAN High	ODBDII (D28)	6	Blue
	CAN Low	ODBDII (D28)	14	White
	(-) SLP	Steering Lock (D17)	4	Green
	BTX	Body ECU (D6)	25	Brown
	BRX	Body ECU (D6)	26	Lt.Green
	(-) Parking Lights	Body ECU (D6)	30	Red
	(-) Autolights	Body ECU (D6)	28	Tan
	(-) Push-to-Start	Push-to-Start (D46)	1	Violet
	(+) 12V	ODBDII (D28)	16	Red
Toyota Camry Smart Key 2012-2016	CAN High	ODBDII (I39)	6	Blue
	CAN Low	ODBDII (I39)	14	White
	(-) SLP	Steering Lock (I24)	4	Pink
	BTX	Body ECU (I13)	25	Green
	BRX	Body ECU (I13)	26	Red
	(-) Parking Lights	Body ECU (I13)	30	White or Black
	(-) Autolights	Body ECU (I13)	28	Green
	(-) Push-to-Start	Push-to-Start (I58)	1	Violet
	(+) 12V	ODBDII (I39)	16	Red
Toyota Camry Hybrid Smart Key 2012-2016	CAN High	ODBDII (I39)	6	Blue
	CAN Low	ODBDII (I39)	14	White
	(-) SLP	Steering Lock (I24)	4	Pink
	BTX	Body ECU (I13)	25	Green
	BRX	Body ECU (I13)	26	Red
	(-) Parking Lights	Body ECU (I13)	30	White or Black
	(-) Autolights	Body ECU (I13)	28	Green
	(-) Push-to-Start	Push-to-Start (I58)	1	Violet
	(+) 12V	ODBDII (I39)	16	Red
Toyota Prius C Smart Key 2012-2014	CAN High	ODBDII (G4)	6	Gray
	CAN Low	ODBDII (G4)	14	White
	(-) SLP	Steering Lock (G50)	4	Pink
	BTX	Body ECU (G59)	25	Black
	BRX	Body ECU (G59)	26	Red
	(-) Parking Lights	Body ECU (G59)	30	Lt.Blue
	(-) Autolights	Body ECU (G59)	28	Green
	(-) Push-to-Start	Push-to-Start (G48)	1	Lt.Blue
	(+) 12V	ODBDII (G4)	16	Lt.Blue
Toyota RAV4 Smart Key 2013-2015	CAN High	ODBDII (G14)	6	Black
	CAN Low	ODBDII (G14)	14	White
	(-) SLP	Steering Lock (G5)	4	Green
	BTX	Body ECU (G78)	25	Blue
	BRX	Body ECU (G78)	26	Red
	(-) Parking Lights	Body ECU (G78)	30	White
	(-) Autolights	Body ECU (G78)	28	Green
	(-) Push-to-Start	Push-to-Start (G24)	1	Dk.Green
	(+) 12V	ODBDII (G14)	16	Blue



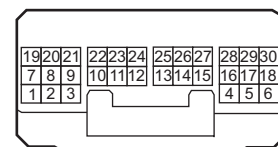
D17, I24, G5, G50
Steering Lock
Black 7-pin connector



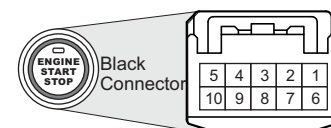
(D28, I39, G4, G14)
Diagnostic Connector OBDII
(connector side view)



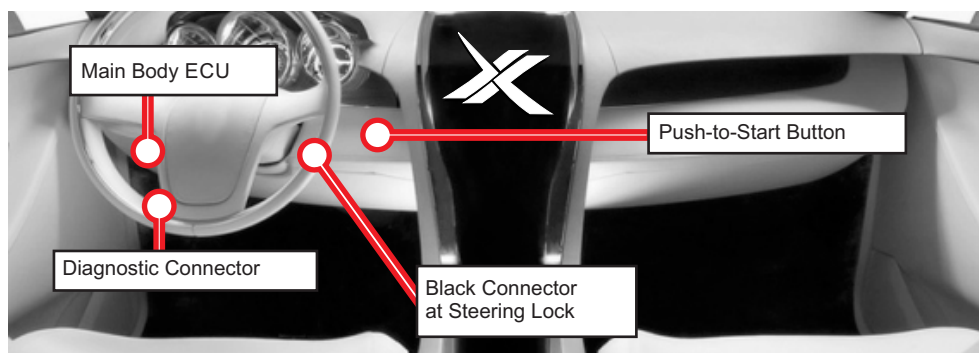
(D6, I13, G59, G78)
White 30-pin connector



(D46, I58, G24, G48)
PTS Button
Black 10-pin connector

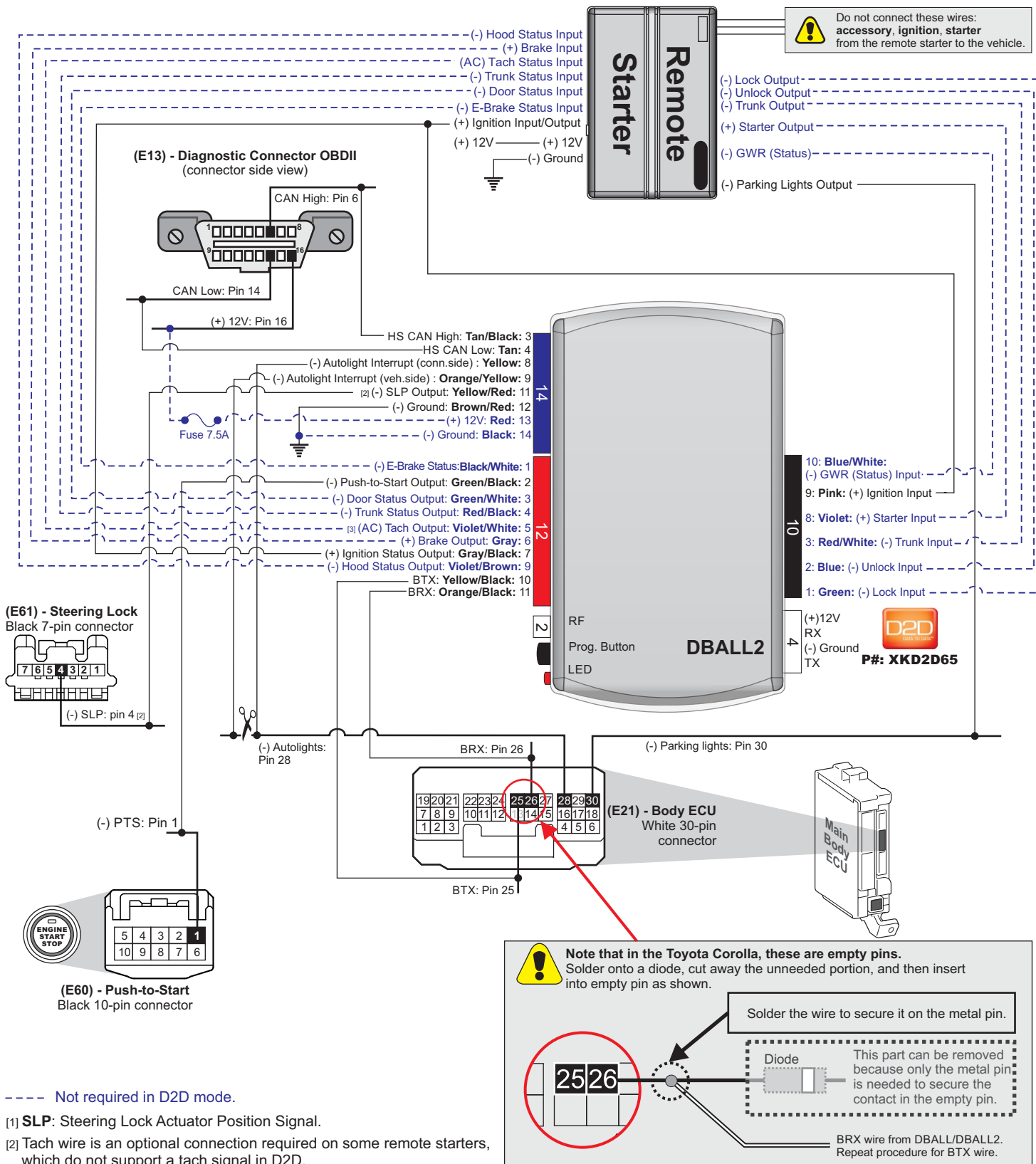


Locating Components in the Vehicle



Installation Type 5

⚠ See page 13 for help on locating components in the vehicle and wiring reference chart.



----- Not required in D2D mode.

[1] SLP: Steering Lock Actuator Position Signal.

[2] Tach wire is an optional connection required on some remote starters, which do not support a tach signal in D2D.

⚠ Unless specified otherwise, all connectors are displayed from the wire side, with the exception of the OBDII diagnostic connector.

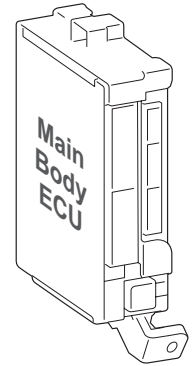
Vehicle Wiring Reference Chart - Type 5



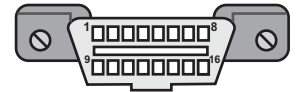
WARNING

- No takeover feature is available.
- To remote start the engine, the hood, hatch, and all doors must be closed.

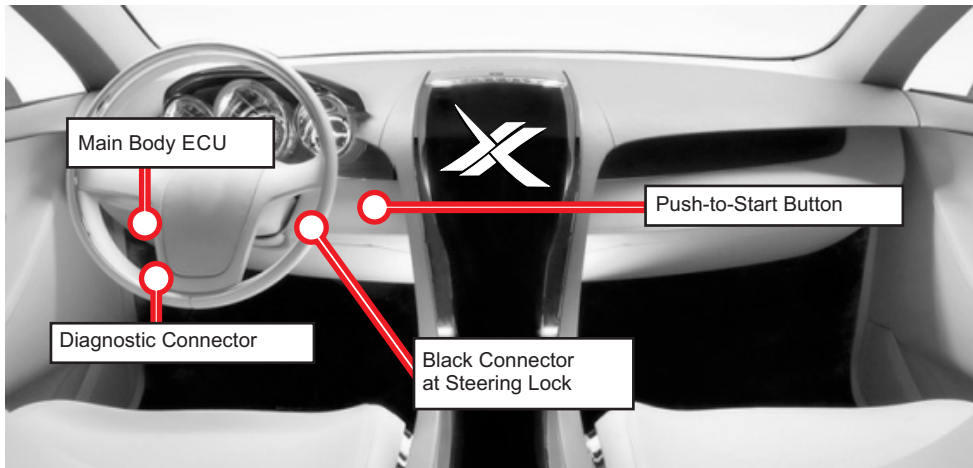
	Function	Connector	Pin	Wire
Toyota Corolla Smart Key 2014-2015	CAN High	OBDII (E13)	6	Red
	CAN Low	OBDII (E13)	14	White
	(-) SLP	Steering Lock (E61)	4	Green
	BRX	Body ECU (E31)	26	empty
	BTX	Body ECU (E31)	25	empty
	(-) Parking Light	Body ECU (E31)	30	White
	(-) Autolights	Body ECU (E31)	28	Green
	(-) Push-to-Start	Push-to-Start (E60)	1	Black
	(-) 12V	OBDII (E13)	16	Green



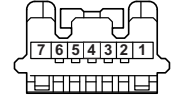
(E13)
Diagnostic Connector OBDII
(connector side view)



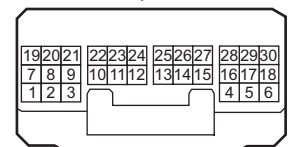
Locating Components in the Vehicle



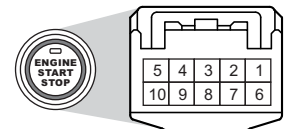
(E61) - Steering Lock
Black 7-pin connector



(E31)
Body ECU
White 30-pin connector

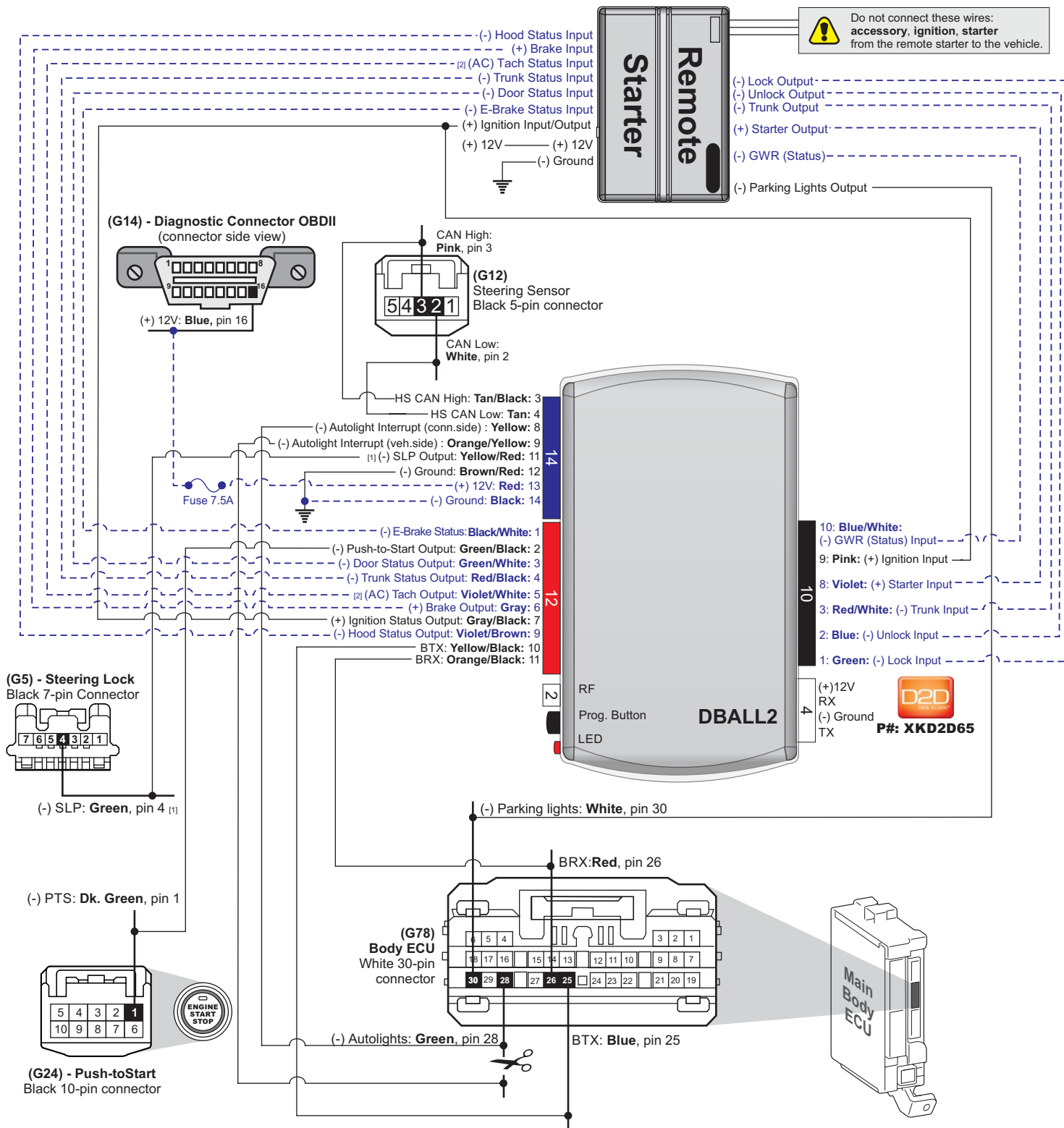


(E60) - Push-to-Start
Black 10-pin connector



Installation Type 6

⚠ See page 15 for help on locating components in the vehicle and wiring reference chart.



[1] SLP: Steering Lock Actuator Position Signal.

[2] Tach wire is an optional connection required on some remote starters, which do not support a tach signal in D2D.

⚠ Unless specified otherwise, all connectors are displayed from the wire side, with the exception of the OBDII diagnostic connector.

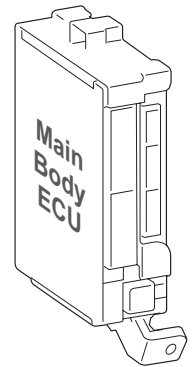
Vehicle Wiring Reference Chart - Type 6



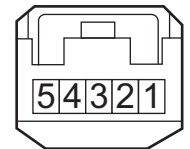
WARNING

- No takeover feature is available.
- To remote start the engine, the hood, hatch, and all doors must be closed.

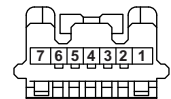
	Function	Connector	Pin	Wire
Toyota RAV4 Smart Key 2016	CAN High	Steering Sensor on Steering Column (G12)	3	Pink
	CAN Low	Steering Sensor on Steering Column (G12)	2	White
	(-) SLP	Steering Lock (G5)	4	Lt.Green
	BTX	Body ECU (G78)	25	Blue
	BRX	Body ECU (G78)	26	Red
	(-) Parking Lights	Body ECU (G78)	30	White
	(-) Autolights	Body ECU (G78)	28	Green
	(-) Push-to-Start	Push-to-Start (G24)	1	Dk.Green
	(+) 12V	12V OBDII (G14)	16	Blue



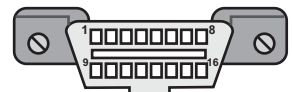
(G12)
Steering Sensor
Black 5-pin connector



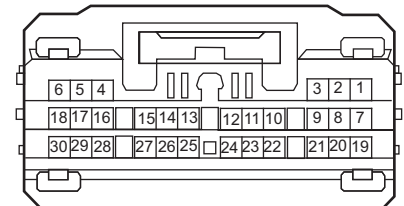
(G5)
Steering Lock
Black 7-pin connector



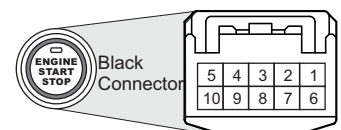
(G14)
Diagnostic Connector OBDII
(connector side view)



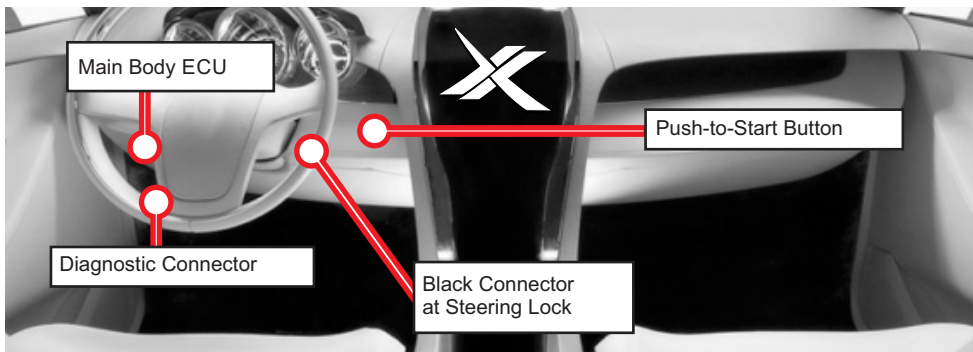
(G78)
Body ECU
White 30-pin connector



(G24)
PTS Button
Black 10-pin connector



Locating Components in the Vehicle



Module Programming

 Refer to the LED Diagnostics section for more information and for troubleshooting purposes.

Important

Make all the required connections to the vehicle, as described in the wiring diagram(s) found in this guide, and double check to ensure everything is correct prior to moving onto the next step.

 **Warning!** To take advantage of advanced features, you must use XpressVIP 4.5 (and higher) or the Directechs Mobile app.

Flashing a module using your computer:

1. Connect the interface module to your computer using the XKLoader2.
2. Go to www.directechs.com using Internet Explorer, and select the **Flash Module** button.
3. Follow the instructions to select your vehicle, installation type, and configure your options.
4. Once you have configured the firmware options, click on the **FLASH** button.

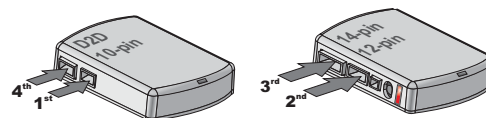
Flashing a module using your smartphone or tablet

1. Connect the interface module to your XKLoader3.
2. Launch the Directechs Mobile app on your smartphone or tablet.
3. Select **FLASH YOUR MODULE** and follow the on screen instructions.

When the flashing operation is successful, you can proceed with the programming instructions below.

D2D Installation

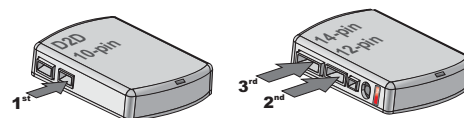
If required for your installation, connect the 10-pin, 12-pin and 14-pin harnesses to the module, then connect the 4-pin D2D harness.



OR

W2W Installation

If required for your installation, connect the 10-pin and 12-pin harnesses to the module, then connect the 14-pin harness to the module.



- 1** Wait until the LED turns ON solid red.



Solid

- 2** Wait 4 seconds before turning the ignition ON.
The LED flashes orange if the OEM remote starter is detected.
(See page 3 for more information)



Flashes

- 3** Press the Push-to-Start (PTS) button twice to turn the ignition ON.
The green LED turns ON for 3 seconds and shuts OFF.



- 4** If the LED flashes orange, press the programming button 5 times.
The LED turns solid orange for 3 seconds: the programming is done.
Otherwise proceed to the next step.



- 5** Press the PTS button once more to turn the ignition OFF.



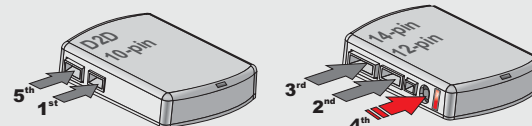
You have successfully completed the module programming sequence.

Module Reset

A module reset will only erase programming performed in the previous steps. All settings (firmware) and settings flashed to the module using the web config tool will not be affected.

D2D Installation

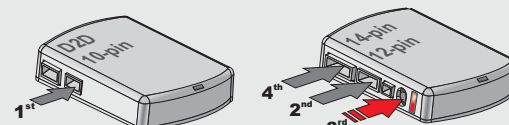
If required for your installation, connect the 10-pin, 12-pin & 14-pin harnesses to the module. Press and hold the programming button, then connect the 4-pin D2D harness.



1 **OR**

W2W Installation

If required for your installation, connect the 10-pin & 12-pin harnesses to the module. Press and hold the programming button, then connect the 14-pin harness to the module.



2

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



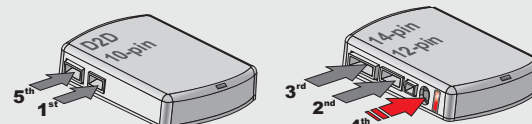
Hard Reset

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 (such as RFTD and D2D options) may have to be reconfigured. See the **Feature & Option List** section of this guide.

D2D Installation

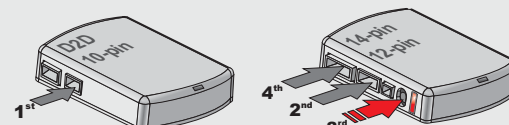
If required for your installation, connect the 10-pin, 12-pin & 14-pin harnesses to the module. Press and hold the programming button, then connect the 4-pin D2D harness.



1 **OR**

W2W Installation

If required for your installation, connect the 10-pin & 12-pin harnesses to the module. Press and hold the programming button, then connect the 14-pin harness to the module.



2

Wait 3 seconds until the LED turns ON solid orange, and wait 10 more seconds until the LED starts to flash orange and red.



3

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



Feature and Option List

It is recommended to configure all the features and options listed below using the configuration tool found on the module flashing page on www.directechs.com. The web offers more options; however, manual configuration of the features is possible using the information on this page.

* Default Option

Feat.	Operation	Flashes/Option	Description
1	RF Output	1. No RF Output*	Module is connected to a remote starter using a standard installation.
		2. RFTD Output	Module is connected to an XL202 using an RSR or RXT installation (when available).
		3. SmartStart	Module is connected to SmartStart using an RSR or RXT installation (when available).
2	Unlock Driver Priority	1. Driver priority*	Unlocks only the driver door on first press and unlocks all doors on a second press within 5 seconds.
		2. All	Unlocks all doors on first press.
3	Smart OEM Alarm Control	1. Disabled	The OEM alarm will not be controlled by the interface upon remote start. No disarm or arm command will be executed at the beginning or end of the sequence; it must be controlled by the Remote Starter.
		2. Safelock	Smart OEM Alarm Control will behave like a standard Safelock feature on a remote starter. It will unlock at the beginning of the sequence, and relock after start and shutdown.
		3. Enabled*	Smart OEM Alarm Control will synchronize with the OEM alarm so that it will disarm and rearm the vehicle in the remote start sequence, only when required. Smart OEM Alarm Control will monitor the alarm and door lock status to detect if the disarm or rearm is required. If the vehicle is unlocked or is not equipped with factory alarm, the disarm/rearm will not be executed.

Feature Programming

Programming
Button



To enter feature programming routine

- Turn the ignition ON, then OFF.
- **Within 5 seconds**, press and HOLD the programming button until the LED turns ON orange (after 3 seconds). Release the Programming button.
- The LED will flash green once slowly to indicate the feature number is 1. After a short delay, the LED flashes red rapidly to indicate the current option of feature 1 (i.e. 1x green followed by 1x red indicates feature 1 is set to option 1). The flashing sequence will repeat until a new command is entered.

Changing feature options

- Press the lock/arm or unlock/disarm button on aftermarket transmitter to change the option of the selected feature.
- The LED flashes red rapidly the number of times equal to the current option number. After a short delay, the LED flashes green slowly the number of times to indicate the current feature. The flashing sequence will repeat until a new command is entered.

Accessing another feature

- Press and release the programming button a number of times to advance from the current feature to the next desired feature.
- The LED flashes green slowly the number of times equal to the feature number. After a short delay, the LED flashes red rapidly to indicate the current option of the current feature. The flashing sequence will repeat until a new command is entered.

When the maximum number of features or options is reached, the LED will start flashing again from the first feature or option.

Once a feature is programmed

- Other features can be programmed.
- The feature programming can be exited.

Exiting feature programming

- No activity for 30 seconds; after 30 seconds, the LED will turn ON orange for 2 seconds to confirm the end of the programming sequence.
OR
- Press and HOLD the programming button for 3 seconds. After 3 seconds, the LED will turn ON orange for 2 seconds to confirm the end of the programming sequence.

LED Diagnostics & Troubleshooting

LED	Status	Description	Troubleshooting
Module programming - Firmware specific			
 Off	Module has no power.	Make sure the D2D harness is connected, that the red wire tests as 12V, and the black wire tests as ground. If the 12 Volt is present, the module may be defective.	
 Solid red	Waiting to begin the programming sequence.	Make sure that all the connections are correct (see installation diagram).	
 Flashes orange	OEM remote starter detected.	If the user wants to use the module just as convenience he should skip bypass (press 5x programming button). If the user wants to use the module as a remote starter he should disconnect OEM remote starter and repeat the programming sequence.	
 Solid green x 3 secs	Module programmed successfully.	Normal operation	
 Solid orange x 3 secs	Module programmed successfully without bypass (convenience only).	Normal operation. OEM remote starter detected (convenience mode only). To have a remote starter feature, disconnect the OEM remote starter and repeat programming sequence doing a short reset.	
Module programming - Error codes			
 Flashes red x 5	ISO 1 not detected.	Yellow/Black wire did not detect the expected signal.	Refer to the wiring installation section to check the connections.
 Flashes red x 6	ISO 2 not detected.	Orange/Black wire did not detect the expected signal.	
External Module Synchronisation			
 Flashes red, red then orange x 10	OBDII feature not supported.	Diagnostic data bus not detected.	Some features are not supported by SmartStart. This can be caused by missing wire connections or module hardware limitation. Refer to the wiring installation section to check the connections.
Active ground while running			
 Flashes green	GROUND OUT ON (GWR) command received.	Otherwise, the Ground While Running (status) signal was lost or was never received by the module.	Commands can come from RF, D2D or W2W.
 Flashes red, red then orange	IGNITION ON command received.	Otherwise, the ignition signal was not received by the module.	In a W2W install, it will show only if the ignition input wire is used.
 Flashes green quickly	START ON command received.	Otherwise, the start signal was not received by the module.	
D2D and W2W commands			
 Flashes orange x 1	LOCK command received.	If the bypass module fails to flash, it means the module did not receive the signal.	Commands can come from RF, D2D or W2W.
 Flashes orange x 2	UNLOCK command received.		
 Flashes orange x 3	TRUNK command received.		

Limited One Year Consumer Warranty

For a period of ONE YEAR from the date of purchase of a Directed Electronics remote start or security product, Directed Electronics. ("DIRECTED") promises to the original purchaser, to repair or replace with a comparable reconditioned piece, the security or remote start accessory piece (hereinafter the "Part"), which proves to be defective in workmanship or material under normal use, provided the following conditions are met: the Part was purchased from an authorized DIRECTED dealer; and the Part is returned to DIRECTED, postage prepaid, along with a clear, legible copy of the receipt or bill of sale bearing the following information: consumer's name, address, telephone number, the authorized licensed dealer's name and complete product and Part description.

This warranty is nontransferable and is automatically void if the Part has been modified or used in a manner contrary to its intended purpose or the Part has been damaged by accident, unreasonable use, neglect, improper service, installation or other causes not arising out of defect in materials or construction.

TO THE MAXIMUM EXTENT ALLOWED BY LAW, EXCEPT AS STATED ABOVE, ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF NONINFRINGEMENT 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 HEREBY DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING DEALERS OR INSTALLERS. DIRECTED IS NOT OFFERING A GUARANTEE OR INSURANCE AGAINST VANDALISM, DAMAGE, OR THEFT OF THE AUTOMOBILE, ITS PARTS OR CONTENTS, AND DIRECTED HEREBY DISCLAIMS ANY LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, LIABILITY FOR THEFT, DAMAGE, OR VANDALISM. IN THE EVENT OF A CLAIM OR A DISPUTE INVOLVING DIRECTED OR ITS SUBSIDIARY, THE PROPER 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 PART. DIRECTED SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, 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 AT DIRECTED'S OPTION THE PART AS DESCRIBED ABOVE.

This warranty only covers Parts sold within the United States of America and Canada. Parts sold outside of the United States of America or Canada are sold "AS-IS" and shall have NO WARRANTY, express or implied. 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. DIRECTED does not and has not authorized any person or entity to create for it any other obligation, promise, duty or obligation in connection with this Part. For further details relating to warranty information of Directed products, please visit the support section of DIRECTED's website at: www.directed.com

920-10012-01 2013-07

This Interface kit / Data Bus Interface part has been tested on the listed vehicles. Other vehicles will be added to the select vehicle list upon completion of compatibility testing. Visit website for latest vehicle application guide. **DISCLAIMER:** Under no circumstances shall the manufacturer or the distributors of the bypass kit / data bus interface part(s) be held liable for any consequential damages sustained in connection with the part(s) installation. The manufacturer and its distributors will not, nor will they authorize any representative or any other individual to assume obligation or liability in relation to the interface kit / data bus interface part(s) other than its replacement. **N.B.:** Under no circumstances shall the manufacturer and distributors of this product be liable for consequential damages sustained in connection with this product and neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than the replacement of this product only.

Protected by U.S. Patents: 5,719,551; 6,011,460 B1 *; 6,243,004 B1; 6,249,216 B1; 6,275,147 B1; 6,297,731 B1; 6,346,876 B1; 6,392,534 B1; 6,529,124 B2; 6,696,927 B2; 6,756,885 B1; 6,756,886 B2; 6,771,167 B1; 6,812,829 B1; 6,924,750 B1; 7,010,402 B1; 7,015,830 B1; 7,031,826 B1; 7,046,126 B1; 7,061,137 B1; 7,068,153 B1; 7,205,679 B1; Cdn. Patent: 2,320,248; 2,414,991; 2,415,011; 2,415,023; 2,415,027; 2,415,038; 2,415,041; 2,420,947; 2,426,670; 2,454,089; European Patent: 1,053,128; Pat. Pending: 2,291,306. Made in Canada.

Vehicle Takeover

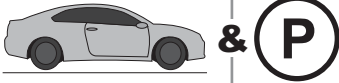
Note: There is no vehicle takeover in this firmware. The vehicle will shut down as soon as a door is opened.

Pit Stop Mode

The Pit Stop Mode feature is practical when you need to stop and run an errand, but wish to keep the engine running.

1

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



Stop & put vehicle in Park (P)

2

Press the button to remote start the vehicle.*

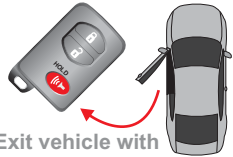


Press remote start button*

3

It is now safe to leave the engine running and exit the vehicle with the Smart Key in hand.

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



Exit vehicle with Smart Key

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

List of Available Commands

Note that the information below is for Viper, Clifford and Python models. Icons and commands may differ depending on the remote brand and model purchased. Refer to your authorized installation center for more 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.
	Press & hold for 5 seconds to activate the trunk release (optional).
 x1 + 	Press  once, then  to activate the right sliding door.
 x3 + 	Press  3 times, then  to activate the left sliding door.
 x1 + 	Press  once, then  to reset the remote starter runtime.