



Update Alert: Firmware updates are posted to 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

Data override and door lock interface compatible with specific Ford vehicles. Some of the available features include: transponder override, door lock control, factory security control, trunk release, tach sensing, as well as door, hood and trunk sensing.

The optional Plug & Play T-Harness **THFD1** (sold separately) provides simpler and faster installation.

Two (2) key required for module programming.



Remote Start Ready (RSR) is a function that enables the interface module to remote start the vehicle completely on its own. Consequently, there is no need for an aftermarket or an OEM remote starter in order to start the vehicle from a distance.



Important!

This product is NOT compatible with vehicles equipped with a manual transmission.



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SmartStart Compatible

SmartStart is equipped with D2D, which means it can be connected to an interface module and used in Remote Start Ready (RSR) mode without the use of a remote starter. See the **Module Programming** section for more information.

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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	2015	2014	2013	2012	2011	PK-Immobilizer Bypass-Data No Key Req'd	DL-Arm Factory Security	DL-Disarm Factory Security	DL-Door Lock Control	DL-Door Unlock	DL-Trunk / Hatch Release	Key2GO	RS-RAP Shut Down (Retained ACC Power)	RS-Remote Start Ready	RS-SmartStart	RS-SmartStart 3.0 Compatible	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-Door Locks Status
	Ford																						
Edge (SA Key)		2	2	2	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Escape				1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Escape Hybrid				1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
E-Series (SA Key)		1				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Expedition (SA Key) [1]		1	1	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Explorer (SA Key)	2	2	2	2	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
F150 (SA Key)		1	1	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
F250 (SA Key)	1	1	1	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
F350 (SA Key)	1	1	1	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
F450 (SA Key)		1	1	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Flex (SA Key)		1	1	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fusion (SA Key)				1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fusion (SA Key)					1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mustang			1			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mustang (SA Key)		1	1			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Taurus (SA Key)		1	1			.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lincoln																							
Navigator (SA Key)		1				.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

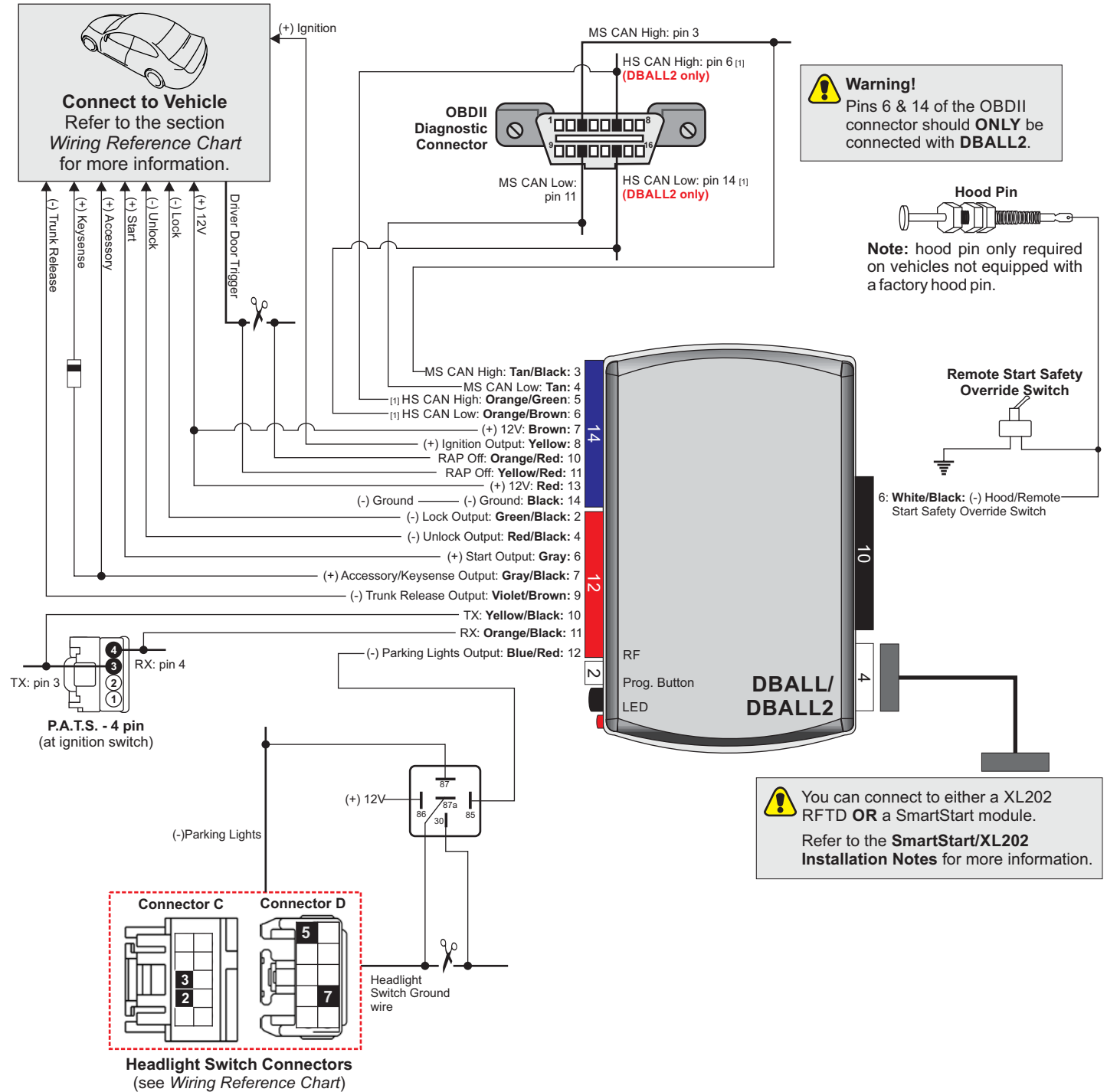
[1] Ford Expedition 2011-2014 is NOT compatible with optional T-Harness THFD1.

Legend:

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

Type 1 without T-Harness

Important! The Hood Pin and Remote Start Safety Override Switch are mandatory safety devices, but are NOT supplied with the DBALL.

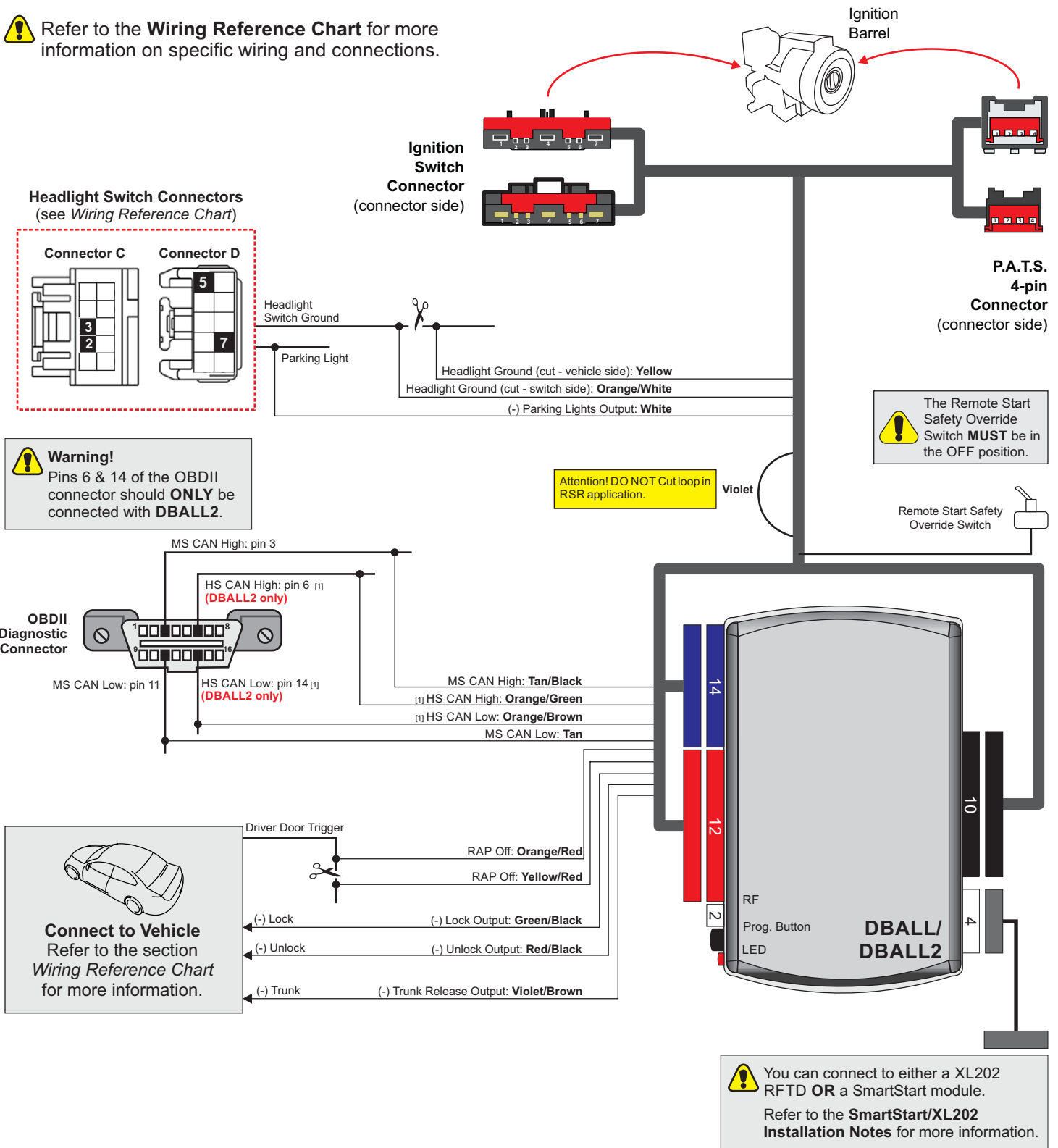


^[1] DBALL2 Only.

! With the exception of the OBDII Diagnostic connector, all adapters are displayed from the wire side (unless specified otherwise).

Type 1 with T-Harness^[2] (THFD1)

Warning! Refer to the **Wiring Reference Chart** for more information on specific wiring and connections.



[1] DBALL2 Only.

[2] T-Harness is NOT compatible with **Ford Expedition** 2011-2014.

Warning! With the exception of the OBDII Diagnostic connector, all adapters are displayed from the wire side (unless specified otherwise).

Type 1 - Vehicle Wiring Reference Chart

Vehicle	Wire Information				Connector Information		
	Function	Color	Pin	Polarity	Location	Color	No. Pin
Ford E-Series 2011-2014	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	14	Open to N.C	BCM/SJB under driver dash.	Gray	26-pin
	Trunk/Hatch Release	N/A	N/A	N/A	N/A	N/A	N/A
	Power Liftgate	N/A	N/A	N/A	N/A	N/A	N/A
	Lock	Gray/Yellow	17	Negative	BCM/SJB under driver dash.	Gray	26-pin
	Unlock	Violet/Gray	4	Negative	BCM/SJB under driver dash.	Gray	26-pin
	Start	Blue/White	5	Positive	Ignition switch	Gray	13-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Gray	13-pin
	Accessory	Brown/Yellow	8	Positive	Ignition switch	Gray	13-pin
	Keysense	Blue/Gray	10	Negative	Key Switch	Gray	10-pin
	Headlight Switch Ground	Black/Blue	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Gray	2	Negative	Headlight switch	Gray	10-pin
	RX	Violet/Gray	3	Data	P.A.T.S. connector at ignition switch.	Green	4-pin
TX	Yellow/Orange	4	Data	P.A.T.S. connector at ignition switch.	Green	4-pin	
(+)12V	Blue/Red or Green/Red	2	Positive	Ignition switch	Gray	13-pin	
Ford Escape SA Key 2011-2012	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	14	Open to N.C	BCM/SJB front passenger side of the center console.	Gray	26-pin
	Trunk/Hatch Release	Brown	7	Negative	BCM/SJB front passenger side of the center console.	Gray	26-pin
	Power Liftgate	N/A	N/A	N/A	N/A	N/A	N/A
	Lock	Blue/Green	17	Negative	BCM/SJB front passenger side of the center console.	Gray	26-pin
	Unlock	Yellow/Violet	4	Negative	BCM/SJB front passenger side of the center console.	Gray	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black/Blue	7	Negative	Headlight switch	Gray	10-pin
	Parking Light	Blue/Gray	5	Negative	Headlight switch	Gray	10-pin
	RX	Violet/Gray	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
TX	Yellow/Orange	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
(+)12V	Blue/Red	4	Positive	Ignition switch	Black	7-pin	
Ford Expedition SA Key 2011-2014	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	14	Open to N.C	BCM/SJB in passenger kick panel.	Gray	26-pin
	Trunk/Hatch Release	Brown	7	Negative	BCM/SJB in passenger kick panel.	Gray	26-pin
	Power Liftgate	Gray/Yellow	7	Negative	Power liftgate switch.	Black	8-pin
	Lock	White/Brown	17	Negative	BCM/SJB in passenger kick panel.	Gray	26-pin
	Unlock	Blue/Brown	4	Negative	BCM/SJB in passenger kick panel.	Gray	26-pin
	Start	Blue/White	10	Positive	Ignition switch	Gray	10-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Gray	10-pin
	Accessory	Brown/Yellow	7	Positive	Ignition switch	Gray	10-pin
	Keysense	Blue/Gray	3	Positive	Ignition switch	Gray	10-pin
	Headlight Switch Ground	Black/White	7	Negative	Headlight switch	Gray	10-pin
	Parking Light	Blue/Gray	5	Negative	Headlight switch	Gray	10-pin
	RX	Blue/Gray	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
TX	Violet/Brown	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
(+)12V	Blue/Red	9	Positive	Ignition switch	Gray	10-pin	

Type 1 - Vehicle Wiring Reference Chart (continued)

Vehicle	Wire Information				Connector Information		
	Function	Color	Pin	Polarity	Location	Color	No. Pin
Ford F150 SA Key 2011-2014	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	9	Open to N.C	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Trunk/Hatch Release	N/A	N/A	N/A	N/A	N/A	N/A
	Power Liftgate	N/A	N/A	N/A	N/A	N/A	N/A
	Lock	Blue/Green	6	Negative	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Unlock	Yellow/Violet	8	Negative	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Gray	2	Negative	Headlight switch	Gray	10-pin
RX	Violet/Gray	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
TX	Yellow/Orange	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
(+)12V	Green/Red	4	Positive	Ignition switch	Black	7-pin	
Ford F250 SA Key 2011-2015	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	9	Open to N.C	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Trunk/Hatch Release	N/A	N/A	N/A	N/A	N/A	N/A
	Power Liftgate	N/A	N/A	N/A	N/A	N/A	N/A
	Lock	Blue/Green	6	Negative	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Unlock	Yellow/Violet	8	Negative	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black/Gray	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Yellow/Orange	2	Negative	Headlight switch	Gray	10-pin
RX	Yellow/Orange	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
TX	Violet/Gray	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
(+)12V	Green/Red or Blue/Red	4	Positive	Ignition switch	Black	7-pin	
Ford F350 SA Key 2011-2015	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	9	Open to N.C	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Trunk/Hatch Release	N/A	N/A	N/A	N/A	N/A	N/A
	Power Liftgate	N/A	N/A	N/A	N/A	N/A	N/A
	Lock	Blue/Green	6	Negative	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Unlock	Yellow/Violet	8	Negative	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black/Gray	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Yellow/Orange	2	Negative	Headlight switch	Gray	10-pin
RX	Yellow/Orange	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
TX	Violet/Gray	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
(+)12V	Green/Red or Blue/Red	4	Positive	Ignition switch	Black	7-pin	
Ford F450 SA Key 2011-2014	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	9	Open to N.C	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Trunk/Hatch Release	N/A	N/A	N/A	N/A	N/A	N/A
	Power Liftgate	N/A	N/A	N/A	N/A	N/A	N/A
	Lock	Blue/Green	6	Negative	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Unlock	Yellow/Violet	8	Negative	BCM/SJB in passenger kick panel or at driver kick panel harness.	Black	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black/Gray	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Yellow/Orange	2	Negative	Headlight switch	Gray	10-pin
RX	Yellow/Orange	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
TX	Violet/Gray	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
(+)12V	Green/Red or Blue/Red	4	Positive	Ignition switch	Black	7-pin	

Type 1 - Vehicle Wiring Reference Chart (continued)

Vehicle	Wire Information				Connector Information		
	Function	Color	Pin	Polarity	Location	Color	No. Pin
Ford Flex SA Key 2011-2012	MS CAN High	Gray/Orange	3	Data	OBDI diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDI diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDI diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDI diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	14	Open to N.C	BCMSJB under driver dash.	Gray	26-pin
	Trunk/Hatch Release	Brown	7	Negative	BCMSJB under driver dash.	Gray	26-pin
	Power Liftgate	Gray/Yellow	6	Negative	Power liftgate switch.	Black	6-pin
	Lock	Blue/Green	17	Negative	BCMSJB under driver dash.	Gray	26-pin
	Unlock	Yellow/Violet	4	Negative	BCMSJB under driver dash.	Gray	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black/Blue	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Gray	2	Negative	Headlight switch	Gray	10-pin
	RX	Violet/Gray	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
	TX	Yellow/Orange	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
(+)12V	Blue/Red	4	Positive	Ignition switch	Black	7-pin	
Ford Flex SA Key 2013-2014	MS CAN High	Gray/Orange	3	Data	OBDI diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDI diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDI diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDI diagnostic connector.	Black	16-pin
	Driver Door Trigger	Violet	9	Open to N.C	BCMSJB under driver dash.	Black	26-pin
	Trunk/Hatch Release	Brown	23	Negative	BCMSJB under driver dash.	Black	26-pin
	Power Liftgate	Gray	6	Negative	Power liftgate switch.	Brown	6-pin
	Lock	Blue	6	Negative	BCMSJB under driver dash.	Black	26-pin
	Unlock	Yellow	8	Negative	BCMSJB under driver dash.	Black	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black/Blue	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Gray	2	Negative	Headlight switch	Gray	10-pin
	RX	Violet	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
	TX	Yellow	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
(+)12V	Red	6	Positive	BCMSJB under driver dash.	White	32-pin	
Ford Fusion SA Key 2011-2012	MS CAN High	Gray/Orange	3	Data	OBDI diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDI diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDI diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDI diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	14	Open to N.C	BCMSJB under driver dash.	Gray	26-pin
	Trunk/Hatch Release	Brown/Yellow	20	Negative	BCMSJB under driver dash.	Gray	26-pin
	Power Liftgate	N/A	N/A	N/A	N/A	N/A	N/A
	Lock	Blue/Green	17	Negative	BCMSJB under driver dash.	Gray	26-pin
	Unlock	Yellow/Violet	4	Negative	BCMSJB under driver dash.	Gray	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black/Violet	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Gray	2	Negative	Headlight switch	Gray	10-pin
	RX	Yellow/Orange	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
	TX	Violet/Gray	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
(+)12V	Blue/Red	4	Positive	Ignition switch	Black	7-pin	

Type 1 - Vehicle Wiring Reference Chart (continued)

Vehicle	Wire Information				Connector Information		
	Function	Color	Pin	Polarity	Location	Color	No. Pin
Ford Mustang SA Key 2013-2014	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	14	Open to N.C	BCMSJB in passenger kick panel or at driver kick panel harness.	Gray	26-pin
	Trunk/Hatch Release	Brown/Yellow or Brown/Violet	20	Negative	BCMSJB in passenger kick panel or at driver kick panel harness.	Gray	26-pin
	Power Liftgate	N/A	N/A	N/A	N/A	N/A	N/A
	Lock	Blue/Green	17	Negative	BCMSJB in passenger kick panel or at driver kick panel harness.	Gray	26-pin
	Unlock	Yellow/Violet	4	Negative	BCMSJB in passenger kick panel or at driver kick panel harness.	Gray	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	Gray/Violet	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black/Violet	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Gray	2	Negative	Headlight switch	Gray	10-pin
	RX	Yellow/Orange	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
TX	Violet/Gray	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
(+)12V	Blue/Red	4	Positive	Ignition switch	Black	7-pin	
Ford Taurus 2013-2014	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	9	Open to N.C	BCMSJB under driver dash.	Black	26-pin
	Trunk/Hatch Release	Brown/Yellow	23 or 4	Negative	BCMSJB under driver dash.	Black	26-pin
	Power Liftgate	N/A	N/A	N/A	N/A	N/A	N/A
	Lock	Blue/Green	6	Negative	BCMSJB under driver dash.	Black	26-pin
	Unlock	Yellow/Violet	8	Negative	BCMSJB under driver dash.	Black	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Headlight Switch Ground	Black/White	3	Negative	Headlight switch	Gray	10-pin
	Parking Light	Gray	2	Negative	Headlight switch	Gray	10-pin
	RX	Violet/Gray	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
TX	Yellow/Orange	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin	
(+)12V	Red	6	Positive	BCMSJB under driver dash.	White	32-pin	

Type 1 - Vehicle Wiring Reference Chart (continued)

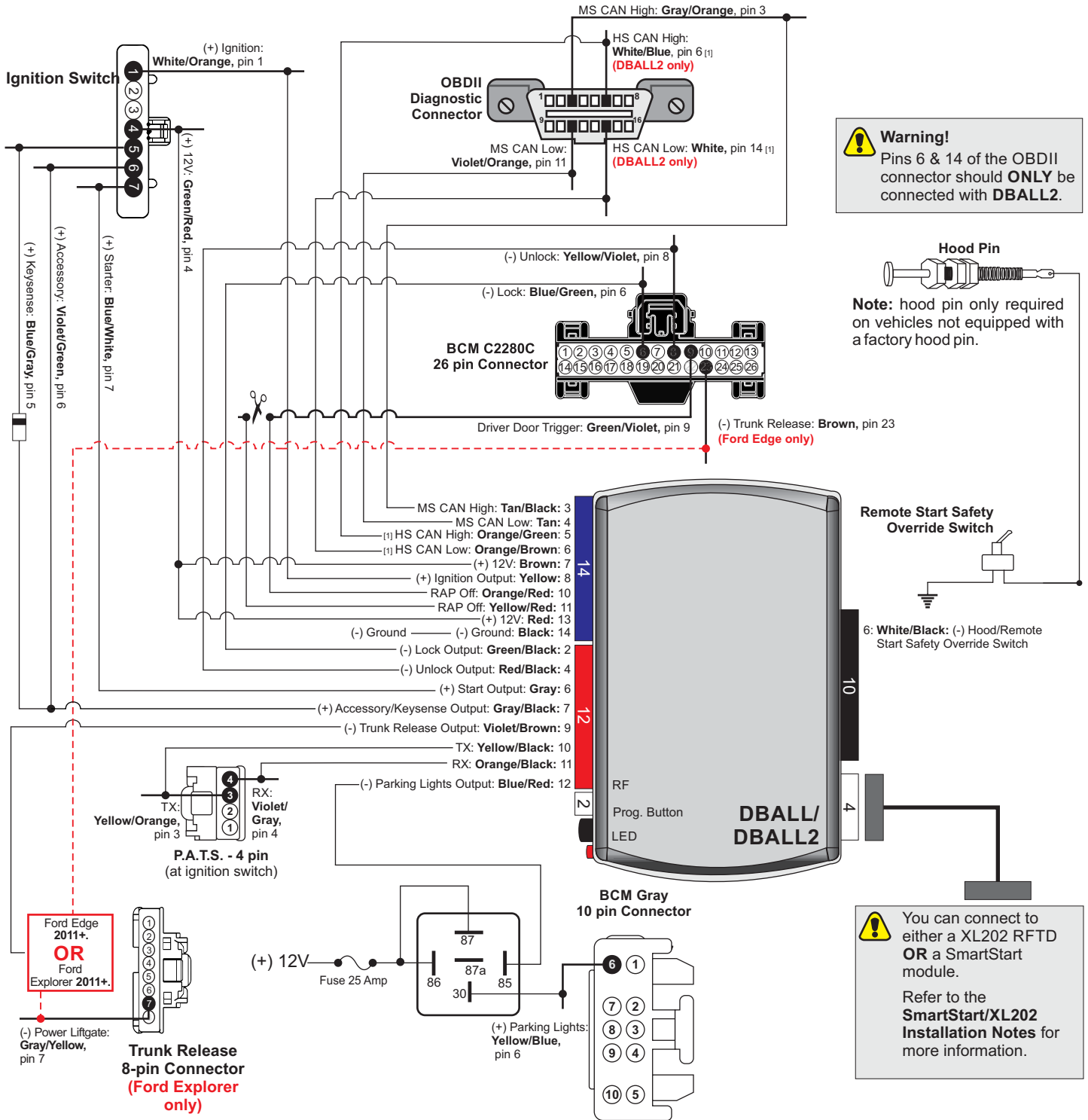
Vehicle	Wire Information				Connector Information		
	Function	Color	Pin	Polarity	Location	Color	No. Pin
Lincoln Navigator 2014	MS CAN High	Gray/Orange	3	Data	OBDII Diagnostic Connector	Black	16
	MS CAN Low	Violet/Orange	11	Data	OBDII Diagnostic Connector	Black	16
	HS CAN High	White/Blue	6	Data	OBDII Diagnostic Connector	Black	16
	HS CAN Low	White	14	Data	OBDII Diagnostic Connector	Black	16
	Driver Door Trigger	Green/Violet	14	Open to N	BCM/SJB in passenger kick	Gray	26
	Trunk/Hatch Release	Brown	7	Negative	BCM/SJB in passenger kick	Gray	26
	Power Liftgate	Gray/Yellow	7	Negative	Power liftgate switch	Black	8
	Lock	White/Brown	17	Negative	SJB in passenger kick	Gray	26
	Unlock	Blue/Brown	4	Negative	SJB in passenger kick	Gray	26
	Start	Blue/White	10	Positive	Ignition Switch	Gray	10
	Ignition	White/Orange	1	Positive	Ignition Switch	Gray	10
	Accessory	Brown/Yellow	7	Positive	Ignition Switch	Gray	10
	Accessory 2	Violet/Green	5	Positive	Ignition Switch	Gray	10
	Keysense	Blue/Gray	3	Positive	Ignition Switch	Gray	10
	Headlight Switch Ground	Black/White	7	Negative	Headlight Switch	Gray	10
	Parking Lights	Blue/Gray	5	Negative	Headlight Switch	Gray	10
	RX	Blue/Gray	4	Data	PATS connector at ignition switch	Black	4
	TX	Violet/Brown	3	Data	PATS connector at ignition switch	Black	4
(+) 12V	Blue/Red	9	Positive	Ignition Switch	Gray	10	

Type 2 without T-Harness



Important!

The Hood Pin and Remote Start Safety Override Switch are mandatory safety devices, but are NOT supplied with the DBALL.



Warning!
 Pins 6 & 14 of the OBDII connector should **ONLY** be connected with **DBALL2**.

Hood Pin
Note: hood pin only required on vehicles not equipped with a factory hood pin.

Remote Start Safety Override Switch
 6: White/Black: (-) Hood/Remote Start Safety Override Switch

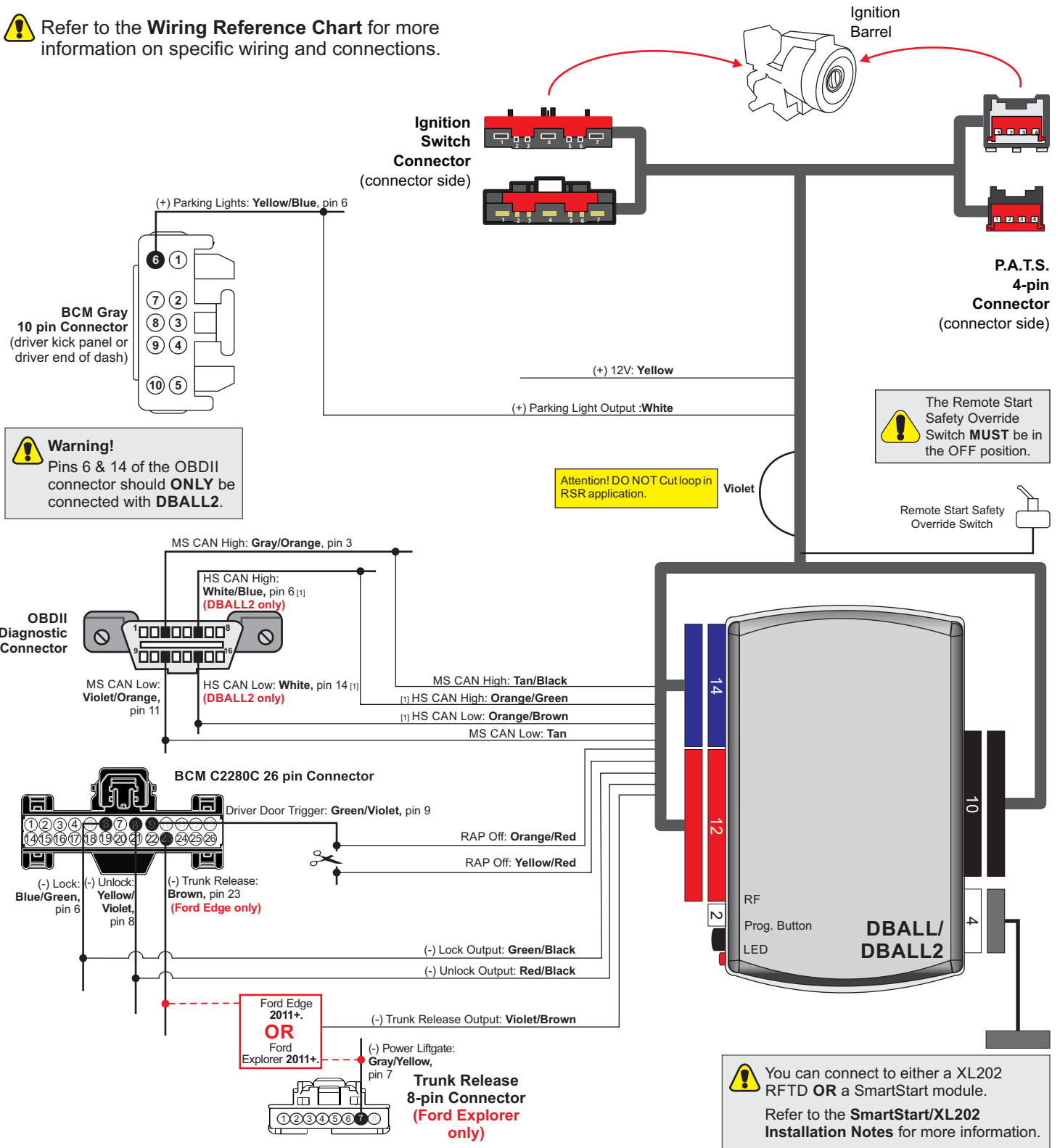
Warning!
 You can connect to either a XL202 RFTD **OR** a SmartStart module.
 Refer to the **SmartStart/XL202 Installation Notes** for more information.

[1] DBALL2 Only.

Warning! With the exception of the OBDII Diagnostic connector, all adapters are displayed from the wire side (unless specified otherwise).

Type 2 with T-Harness (THFD1)

Warning! Refer to the **Wiring Reference Chart** for more information on specific wiring and connections.



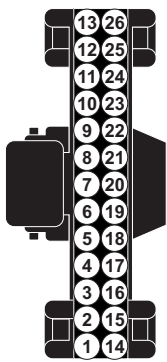
[1] DBALL2 Only.

Warning! With the exception of the OBDII Diagnostic connector, all adapters are displayed from the wire side (unless specified otherwise).

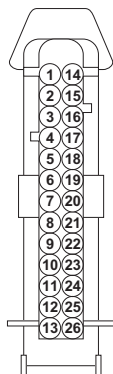
Type 2 - Vehicle Wiring Reference Chart

Vehicle	Wire Information				Connector Information		
	Function	Color	Pin	Polarity	Location	Color	No. Pin
Ford Explorer SA Key 2011-2015	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	9	Open to N.C	BCM/SJB under driver dash.	Black	26-pin
	Trunk/Hatch Release	Brown	23	Negative	BCM/SJB under driver dash.	Black	26-pin
	Power Liftgate	Gray/Yellow	7	Negative	Power liftgate switch.	Black	8-pin
	Lock	Blue/Green	6	Negative	BCM/SJB under driver dash.	Black	26-pin
	Unlock	Yellow/Violet	8	Negative	BCM/SJB under driver dash.	Black	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Parking Lights	Yellow/Blue	6	Positive	BCM/SJB under driver dash.	Black	10-pin
	RX	Violet/Red or Violet	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
	TX	Yellow/Orange or Yellow	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
(+12V)		Green/Red	4	Positive	Ignition switch	Black	7-pin
Ford Edge SA Key 2011-2014	MS CAN High	Gray/Orange	3	Data	OBDII diagnostic connector.	Black	16-pin
	MS CAN Low	Violet/Orange	11	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN High	White/Blue	6	Data	OBDII diagnostic connector.	Black	16-pin
	HS CAN Low	White	14	Data	OBDII diagnostic connector.	Black	16-pin
	Driver Door Trigger	Green/Violet	9	Open to N.C	BCM/SJB in driver kick panel.	Black	26-pin
	Trunk/Hatch Release	Brown	23	Negative	BCM/SJB in driver kick panel.	Black	26-pin
	Power Liftgate	Gray/Yellow	6	Negative	BCM/SJB in driver kick panel or Power liftgate switch.	Black	6-pin
	Lock	Blue/Green	6	Negative	BCM/SJB in driver kick panel.	Black	26-pin
	Unlock	Yellow/Violet	8	Negative	BCM/SJB in driver kick panel.	Black	26-pin
	Start	Blue/White	7	Positive	Ignition switch	Black	7-pin
	Ignition	White/Orange	1	Positive	Ignition switch	Black	7-pin
	Accessory	Violet/Green	6	Positive	Ignition switch	Black	7-pin
	Keysense	Blue/Gray	5	Positive	Ignition switch	Black	7-pin
	Parking Lights	Yellow/Blue	6	Positive	BCM/SJB under driver dash.	Black	10-pin
	RX	Violet/Gray	4	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
	TX	Yellow/Orange	3	Data	P.A.T.S. connector at ignition switch.	Black	4-pin
(+12V)	Green/Red	4	Positive	Ignition switch	Black	7-pin	

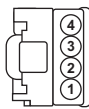
BCM C2280C
26 pin Connector



BCM/SJB
Gray 26 pin



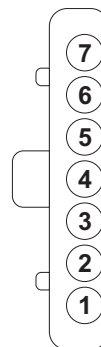
P.A.T.S. - 4 pin
(at ignition switch)



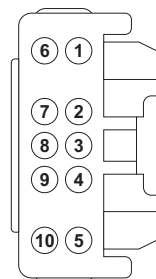
OBDII Diagnostic Connector



Ignition Switch
Black 7 pin



BCM Gray
10 pin Connector

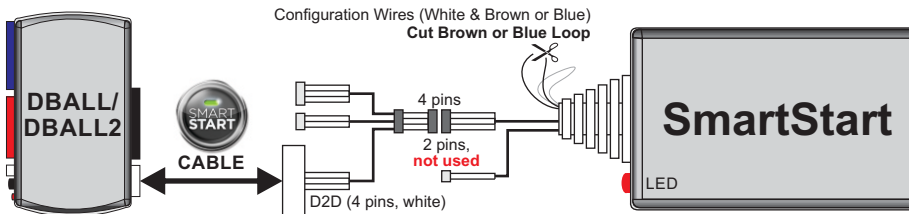


SmartStart/XL202 Installation Notes

The DBALL Remote Start Ready (RSR) solution offers two (2) configuration options to control your system: RF Kit or SmartStart (both sold separately). This section provides specific installation information for SmartStart and XL202.

SmartStart Revision A

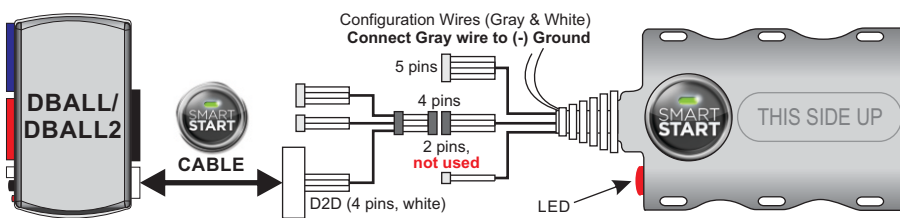
SmartStart is **optional** and not included. It **MUST** be purchased separately.



! The modules must be connected in a specific order. Refer to the **Module Programming** section for more information.

SmartStart Revision B

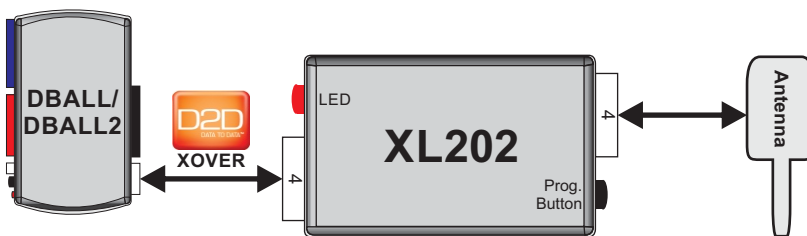
SmartStart is **optional** and not included. It **MUST** be purchased separately.



! The modules must be connected in a specific order. Refer to the **Module Programming** section for more information.

RF Kit

The **optional** XL202 and antenna are not included and **MUST** be purchased separately.



- !**
1. Use the D2D Crossover (XOVER) cable that is provided with XL202, and **NOT** the one in the DBALL package.
 2. The modules must be connected in a specific order. Refer to the **Module Programming** section for more information.


RF Kit & PKE Combination

Refer to the Passive Keyless Entry (PKE) Installation Guide (N2102T) for detailed wiring information.

RF Kit, PKE & SmartStart BT Combination

Refer to the Passive Keyless Entry (PKE) Installation Guide (N2102T) for detailed wiring information.


Module Programming

 Refer to the LED Diagnostics section 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.

Note: Before connecting either the XL202 or SmartStart module to DBALL, it is important to ensure that the proper feature and function programming is selected using XpressVIP (version 4.5 or higher). Visit www.directechs.com to download the latest version of the application.

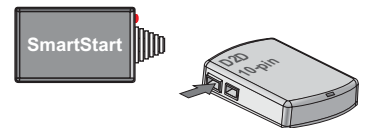
 **Warning!** To take advantage of advanced features, you must use XpressVIP 4.5 or higher. Using version 2.9 or 3.1 will limit available functions and features.

1. Connect the interface module to your computer using the **XKLoader**.
2. Open an Internet Explorer browser (version 6 or higher), and go to www.directechs.com. The detail of the platform and firmware that is currently saved on the interface module will be indicated in the top right corner of the page.
3. Select the **year, make and model** of the vehicle; the page will refresh to display the compatible firmware.
4. In the search result page, select **Config for RSR**, and follow the instructions provided on the screen.
5. Once you have configured your options, click on the **FLASH** button to upload the firmware onto the interface module.
6. The following message will be displayed when the upload is completed:
"The flashing is successfully completed. You may now unplug the kit."
You can now proceed with the programming instructions below.

SmartStart Installation

 The DBALL module **must** be disconnected from any power source before SmartStart can be connected to it. Failing to do so could damage DBALL.

- a. To ensure that the D2D communication between SmartStart and DBALL works properly, the Gray wire must be connected to a ground source (**Rev B SmartStart**), and the Brown or Blue loop must be cut (**Rev A SmartStart**).
- b. Do **NOT** connect the 2-pin harness (on SmartStart). Power and ground will be provided by the DBALL D2D connector.

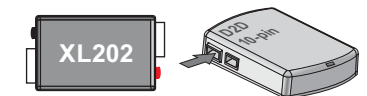


Connect SmartStart to DBALL using the D2D port.

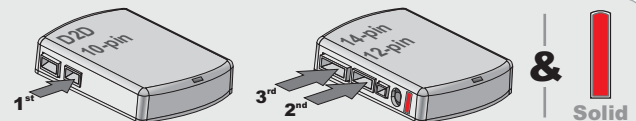
OR

XL202 Installation

Connect XL202 to DBALL using the D2D port.



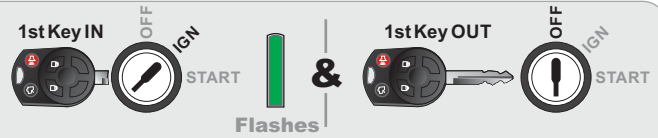
- 1 Connect the 10-pin, 12-pin and 14-pin harnesses to DBALL, then wait until the LED turns ON solid red.



Go to the next page to complete the module programming. 

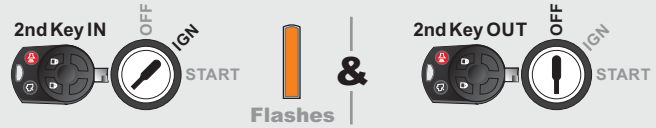
Module Programming - 2 Keys Required

- 2** Insert the **first** key, turn the key to the IGN position, the LED flashes green. Wait at least 3 seconds, but no more than 10 seconds, then remove it.



 **within 5 seconds:**

- 3** Insert the **second** key and turn it to the IGN position: the LED flashes orange. Wait at least 3 seconds but no more than 10 seconds, then turn the key off.



 **within 5 seconds:**

Press and HOLD the programming button.



The vehicle ignition will be triggered.

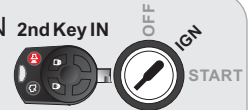
Release the Program button as soon as the Orange LED goes out. If you wait too long to release the programming button, you will have to start the programming over.

4

The LED turns ON solid green for 3 seconds, then turns OFF once the module has been successfully programmed.



Turn the key to the IGN position **again**. **Press and HOLD** the programming button.



4 The LED turns ON solid green for 3 seconds, then turns OFF once the module has been successfully programmed. Then the vehicle door lock will cycle.

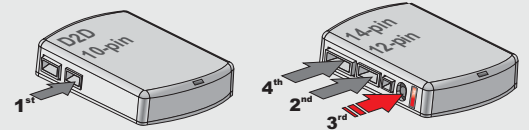


You have successfully completed the module programming sequence.

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.

- 1 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 turns ON solid red.

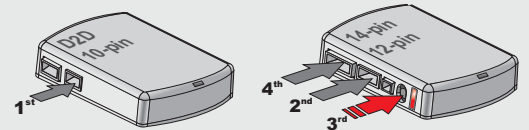


Hard Reset

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.

- 1 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 & 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/Options	Description
1	RFTD Output Type	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	Smart OEM Alarm Control	1. Disabled	The OEM alarm will not be controlled by DBALL 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. The reason for this is, factory alarm control must often be done by lock or unlock operation. This could create unnecessary actions on door lock modules, such as the horn to honk. When possible, 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. Smart OEM Alarm Control will also monitor the remote starter actions so that the factory alarm control is not done twice. A remote starter, for which the Safelock feature is active, will work perfectly with this option and will make it invisible to the user.
3	Transponder Ignition Disarm with Unlock:	1. Disabled (no Factory Alarm)	No disarm operation on unlock or trunk
		2. Enabled*	Will disarm vehicle by cycling the ignition before unlocking or opening Trunk

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			
 Off	Off	Module has no power.	Make sure the 4-pin D2D harness is connected or that the 12-Volt is present between the red and black wires. If the 12-Volt is present, the module may be defective.
 Solid	Solid red	Waiting for the completion of a programming sequence.	This can also mean there is an issue with the data bus wiring. Make sure that the connections to the data bus are correct by referring to the installation section.
 Solid x3 secs	Solid green for 3 seconds	Module successfully programmed.	Normal operation
 Flashes	Flashes green	Module successfully detected the CAN circuit.	Normal operation - Proceed to the next step in the programming sequence.
 Flashes	Flashes orange	Module successfully detected two (2) keys.	
Module Programming - Error Codes			
 Flashes x2	Flashes red x2	CAN not detected.	Check the Tan - Tan/Black wire connections. Wake up the data bus by turning the ignition on and try again. Some installation types do not need this connection. Skip by pressing the programming button 5 times.
 Flashes x3	Flashes red x3	Bypass data not detected.	Check the bypass line connection. Make sure that RX and TX are not inverted. Start vehicle using the key to confirm the OEM equipment is still operational.
 Flashes x4	Flashes red x4	Bypass processing error	Might be caused by a timeout. Make sure that you follow time constraints during programming. Can also be caused if the same key is used instead of using key1 and key2 or if the vehicle is locked for key learning (dealer scan tool required to unlock key learning).
External Module Synchronization			
 Flashes	Flashes red, red, then orange x10	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	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 or D2D.
 Flashes	Flashes red & orange	IGNITION ON command received.	Otherwise, the ignition signal was not received by the module.
 Flashes quickly	Flashes green quickly	START ON command received.	Otherwise, the start signal was not received by the module.

LED	Status	Description	Troubleshooting
D2D & W2W Commands			
 Flashes x1	Flashes orange x1	Lock command has been received	If the bypass module fails to flash, it means the module did not receive the signal. Commands can come from RF or D2D.
 Flashes x2	Flashes orange x2	Unlock command has been received	
 Flashes x3	Flashes orange x3	Trunk command has been received	
 Flashes x4	Flashes orange x4	AUX1 command has been received	
 Flashes x5	Flashes orange x5	AUX2 command has been received	

Parking Light Error Codes

The parking lights on your vehicle will flash a specific number of times 3 seconds following an unscheduled shutdown or failure to start. Each flashing pattern is described below.

Flashes	Diagnostic
1	Runtime expired.
2	Over-rev shutdown.
3	Low/No RPM.
4	Transmitter shutdown.
5	Brake shutdown.
6	Hood shutdown/Remote start safety override switch is ON*.
7	Remote start safety override switch is ON*.

* If the vehicle hood status is supported through data, safety override switch input will report 7 flashes.

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.

Quick Reference Guide

DBALL/DBALL2-FORD6 Remote Start Ready (RSR) Installation

Vehicle Takeover

- 1 Enter the vehicle, insert the key into the ignition barrel and turn it to the ON or IGN position.



- 2 Press the brake pedal, put the car in gear and drive off.



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).



- 2 Press the remote start button on the aftermarket transmitter*.



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

- 3 Turn the key to the OFF position and remove it from the ignition barrel. It is now safe to leave the engine running and exit the vehicle.



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

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

Parking Light Error Codes

The parking lights on your vehicle will flash a specific number of times 3 seconds following an unscheduled shutdown or failure to start. Each flashing pattern is described below.

Flashes	Diagnostic
1	Runtime expired.
2	Over-rev shutdown.
3	Low/No RPM.
4	Transmitter shutdown.
5	Brake shutdown.
6	Hood shutdown/Remote start safety override switch is ON*.
7	Remote start safety override switch is ON*.

* If the vehicle hood status is supported through data, safety override switch input will report 7 flashes.











Remote Start Ready (RSR)



Remote Start Ready (RSR) is a function that enables the interface module to remote start the vehicle completely on its own. Consequently, there is no need for an aftermarket or an OEM remote starter in order to start the vehicle from a distance.

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).
f x1 + 	Press f once, then  to activate the rear hatch/tail glass release (optional).*
f x3 + 	Press f 3 times, then  to activate the panic mode.
f x1 + 	Press f once, then  to reset the remote starter runtime.

* This output is configurable. see your authorized installation center for more information.

SmartStart Compatible



This system is compatible with Directed SmartStart 3.0. For a complete list of supported features, please visit www.mysmartstart.com.



What is SmartStart?

Now you can remote start, lock and unlock your car just by pushing a button on your smartphone; using the SmartStart App from Directed, the leader in vehicle security and remote start. The simple graphical interface gives you control over the following features of your installed remote start 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, home control, parked car finder and more.

3.0 enables a "Cloud-Connected Car" like never before, providing an entirely new level of 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
