**<u>Update Alert</u>**: 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**

This guide supports the installation of a DBALL in Remote Start Ready (RSR) mode with or without a Plug & Play (**TLTH2**) T-Harness (Optional). This solution offers three (3) configuration options to control your system; 3x OEM Lock Remote Start Activation, RF Kit or SmartStart (all sold separately).

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.



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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	2010	2009	PK-Immobilizer Bypass-Data No Key Req'd	AV-Auto Headlamp Shutoff	DL-Arm Factory Security	DL-Disarm Factory Security	DL-Door Lock Control	DL-Door Unlock	DL-Driver Priority Unlock	DL-Hatch Glass Release	DL-Sliding Door Control Driver	DL-Sliding Door Control Passenger	DL-Trunk / Hatch Release	EIPS	RS-3x LOCK START (Start control using OEM Remote)	RS-3x LOCK STOP (Stop control using OEM Remote)	RS-Remote Start Ready	RS-SmartStart	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	SS-Factory Alarm Trigger Monitoring	ST-Brake Status (foot brake)	ST-Ignition Status
Lexus																															
CT 200h (Smart Key)	3	3	3	3	3			٠	٠	٠	•	٠	•	•				•	•	٠	•	٠	•	•	•	•	٠	•	•	٠	•
GX 460 (Smart Key)	2	2	2	2	2	2		٠	٠	٠	•	٠	•	•	•				•	•	•	٠	•	•	•	•		•	•	٠	•
HS 250h (Smart Key)				3	3	3		•	٠	٠	•	٠	•	•				•	•	•	•	٠	•	٠	•	•	•	•	•	٠	•
RX 350 (Smart Key)	2	2	2	2	2	2		•	•	•	•	•	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•
RX 450h (Smart Key)	2	2	2	2	2	2		•	•	•	•	•	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•
Toyota	15	14	13	12	11	10	09							-		-								-		-			-		
4Runner (Smart Key)		2	2	2	2	2		•	•	•	•	٠	•	•				•	•	•	•	٠	•	•	•	•	•	•	•	•	•
Prius (Smart Key)		3	3	3	3	3		•	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•
Prius v (Smart Key)	3	3	3	3				•	•	٠	•	٠	•	•				•	•	•	•	٠	•	•	•	•	•	•	•	٠	•
Sienna (Smart Key)		2	2	2	2			•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Venza (Smart Key)		1	1	1	1	1	1	•	•	•	•	•	•	•				•	•	•	•	•	•	•	•	•	•	•	•	•	•

### Legend:

PK: Transponder & Immobilizer Override

AV: Horn & Lights Controls

DL: OE Door Lock & Alarm Controls

EIPS: Engine Idle Protection System

FOB: Sync CAN Interface w/ FOB Remote

RS: Remote Start & Engine Controls SS: Integrated Security & Monitoring

ST: Function/Feature Status

Note: Keyless and Smart Key will remain functional during remote start.

### Warning!

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

• No takeover feature is available on Push-to-Start vehicles.



### **OEM Remote Starter Detection**

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



### If the Vehicle is Equipped with an OEM Remote Starter

If the vehicle is equipped with an OEM remote starter, the DBALL LED will start flashing orange to indicate its detection. To skip bypass and use convenience only, press the programming button 5 times.\* The reason for this is to allow aftermarket security to be installed while keeping the factory remote starter active. If you wish to use DBALL to control the remote start sequence, the factory remote starter must be disconnected before programming the DBALL as both modules cannot coexist.

\* The DBALL LED turns ON solid orange for 3 seconds after programming or power up to indicate the bypass is not active. Refer to **LED Diagnostics & Troubleshooting** section for more information.

Installation Type	Vehicle	OEM Remote Starter & Connectors Location
1	Toyota Venza Push-to-start 2009- 2014	Behind glove box
2	Lexus RX 450h 2010-2015	Behind glove box
2	Lexus RX 350 2010-2015	Behind glove box
2	Toyota 4Runner (Smart Key) 2010-2014	Behind glove box & Passenger kick panel
2	Toyota Sienna (Smart Key) 2011-2014	Behind glove box & Passenger kick panel
3	Lexus HS 250h 2010-2012	Behind glove box
3	Toyota Prius 2010-2014	Under dash panel & Driver kick panel
3	Lexus CT 200h 2011-2015	Behind glove box
3	Lexus GX 460 2010-2015	Behind glove box
3	Toyota Prius V 2012-2015	Behind glove box

### Locating the OEM Remote Starter



### Installation Type 1a (with T-Harness)

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[1] **SLP**: Steering Lock Actuator Position Signal.

[2] This connection is only required when the EIPS (Engine Idle Protection System) feature is activated.

🚺 Wires are listed by pin numbers. This display is not representative of connector pin layouts, which are often stacked.

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### Installation Type 1b (without T-Harness)



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



[1] **SLP**: Steering Lock Actuator Position Signal.

[2] This connection is only required when the EIPS (Engine Idle Protection System) feature is activated.

🚺 Wires are listed by pin numbers. This display is not representative of connector pin layouts, which are often stacked.

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### Vehicle Wiring Reference Chart - Type 1

Vehicles	Function	Connector	Pin	Wire
	CAN High	D1 (OBDII)	6	Yellow
	CAN Low	D1 (OBDII)	14	White
Toyota Vanza	BRX	J	1	Black
2012 2014	BTX	J	2	Blue
2013-2014 Duch to Start	Push-to-Start	D13	7	Blue
Push-10-Start	SLP*	D17	4	Violet
	Horn	D18	8	Yellow
	Ground	D1 (OBDII)	4	Black
	CAN High	D1 (OBDII)	6	Yellow
	CAN Low	D1 (OBDII)	14	White
Toyota Vanza	BRX	D49	23	Black
	BTX	D49	22	Blue
2009-2012 Duch to Start	Push-to-Start	D13	7	Blue
Push-lo-Start	SLP*	D17	4	Violet
	Horn	D18	8	Yellow
	Ground	D1 (OBDII)	4	Black

\*SLP: Steering Lock actuator position signal



### WARNING

- No takeover feature is available. See Quick Reference Guide (QRG) at the end of this guide.
- To remote start the engine, all doors must be closed, including rear hatch.

### Locating Key Components in the Vehicle





### Installation Type 2a (with T-Harness)

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[1] SLP: Steering Lock Actuator Position Signal.

[2] This connection is only required when the EIPS (Engine Idle Protection System) feature is activated.

Nires are listed by pin numbers. This display is not representative of connector pin layouts, which are often stacked.

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### Installation Type 2b (without T-Harness)



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



[1] SLP: Steering Lock Actuator Position Signal.

[2] This connection is only required when the EIPS (Engine Idle Protection System) feature is activated.

🚺 Wires are listed by pin numbers. This display is not representative of connector pin layouts, which are often stacked.

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### Vehicle Wiring Reference Chart - Type 2

	Function	Connector	Pin	Wire		Function	Connector	Pin	Wire
	CAN High	G37	6	Red		CAN High	F13	6	Violet
	Can Low	G37	14	White		CAN Low	F13	14	White
	BRX	G47	4	Red		BRX	F9	4	Gray
Lexus	BTX	G47	16	Green	Toyota 4Runner	BTX	F9	16	White
GX 460	Parking Light	G47	30	White	Smart Key	Parking Light	F9	30	Red
2010-2015	Push-to-Start	G24	7	Lt. Green	2010-2014	Push-to-Start	F71	7	Lt. Green
	SLP*	G23	4	Lt. Blue		SLP*	F68	4	Lt. Blue
	Horn	G28	8	Green		Horn	F23	8	Gray
	12V	2K	1	Black		12V	2E	1	Black
	CAN High	F17	6	Violet		CAN High	D16	6	Red
	CAN Low	F17	14	Red		CAN Low	D16	14	White
	BRX	F13	4	Pink		BRX	D13	4	Black
Lexus	BTX	F13	16	Lt. Green	Toyota Sienna	BTX	D13	16	Blue
RX 350	Parking Light	F13	30	Violet	Smart Key	Parking Light	D13	30	Yellow
2010-2015	Push-to-Start	F22	7	Lt. Green	2011-2014	Push-to-Start	D33	7	Blue
	SLP*	F37	4	Green		SLP*	D29	4	Green
	Horn	F40	8	White		Horn	D21	8	Green
	12V	2K	1	White		12V	2K	1	Red
	CAN High	F17	6	Violet	* SLP: Steering L	ock actuator po	sition signal.		
	CAN Low	F17	14	Red					
	BRX	F13	4	Pink					
Lexus RX	BTX	F13	16	Lt. Green					
450h	Parking Light	F13	30	Violet					
2010-2015	Push-to-Start	F22	7	Lt. Green					
	SLP*	F37	4	Green					
	Horn	F40	8	White					
	12V	2K	1	Black					



### WARNING

- No takeover feature is available. See Quick Reference Guide (QRG) at the end of this guide.

- To remote start the engine, all doors must be closed, including rear hatch.

### Locating Key Components in the Vehicle





### Installation Type 3a (with T-Harness)

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[1] This connection is only required when the EIPS (Engine Idle Protection System) feature is activated.

Wires are listed by pin numbers. This display is not representative of connector pin layouts, which are often stacked.

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### Installation Type 3b (without T-Harness)



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



[1] This connection is only required when the EIPS (Engine Idle Protection System) feature is activated.

Wires are listed by pin numbers. This display is not representative of connector pin layouts, which are often stacked.

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### Vehicle Wiring Reference Chart - Type 3

Vehicles	Function	Connector	Pin	Wire
	CAN High	H44 (OBDII)	6	Red
	CAN Low	H44 (OBDII)	14	White
Levus CT 200h	BRX	H16	4	Yellow
2011-2015	BTX	H16	16	Blue
2011-2013	Push-to-Start	H78	7	Black
	Horn	H30	9	Yellow
	12V	H44 (OBDII)	4	White
	CAN High	F11 (OBDII)	6	Green
	CAN Low	F11 (OBDII)	14	Black
Lexus HS 250h	BRX	F9	4	Yellow
2010-2012	BTX	F9	16	Blue
2010-2012	Push-to-Start	F2	7	Blue
	Horn	F19	8	White
	12V	F11 (OBDII)	4	Black
	CAN High	L61 (OBDII)	6	White
Toyota Prius	CAN Low	L61 (OBDII)	14	Yellow
2010-201 <i>4</i>	BRX	L7	4	Violet
8 Toyota Brius V	BTX	L7	16	Green
2012	Push-to-Start	L43	7	Black
2012	Horn	L52	8	Yellow
	12V	L61 (OBDII)	4	White
	CAN High	OBDII	6	Black
	CAN Low	OBDII	14	White
	BRX (Body ECU)	L7	4	Violet
Toyota	BTX (Body ECU)	L7	16	Green
Prius V 2013-2015	Push-to-Start	L43	7	Black
	Light (Body ECU)	L7	30	Yellow
	Horn	L52	8	Yellow
	12V	2E	1	White



### WARNING

- No takeover feature is available. See Quick Reference Guide (QRG) at the end of this guide.
- To remote start the engine, all doors must be closed, including rear hatch.

### Locating Key Components in the Vehicle





The DBALL Remote Start Ready (RSR) solution offers three (3) configuration options to control your system; 3x OEM Lock Remote Start Activation, RF Kits or SmartStart (all 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 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.

**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 one of the available install options (config for RSR, RXT or Standard install), 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

- 1 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.

You have successfully completed the module programming sequence.



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SmartStart

If required for your installation, connect the 10-pin & 12-pin

### **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.







### **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 such as EIPS and RSR; however, manual configuration of the features is possible using the information on this page.

### \* Default Option

Feat.	Operation	Flashes/Option	Description
		1. No RF Output*	Module is connected to a remote starter using a standard installation.
1	RFTD Output Type	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	Liplook Drivor Brigrity	1. Driver priority*	Unlocks only the driver door on first press and unlocks all doors on a second press within 5 seconds.
2	Onlock Driver Phoney	2. All	Unlocks all doors on first press.
		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	Smart OEM Alarm Control	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.

### Feature Programming





- 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. When installing
  the DBALL in RSR using 3x OEM Lock Remote Start Activation only, there is no aftermarket transmitter on which to press lock/unlock
  to change the options of the selected feature. Tapping the green or blue lock/unlock wires on the black 10-pin harness to ground will
  change the option for 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.

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### **LED Diagnostics and Troubleshooting**

LED	Status	Description	Troubleshooting
Progra	amming the Module		
	Off	Module has no power.	Make sure the 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 Red	Waiting to begin the programming sequence.	Refer to the wiring diagram to make sure that all the connections are correct.
	Flashes Orange	OEM remote starter detected.	If the user wants to use the module as a convenience only, he should skip bypass by pressing the programming button 5 times. However, if the user wants to use the module as a remote starter, he should disconnect the OEM remote starter and repeat the programming sequence.
	Solid Green x3 seconds	Module has been successfully programmed.	Normal operation.
	Solid Orange x3 seconds	Module was successfully programmed without bypass (convenience only).	Normal operation. An OEM remote starter was detected (convenience mode only). If the user wants to use the module as a remote starter, he should disconnect the OEM remote starter and repeat the programming sequence, by doing a short reset.
Modu	le Programming - Erro	r Codes	
	Flashes Red x5	ISO 1 not detected.	Yellow/Black did not detect the expected signal. Refer to the wiring diagram to make the right connections.
	Flashes Red x6	ISO 2 not detected.	Orange/Black did not detect the expected signal. Refer to the wiring diagram to make the right connections.
Active	Ground While Runnin	ng	
	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 Red & Orange	IGNITION ON command received.	
	Flashes Green Quickly	START ON command received.	
Extern	nal Commands		
	Flashes Orange x1	Lock command received.	
	Flashes Orange x2	Unlock command received.	
	Flashes Orange x3	Trunk command 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 Orange x4	AUX1 command received.	
	Flashes Orange x5	AUX2 command 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.



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### 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 PARTAS 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

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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 it's 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.



Quic DBAL	k Reference Guide L/DBALL2-TL2 Remote Start Ready (RSR) Installation	XPRESSKIT
Pit S	top Mode	Remote Start Ready (RSR)
The Pit but wis	Stop Mode feature is practical when you need to stop and run an errand, to keep the engine running.	Remote Start Ready (RSR) is a function that enables the interface module to remote start the vehicle completely on its own.
-	Stop the vehicle in a safe parking spot and put the gear in Park (P). Stop & put vehicle in Park (P)	3x OEM Lock Remote Start Activation
N	Press the button to remote start the vehicle.* The PTS button will flash once to remote start the vehicle is now in Pit Stop button*	This solution includes the option to remote start your vehicle by pressing the Lock button 3 times consecutively. If your vehicle allows the OEM remote to remain active while the engine is running, you may shut down your remote starter by pressing the Lock button 3 times once more.
3	It is now safe to leave the engine running and exit the vehicle with the factory remote in hand. <b>Note:</b> We recommend that you always lock the doors of your vehicle when leaving it unattended. Exit vehicle with Smart Key	Note: The range offered by OEM remotes is limited and typically requires you to be within eyesight of the vehicle to control it.
* Your	iftermarket remote may differ from the model shown in the illustrations.	

		)	
Button(s)	Actions	What is Smar	tStart?
đ	Press & hold for 1 second to lock.	Now you can ren your smartphone	ote start, lock and unlock your car just by pushing a b using the SmartStart App from Directed, the leader ir
•	Press & hold for 1 second to unlock.	following features • Lock/Arm	ote start. The simple graphical interface gives you con s of your installed remote start or security with remote
C	Press & hold for 1 second to remote start.	Unlock/Disarm     Remote Car St     Truck Dologo	arter
Xny	Press & hold for 5 seconds to activate the trunk release (optional).	Panic     Aux Channels	
f x1 + 🖭	Press f once, then to activate the rear hatch/tail glass release (optional).*	You can also con one user to contr	trol multiple vehicles – great for families – and assign ol a vehicle. It's easy with SmartStart!
f x3 + 🔊	Press $f$ 3 times, then $\textcircled{l}$ to activate the panic mode.	But, this is only the including GPS transformed control, parked control.	ne beginning! SmartStart is loaded with additional feat acking, SmartSchedule, vehicle status, roadside assis ar finder and more.
f <b>x1</b> + 🕟	Press f once, then (•) to reset the remote starter runtime.	3.0 enables a "Cl level of 2-way int	oud-Connected Car" like never before, providing an e eraction with your vehicle. Connectivity is managed th
This output is configurab	le. see your authorized installation center	Directed Cloud S br more For more informa	ervices (DCS) network linking car, app, end user, anc ttion, visit www.mysmartstart.com.

## XPRESS KIT

DBALL/DBALL2-TL2 Remote Start Ready (RSR) Installation **Quick Reference Guide** 

# List of Available Commands

## SmartStart Compatible

control over the ote start system: a button on er in vehicle

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n entirely new I through the and the Internet.

Engine Idle Protection System (EIPS)	
Vehicles equipped with RFID-type Push-to-Start ignition systems work by detecting a proximity key in the vehicle. They will run indefinitely if the key is removed, which could potentially lead users to exiting the vehicle while the engine is still running and the car is left idling on its own in a garage or a confined space.	Activating/deactivating EIPS: - To activate EIPS, remove all keys from the vehicle and close all doors while the engine is running.
To mitigate risk, we have designed a feature that is now available on the DBALL. It will detect the presence of the RFID fob in the vehicle, through the CAN bus. If left idling for more than the pre-defined runtime (i.e. 1 to 5 minutes) without detecting the fob, DBALL will send a signal to the vehicle in order to shut off the engine. EIPS (Engine Idle Protection System) will:	<ul> <li>To deactivate EIPS, do one of the following actions:</li> <li>Open one of the doors.</li> <li>Remote start the vehicle.</li> <li>Turn the engine off.</li> <li>Drive the vehicle.*</li> </ul>
<ul> <li>Notify the user about the idling engine by sounding the horn with a series of short beeps.</li> </ul>	* The EIPS feature is disabled if the vehicle is in motion so there is no risk that the vehicle will shut off while driving, regardless of the fob being present in the vehicle
<ul> <li>Shut down the engine after a pre-defined period of time (i.e. 1 to 5 minutes). EIPS is configured using XpressVIP. The following window is displayed whenever a DBALL module is flashed.</li> </ul>	or not.
	Notes
Engine Idle Protection System (EIPS) Selection (Patent Pending) Close X	
This vehicle is a PTS equipped model and EIPS will be enabled by default, the default run time without fob present is 3 minutes, to change run time please select the desired run time from the drop menu. (1 to 5 minutes). To disable this feature uncheck the enabled box or see more for feature description.	
EIPS Enabled I I minutes Alert every and 0 seconds Voted and 10 seconds	
Warning: You have chosen to disable EIPS. Note this is a safety feature and you must accept the waiver to continue	
Save	
<ul> <li>If the engine fails to shut down due to some malfunction, EIPS will go into alarm mode and will notify the user by all means possible (e.g. horn or siren).</li> </ul>	

XPRESSKIT

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