Installation Guide

This guide supports the installation of a DBALL in Remote Start Ready (RSR) mode with optional Plug-and-Play T-Harness THNISS3. This solution offers two (2) configuration options to control your system: RF Kits or SmartStart (both sold separately).

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

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

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.

Get In and Go is designed to provide users with easy takeover when entering their Push-to-Start (PTS) equipped vehicle once it has been remote started.

For more information, see the Quick Reference Guide at the end of this document.

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

<table>
<thead>
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<tbody>
<tr>
<td>Infiniti</td>
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<td>EX35 (Smart Key)</td>
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<td>EX37 (Smart Key)</td>
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<td>370Z (Smart Key)</td>
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<td>Altima (Smart Key)</td>
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<tr>
<td>Altima Coupe (Smart Key)</td>
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<tr>
<td>GT-R (Smart Key)</td>
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<td>Maxima (Smart Key)</td>
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<tr>
<td>Murano (Smart Key)</td>
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</tr>
</tbody>
</table>

**Legend:**
- AV: Horn & Lights Controls
- DL: OE Door Lock & Alarm Controls
- EPS: Engine Idle Protection System
- PK: Transponder & Immobilizer Override
- RS: Remote Start & Engine Controls
- SS: Integrated Security & Monitoring
- ST: Function/Feature Status
- TS: Transponder Status

* Special programming required (see Module Programming section). The Infiniti M35 is also NOT COMPATIBLE with the optional T-harness THNISS3.

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Installation Type A (without T-Harness)

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

Connect the Parking Lights relay only if the Feature ‘Parking Light Control’ is disabled. See Feature & Option List section.

(+12V)

(+12V fused)

(+ Parking Lights wire in vehicle
See Wiring Reference Chart (p.6-9)

(+12V)

(+12V)

(+12V)

(+12V)

(+12V: +12V in vehicle
See Wiring Reference Chart (p.6-9)

HS CAN High: Tan/Black: 3
HS CAN Low: Tan: 4
Data (Vehicle side): Yellow: 8
Data (Key port side): Orange/Yellow: 9
(+12V) (+12V: Yellow/Red: 11
(+ Parking Lights Output: Brown/Red: 12
(+12V) (+12V: Red: 13
(-) Ground (-) Ground: Black: 14
(+1) Unlock Output: Black/White: 5
(+1) Unlock Output: Black/White: 5
(-) Push-To-Start: Green/Black: 2
(-) Push-To-Start: Green/Black: 2
(-) Door Trigger Output: Red/Black: 4
(+1) Brake Activation Output: Gray: 6
(+1) Brake Activation Output: Gray: 6
(+1) Key Sense Output: Gray/Black: 7
(+1) Key Sense Output: Gray/Black: 7
Clock: Yellow/Black: 10
Clock: Yellow/Black: 10
Data: Orange/Black: 11
Data: Orange/Black: 11

Note:
The installation of an aftermarket hood pin (sold separately) is only required on vehicle not equipped with a factory hood pin.

Driver Door

Remote Start Safety Override Switch

DBALL/ DBALL2

Prog. Button

LED

RF

Clock & Data Wire

at Key Port Connector

See Wiring Reference Chart (p.8-9) for wire location.

Data

Clock

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

---

Not required in D2D mode.

[1] These wires are optional connections only required if features “OEM Security Disarm on Data” & “Door Lock Control On Data” are disabled. See Feature & Option List section.

With the exception of the OBDII Diagnostic plug, all connectors are displayed from the wire side.
Installation Type B (with Optional T-Harness)

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

Note: This installation type is NOT compatible with Infiniti M35.

Parking light output MUST be controlled through data when using Optional T-Harness, See Feature & Option List section to enable this feature.

Important!
Always connect OBDII connector BEFORE all other connections.

[1] These wires are optional connections only required if features “OEM Security Disarm on Data” & “Door Lock Control On Data” are disabled. See Feature & Option List section.
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.

![SmartStart Module Programming](image)

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.

![SmartStart Module Programming](image)

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.

![RF Kit](image)

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.
### Vehicle Wiring Reference Charts

#### Infiniti

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>PTS Connector</th>
<th>Key Port Connector</th>
<th>BCM Green 40 Pin Connector</th>
<th>Brake Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>EX35 (Smart Key) 2008-2012</td>
<td>Brown 4</td>
<td>Brown 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>EX37 (Smart Key) 2009-2013</td>
<td>Brown 4</td>
<td>Brown 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>FX35 (Smart Key) 2009-2012</td>
<td>Lt. Blue 4</td>
<td>Brown 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>FX50 (Smart Key) 2009-2013</td>
<td>Brown 4</td>
<td>Brown 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>G25 (Smart Key) 2011-2012</td>
<td>Brown 4</td>
<td>Lt. Blue 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>G35 (Smart Key) 2007-2009</td>
<td>Brown 4</td>
<td>Lt. Blue 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>G37 (Smart Key) 2008-2013</td>
<td>Brown 4</td>
<td>Lt. Blue 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>Q60 (Smart Key) 2014</td>
<td>Brown 4</td>
<td>Brown 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>QX50 (Smart Key) 2014-2015</td>
<td>Brown 4</td>
<td>Brown 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>QX70 (Smart Key) 2014-2015</td>
<td>Lt. Blue 4</td>
<td>Brown 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
</tbody>
</table>

#### Nissan

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>PTS Connector</th>
<th>Key Port Connector</th>
<th>BCM Green 40 Pin Connector</th>
<th>Brake Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>370Z (Smart Key) 2009-2014</td>
<td>Brown 4</td>
<td>Red 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>Altima (Smart Key) 2007-2012</td>
<td>Brown 4</td>
<td>Yellow 11</td>
<td>Green/Orange 2</td>
<td>Orange 3</td>
</tr>
<tr>
<td>GT-R (Smart Key) 2009-2012</td>
<td>Brown 4</td>
<td>Red 11</td>
<td>Gray 2</td>
<td>White 3</td>
</tr>
<tr>
<td>Maxima (Smart Key) 2009-2014</td>
<td>Brown 4</td>
<td>Yellow 11</td>
<td>Green/Orange 2</td>
<td>Orange 3</td>
</tr>
<tr>
<td>Murano (Smart Key) 2009-2014</td>
<td>Brown 4</td>
<td>Yellow 11</td>
<td>Lt. Blue 2</td>
<td>Orange 3</td>
</tr>
</tbody>
</table>

#### Additional Notes
- (-) Push-to-Start
- (+) Keysense
- (+) Key Port connector
- (+) Driver Door Trigger
- Clock
- Data
- Parking Lights (+)
- Parking Lights (+)
- (+) Brake
- (+) Brake
- (+) Brake

### Clutch Switch 1 & 2

<table>
<thead>
<tr>
<th>Vehicles</th>
<th>Clutch Switch 1</th>
<th>Clutch Switch 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infiniti</td>
<td>Lt. Blue or Red</td>
<td>Lt. Blue or Red</td>
</tr>
<tr>
<td>Nissan 370Z</td>
<td>Brown or Lt. Blue</td>
<td>Lt. Blue or Red</td>
</tr>
<tr>
<td>Nissan Altima</td>
<td>Lt. Blue or Red</td>
<td>Lt. Blue or Red</td>
</tr>
<tr>
<td>Infiniti G25, G35, G37, Q60</td>
<td>Lt. Blue or Red</td>
<td>Lt. Blue or Red</td>
</tr>
</tbody>
</table>

⚠️ All connectors are displayed from the wire side.
Refer to page 11 for more details on horn beep.
The Nissan horn beep feature must be enabled for the 3x OEM Lock Remote Start Activation feature to work properly.

### Vehicles
- **Maxima** (Smart Key) 2009-2012
- **GT-R** (Smart Key) 2009-2012
- **FX35** (Smart Key) 2009-2012
- **EX37** (Smart Key) 2009-2012
- **Nissan**
  - **G35** (Smart Key) 2007-2009
  - **G25** (Smart Key) 2011-2012
- **Infiniti**
  - **EX35** (Smart Key) 2008-2012

## BCM Green 40-Pin Connector

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>BCM Green 40-Pin Connector</th>
<th>Fusebox White 10-pin Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Brake</td>
<td>Pin</td>
</tr>
<tr>
<td>Nissan Altima 2010-2012</td>
<td>Orange/Blue</td>
<td>7</td>
</tr>
</tbody>
</table>

**Note:** Insert pin if wire is not present

---

## Fusebox White 10-pin Connector

**Note:** Only required if the feature "Parking Light Control On Data" is disabled.

**Fusebox White 10-pin Connector**

**Directing**

**Nissan Altima BCM Green 40-pin Connector**

**Nissan Altima Fuse Box Middle Connector**
Locating Components in the 2010-2012 Nissan Altima

Important!
Always connect OBDII connector BEFORE all other connections.

Disconnect factory connectors. Connect T-Harness between the two connectors.

(-) Parking Lights
(+) Parking Light Control On Data
(-) Lock/Arm
(+) Brake
(-) Unlock/Disarm
(+) Push-to-Start
(-) Driver Door Pin
(+) Keysense
(-) Push-to-Start
(+) Brake Switch 1 & 2
(+) Brake Switch

Nissan Altima OBDII White 16-pin Conn.

Nissan Altima Push-To-Start Brown 8-pin Conn.
Refer to page 11 for more details on horn beep.

The Nissan horn beep feature must be enabled for the 3x OEM Lock Remote Start Activation feature to work properly.

M35 2006-2010
Maxima (Smart Key) 2009-2014
GT-R (Smart Key) 2009-2012
Altima (Smart Key) 2007-2012
G35 (Smart Key) 2007-2009
G25 (Smart Key) 2011-2012
FX35 (Smart Key) 2009-2012
EX37 (Smart Key) 2009-2013
EX35 (Smart Key) 2008-2012
Altima (Smart Key) 2007-2012
G37 (Smart Key) 2008-2013
G25 (Smart Key) 2011-2012
Infiniti
(-) Push-to-Start
Push-to-Start connector
Clutch switch 1 & 2

Vehicle

PTS Wire
2
3
3

(-) Keysense
(+) Keysense
(-) Driver Door Trigger
Dimmer Switch
Lights (+)

Note:

BCM Green 40-pin connector

(+) Brake
Switch

(-) Driver Door Trigger

DMR Switch

(-) Lock/Arm
(-) Unlock/Disarm
(+) Unlock/Disarm
(+) Brake

BCM White 15-pin connector
Insert pin if wire is not present

(-) Push-to-Start
(+) Driver Door Pin

(-)horn beep
(+)horn beep
(-)horn beep
(+)horn beep
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 left 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.

Ensure that every key fob except one is located at a minimum of 10 feet (3 meters) away from the vehicle BEFORE proceeding with the following programming sequence. (for Infiniti M35 skip to next page)

2. Press the Unlock button on the OEM key fob. The LED flashes orange.

3. Insert the OEM key fob into the key port. The LED will continue to flash orange.

Go to the next page to complete the module programming.
Press and hold the brake pedal until LED flashes green
3 seconds then goes off.
The module is now programmed.

**Troubleshooting:**
If the LED continues to flash orange after 15 seconds at step 4, press and hold the programming button until the LED flashes red. When you release the programming button, the LED starts flashing orange again. Repeat step 4.

Remove the OEM key fob from the key port.

You have successfully completed the module programming sequence.

**Module Programming: Infiniti M35**
(step 1 is identical for all vehicles in this firmware - see previous page.)

Remove battery from OEM key fob.

Insert the OEM key fob into the key port.

Cycle ignition ON and OFF **TWICE**.

LED flashes green 3 seconds then goes off.
The module is now programmed.

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
** Some North American vehicles require to be set in type 1 door lock in order to work properly.

<table>
<thead>
<tr>
<th>Feat.</th>
<th>Operation</th>
<th>Flashes / Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RFTD Output Type</td>
<td>1. No RF Output*</td>
<td>Module is connected to a remote starter using a standard installation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. RFTD Output</td>
<td>Module is connected to an XL202 using an RSR or RXT installation (when available).</td>
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<tr>
<td></td>
<td></td>
<td>3. SmartStart</td>
<td>Module is connected to SmartStart using an RSR or RXT installation (when available).</td>
</tr>
<tr>
<td>2</td>
<td>Controlled Door Lock</td>
<td>1. Disabled*</td>
<td>The vehicle doors will not lock automatically.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Ignition</td>
<td>The vehicle doors will lock when ignition is turned ON and unlock when ignition is OFF.</td>
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<tr>
<td></td>
<td></td>
<td>3. Brake</td>
<td>The vehicle doors will lock when the brake pedal is applied and unlock when ignition is OFF.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Speed</td>
<td>The vehicle doors will lock when speed is sensed and unlock when ignition is OFF.</td>
</tr>
<tr>
<td>3</td>
<td>Smart OEM Alarm Control</td>
<td>1. Disabled</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Safelock</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Enabled*</td>
<td>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.</td>
</tr>
<tr>
<td>4</td>
<td>Parking Light Control On Data</td>
<td>1. Disabled</td>
<td>The remote starter parking lights wire must be connected in the car.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Enabled*</td>
<td>The parking lights will be controlled by CAN wires.</td>
</tr>
<tr>
<td>5</td>
<td>OEM Security Disarm On Data</td>
<td>1. Disabled</td>
<td>The vehicle is not equipped with an OEM alarm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Enabled*</td>
<td>This feature must be enabled when the vehicle is equipped with an OEM security alarm. The alarm original to the vehicle is disarmed using the bypass and Push-to-Start (PTS) button.</td>
</tr>
<tr>
<td>6</td>
<td>Door Lock Control On Data</td>
<td>1. Disabled</td>
<td>The remote starter door lock wires must be connected in the car.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Enabled - Type 1</td>
<td>Works for most European vehicles.**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Enabled - Type 2</td>
<td>Works for most North American vehicles.**</td>
</tr>
</tbody>
</table>
Feature Programming

**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

<table>
<thead>
<tr>
<th>LED Status</th>
<th>Description</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Module has no power.</td>
<td>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.</td>
</tr>
<tr>
<td>Solid red</td>
<td>Waiting to begin the programming sequence.</td>
<td>Make sure that all connections are correct (see Wiring Diagram).</td>
</tr>
<tr>
<td>Flashes orange</td>
<td>CAN Bus Detected</td>
<td>Normal operation.</td>
</tr>
<tr>
<td>Flashes orange slowly</td>
<td>Server ready.</td>
<td>Normal operation</td>
</tr>
<tr>
<td>Solid green 3 seconds</td>
<td>Module was successfully programmed.</td>
<td>Normal operation</td>
</tr>
<tr>
<td>Solid orange 3 seconds</td>
<td>Module was successfully programmed without bypass.</td>
<td>Normal operation</td>
</tr>
</tbody>
</table>

#### Programming the Module - Error codes

<table>
<thead>
<tr>
<th>LED Status</th>
<th>Description</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashes red x1</td>
<td>ISO 1 not detected.</td>
<td>Yellow/Black wire did not detect the expected signal.</td>
</tr>
<tr>
<td>Flashes red x2</td>
<td>ISO 2 not detected.</td>
<td>Orange/Black wire did not detect the expected signal.</td>
</tr>
<tr>
<td>Flashes red x3</td>
<td>Bypass data not detected.</td>
<td>Check the bypass line connection. If more than one wire is used, make sure they are not inverted. Start vehicle using the key to confirm the OEM equipment is still operational.</td>
</tr>
<tr>
<td>Flashes red x4</td>
<td>Bypass processing error.</td>
<td>Bypass calculation failed. Reset the module and try again. Might be caused by a bad reading in the first programming attempt or by an unknown bypass value. If a second attempt fails, connect the module to the unit and call Tech Support with the module ID in hand.</td>
</tr>
</tbody>
</table>

#### External Module Synchronization

<table>
<thead>
<tr>
<th>LED Status</th>
<th>Description</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashes red, solid red, then orange x10</td>
<td>OBDII feature not supported.</td>
<td>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.</td>
</tr>
</tbody>
</table>

#### Active Ground While Running

<table>
<thead>
<tr>
<th>LED Status</th>
<th>Description</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashes green</td>
<td>GROUND OUT ON (GWR) command received.</td>
<td>Otherwise, the Ground While Running (status) signal was lost or was never received by the module. Commands can come from RF, D2D or W2W.</td>
</tr>
<tr>
<td>Flashes red &amp; orange</td>
<td>IGNITION ON command received.</td>
<td>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.</td>
</tr>
<tr>
<td>Flashes green quickly</td>
<td>START ON command received.</td>
<td>Otherwise, the start signal was not received by the module. In a W2W install, it will show only if the ignition input wire is used.</td>
</tr>
</tbody>
</table>

Go to the next page to see the rest of the LED Diagnostics & Troubleshooting table.
### LED Status Description Troubleshooting

#### D2D & W2W Commands
- Flashes orange x1 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 x2 Unlock command received.
- Flashes orange x3 Trunk command received.

#### Remote Start Shutdown Code
- Flashes red x1 Run safe shutdown.
- Flashes red x2 Brake shutdown.
- Flashes red x3 No key detected shutdown.

#### Remote Start Shutdown Code (RSR)
- Flashes orange x1 Runtime expired.
- Flashes orange x2 Over-rev shutdown.
- Flashes orange x3 Low/No RPM.
- Flashes orange x4 Transmitter shutdown.
- Flashes orange x5 Brake shutdown.
- Flashes orange x6 Hood shutdown/Remote start safety override switch is ON.
- Flashes orange x7 Remote start safety override switch is ON.

### Parking Light Error Codes

<table>
<thead>
<tr>
<th>Flashes</th>
<th>Diagnostic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Runtime expired.</td>
</tr>
<tr>
<td>2</td>
<td>Over-rev shutdown.</td>
</tr>
<tr>
<td>3</td>
<td>Low/No RPM.</td>
</tr>
<tr>
<td>4</td>
<td>Transmitter shutdown.</td>
</tr>
<tr>
<td>5</td>
<td>Brake shutdown.</td>
</tr>
<tr>
<td>6</td>
<td>Hood shutdown/Remote start safety override switch is ON.</td>
</tr>
<tr>
<td>7</td>
<td>Remote start safety override switch is ON.</td>
</tr>
</tbody>
</table>

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.

* 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 if 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 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.
Vehicle Takeover with Get In and Go*  

1. Press the remote start button on the transmitter to start the vehicle.**
2. Press the Unlock button on the key fob or aftermarket remote.**
3. Enter the vehicle, while making sure the key fob is inside with you.
4. Press the brake pedal, put the car in gear and drive off.

* Get In and Go connections required.
** Your aftermarket remote may differ from the model shown in the illustrations.

Get In and Go

Get In and Go is designed to provide users with easy takeover when entering their Push-to-Start (PTS) equipped vehicle, once it has been remote started.

Typically, users would have to remote start their vehicle, then get inside and press the vehicle start button to perform a takeover. There is therefore a physical action required to drive away. With Get In and Go technology, you simply remote start the vehicle, unlock the doors, get in and go... Nothing to do but put the gear in drive and enjoy your vehicle.

This unique feature monitors a variety of parameters such as the key fob, vehicle speed sensor and door sensor, in order to perform takeover securely.

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 button to remote start the vehicle.*
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.

* 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.

<table>
<thead>
<tr>
<th>Flashes</th>
<th>Diagnostic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</tr>
<tr>
<td>2</td>
<td>Over-rev shutdown.</td>
</tr>
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<td>3</td>
<td>Low/No RPM.</td>
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<tr>
<td>4</td>
<td>Transmitter shutdown.</td>
</tr>
<tr>
<td>5</td>
<td>Brake shutdown.</td>
</tr>
<tr>
<td>6</td>
<td>Hood shutdown/Remote start safety override switch is ON*.</td>
</tr>
<tr>
<td>7</td>
<td>Remote start safety override switch is ON*.</td>
</tr>
</tbody>
</table>

* 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.

⚠️ The horn beep feature must be enabled for the 3x OEM Lock Remote Start Activation feature to work properly. To enable the horn beep feature: Press and hold the Lock and Unlock buttons for at least 2 seconds.

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.

<table>
<thead>
<tr>
<th>Button(s)</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="lock.png" alt="Lock" /></td>
<td>Press &amp; hold for 1 second to lock.</td>
</tr>
<tr>
<td><img src="unlock.png" alt="Unlock" /></td>
<td>Press &amp; hold for 1 second to unlock.</td>
</tr>
<tr>
<td><img src="remote_start.png" alt="Remote Start" /></td>
<td>Press &amp; hold for 1 second to remote start.</td>
</tr>
<tr>
<td><img src="aux.png" alt="Aux" /></td>
<td>Press &amp; hold for 5 seconds to activate the trunk release (optional).</td>
</tr>
<tr>
<td><img src="aux.png" alt="Aux" /></td>
<td>Press f once, then 🔄 to activate the rear hatch/tail glass release (optional).*</td>
</tr>
<tr>
<td><img src="aux.png" alt="Aux" /></td>
<td>Press f 3 times, then 🔄 to activate the panic mode.</td>
</tr>
<tr>
<td><img src="aux.png" alt="Aux" /></td>
<td>Press f once, then 🔄 to reset the remote starter runtime.</td>
</tr>
</tbody>
</table>

* 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.
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.

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:
- Notify the user about the idling engine by sounding the horn with a series of short beeps.
- 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.

- 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).

Activating/deactivating EIPS:
- To activate EIPS, remove all keys from the vehicle and close all doors while the engine is running.
- To deactivate EIPS, do one of the following actions:
  - Open one of the doors.
  - Remote start the vehicle.
  - Turn the engine off.
  - Drive the vehicle.*

* 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 or not.

Notes