Directed Digital System

TL3
Firmware Specific Guide

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

DIRECTED®

Directed Digital System 2014-10

Contents

Warning! Safety first

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

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

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

- Never use a test light or logic probe when installing this unit. Always use a multimeter.
- Never operate the system in an enclosed or partially enclosed area without ventilation (such as a garage).
- When parking in an enclosed or partially enclosed area or when having the vehicle serviced, the remote start system must be disabled using the installed toggle switch. It is the user's sole responsibility to properly handle and keep out of reach from children all remote controls to assure that the system does not unintentionally remote start the vehicle.
- USER MUST INSTALL A CARBON MONOXIDE DETECTOR IN OR ABOUT THE LIVING AREA ADJACENT TO THE VEHICLE. ALL DOORS LEADING FROM ADJACENT LIVING AREAS TO THE ENCLOSED OR PARTIALLY ENCLOSED VEHICLE STORAGE AREA MUST REMAIN CLOSED AT ALL TIMES.

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

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

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

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

Introduction

The TL3 Firmware for Directed Digital Systems is a complete solution for remote start, security (if applicable), bypass interface, and convenience needs compatible with specific Lexus and Toyota vehicles.

Warning! This module can only be programmed via the web tool, which can be found on www.xpresskit.com or using the Directechs Mobile application for smartphones. Features and functions will become accessible when you connect the module using the XKLoader.

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	2014	2013	2012	2011	2010	2009	2008	2007	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-Trunk / Hatch Release	EIPS	FOB-Control of aftermarket alarm with OEM remote	RS-3x LOCK START (Start control using OEM Remote	RS-3x LOCK STOP (Stop control using OEM Remote)	RS-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-E-Brake Status	ST-Ignition Status
Lexus																														
LS 460 (Smart Key)	2	2	2	2	2	2	2	2	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
LS 600h (Smart Key)	2	2	2	2	2	2	2		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
LX 570 (Smart Key)	1	1		1	1	1	1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Toyota																														
Land Cruiser (Smart Key)	1	1		1	1	1	1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

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

Legend:

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

WARNING
- No takeover feature is available. The engine will stop when a door is open.
- To remote start the engine, all doors must be closed.

Wiring connections

⚠ Your module may come with one of two versions of wiring harnesses. It is clearly indicated in the following tables which harnesses and wire colors can be different in your installation.

The wiring connections listed below are generic to this firwmare.

Main power harness (H1), 12-pin thick gauge connector

Conn./Pin	Color	Description
H1/1	White	Relay 3 COM – No Connection [1]
H1/2	White/Brown	Relay 3 N.O.– No Connnection [1]
H1/3	Brown/Red	Relay 2 N.O.– No Connnection
H1/4	Yellow/Red	Relay 2 COM – No Connnection
H1/5	Orange/Red	Relay 2 N.C. – No Connnection
H1/6	Yellow	Relay 1 COM – STSW (Starter Switch) (Output)
H1/7	White	Relay 3 COM – No Connection [1]
H1/8	White/Brown	Relay 3 N.O.– No Connection [1]
H1/9	Black	(-) Ground
H1/10	Red	(+) 12 Volt (Battery)
H1/11	Orange/Yellow	Relay 1 N.C. – No Connection
H1/12	Brown	Relay 1 N.O.– STSW (Starter Switch) (Input)

Auxiliary output harness (H2), 16-pin black connector

⚠ Your module may come with one of two versions of wiring harnesses. The column in red is for old wire colors, and the rows with ***italicized*** text indicate where differences may occur.

Conn./Pin	Color (CURRENT Harness)	Color (OLD Harness)	Description
H2/1	Violet/Brown	Violet/Brown	No Connection
H2/2	Yellow/Black	Yellow/Black	No Connection
H2/3	Orange/Black	Orange/Black	No Connection
H2/4	Tan	Tan	HS CAN Low
H2/5	Tan/Black	Tan/Black	HS CAN High
H2/6	Light Green	Light Green	No Connection
H2/7	Orange/Green	Orange/Green	No Connection
H2/8	Orange/Brown	Orange/Brown	No Connection
H2/9	Violet/Green	Violet/Green	No Connection
H2/10	*Green/Black*	*Lt. Green/White*	*(-) Parking Lights*
H2/11	White/Violet	White/Violet	No Connection
H2/12	White/Red	White/Red	No Connection
H2/13	*Lt. Blue/Black*	*Lt. Green/Black*	*(-) Push-to-Start*
H2/14	Green/Red	Green/Red	No Connection
H2/15	*N/A*	*Violet/Red*	*No Connection*
H2/16	Violet/Yellow	Violet/Yellow	No Connection

1. If these outputs are not used by the firmware, they can be configured by the installer when the module is flashed.
2. If these outputs are not used by the firmware, they can be configured by the installer when the module is flashed. Note that they are low current and a relay may be necessary.

Analog harness (H3), 18-pin white connector

⚠ Your module may come with one of two versions of wiring harnesses. The column in red is for old wire colors, and the rows with ***italicized*** text indicate where differences may occur.

Conn./Pin	Color (CURRENT Harness)	Color (OLD Harness)	Description
H3/1	Lt. Blue/Red	Lt. Blue/Red	No Connection
H3/2	*Black/White*	*White/Black*	*(-) Parking Brake Input (Manual Transmission)* [2]
H3/3	Gray	Gray	(-) Hood Input [2]
H3/4	*N/A*	*Black/White*	*No Connection*
H3/5	Gray/Black	Gray/Black	(+) Glow Plug Input [2]
H3/6	Violet/White	Violet/White	(AC) Tach Input [2]
H3/7	Dark Blue	Dark Blue	No Connection
H3/8	Brown/Black	Brown/Black	No Connection
H3/9	Red/White	Red/White	No Connection
H3/10	*White/Green*	*Green/Gray*	*(-) Door Input* [2]
H3/11	*Yellow/Green*	*Violet/Gray*	*(+) Door Input* [2]
H3/12	Blue/Red	Blue/Red	No Connection
H3/13	Light Blue	Light Blue	(-) Trunk Trigger Input [2]
H3/14	*Pink/Yellow*	*Blue/Black*	*No Connection*
H3/15	Dark Green	Dark Green	No Connection
H3/16	*Brown/White*	*Light Brown*	*(+) Brake Input* [2]
H3/17	Brown	Brown	(+) Siren Output
H3/18	Blue/White	Blue/White	No Connection

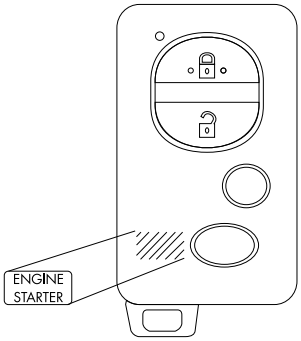
MC501 harness (H4), 8 thick-gauge wires (optional)

Conn./Pin	Color	Description
H4/1	Pink/White	No Connection
H4/2	Red/White	No Connection
H4/3	Pink	No Connection
H4/4	Red	No Connection
H4/5	Orange	No Connection
H4/6	Red	No Connection
H4/7	Green	No Connection
H4/8	Violet	No Connection

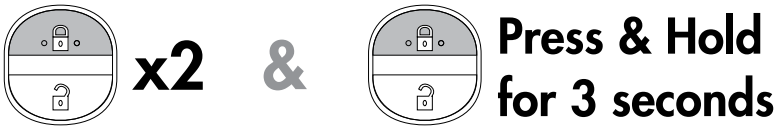
1. If these outputs are not used by the firmware, they can be configured by the installer when the module is flashed. Note that they are low current and a relay may be necessary.
2. These connections are only required if the corresponding statuses are not supported by the firmware. See "Vehicle application guide" on page 4 for a list of compatible features.

Determining if the vehicle is equipped with an OEM remote starter

1. An "ENGINE STARTER" sticker should be on the remote.



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



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

If the vehicle is equipped with an OEM remote starter

If the vehicle is equipped with an OEM remote starter, the module 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 the Directed Digital System to control the remote start sequence, the factory remote starter must be disconnected before programming the Directed Digital System as both modules cannot coexist.

* The module LED turns ON solid orange for 3 seconds after programming or power up to indicate the bypass is not active. Refer to "LED diagnostics and troubleshooting" on page 14 for more information.

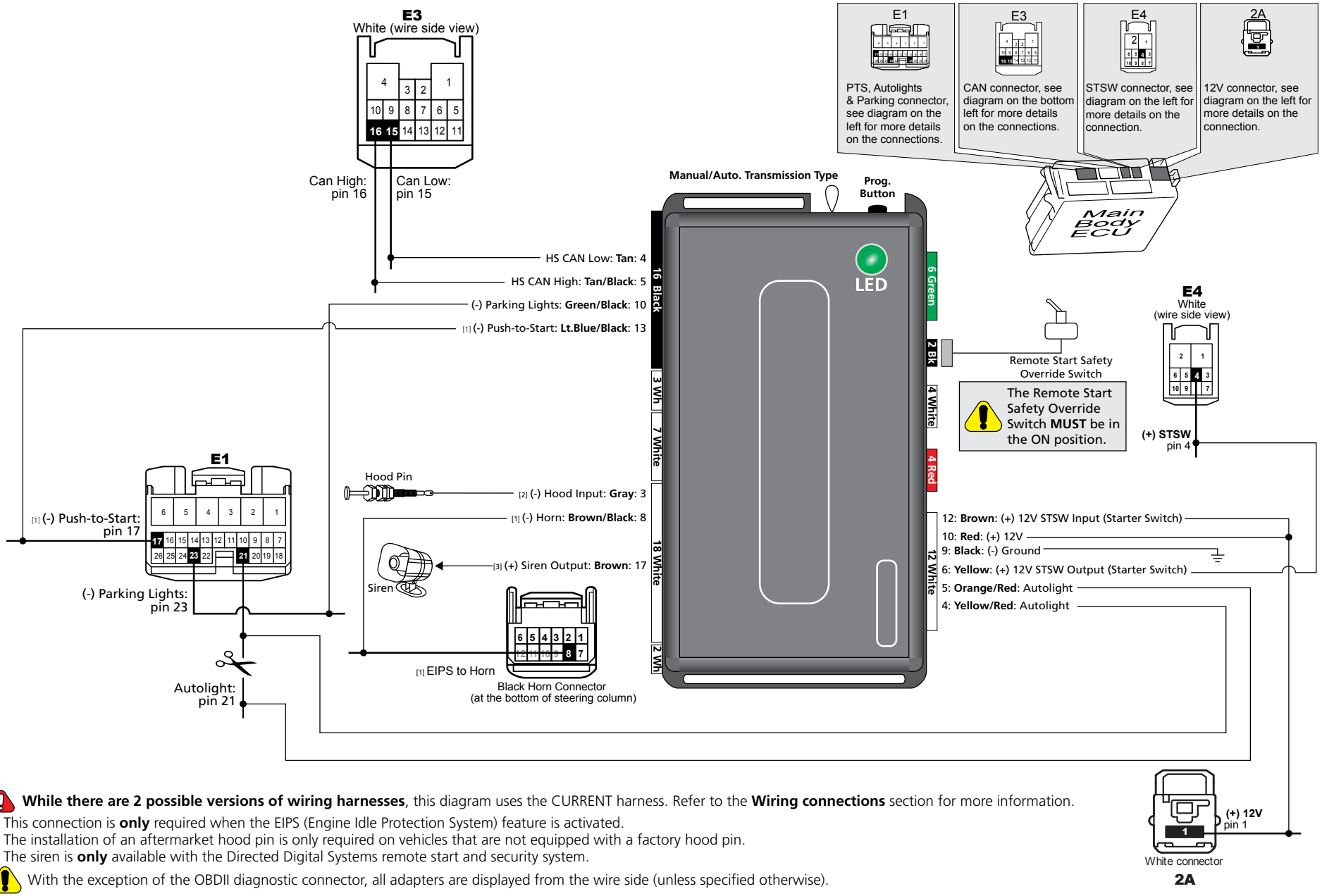
Locating the OEM remote starter

Installation Type	Vehicle	OEM Remote Starter & Connectors Location
1	Lexus LX 570 2010-2014	Behind glove box & Passenger kick panel
1	Toyota Land Cruiser 2010-2014	Behind glove box & Passenger kick panel

Installation

Type 1

Refer to "Vehicle wiring reference charts" on page 10 for more information on vehicle-specific connections.



While there are 2 possible versions of wiring harnesses, this diagram uses the CURRENT harness. Refer to the **Wiring connections** section for more information.

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

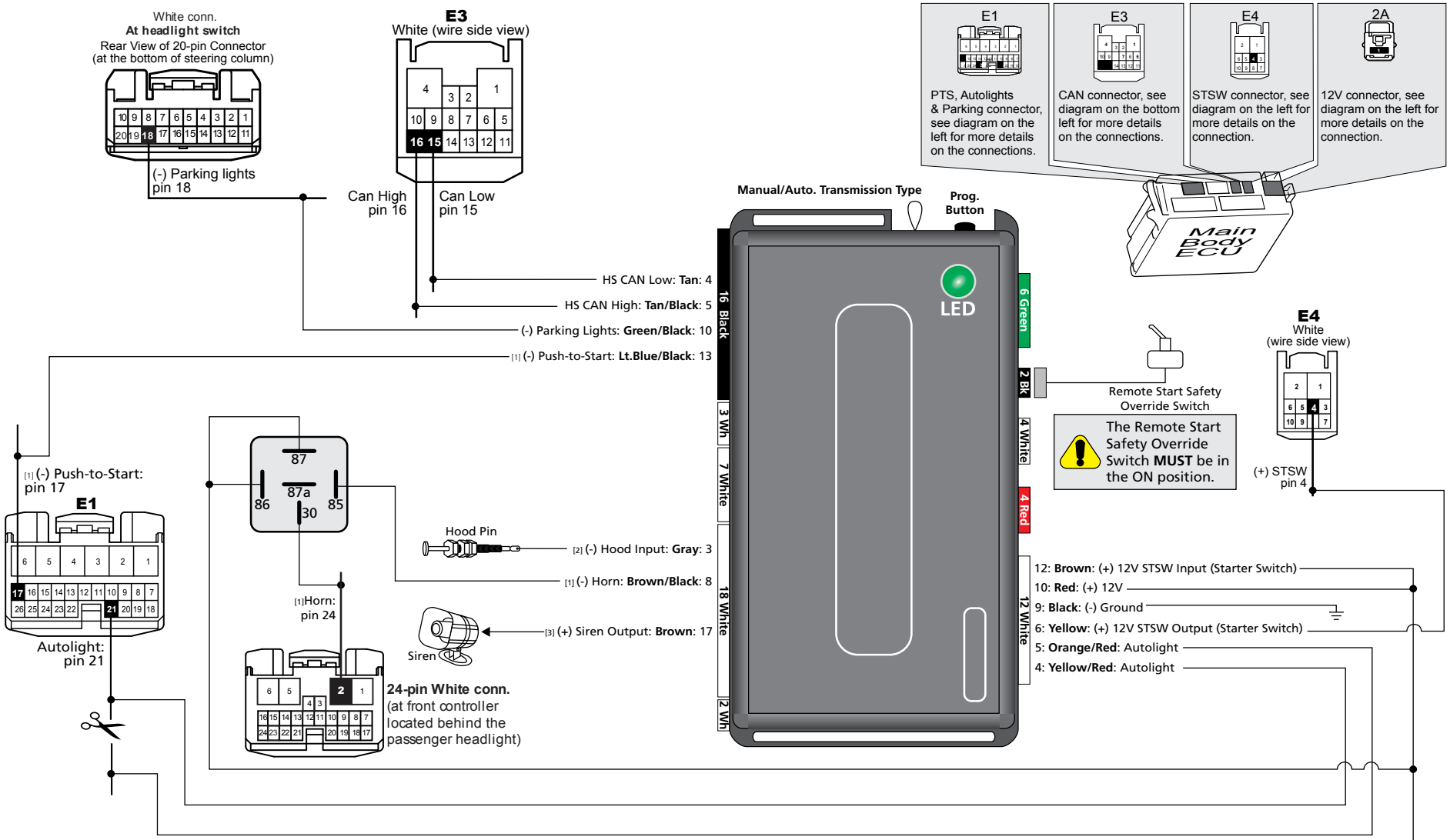
[2] The installation of an aftermarket hood pin is only required on vehicles that are not equipped with a factory hood pin.

[3] The siren is **only** available with the Directed Digital Systems remote start and security system.

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

Type 2

Refer to "Vehicle wiring reference charts" on page 10 for more information on vehicle-specific connections.



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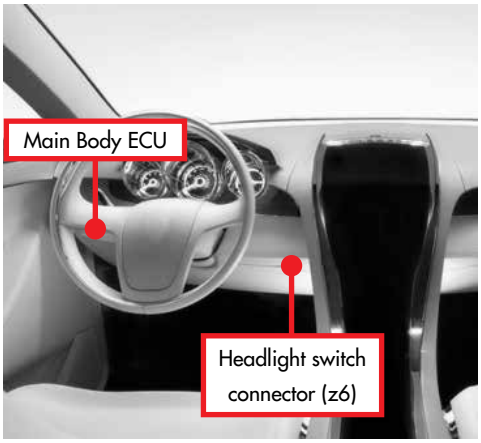
[3] The siren is **only** available with the Directed Digital Systems remote start and security system.

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

Vehicle wiring reference charts

⚠ Refer to www.directechs.com for more information on any additional connections.

Vehicles	Year	Function	Connector	Pin	Wire
Lexus					
Lexus LS 460	2007-2014	CAN High	L11	16	Black
		CAN Low	L11	15	White
		Auto Headlamp Shutoff	z6	19	Orange
		Parking Light	z6	18	Blue
		Push-to-Start	L13	17	White
		STSW*	A68	4	Black
		12v	DG	1	Yellow
Lexus LS 600h	2008-2014	CAN High	L11	16	Black
		CAN Low	L11	15	White
		Auto Headlamp Shutoff	z6	19	Orange
		Parking Light	z6	18	Blue
		Push-to-Start	L13	17	White
		STSW*	A68	4	Black
		12v	DG	1	Yellow
Lexus LX 570	2008-2014	CAN High	E3	16	Gray
		CAN Low	E3	15	Red
		Auto Headlamp Shutoff	E1	21	Green
		Parking Light	E1	23	Violet
		Push-to-Start	E1	17	Black
		STSW*	E4	4	Red
		Horn	E12	8	Gray
		12v	2A	1	Black
Toyota					
Land Cruiser	2008-2014	CAN High	E3	16	Gray
		CAN Low	E3	15	Red
		Auto Headlamp Shutoff	E1	21	Green
		Parking Light	E1	23	Violet
		Push-to-Start	E1	17	Black
		STSW*	E4	4	Red
		Horn	E12	8	Gray
		12v	2A	1	Black



* STSW: Starter Switch Wire

Connecting the module

⚠ Important!

Before connecting the Directed Digital System, it is important to ensure that the proper feature and function programming is selected using the configuration wizard. Visit www.xpresskit.com to use the latest version of the online tool.

To make this selection:

1. Disconnect the main module from any (+)12V power source, then connect it to your computer using the **XKLoader**.
2. Open the Internet Explorer browser (version 6.0 and later) and go to **www.xpresskit.com**; the programming window will be displayed automatically.
3. Follow the instructions in the pop up window that will be displayed when the module is detected.
   Note: If the latest firmware is already loaded, only the feature options will be flashed. Check the **Yes** box if you wish to flash the firmware as well.

Once the module is programmed, you can proceed with the instructions below.

Manual or automatic transmission selection

The yellow loop on the Directed Digital System controls which transmission type the unit is configured for. The state of the loop (uncut or cut) when the main module is powered up will determine which type is selected.

- Uncut (default): Manual transmission.
- Cut: Automatic transmission.

For safety reasons, all Directed Digital Systems are shipped ready to use with a manual transmission (the yellow loop is untouched). If the loop is cut after power has been applied, it is necessary to cycle power to the main module (via the white 12-pin main power harness) so the unit will see the state change on the loop and appropriately configure the transmission type.

Ready mode

To successfully remote start a vehicle equipped with a manual transmission, the Ready Mode feature must be enabled before exiting the vehicle. Please refer to the Owner's Guide for more details on this required process.

Additional connections required for vehicles equipped with a manual transmission (if not supported by firmware)

Connection	Description
(-) Emergency Brake Input (black/white, pin 2)	Must be connected to a working emergency brake in the vehicle. Although most vehicles have simple (-) trigger emergency brake circuits note some vehicles do not and may require unique integration methodologies.
(-) Door Input (white/green, pin 10) OR (+) Door Input (yellow/green, pin 11)	Must be connected to a working door trigger in the vehicle, which monitors all doors. The unit must monitor the door pins to allow the Ready Mode process to be enabled. **Note**: Some vehicles may require unique integration methodologies for this circuit.
(AC) Tachometer Input (violet/white, pin 6)	Must be connected to a working tachometer signal in the vehicle (fuel injector, ignition coil, true tach, etc.) and learned successfully to the Directed Digital System.

Note: Refer to www.directechs.com for more information.

Optional sensors

Note: The sensor port is only active on hybrid systems.

The 4-pin sensor port is compatible with a number of different Directed sensors including, but not limited to:

- Shock Sensor – 504D
- Field Disturbance Sensor – 508D
- Ultrasonic Sensor – 509U

Note: In the case of 508D, power and ground must be hardwired to the vehicle – power and ground should **NOT** be obtained from the 4-pin sensor port.

Each sensor will have its own instructions, which must be followed for installation and adjustment.

RF kits

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

When flashing the Directed Digital System, make sure to pick the remote you will be using. This way the main module will have the necessary firmware to interact with the remote and Control Center (antenna) combination.

When used in conjunction with SmartStart

The Directed Digital System main module must be disconnected from any power source before SmartStart can be connected to it. Failing to do so could damage main module.

To ensure that the D2D communication between the Directed Digital System and SmartStart works properly, one of the following actions must be executed, depending on the hardware you are using:

- Rev **A** SmartStart – The brown or blue loop must be cut.
- Rev **B** SmartStart – The gray wire must be connected to a ground source.

Do **NOT** connect the SmartStart 2-pin power harness. Power and ground will be provided by the D2D connector on main module.

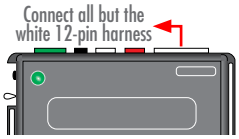
Module programming

⚠ Refer to "LED diagnostics and troubleshooting" on page 14 for more information and for troubleshooting purposes.

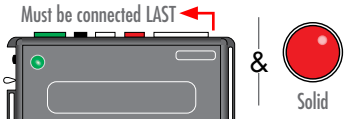
To connect the module:

1 Please ensure that the vehicle is in a safe location an cannot move forward during programming. For vehicles equipped with a manual transmission, make sure the gearshift lever is in the neutral position.

2 Connect all the harnesses to the Directed Digital System, **EXCEPT** the white12-pin main power harness.

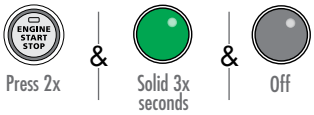


3 Connect the white12-pin main power harness, and wait until the LED turns ON solid red.



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

* If the LED starts to flash orange, it indicates the vehicle is equipped with a factory remote starter. Refer to LED Diagnostics & Troubleshooting section for more information.



5 Turn vehicle ignition OFF once the module is successfully programmed.

6 Pair remotes (if applicable). For information on how to pair a specific remote, please refer to its corresponding owner documentation, which can be found inside the product packaging of the complete system or on www.directechs.com.*

7 By default, the tachometer is preprogrammed for the vehicle. For instructions on how to program tach, refer to the Analog Installation Guide, which can be found on www.xpresskit.com.

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

⚠ **Important!** If connected to a SmartStart, please ensure that its Gray wire is connected to a ground source or the D2D communication between the two (2) modules will NOT work.

LED diagnostics and troubleshooting

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

Module programming

LED	Description	Troubleshooting	Comment
Solid	Waiting for programming to begin.	Normal operation.	Make sure that all the connections are correct (see wiring diagram).
Flashes orange	OEM remote starter detected.	If the user wants to use the module just as convenience he should skip bypass (press 5x programming button). If the user wants to use the module as a remote starter he should disconnect OEM remote starter and repeat the programming sequence.	Normal operation.
Solid green	Module successfully programmed.	Normal operation.	Normal operation.
Solid orange	Module was successfully programmed without bypass. (convenience mode only)	OEM remote starter detected (convenience mode only). To have a remote starter feature, disconnect the OEM remote starter and repeat programming sequence doing a short reset.	Normal operation.

Shutdown codes

LED	Description	Troubleshooting	Comment
Flashes red x 1	Run safe shutdown.	Used to check the installation and for troubleshooting purposes.	Used to check for internal safety operation. Does not represent an error.
Flashes red x 2	Brake shutdown.		
Flashes red x 3	No key detected shutdown.		
Flashes red x 4	Speed detected.		

Active ground when unning (status)

LED	Description	Troubleshooting	Comment
Flashes green	GWR (Status) command received.	Used to ensure the module has received the remote start message and has enabled the remote start runtime.	Commands can come from RF & D2D.
Solid red & orange	IGNITION ON command received.	Used to ensure the module received the ignition command.	Normal operation
Flashes green quickly	START ON command received.	Used to ensure the module received the start command.	

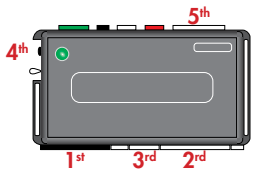
External commands

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

Module reset

A module reset will only erase the steps perfomed in "Module programming" on page 13. All settings (firmware) and settings flashed to the module using the web configuration tool will not be affected.

1 If required for your installation, connect both black16-pin and white18-pin harnesses, as well as the white 7-pin harness to the module. Press and hold the programming button, then connect the white 12-pin harness to the module.



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

Hard reset

Warning Against Executing a Hard Reset!

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

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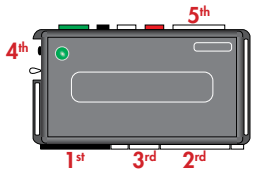
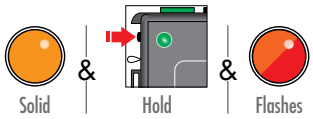


2 After 3 seconds the LED turns ON solid orange. Keep holding the programming button until the LED flashes red, then orange slowly.



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

Learning the Tach (not needed with Virtual Tach)

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

1. Start the vehicle using the key.
2. Within 5 seconds, press and hold the Control Center* (antenna) or the main module programming button, until the LED on the Control Center (antenna) or the main module turns ON soild.
3. Release the button. Tachometer value is now stored in memory.
   If the LED does not turn ON solid, find an alternate tach source.

* If the Control Center (antenna) was not included in your kit, the tach can be programmed using the programming button directly on the main module.

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

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

To program Virtual Tach:

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

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

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

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

Limited lifetime consumer warranty

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

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

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

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

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

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

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Quick Reference Guide – Viper, Clifford, Python, Avital & Automate

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

Manual transmission ready mode

1 While the vehicle is running, put the gear in **Neutral** (N).

2 Depress the vehicle's foot brake.

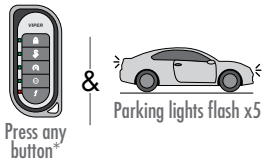
3 Apply the emergency brake.

4 Release the vehicle's foot brake.

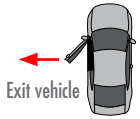
Warning! Depressing the brake pedal again after this step will disable the remote start feature.

5 Press any button on the transmitter.* The parking lights flash 5 times confirming that the remote start feature is active.

Note: If the parking lights do not flash 5 times, you have not entered manual transmission mode and will need to repeat steps 1 to 5.



6 Exit the vehicle.



7 Press the **Lock** button on the factory or aftermarket remote.*

The vehicle engine will shut Off after locking the system.

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

Pit stop mode

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

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

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

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

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

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

List of available commands

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

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

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 a push button start or push-to-start keyless ignition and start system work by using various antennas throughout the vehicle to detect the presence of the vehicle's electronic Smart Key. If the Smart Key has been removed from the interior cabin of these vehicles while the engine is running, the engine will still continue to run indefinitely unless action is taken by the user to shut the ignition system off, becoming a potential hazard if the vehicle has been left unattended in a garage or other confined space.

The Engine Idle Protection System (EIPS) available on this product has been designed as a convenience feature that can detect the presence of the vehicle's Smart Key within the cabin using the vehicle's OEM antennas and communications network. If the key has been removed from the vehicle, EIPS will engage and monitor the vehicle for a pre-defined amount of time configured at the time of installation (i.e. 1 to 5 minutes). Once engaged, if the EIPS timer expires and the key has still not been detected inside the vehicle, the EIPS feature will assume the vehicle has been unintentionally left idling and will shut the engine off.

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).
- 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).

Note:

- EIPS is configured using the configuration wizard.
- 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

Quick Reference Guide – Autostart

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

Manual transmission ready/idle mode sequence

1 While the vehicle is running, put the gear in **Neutral** (N).

2 Depress the vehicle's foot brake.

Apply the emergency brake twice (2), then release the vehicle's foot brake and skip to step 5.

OR

3 Apply the emergency brake, then release the vehicle's foot brake.

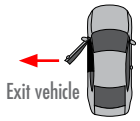
Warning! Depressing the brake pedal again after this step will disable the remote start feature.

4 Within 10 seconds, press any button on the transmitter.*

5 The parking lights flash 5 times confirming that the remote start feature is active.

Note: If the parking lights do not flash 5 times, you have not entered manual transmission sequence and will need to repeat steps 1 to 5.

6 Exit the vehicle.



7 Press the:

- **Lock** button on the factory or aftermarket remote* to shut the vehicle Off and lock the doors.
- **Trunk** button on the aftermarket remote only to lock the doors and enter idle mode.

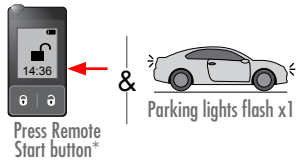
* Your aftermarket remote may differ from the model shown in the illustrations.

Idle mode (automatic transmission only)

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

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

The parking lights will flash once to indicate the vehicle is now in **Idle Mode**.



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

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

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Notes