

# Quick Reference Install Guide

Remote Start with Keyless Entry  
4205-series, 1-button remote

## Guide Translations

For a Spanish version of the Installation Guide, please download it from [www.directechs.com](http://www.directechs.com) under Resources.

### Estimado Cliente:

Si buscas los guías de instalación, por favor de bajar lo del Resources en el sitio [www.directechs.com](http://www.directechs.com)

## Wiring Connections

### Primary Harness (H1), 9-pin connector

H1/1	LIGHT GREEN BLACK	(-) 200mA FACTORY ALARM DISARM OUTPUT
H1/2	GREEN/WHITE	(-) 200mA FACTORY ALARM REARM OUTPUT
H1/3	YELLOW	(+) IGNITION OUT (TO ALARM)
H1/4	WHITE/BLUE	(-) ACTIVATION INPUT
H1/5	ORANGE	(-) 500mA GROUND WHEN LOCKED/ANTI-GRIND OUTPUT
H1/6	BROWN	(-) 200mA HORN OUTPUT
H1/7	RED/WHITE	(-) 200mA TRUNK RELEASE OUTPUT*
H1/8	BLACK	GROUND INPUT
H1/9	WHITE	(+/-) LIGHT FLASH OUTPUT

\*Option not available on 1-button

### Remote Start harness, (H3) 5-pin connector

H3/1	BLACK/WHITE	(-) NEUTRAL SAFETY SWITCH INPUT
H3/2	VIOLET/WHITE	TACHOMETER INPUT
H3/3	BROWN	(+) BRAKE SHUTDOWN INPUT
H3/4	GRAY	(-) HOOD PIN SWITCH SHUTDOWN INPUT
H3/5	BLUE/WHITE	(-) 200 mA 2ND STATUS/REAR DEFOGGER OUTPUT

### Heavy Gauge Relay, 6-pin connector

1	RED	(+) (30A) HIGH CURRENT 12V INPUT
2	PINK/WHITE	OUTPUT TO SECOND IGNITION/ACCESSORY CIRCUIT
3	RED	(+) (30A) HIGH CURRENT 12V INPUT
4	ORANGE	OUTPUT TO ACCESSORY CIRCUIT
5	PURPLE	OUTPUT TO STARTER CIRCUIT
6	PINK	OUTPUT TO PRIMARY IGNITION CIRCUIT

### Satellite harness - 4-pin connector

1	BLUE	(-) 200mA STATUS OUTPUT
2	ORANGE	(-) 200mA ACCESSORY OUTPUT
3	PURPLE	(-) 200mA STARTER OUTPUT
4	PINK	(-) 200mA IGNITION OUTPUT

### Door Lock, 3-pin connector

1	LIGHT BLUE	(-) UNLOCK OUTPUT
2	EMPTY	NOT USED
3	GREEN	(-) LOCK OUTPUT

## Installation Points

### Tach Learning

#### To learn the tach signal:

1. Start the vehicle with the key.
2. Within 5 seconds, press and hold the Valet (Control) button.
3. After 3 seconds the system LED will light constant when the tach signal is learned.
4. Release the Valet (Control) button.

**Important:** This unit can learn the tachometer with the analog input or through D2D using an interface module. The unit confirms which source is used by flashing the parking lights.

#### When programming tach learning with:

- **Analog**, the parking lights flash **one** time
- **D2D interface module**, the parking lights flash **twice**

If the tachometer input on the system is connected to the vehicle, the D2D tachometer input will be ignored.

### Virtual Tach

**Note:** Virtual tach is not recommended for diesel vehicles.

#### To program Virtual Tach:

1. After the install is complete, remote start the car.
2. If the car does not start on the first attempt, let the remote start attempt again.
3. Once the car starts, let it run until the parking lights come on.
4. When the parking lights come on, shut off the remote start with the remote - that's it! Virtual Tach is programmed.

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 must be connected. This may involve more installation shop charges than initially quoted.

**Important:** If the Virtual Tach mode over cranks or doesn't crank the vehicle long enough to start and run the car, use the Bitwriter to add or subtract the starter output time. You can adjust the output time in increments of 50msec of the learned time using the Bitwriter.

## Reset and Deletion

If a feature/virtual tach needs to be reset or the remote controls need to be deleted, use the following procedure.

1. Turn the ignition to the ON position (The heavy gauge pink wire must be connected).
2. Within 10 seconds, press and release the Valet button: 2 times if you want to delete remotes, 3 times to reset features or 4 times to reset virtual tach. These features are described next.

**Delete remotes:** This feature erases all remotes from the memory of the system. This is useful in cases when a customer's remote is lost or stolen.  
**Note:** This does not reset the programmed features of the system or reset the Virtual Tach setting.

**Reset Features:** This resets all features of the system to the factory default settings.

**Note:** This feature does not delete the remotes from the system or reset the Virtual Tach setting

**Virtual Tach Reset:** Deletes all previously learned values for Virtual Tach, and on the next remote start sequence the unit begins virtual tach initialization.

**Note:** The "Zap" feature on the Bitwriter does not reset the Virtual tach setting.

3. Once you have selected the function step, press the Valet button once more and hold it. The LED flashes and the horn honks to confirm the selected functional step. Do not release the Valet button.
4. While holding the Valet button, press the button on the remote control. The horn honks to confirm that the feature has been successfully reset. You can now release the Valet button.

## Remote Start Shutdown Diagnostics

#### To perform shutdown diagnostics:

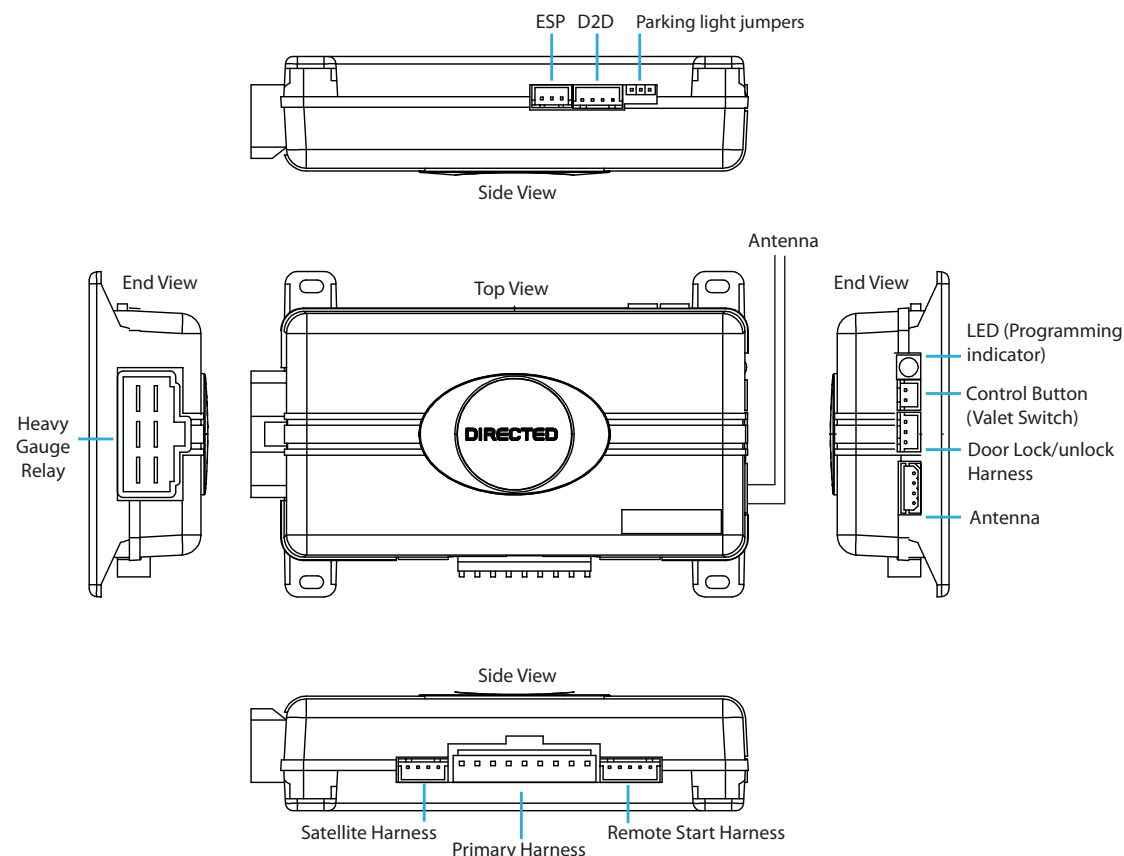
1. With the ignition Off, **press and hold** the Valet button.
2. **Turn** the ignition On and then back Off while **holding** the Valet button.
3. **Release** the Valet button.
4. **Press and release** the Valet button. The LED flashes to report the last shutdown for one minute or until the ignition is turned on, as shown in the following table:

#### LED Flashes

- 1 flash
- 2 flashes
- 3 flashes
- 4 flashes
- 5 flashes
- 6 flashes
- 7 flashes
- 8 flashes

#### Shutdown Mode

- Timed out
- Over-rev shutdown
- Low or no RPM, low battery (voltage and virtual tach modes)
- Transmitter shutdown (or optional push button)
- (-) Hood Shutdown (H3/4 GRAY)
- (+) Shutdown (H3/3 BROWN)
- (-) Neutral safety shutdown (H3/1 BLACK/WHITE)
- Wait-to-start timed out



Bitwriters with a date code of 6a or older require an IC upgrade (p/n 998M). Some bitwriters with a date code of 6B do not require the IC upgrade, refer to tech tip # 1112 for more information.



The Bitwriter® (p/n 998U) requires chip version 2.7 or newer to program this unit.

## Programming System Features

The System Features Learn Routine dictates how the unit operates. It is possible to access and change most of the feature settings using the Valet button.

1. Turn the ignition on, then off.
2. Select a Menu. Within 10 seconds, Press and hold the Valet button. The number of LED flashes and horn honks indicates the menu number. A single LED flash and honk indicates menu 1. Two LED flashes and 2 honks indicates menu 2.
3. When the desired menu LED flashes and honks are heard, release the Valet button.
4. Select a Feature, within 10 seconds. Press and release the Valet button the number of times corresponding to the feature you wish to change. Then press and hold one more time to select the feature. The LED flashes and the horn honks to indicate which feature is selected.
5. Program the Feature. While holding the Valet button, you can program the feature using the remote control.

Pressing the button on the remote control advances to each feature option. The LED flashes and the horn honks indicating which option is selected.

### Once a feature is programmed:

- Other features can be programmed within the same menu
- Another menu can be selected
- The learn routine can be exited if programming is complete

### To access another feature in the same menu:

1. Press and release the Valet button the number of times necessary to advance from the feature you just programmed to the next one you want to program.
2. Then press the Valet button once more and hold it.

### To select another menu:

1. Press and hold the Valet button.
2. After 3 seconds, the unit advances to the next menu, the horn honks and LED flashes indicating which menu has been accessed.

### The learn routine exits if any of the following occurs:

- The ignition is turned On
- There is no activity for 30 seconds
- The Valet button is pressed too many times

## Bitwriter - Only Options



If programming with the Bitwriter®, the learn routine can be locked or unlocked. If the learn routine has previously been locked, it must be unlocked with Bitwriter® - this cannot be done manually with the Valet button.

The Bitwriter® gives you access to a wider range of system options. These additional features and the adjustments that may be programmed are described in the table below.

Menu Item	Feature	Default	Options
1	Engine Runtime	12 min.	1-60 min.
2	Diesel start type	Off	Timed
3	Diesel start delay time (seconds)	15 sec	1-90 sec.
4	Virtual Tach Fine Tune	Not initialized	0 to 1 second in 50 millisecond increments
5	Remote control programming	Unlocked	Locked
6	Feature Programming	Unlocked	Locked

## Feature Menus

Default settings are in bold type.

### Menu 1

Feature #	Feature	Opt. 1	Opt. 2	Opt. 3	Opt.4	Opt. 5+
1	Horn function	Off	Siren 20 mS	Siren 30 mS	Siren 40 mS	Siren 50 mS
2	Ignition controlled lock	On	Off			
3	Ignition controlled unlock	On	Off			
4	Doorlock output duration	0.8 sec.	3.5 sec.	0.4 sec.		
5	Double pulse unlock	Off	On			
6	Double pulse lock	Off	On			
7	Factory Alarm Disarm function	with unlock	Before unlock	Remote start only		
8	Factory Alarm Disarm Pulses	Single	Double			
9	Comfort* Closure	Comfort Closure 1	Off	Comfort Closure 2		
10	Panic*	On	Off			

\*\*Option not available on 1- button

### Menu 2

Feature #	Feature	Opt. 1	Opt. 2	Opt. 3	Opt.4	Opt. 5+
1	Engine checking	Virtual tach	voltage	Off	tachometer	
2	Engine Runtime	12 min	24 min	60 min		
3	Park light output	Pulsed	Constant			
4	Cranking time	0.6 sec.	0.8 sec.	1.0 sec.	1.2 sec.	1.4, 1.6, 1.8, 2.0, 4.0 sec
5	Activation pulse count	1 pulse	2 pulses	3 pulses		
6	2nd Ignition behavior	Ignition	Accessory			
7	Accessory output	Off during wait-to-start	On during wait-to-start			
8	2nd Status behavior	Normal	Latch rear defogger	Pulse rear defogger		
9	Anti-grind	On	Off			
10	Diesel start delay	Off	Timed 15 sec	Timed 30 sec.	Timed 45 sec.	
11	Timer mode-run time *	12 min	3 min	6 min	9 min	

\*Option not available on 1- button

## Remote Programming

1. Turn key to the ON position
2. Within 10 seconds, press and release Valet button one time.
3. Within 10 seconds, press and hold the Valet button. The LED will flash one time and the horn honks (if connected) to confirm entry into remote programming.
4. Press the button on the remote control.
5. The horn honks to confirm the remote has been programmed.
6. Release the Valet button, and turn the key to the Off position.
7. The horn sounds one long honk to confirm that remote programming has been exited.

The programming routine exits if any of the following occurs:

- The ignition is turned off
- There is no activity for 30 seconds
- The Valet button is pressed too many times

## Basic Remote Functions

Button Press	Function when remote start is OFF	Function when remote start is ON
Press for less than 1.5 seconds	Start the engine	Unlock doors
Press for more than 1.5 seconds	Car finder	Stop the engine

See full Installation Guide for more detailed information on this system. Such information and more can be found online at:

[www.directechs.com](http://www.directechs.com)

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