

# Quick Reference Install Guide

## 4003 Remote Start

### Wiring Connections

#### Main Harness, 9-pin connector

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

\* Ground when locked and horn honk are only available when adding a receiver (P/N 6102T) and remote.

#### Heavy Gauge Relay 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

#### Remote Start Harness, 5-pin connector

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

#### Door Lock, 3-pin connector

1	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 button.
3. After 3 seconds the LED will light constant when the tach signal is learned.
4. Release the Valet 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.

##### When programming tach learning with:

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

If the Violet/White 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.

#### How to Reset Features and Virtual Tach

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: 3 times to reset features or 4 times to reset virtual tach. These features are described next.

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

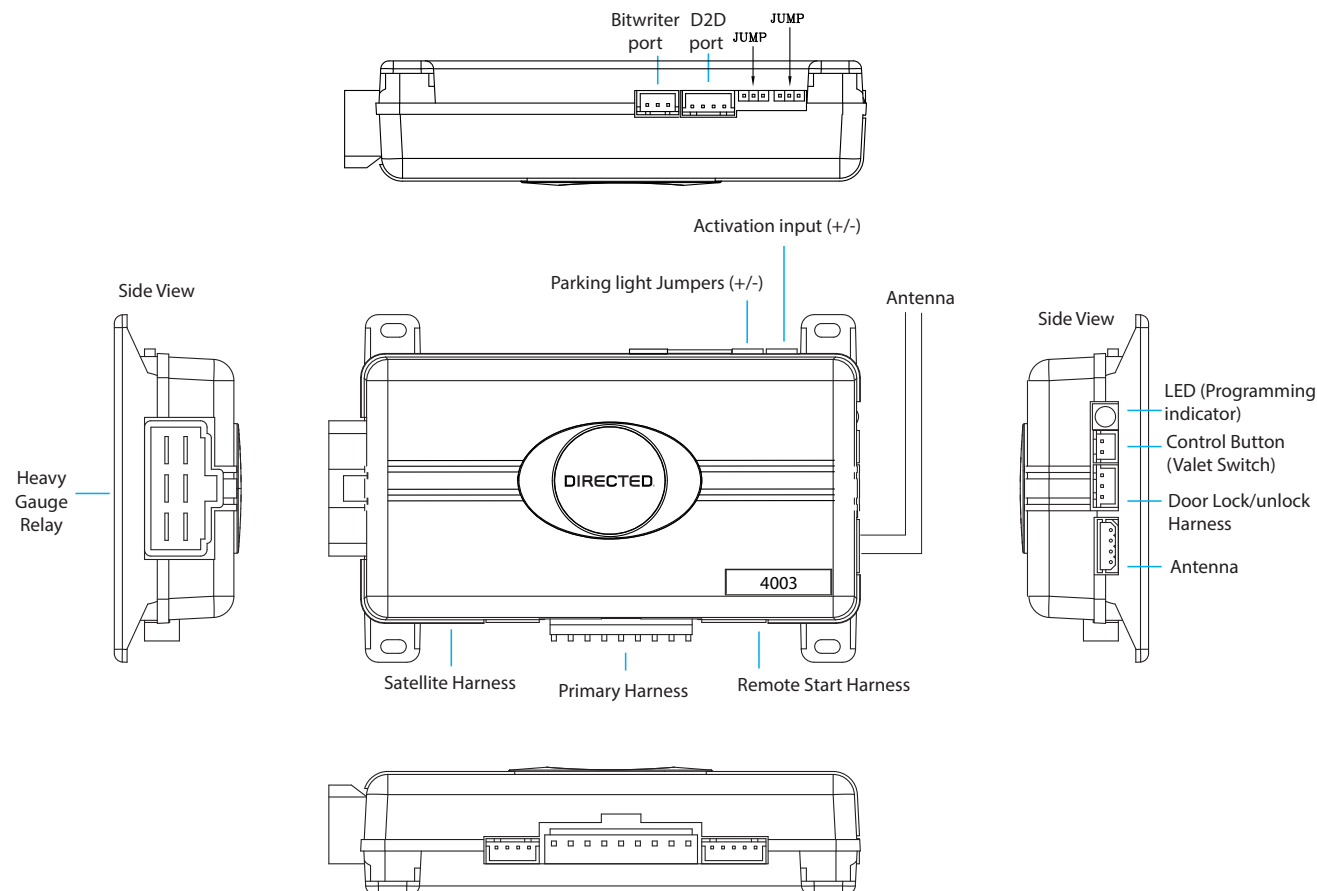
**Note:** This feature does not delete the remote controls from the system (if remotes have been programmed to the system) and it does not reset the Virtual tach setting.

**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 to confirm the selected channel. Do not release the Valet button.
  - Note:** An audible confirmation can also be used if the horn honk output is connected to the car.
4. Activate input. When the white/blue is pulsed the LED comes on solid to confirm the reset.

**Once the feature is reset, the Valet button can be released.**



## 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. **Press** and **hold** the Valet button. When the LED flashes once, Menu One has been selected. Continue to hold the switch until the LED flashes twice. Menu Two has now been selected. Release the Program switch after the desired Menu choice has been selected.
3. **Choose.** Within 10 seconds, press and release the Valet button the number of times corresponding to the feature number you want to program. (See Features Menu section.)  
Once the Valet button has been pressed and released the desired number of times, press it once more and hold it. After a second, the LED will flash to indicate which feature you have accessed. For example, groups of eight flashes would indicate access to the status output feature (Feature 8 of menu 2).
4. **Activate Input.** Each time the white/blue is pulsed, the LED will turn on or off indicating the feature setting. If the feature has more than two selections, each time this input is pulsed the next available setting will be picked. For example if 60 minute runtime is chosen, (Feature 2, Menu 2) the LED flashes 3 times.
5. **Release.** The Valet button can now be released.

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

\* Available only when adding a receiver (P/N 6102T) and remote control (P/N 7143L).

### Menu 2

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

\* Available only when adding a receiver (P/N 6102T) and remote control (P/N 7143L).

## Remote Start Shutdown Diagnostics

If the remote start activates but fails to stay running, the remote start module has the ability to inform you of what may have caused the remote start failure. Before performing shutdown diagnostics it is important that you let the remote start shut off on its own i.e. let it attempt to start 3 times then shut down, if this is not done the unit will report the shutdown you used to shut off the remote start.

**Note:** Shutdown diagnostics diagnostics does not report if the vehicles factory immobilizer is causing the problem.

### 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 (GRAY wire on 5-pin Remote Start harness)
- (+) Shutdown (BROWN wire on 5-pin Remote Start harness)
- (-) Neutral safety shutdown (BLACK/WHITE wire on 5-pin Remote Start harness)
- Wait-to-start timed out

## Optional remote programming/deleting

If adding an antenna (P/N 6102T) and remotes (P/N 7111L/7143L) to this system use the following procedure to add or delete them.

1. Turn the key to the ON position
2. Within 5 seconds, press and release the Valet button one time to program a remote, or two times to delete all remote controls.
3. Within 5 seconds, press and hold the Valet button. The LED will flash and the horn will sound one time if programming a remote or two times if deleting all remote controls, confirming entry into programming/deleting.
4. Press the button (or the single button) on the remote control.
5. The horn will sound to confirm the remote programming or deleting.  
**Note:** The remote deletion feature will not reset the programmed features of the system.
6. Release the Valet button and turn the key to the OFF position.
7. The horn will sound to confirm that programming/deleting 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.

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.

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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