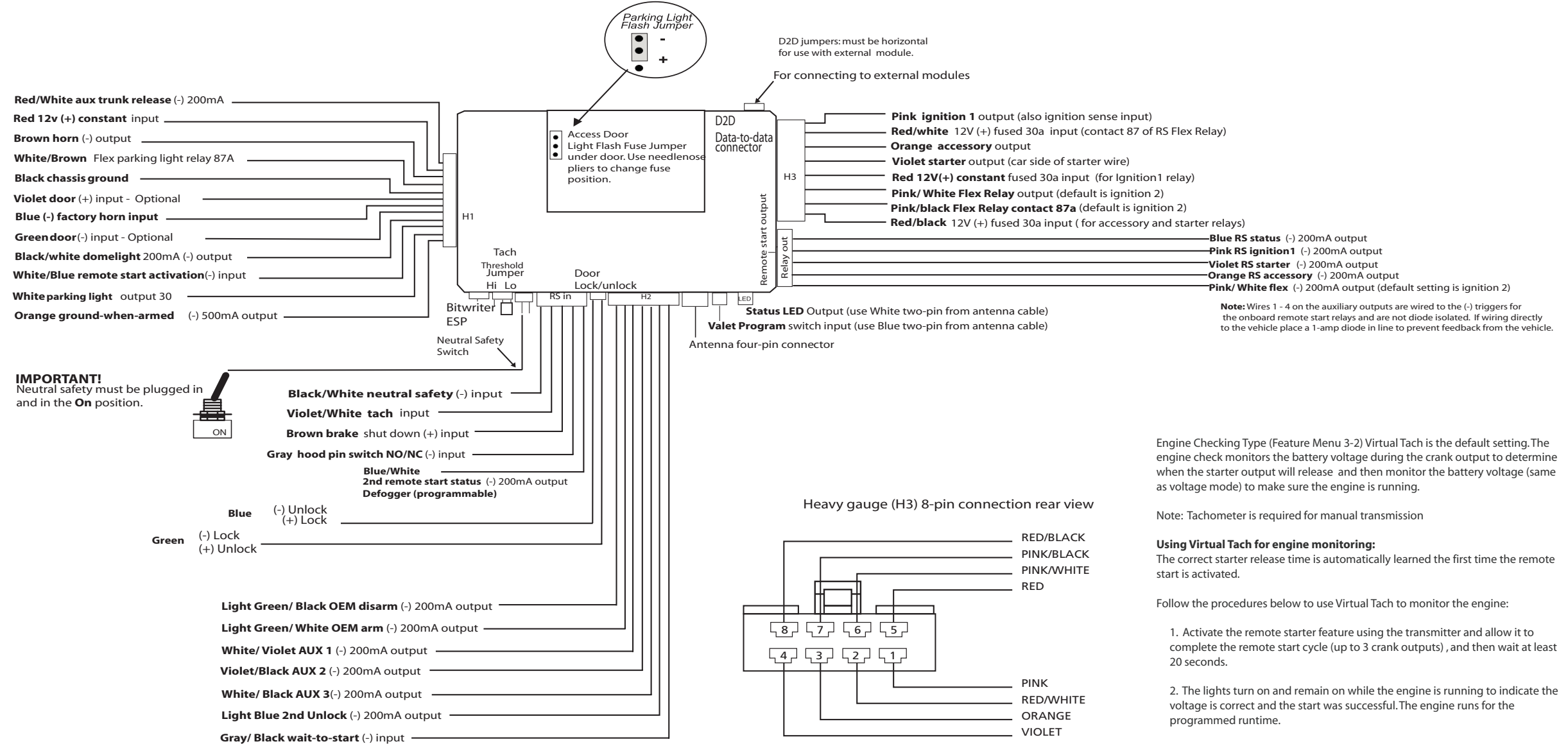


Remote Start Keyless Entry Quick Reference Wiring Guide



IMPORTANT!
Neutral safety must be plugged in and in the **On** position.

Note: Wires 1 - 4 on the auxiliary outputs are wired to the (-) triggers for the onboard remote start relays and are not diode isolated. If wiring directly to the vehicle place a 1-amp diode in line to prevent feedback from the vehicle.

Engine Checking Type (Feature Menu 3-2) Virtual Tach is the default setting. The engine check monitors the battery voltage during the crank output to determine when the starter output will release and then monitor the battery voltage (same as voltage mode) to make sure the engine is running.

Note: Tachometer is required for manual transmission

Using Virtual Tach for engine monitoring:
The correct starter release time is automatically learned the first time the remote start is activated.

Follow the procedures below to use Virtual Tach to monitor the engine:

1. Activate the remote starter feature using the transmitter and allow it to complete the remote start cycle (up to 3 crank outputs), and then wait at least 20 seconds.
2. The lights turn on and remain on while the engine is running to indicate the voltage is correct and the start was successful. The engine runs for the programmed runtime.
3. Shutdown the remote start using the transmitter. This puts the learned value into memory and recall it the next time remote start is activated.

Note: You can reset Virtual tach if the learned value is not correct. Use the same menu that is used for learning the transmitter to the main unit to reset Virtual Tach.

►What's New

- LED and Valet switch now on the receiver
- Auto relock Automatically relocks after each unlock from the remote. If the door, trunk, hood, or ignition is turned on the relock is defeated until the next unlock input. Relocks passively after unlock input, and the vehicle is not entered.
- Hood Trigger Type For vehicles that have N/C hood triggers. (See Feature Menu #1 on the reverse side)
- One-time Bypass User can bypass passive locking, comfort Closure, and channel linking for locking cycle. Turn the ignition on for more than 1 second, and then off in less than 3 seconds, the horn honks one-time. Features that would normally auto-activate are bypassed. (See Menu #2)
- Aux 3 Smart Key Control Changes the remote start Aux 3 output to a control for use with newer vehicles with Smart Key technology. Provides a pulsed output to turn the engine off, remote start shutdown, and to use the door trigger input to shutdown remote start if the door goes active during remote start. When this option is On, the RF control of the Aux 3 output is defeated. One-time bypass does not defeat this output
- Flex Relay Vehicles with varied engine control systems require flexibility in remote start systems. The 2nd ignition relay is now configured as Flex Relay programmable to activate as a 2nd ignition, starter or accessory output.
- Tach Mode Starter Release When using the Tachometer input for engine monitoring, this feature allows you to increase or decrease the crank output release point during remote start to compensate for vehicles with short crank or over crank problems during installation.

Responder LE Remote Start Keyless Entry Quick Reference

Transmitter Programming

Consult the "Remote Control Learn Routine" section of the installation guide and enter the remote setup procedure specific to your remote, then proceed to the transmitter/receiver learning procedure.

Transmitter/Receiver Learning and Reset procedures

Use the following steps to access the TX/Receiver learning and reset menu:

- Turn the ignition On.
- Press/release the same number as the desired item, and then press/hold the Valet Switch. The horn will honk to indicate the selection.

Transmitter/Receiver Learning and Reset Menu		
Item	Function	Description
1	Learn TXs	Auto learn standard configuration Note: All TX button assignments are automatically set and cannot be customized.
2	Delete All TXs	Deletes all learned TXs from main unit memory. Note: System features will not be reset to default options when HHUs are deleted.
3	Feature Reset	Resets all system features to their default options. Note: TXs will not be deleted when features are reset.
4	VirtualTach Reset	Deletes previously learned values for VirtualTach. Note: After reset the VirtualTach will begin it's learn routine on the next remote start activation.

Feature programming

Use the following steps to access the feature programming menus:

- Turn the ignition On, then Off.
- Press/hold the Valet switch to select the desired Feature Menu. The horn will honk 1-3 times to indicate the available menu. Release the switch when the desired menu is indicated.
Note: You can move between all menus without exiting programming by holding the Valet switch. The unit will cycle through the menus until the switch is released.
- Press/release the same number as the desired menu item, and then press hold the Valet Switch. The horn will honk to indicate the selection.
Note: The Valet switch can be released while setting the feature options. The exit timer has been extended to 30 seconds.
- Press the Remote Start, Lock or Unlock button on the TX to set the new options. The horn will honk to indicate the selected option.
 - Lock button:** Pressing the Arm button will select options in increasing order (IE: 1-2-3-1-2-3)
 - Unlock button:** Pressing the Disarm button will select options in decreasing order (IE: 1-3-2-1-3)
 - Remote Start button:** Pressing the Remote Start button will reset to default option 1.
- Exit: To exit programming close the doors, turn the ignition on or do nothing for 30 seconds. The main unit will honk the horn to indicate exit.

Note: If horn is not used, the LED flashes one-time and then flashes the same number of times as the feature menu item number.

Features available for programming using the Valet Switch are listed in the following menus. The Bitwriter can also be used to program enhanced feature options not available in the menus.

Note: The default settings are indicated in bold type.

Feature menu 1: Keyless entry features						
Menu Item	Feature	Opt. 1	Opt. 2	Opt. 3	Opt. 4	Opt. 5+
1	System locking	Active locking	Passive locking	Auto relocking		
2	Panic Mode	On	Ign Off only	Off		
3	Horn function	Confirmation honk (20mS) & panic	Confirmation honk (30mS) & panic	Confirmation honk (40mS) & panic	Confirmation honk (50mS) & panic	Confirmation honks Off, panic only
4	Ign-controlled locks	No-ign locking	Lock/Unlock	Lock only	Unlock only	
5	DoorLock Pulses	Single	Double Unlock Only	Double Lock Only	Double Lock & Unlock	
6	DoorLock Output Duration	0.8 sec	3.5 sec	0.4 sec		
7	2nd Unlock	No 2nd unlock	2nd unlock on Ign-control after first unlock	2nd unlock on Ign-control with first unlock		
8	Comfort Closure	No Comfort Closure	Comfort Closure 1	Comfort Closure 2		
9	Hood Trigger Type	Normally Open	Normally Closed			

Feature menu 2: Convenience features						
Menu Item	Feature	Opt. 1	Opt. 2	Opt. 3	Opt. 4	Opt. 5+
1	One-time bypass	On	Off			
2	Valet Switch Pulse Count	1	2	3	4	5
3	Door ajar error honk	On	Off			
4	Ign-controlled Domelight	On	Off			
5	OEM Alarm Disarm w/Ch2	On	Off			
6	OEM Alarm Disarm Output	With Unlock	Before Unlock	Remote Start Only		
7	OEM Alarm Disarm Pulses	1	2			
8	Aux 1 Output type	Validity	Latch	Latch/reset/ign	Timed30 sec	Off
9	Aux 1 Linking	No Linking	Link to Arm	Link to Disarm	Link to Arm/disarm	Link to Remote Start only
10	Aux 2 Output type	Validity	Latch	latch reset/ign	Timed 30 secs	Off
11	Aux 2 Linking	No Linking	Link to Arm	Link to Disarm	Link to Arm/Disarm	Link to Remote Start only
12	Aux 3 Output type	Validity	Latch	Latch reset/ign	Timed 30 secs	Off
13	Aux 3 Linking	No Linking	Link to Arm	Link to Disarm	Link to Arm/Disarm	Smart Key Control (Link to Remote Start Off)

Feature menu 3: Remote Start features						
Menu Item	Feature	Opt. 1	Opt. 2	Opt. 3	Opt. 4	Opt. 5+
1	Transmission Mode	Manual	Automatic			
2	Engine Checking Mode	Virtual Tach	Voltage	Off	Tachometer	
3	Cranking Time	0.6 sec	0.8 sec	1.0 sec	1.2 sec	1.4 (5)/1.6(6)/1.8 (7)/2.0(8)4.0(9)
4	Remote Start Runtime	12 min	24 min	60 min		
5	Activation Pulse Count	1	2			
6	Turbo Mode	No Turbo Mode	On-1 min	On-3 min	On-5 min	On-10 min
7	Timer Mode Runtime	12 min	3 min	6 min	9 min	
8	Flex Relay Function	Ignition 2	Accessory 2	Starter 2		
9	Diesel Start Delay	Wait-to Start input	Timed 15 sec	Timed 30 sec	Timed 45 sec	
10	Accessory during Diesel Start Delay	On	Off			
11	Status 2 Output	Status	Latch Rear Defogger	Pulse Rear Defogger		
12	Parking Light Output	Constant	Pulsed	Off		
13	Anti-grind Output	On	Off			
14	Tach Mode Starter Release	Normal	Increase	Decrease		
15	Vehicle temp auto report	Off	On			

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