



**Update Alert:** Firmware updates are posted on the web on a regular basis. We recommend that you check for firmware and/or install guide updates prior to installing this product.

## Installation Guide

Ford, Lincoln and Mercury transponder immobilizer control and factory alarm disarm.

- ⚠️ **Two (2) keys required for programming when doing a regular installation.**
- One (1) key required if using Key2GO feature, see page 4 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.

Vehicles	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	PK-Immobilizer Bypass-Data No Key Req'd	DL-Disarm Factory Security	Key2GO
<b>Ford</b>																	
Crown Victoria			2	2	2	2	2	2	2	2	2				•	•	•
Edge			1	1	1	1	1								•	•	•
Escape		1	1	1	1	1	1	1	1	1	1	1	1		•	•	•
Escape Hybrid		1	1	1	1	1	1	1	1						•	•	•
E-Series	2	2	2	2	2	2									•	•	•
Expedition			1	1	1	1	1	1	1	1	1				•	•	•
Explorer			1	1	1	1	1	1	1	1	1	1	2*		•	•	•
Explorer Sport Trac									2	2	2	2	2		•	•	•
F150			1												•	•	•
F150				1	1	2	2	2	2	2					•	•	•
F250			1												•	•	•
F250				1	1	1									•	•	•
F350			1												•	•	•
F350				1	1	1									•	•	•
F450			1												•	•	•
F450				1	1	1									•	•	•
Fiesta	1	1	1												•	•	•
Five Hundred							1	1	1						•	•	•
Flex				1	1										•	•	•
Focus	1	1	1	1	1	1	2	2		2	2	2	2	2	•	•	•
Focus									2						•	•	•
Freestar							1	1	1	1					•	•	•
Freestyle							1	1	1						•	•	•
Fusion		1	1	1											•	•	•
Fusion					1		1	1							•	•	•
Fusion						1									•	•	•
GT								2	2						•	•	•
Mustang		1	1	1	1	1	1	1	1						•	•	•
Mustang (SA Key)		1	1												•	•	•
Ranger		2	2	2	2	2	2	2	2	2	2	2	2		•	•	•
Sport Trac				1	1	1	1								•	•	•
Taurus		1	1	1											•	•	•
Taurus					1	1	2	2	2	2	2	2	2	2	•	•	•
Taurus X					1	1									•	•	•
Thunderbird									1	1	1	1			•	•	•
Transit Connect	1 or 2	1 or 2	1 or 2	1 or 2											•	•	•
Windstar										1	1	1*			•	•	•

## Vehicle Application Guide

Vehicles	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	PK-Immobilizer Bypass-Data No Key Req'd	DL-Disarm Factory Security	Key2GO
<b>Lincoln</b>																	
Aviator									1	1	1				•		•
LS								1	1	1	1	1	1	1	•		•
Mark LT						2	2	2							•		•
MKS		1	1	1	1										•		•
MKX				1	1	1	1								•		•
MKZ		1	1	1											•	•	•
MKZ					1	1	1								•		•
Navigator	1	1	1	1											•	•	•
Navigator					1	1	1	1	1	1	1	2			•		•
Town Car			2	2	2	2	2	2	2	2	2				•		•
Zephyr								1							•		•
<b>Mercury</b>																	
Grand Marquis				2	2	2	2	2	2	2	2				•		•
Marauder										2	2				•		•
Mariner				1	1	1	1	1	1						•		•
Mariner Hybrid				1	1	1	1	1							•		•
Milan				1	1	1	1	1							•		•
Montego							1	1	1						•		•
Monterey							1	1	1	1					•		•
Mountaineer				1	1	1	1	1	1	1	1	1	2*		•		•
Mystique														2	•		•
Sable					1	1			2	2	2	2	2	2	•		•

**Legend:**

DL: OE Door Lock & Alarm Controls

PK: Transponder & Immobilizer Override

\* Vehicles built after July 24, 2000.



**⚠** This feature is required if only one key is available, the installation will remain the same as the two-key method, for programming refer to page 16.

**⚠** Key2GO has been designed and developed to bypass the advanced encryption layers found in modern vehicles. It uses an array of servers to generate a duplicate of the original key, allowing the installation of a remote starter without having to give up a key.

The advantage is that this feature allows you to use one original key and the server, as a proxy for the second key, can be used to configure the bypass in the vehicle.

All Key2GO-compatible firmware are clearly indicated in the function list of each vehicle search result page and will also appear on the flash page. Any first-time user must re-register to gain access to Key2GO, and some additional information will be required to complete the registration process, such as your Directed account number and store name.

Key2GO is compatible with XpressVIP 4.5 or higher and requires an XKLoader.

Refer to page 16 of this guide for instructions on how to program features using Key2GO.

## Key2GO & 1KEY Programming

**Note:** Version 4.5 or higher of XpressVIP must be installed on your computer to complete this programming sequence.

Refer to page 16 of this guide for instructions on how to program features using Key2GO.

## Understanding the Difference Between a Ford 80 Bit & a 40 Bit

Ford introduced an 80-bit encryption in late 2009 and this caused a lot of confusion as to which models it was available on. The main question is which models use the 80 and which use the old 40 bit?

Contrary to popular belief, the SA marking on the key does NOT indicate a vehicle uses 80-bit encryption. In reality, the SA marking indicates that the key is 80-bit compatible, but the vehicle itself could still be using 40-bit encryption.

### What does it mean?

It means that Ford did in fact release SA keys equipped with an 80-bit transponder, but the reality is that the same transponder can also be used in 40-bit vehicle, making it backward compatible with older vehicles. Consequently, if you see an SA key it is important that you do not automatically assume it is an 80-bit type. It all depends on the vehicle, not the key.

### How do I Differentiate Between the 40 & 80 Bit?

To determine which encryption type you are dealing with, you must test pin 1 at the 4-pin IMMO connector on the key barrel for the following conditions to determine if it is 40 or 80-bit type.

An **80-bit** vehicle should provide the following values:

- NO key in barrel: 0V
- Key in barrel with IGN OFF: (+) 12V
- Key in barrel with IGN ON: (+) 12V

A **40-bit** vehicle should provide the following values:

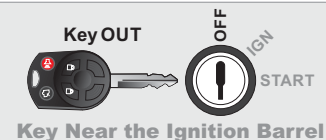
- NO key in barrel: 0V
- Key in barrel with IGN OFF: 0V
- Key in barrel with IGN ON: (+) 12V

**Note:** If you find out to be an 80-bit type, refer to our FORD6 guide for instructions.

## Disarm Testing (Read through all steps before proceeding)

**Note:** This testing is to be done if you want to use the DBALL to disarm the factory alarm on unlock and trunk release (Installation Type 2). This install type can only be done on low current ignition switch and on vehicles that do not disarm using the key to unlock the driver's door. If using a one-button system or door locks are not being connected, the disarm will automatically be done upon remote start.

- 1 Position the key next to the ignition barrel in a way that you can free your hands, and have a few jumpers ready for the next steps.



- 2 Arm the factory alarm on your vehicle.



Arm Factory Alarm

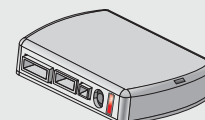
- 3 Trigger the factory alarm by opening a door.



- 4 You must now try to power up the ignition, accessory and keysense wires with jumpers in order to determine what is required to disarm the system. It can be a combination of two wires.  
**Note:** The key must be **near (but not inserted into)** the ignition barrel during the entire length of the testing.

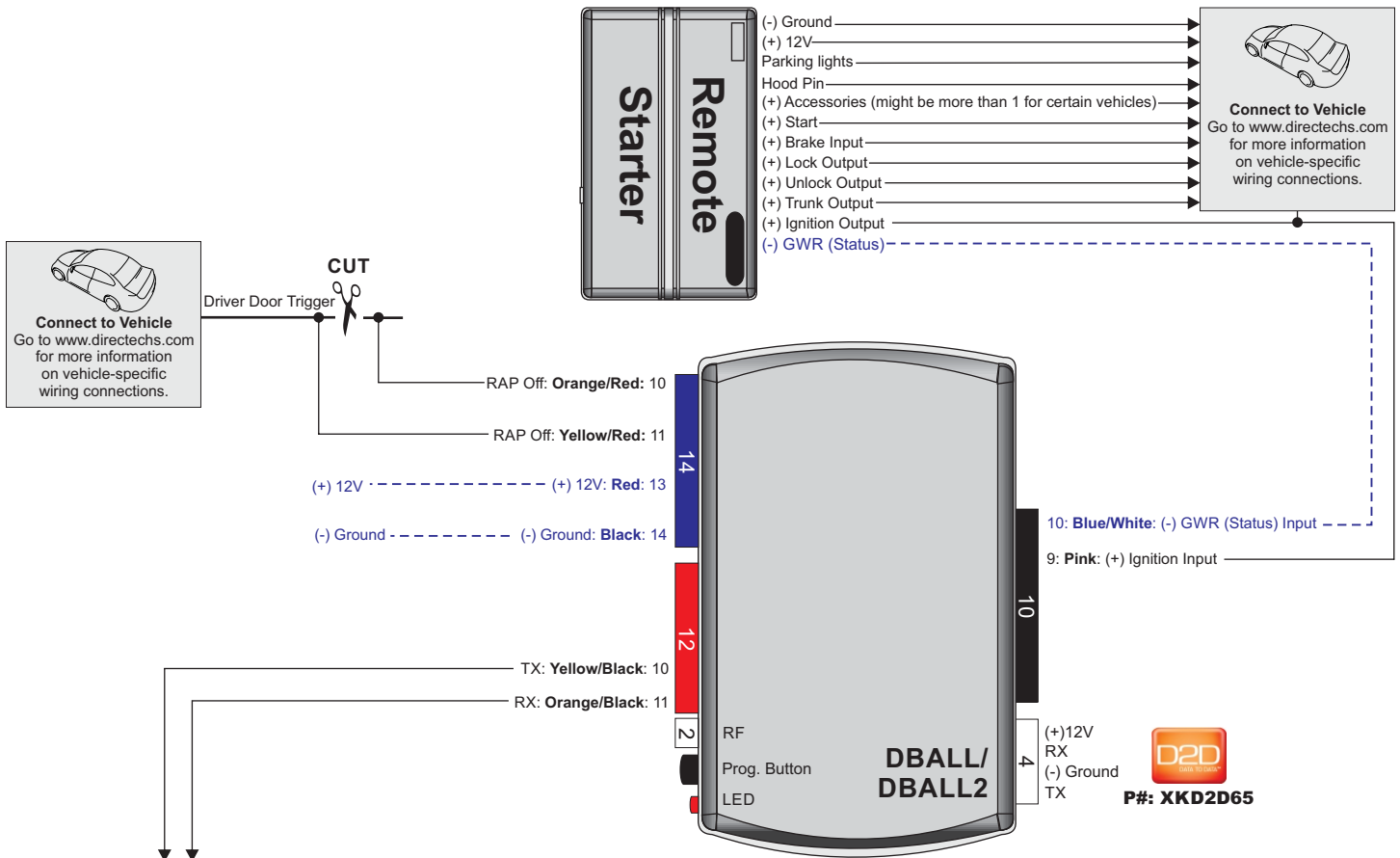
Common scenarios include **Ignition** only, **Ignition + Accessory** or **Ignition + Keysense**, but may differ.

- 5 When you have found what combination works to disarm the system, refer to the installation wiring diagram to make the proper connections to the DBALL module.



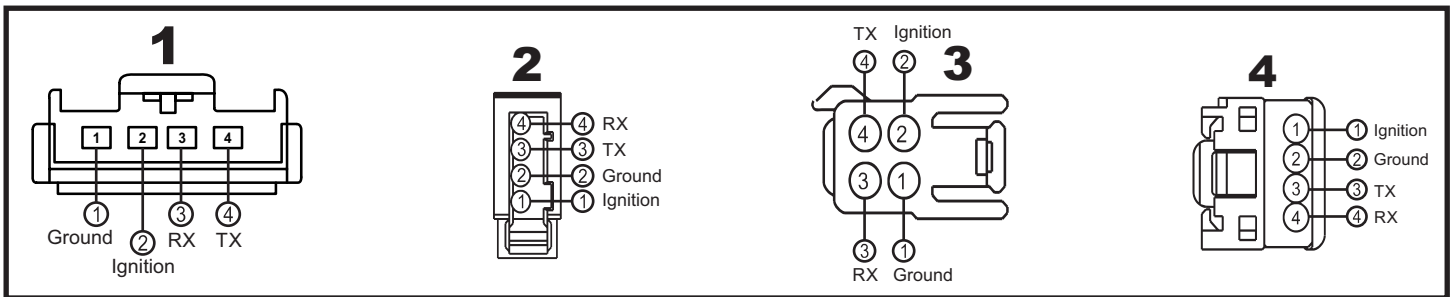
Connect DBALL

## Installation Type 1a - Vehicles without Factory Alarm



### Passive Anti-Theft Security System (PATS) connectors (connector side view)

See the Vehicle Wiring Chart on pages 12 & 14.

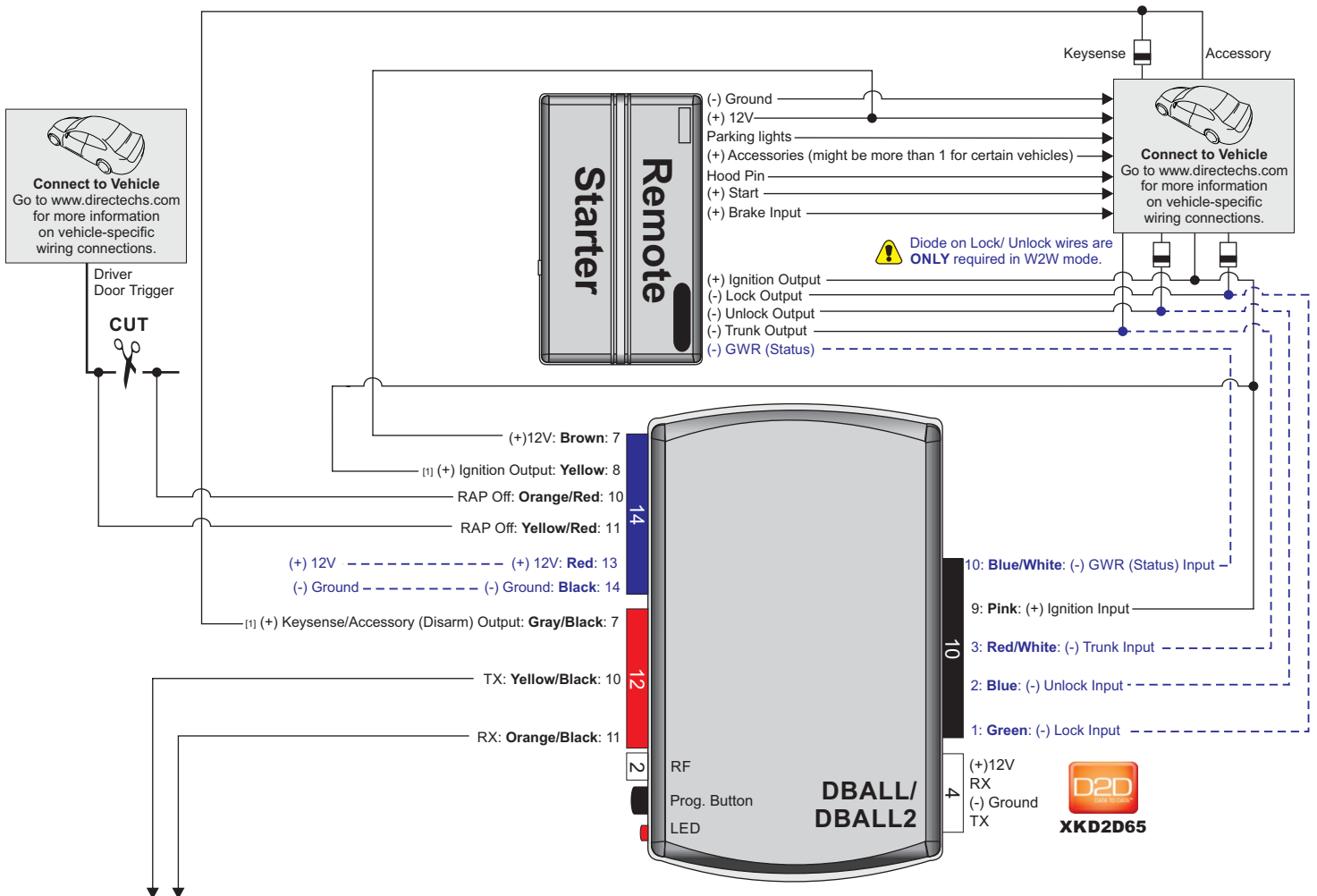


**!** Refer to pages 11 and 14 for wire color information.

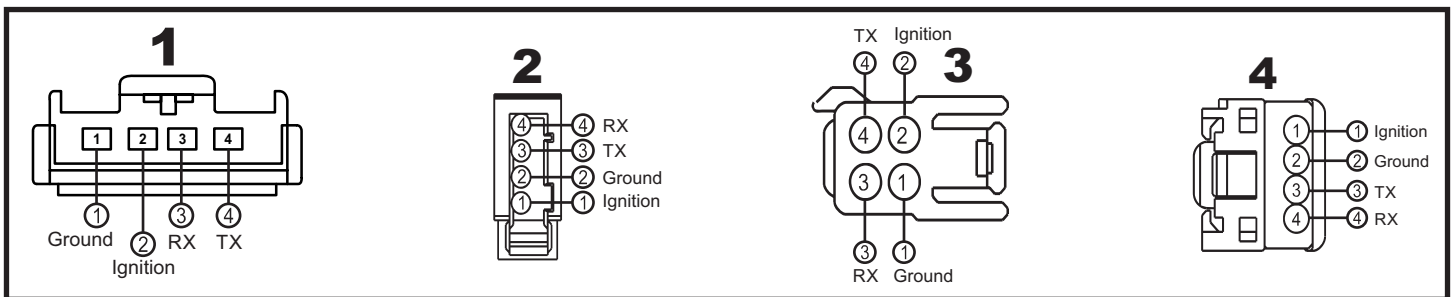
---- Not required in D2D mode.

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

## Installation Type 1b - Vehicles with Factory Alarm



**Passive Anti-Theft Security System (PATS) connectors (connector side view)**  
 See the Vehicle Wiring Chart on pages 12 & 14.



**⚠️ Refer to pages 11 and 14 for wire color information.**

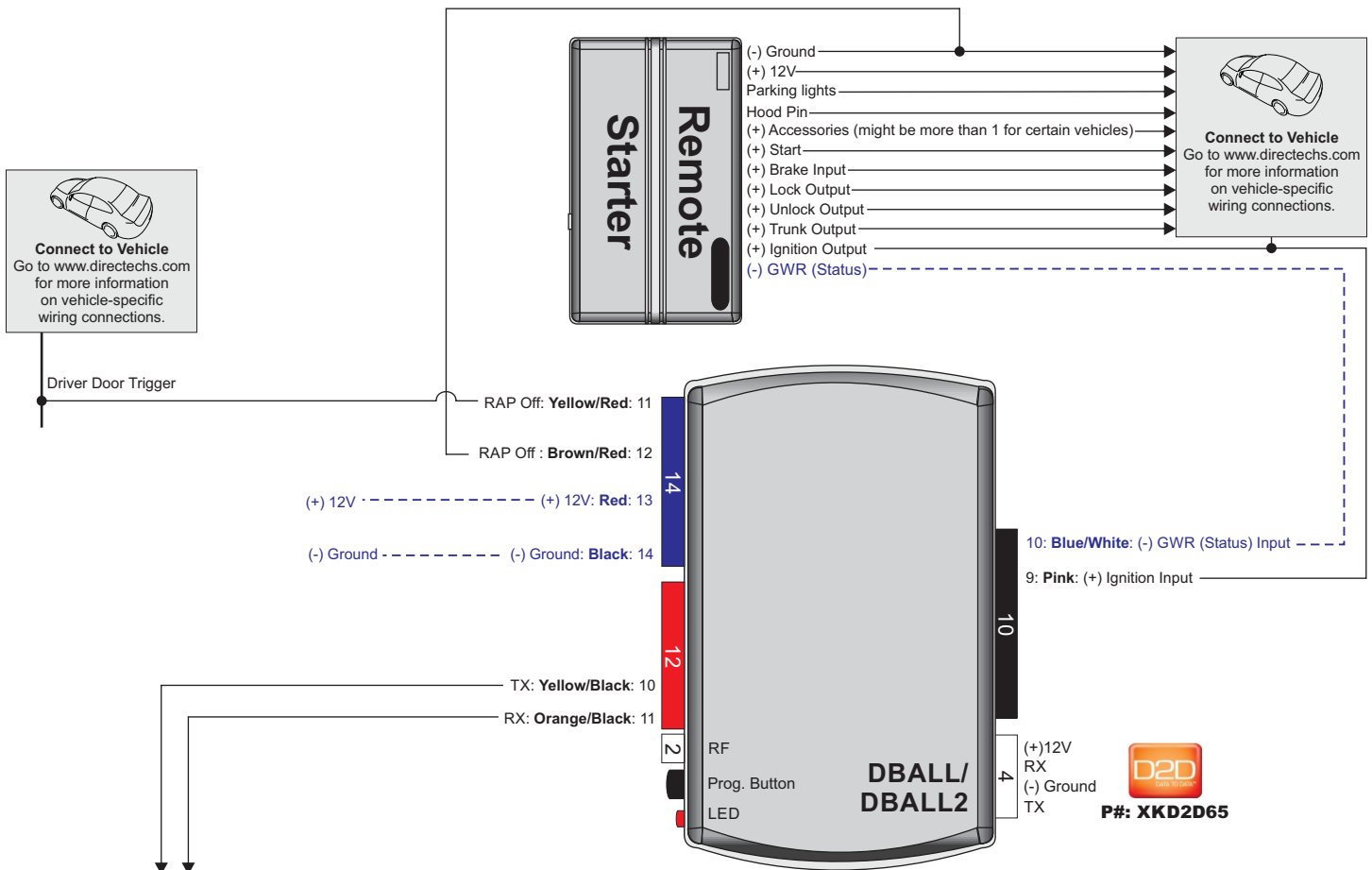
----- Not required in D2D mode.

[1] These outputs are for **disarming** upon **unlock** and **trunk release**, refer to page 6 for more information.

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

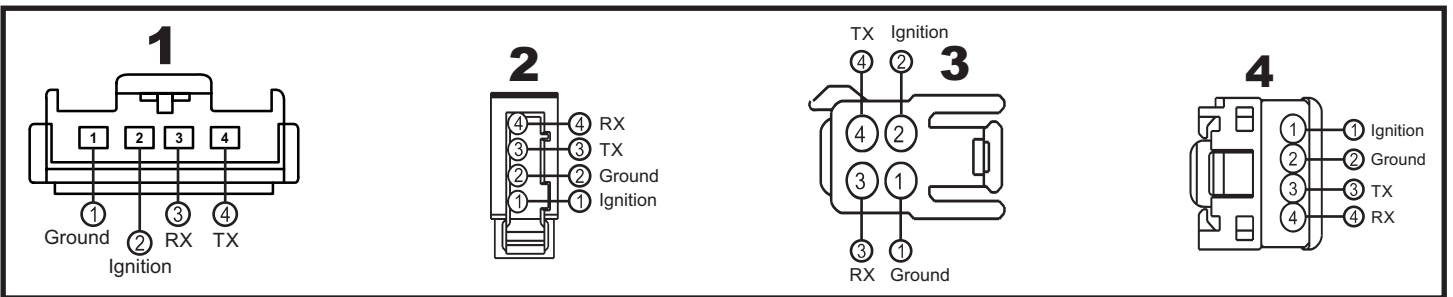


## Installation Type 2a - Vehicles without Factory Alarm



### Passive Anti-Theft Security System (PATS) connectors (connector side view)

See the Vehicle Wiring Chart on pages 12 & 14.

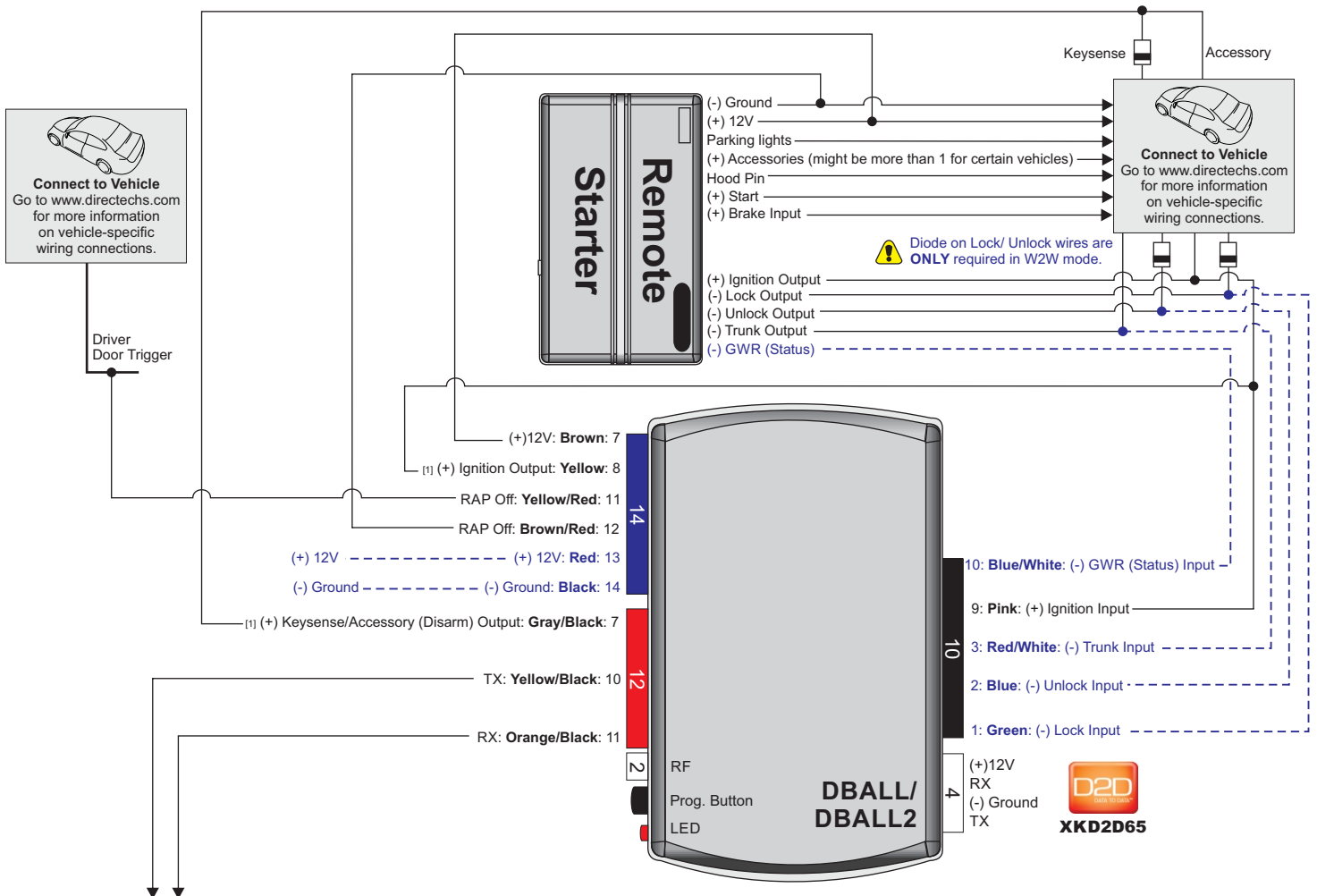


**⚠️ Refer to pages 11 and 14 for wire color information.**

----- Not required in D2D mode.

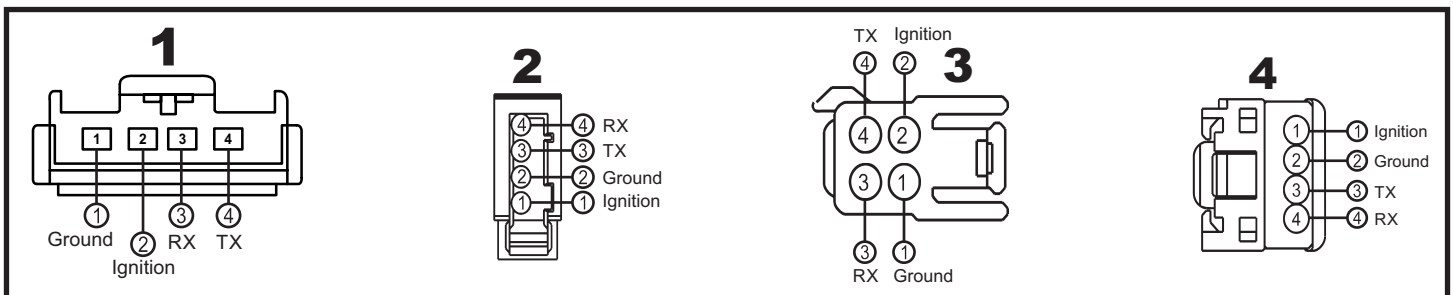
**⚠️** With the exception of the OBDII Diagnostic connector, all adapters are displayed from the wire side (unless specified otherwise).

## Installation Type 2b - Vehicles with Factory Alarm



### Passive Anti-Theft Security System (PATS) connectors (connector side view)

See the Vehicle Wiring Chart on pages 12 & 14.



**⚠** Refer to pages 11 and 14 for wire color information.

----- Not required in D2D mode.

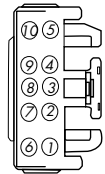
[1] These outputs are for **disarming** upon **unlock** and **trunk release**, refer to page 6 for more information.

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

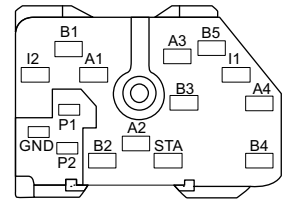
## Wiring Chart - Ignition Switch (Ford Vehicles)

Vehicles	Years	Ignition Switch								
		Type	(+) 12V	Pin	(+) Ignition	Pin	(+) Accessory 1	Pin	(+) Keysense	Pin
<b>Ford</b>										
Crown Victoria	2005-11	1	Lt. Green/Violet	9	Violet/Orange	1	Gray/Yellow or Black/Lt. Green	7	Gray/Yellow	3
Crown Victoria	2003-04	2	Brown/Lt. Green	B3	White/Yellow	I1	Gray/Yellow	A2	Black/Pink	3
Econoline	2009-12	3	Blue/Red or Green/Red	2	White/Orange	1	Brown/Yellow	8		
Econoline	2008	3	Lt. Green/Violet	2	Pink/Lt. Green	1	Gray/Yellow	8	Black/Pink	
Edge	2011	4	Green/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Edge	2007-10	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Escape	2008-12	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Escape	2001-07	4	Red	4	Lt. Green/Violet	1	Black/Lt. Green	6	Black/Pink	5
Escape Hybrid	2008-12	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Escape Hybrid	2005-07	4	Red	4	Lt. Green/Violet	1	Black/Lt. Green	6	Black/Pink	5
E-Series	2009-13	3	Blue/Red or Green/Red	2	White/Orange	1	Brown/Yellow	8		
E-Series	2008	3	Lt. Green/Violet	2	Pink/Lt. Green	1	Gray/Yellow	8		
Excursion	2004-05	2	Yellow	B3	Red/Lt. Green or White/Yellow	I1	Gray/Yellow	A4		
Excursion	2002-03	2	Yellow	B3	Red/Lt. Green or White/Yellow	I1	Gray/Yellow	A4		
Expedition	2007-11	1	Blue/Red	9	White/Orange	1	Brown/Yellow	7	Blue/Gray	3
Expedition	2003-06	4	Lt. Green/Violet	4	Dk. Blue/Lt. Green	1	Black/Lt. Green	6	Black/Pink	5
Explorer	2011-13	4	Green/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Explorer	2006-10	4	Violet/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Explorer	2002-05	4	Yellow	4	Red/Lt. Green	1	Dk. Green/Lt. Green	6	Lt. Green/Violet or Black/Lt. Green	5
Explorer	2001	2	Yellow	B2	Lt. Green/Violet	I1	Gray/Yellow or Brown	A2		
Explorer Sport Trac	2004-05	2	Red	B1,B2,B3_B4	Lt. Green/Violet	I1	Brown	A4		
Explorer Sport Trac	2001-03	2	Yellow	B1,B2,B3_B4	Lt. Green/Violet	I1	Brown	A4		
F150	2011	4	Green/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
F150	2009-10	1	Violet/Red	9	White/Orange	1	Violet/Green	5	Blue/Gray	3
F150	2004-08	4	Lt. Green/Violet	4	Dk. Blue/Lt. Green	1	Black/Lt. Green	6	Black/Pink	5
F250	2011	4	Blue/Red or Green/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
F250	2008-10	1	Blue/Red or White/Violet	9	White/Orange	1	Brown/Yellow or Yellow/Orange	7	Blue/Gray	3
F350	2011	4	Blue/Red or Green/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
F350	2008-10	1	Blue/Red or White/Violet	9	White/Orange	1	Brown/Yellow or Yellow/Orange	7	Blue/Gray	3
F450	2011	4	Blue/Red or Green/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
F450	2008-10	1	Blue/Red or White/Violet	9	White/Orange	1	Brown/Yellow or Yellow/Orange	7	Blue/Gray	3
Fiesta	2011-13	4	Red	4	Brown/Yellow	1	Violet/Green	6		
Five Hundred	2005-07	4	Red	4	Lt. Green/Violet	1	Gray/Yellow	6	Yellow	5
Flex	2009-10	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Focus	2008-11	4	Blue/Red	4	Brown/Yellow	1	Violet/Green	6	Blue/Gray	5
Focus	2000-07	4	Red	4	Green/Yellow	1	Yellow	6	Red/Black	5
Freestar	2004-07	3	Red or Lt. Green/Violet	2	White/Yellow	1	Violet/Orange	8		
Freestyle	2005-07	4	Red	4	Lt. Green/Violet	1	Gray/Yellow	6	Yellow	5
Fusion	2010-12	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Fusion	2006-09	4	Brown/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
GT	2005-06	4	Red	4	Lt. Green/Violet	1	Black/Lt. Green	6	Black/Pink	5
Mustang	2010-12	4	Blue/Red	4	Gray/Violet	1	Violet/Green	6	Blue/Gray	5
Mustang	2005-09	4	Lt. Green/Violet	4	White/Yellow	1	Black/Pink	6	Lt. Green/Violet	5
Ranger	2007-12	3	Red	2	White/Orange	1	Brown/Yellow	8		
Ranger	2005-06	3	Yellow	2	Lt. Green/Violet	1	Gray/Yellow	8		
Taurus	2010-12	4	Blue/Red	4	Green/Violet	1	Violet/Green	6	Blue/Gray	5
Taurus	2008-09	4	Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Taurus	2006-07	3	Lt. Green/Violet	2	Red/Lt. Green	1	Gray/Yellow	8		
Taurus	2002-05	2	Lt. Green/Violet	B3	Red/Lt. Green	I1	Gray/Yellow	A4		
Taurus	2000-01	2	Lt. Green/Violet	B3	Red/Lt. Green	I1	Gray/Yellow	A4		
Taurus X	2008-09	4	Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5
Thunderbird	2002-05	5	Red	7	Green/Black	5	Yellow	2	Red/White	8
Transit Connect	2010-13	4	Red	4	Green/Yellow	1	Yellow	6	Black/Red	5
Windstar	2001-03	2	Lt. Green/Violet & Red	B3	White/Yellow	I1	Yellow	A3		

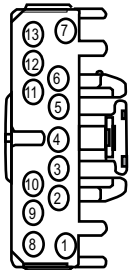
**Type 1**  
Gray 10 pins



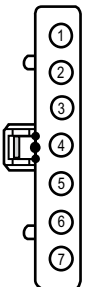
**Type 2**  
Black 15 pins



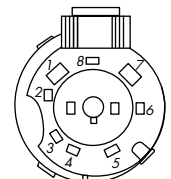
**Type 3**  
Gray or Black 13 pins



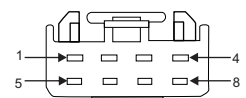
**Type 4**  
Black 7 pins



**Type 5**  
Black 8 pins



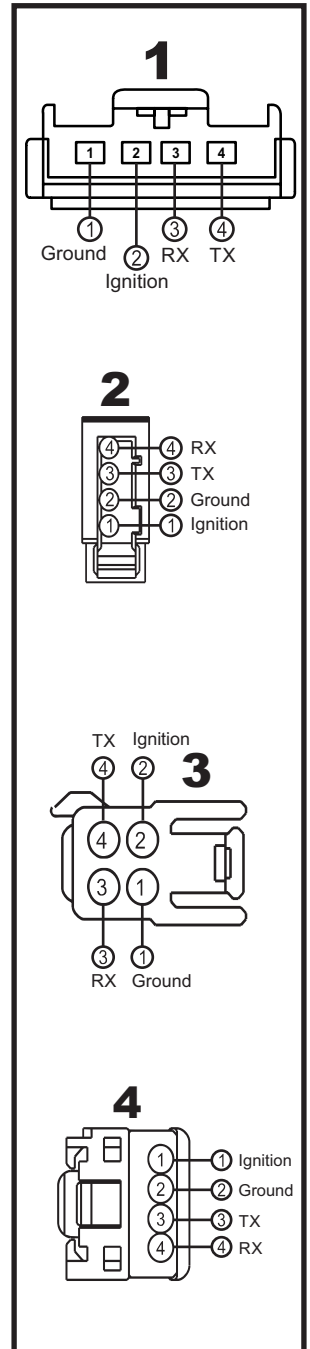
**Type 6**  
Black 8 pins



## Wiring Chart - P.A.T.S. Connector (Ford Vehicles)

Vehicles	Years	PATS Connector				
		Type	RX	Pin	TX	Pin
<b>Ford</b>						
Crown Victoria	2005-11	4	Gray/Orange	4	White/Lt. Green	3
Crown Victoria	2003-04	4	Gray/Orange	3	White/Lt. Green	4
Econoline	2009-12	3	Violet/Gray	3	Yellow/Orange	4
Econoline	2008	3	Gray/Orange	3	White/Lt. Green	4
Edge	2011-13	4	Violet/Gray	4	Yellow/Orange	3
Edge	2007-10	4	Yellow/Orange	4	Violet/Gray	3
Escape	2008-12	4	Violet/Gray	4	Yellow/Orange	3
Escape	2001-07	2	Red/Black	4	Brown/Orange	3
Escape Hybrid	2008-12	4	Violet/Gray	4	Yellow/Orange	3
Escape Hybrid	2005-07	2	Red/Black	4	Brown/Orange	3
E-Series	2009-13	3	Violet/Gray	3	Yellow/Orange	4
E-Series	2008	3	Gray/Orange	3	White/Lt. Green	4
Excursion	2004-05	3	Gray/Orange	3	White/Lt. Green	4
Excursion	2002-03	1	Gray/Orange	3	White/Lt. Green	4
Expedition	2007-11	4	Blue/Gray	4	Violet/Brown	3
Expedition	2003-06	2	Gray/Orange	4	White/Lt. Green	3
Explorer	2011	4	Violet/Red	4	Yellow/Orange	3
Explorer	2006-10	4	Violet/Gray	4	Yellow/Orange	3
Explorer	2002-05	2	Gray/Orange	4	White/Lt. Green	3
Explorer	2001	1	Gray/Orange	3	White/Lt. Green	4
Explorer Sport Trac	2001-05	2	Gray/Orange	3	White/Lt. Green	4
F150	2011	4	Violet/Gray	4	Yellow/Orange	3
F150	2009-10	4	Yellow/Orange	4	Violet/Gray	3
F150	2004-08	2	Gray/Orange	4	White/Lt. Green	3
F250	2011	4	Violet/Gray	4	Yellow/Orange	3
F250	2008-10	4	Violet/Gray	4	Yellow/Orange	3
F350	2011	4	Violet/Gray	4	Yellow/Orange	3
F350	2008-10	4	Violet/Gray	4	Yellow/Orange	3
F450	2011	4	Violet/Gray	4	Yellow/Orange	3
F450	2008-10	4	Violet/Gray	4	Yellow/Orange	3
Fiesta	2011-13	4	Violet/Gray	4	Yellow/Orange	3
Five Hundred	2005-07	4	Gray/Orange	4	White/Lt. Green	3
Flex	2009-10	4	Violet/Gray	4	Yellow/Orange	3
Focus	2012	4	Violet/Gray	4	Yellow/Orange	3
Focus	2008-12	4	Yellow/Orange	4	Violet/Gray	3
Focus	2000-07	2	White/Green	4	Gray/Orange	3
Freestar	2004-07	3	Gray/Orange	3	White/Lt. Green	4
Freestyle	2005-07	4	Gray/Orange	4	White/Lt. Green	3
Fusion	2010-12	4	Yellow/Orange	4	Violet/Gray	3
Fusion	2006-09	4	Violet/Gray	4	Yellow/Orange	3
GT	2005-06	2	Brown/Orange	4	White/Orange	3
Mustang	2010-12	4	Yellow/Orange	4	Violet/Gray	3
Mustang	2005-09	4	Gray/Orange	4	White/Lt. Green	3
Ranger	2007-12	3	Blue/Gray	3	Violet/Brown	4
Ranger	2005-06	3	Gray/Orange	3	White/Lt. Green	4
Ranger	2001-04	3	Gray/Orange	3	White/Lt. Green	4
Sport Trac	2007-10	4	Violet/Gray	4	Yellow/Orange	3
Taurus	2010-12	4	Yellow/Orange	4	Violet/Gray	3
Taurus	2008-09	4	Violet/Gray	4	Yellow/Orange	3
Taurus	2006-07	3	Gray/Orange	3	White/Lt. Green	4
Taurus	2002-05	3	Gray/Orange or Brown/Yellow	3	White/Lt. Green or Gray/Red	4
Taurus	2000-01	3	Red/Black	3	Brown/Orange	4
Taurus X	2008-09	4	Violet/Gray	4	Yellow/Orange	3
Thunderbird	2002-05	2	Gray/Red	4	White/Red	3
Transit Connect	2010-13	4	White/Green	4	Gray/Orange	3
Windstar	2002-03	3	Gray/Orange	3	White/Lt. Green	4
Windstar	2001	1	Gray/Orange	3	White/Lt. Green	4

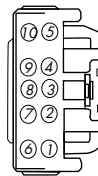
### Passive Anti-Theft Security System (PATS) connector Types



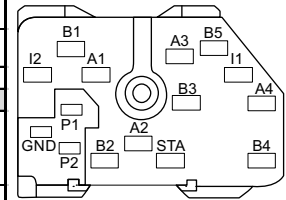
## Wiring Chart - Ignition Switch (Mercury & Lincoln Vehicles)

Vehicles	Years	Ignition Switch									
		Type	(+) 12V	Pin	(+) Ignition	Pin	(+) Accessory 1	Pin	(+) Keysense	Pin	
<b>Lincoln</b>											
Aviator	2003-05	4	Yellow	4	Red/Lt. Green	1	Gray/Yellow	6	Lt. Green/Violet	5	
LS	2000-06	5	Red	7	Green/Black	5	Pink/White & Pink/Yellow	2	Red/White	8	
Mark LT	2006-08	4	Lt. Green/Violet	4	Dk. Blue/Lt. Green	1	Black/Lt. Green	6	Black/Pink	5	
MKS	2009-12	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
MKX	2007-10	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
MKZ	2010-12	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
MKZ	2007-09	4	Brown/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
Navigator	2007-13	1	Blue/Red	8,9	White/Orange	1	Brown/Yellow	7	Blue/Gray	3	
Navigator	2002-06	4	Lt. Green/Violet	4	Dk. Blue/Lt. Green	1	Black/Lt. Green	6	Black/Pink	5	
Town Car	2005-11	1	Lt. Green/Violet	9	Violet/Orange	1	Gray/Yellow /White Lt.Blue	7	Black/Pink	10	
Town Car	2003-04	2	Yellow & Lt.Green/Violet	B3	White/Yellow	I1	Pink/Black & Gray/Yellow	A4			
Zephyr	2006	4	Brown/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
<b>Mercury</b>											
Grand Marquis	2005-10	1	Lt. Green/Violet	9	Violet/Orange	1	Gray/Yellow & White/Lt.Blue	7	Black/Pink	3(2005,2008-10 10(2006-2007)	
Grand Marquis	2003-04	2	Brown & Lt. Green	B3	White/Yellow	I1	Gray/Yellow and Black/Lt.Green	A2			
Marauder	2003-04	2	Brown & Lt. Green	B3	White/Yellow	I1	Gray/Yellow & Black/Lt. Green	A2			
Mariner	2008-10	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
Mariner	2005-07	4	Red	4	Lt. Green/Violet	1	Black/Lt. Green	6	Black/Pink	5	
Mariner Hybrid	2008-10	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
Mariner Hybrid	2006-07	4	Red	4	Lt. Green/Violet	1	Black/Lt. Green	6	Black/Pink	5	
Milan	2010	4	Blue/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
Milan	2006-09	4	Brown/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
Montego	2005-07	4	Red	4	Lt. Green/Violet	1	Gray/Yellow	6	Yellow	5	
Monterey	2004-07	3	Lt. Green/Violet	2	White/Yellow	1	Violet/Orange	8			
Mountaineer	2006-10	4	Violet/Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
Mountaineer	2002-05	4	Yellow	4	Red/Lt. Green	1	Dk. Green/Lt. Green	6	Lt. Green/Violet or Black/Lt. Green	5	
Mountaineer	2001	2	Yellow	B2	Lt. Green/Violet	I1	Brown	A2			
Mystique	2000	6	Red	1	Green	4	Yellow	8			
Sable	2008-09	4	Red	4	White/Orange	1	Violet/Green	6	Blue/Gray	5	
Sable	2002-05	2	Lt. Green/Violet	B3	Red/Lt. Green	I1	Gray/Yellow	A4			
Sable	2000-01	2	Lt. Green/Violet	B3	Red/Lt. Green	I1	Gray/Yellow	A4			

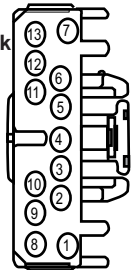
**Type 1**  
Gray 10 pins



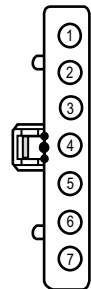
**Type 2**  
Black 15 pins



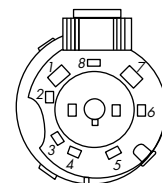
**Type 3**  
Gray or Black 13 pins



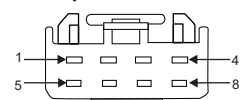
**Type 4**  
Black 7 pins



**Type 5**  
Black 8 pins



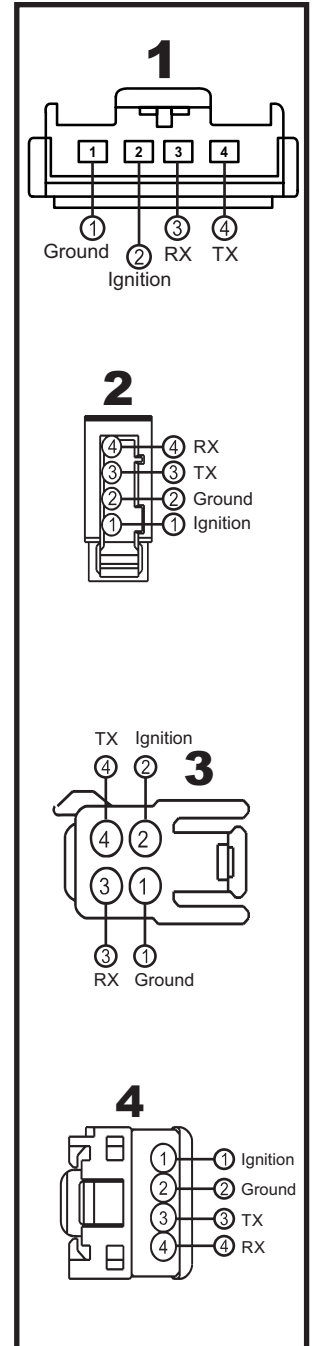
**Type 6**  
Black 8 pins




## Wiring Chart - P.A.T.S. Connector (Mercury & Lincoln Vehicles)

Vehicles	Years	PATS Connector				
		Type	RX	Pin	TX	Pin
<b>Lincoln</b>						
Aviator	2003-05	2	Gray/Orange	4	White/Lt. Green	3
LS	2000-06	2	Gray/Red	4	White/Red	3
Mark LT	2006-08	2	Gray/Orange	4	White/Lt. Green	3
MKS	2009-12	4	Yellow/Orange	4	Violet/Gray	3
MKX	2007-10	4	Yellow/Orange	4	Violet/Gray	3
MKZ	2010-12	4	Yellow/Orange	4	Violet/Gray	3
MKZ	2007-09	4	Violet/Gray	4	Yellow/Orange	3
Navigator	2007-13	4	Blue/Gray	4	Violet/Brown	3
Navigator	2003-06	2	Gray/Orange	4	White/Lt. Green	3
Navigator	2002	1	Gray/Orange	4	White/Lt. Green	3
Town Car	2005-11	4	Gray/Orange	4	White/Lt. Green	3
Town Car	2003-04	3	Gray/Orange	3	White/Lt. Green	4
Zephyr	2006	4	Yellow/Orange	4	Violet/Gray	3
<b>Mercury</b>						
Grand Marquis	2005-10	4	Gray/Orange	4	White/Lt. Green	3
Grand Marquis	2003-04	3	Gray/Orange	3	White/Lt. Green	4
Marauder	2003-04	3	Gray/Orange	3	White/Lt. Green	4
Mariner	2008-10	4	Violet/Gray	4	Yellow/Orange	3
Mariner	2005-07	2	Red/Black	4	Brown/Orange	3
Mariner Hybrid	2008-10	4	Violet/Gray	4	Yellow/Orange	3
Mariner Hybrid	2006-07	2	Red/Black	4	Brown/Orange	3
Milan	2010	4	Yellow/Orange	4	Violet/Gray	3
Milan	2006-09	4	Violet/Gray	4	Yellow/Orange	3
Montego	2005-07	4	Gray/Orange	4	White/Lt. Green	3
Monterey	2004-07	3	Gray/Orange	3	White/Lt. Green	4
Mountaineer	2006-10	4	Violet/Gray	4	Yellow/Orange	3
Mountaineer	2002-05	2	Gray/Orange	4	White/Lt. Green	3
Mountaineer	2001	1	Gray/Orange	3	White/Lt. Green	4
Mystique	2000	2	White/Green	4	Gray/Orange	3
Sable	2008-09	1	Violet/Gray	4	Yellow/Orange	3
Sable	2002-05	1	Gray/Orange or Brown/Yellow	3	White/Lt. Green or Gray/Red	4
Sable	2000-01	1	Red/Black	3	Brown/Orange	4

### Passive Anti-Theft Security System (PATS) connector Types




## Module Programming

 Note that 2 keys are required to complete the programming (for Key2GO see page 16). Refer to the LED Diagnostics section on page 19 for more information and for troubleshooting purposes.

### Important

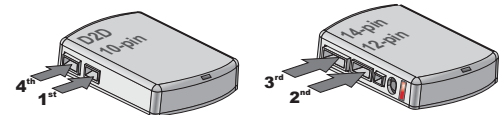
Make all the required connections to the vehicle, as described in the wiring diagram(s) found in this guide, and double check to ensure everything is correct prior to moving onto the next step.

 **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](http://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 **Flash Standard install**, 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.

### D2D Installation

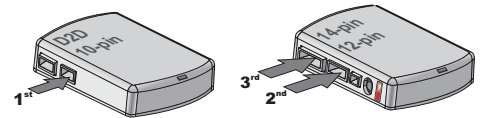
If required for your installation, connect the 10-pin, 12-pin and 14-pin harnesses to the module, then connect the 4-pin D2D harness.



**OR**

### W2W Installation

If required for your installation, connect the 10-pin and 12-pin harnesses to the module, then connect the 14-pin harness to the module.



## Method 1 (using 2 keys)

- 1** Wait until the LED turns ON solid red.



Solid

- 2** Insert the **first** key and turn it to the IGN position, wait at least 3 seconds but no more than 10 seconds, then remove it. The LED turns ON solid red.


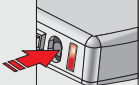


- 3** Insert the **second** key and turn it to the IGN position, wait at least 3 seconds but no more than 10 seconds, then remove it. The LED now flashes orange.



**Type 1:** Press & hold the module programming button and then apply (+)12V to the vehicle ignition wire with a jumper wire (keep holding the programming button).

**Type 2:** Press & hold the module programming button and then remote start the vehicle using the transmitter (keep holding the programming button).

- 4**  &  Press and hold

-  &  Press and hold

Go to the next page to complete the module programming. 

- 5** The LED turns ON solid green for 3 seconds, then turns OFF once the module has been successfully programmed.



- 6** Release the programming button.



## Method 2 : Key2 GO Programming for 40-bit key types ONLY (using 1 key) - Optional

- !** Refer to the LED Diagnostics section on page 19 for more information and for troubleshooting purposes.  
Version 4.5 or higher of XpressVIP must be installed on your computer to complete this programming sequence.

- 1** **Do not connect other harnesses to the DBALL.**  
Connect the DBALL module to your computer using the **XKLoader**.

- 2** Open an Internet Explorer browser (version 6 or higher), and go to [www.directechs.com](http://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** Flash your module with the firmware corresponding to **FORD1 Key2GO**.

- 4** Connect the DBALL wiring to the vehicle first, and only then, plug the harnesses to the DBALL **without** pressing the programming button. The LED turns ON solid red.



- 5** Insert your key into the ignition barrel, then turn the ignition ON and OFF twice. The LED starts flashing orange, indicating that it is ready for the next step.



- 6** Remove the DBALL from the vehicle and reconnect it to your computer. The Directechs web site will automatically recognize that you are moving onto the second phase of the programming sequence.

- 7** Select the method and click on **Submit Key2GO Request**.

- 8** Once the configuration is completed, reconnect the DBALL to the vehicle. The LED flashes once orange, and then turns ON solid green for 3 seconds.



You have successfully completed the module programming sequence.

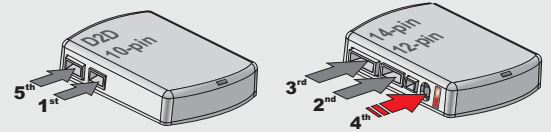


## Module Reset

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.

### D2D Installation

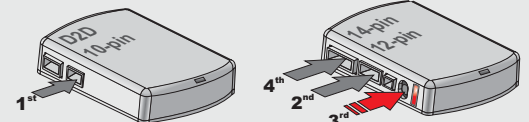
If required for your installation, connect the 10-pin, 12-pin & 14-pin harnesses to the module. Press and hold the programming button, then connect the 4-pin D2D harness.



# 1 OR

### W2W Installation

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 then turns ON solid red.



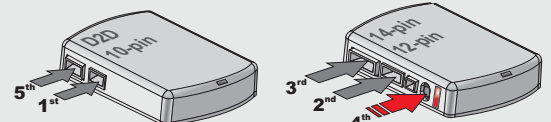
## Hard Reset

### 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.

### D2D Installation

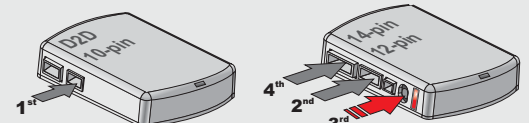
If required for your installation, connect the 10-pin, 12-pin & 14-pin harnesses to the module. Press and hold the programming button, then connect the 4-pin D2D harness.



# 1 OR

### W2W Installation

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](http://www.directechs.com). The web offers more options; however, manual configuration of the features is possible using the information on this page.

**\* Default Option**

Feat.	Operation	Flashes/Options	Description
1	RFTD Output Type	1. <b>No RF Output*</b>	Module is connected to a remote starter using a standard installation.
		2. RFTD Output	Module is connected to an XL202 using an RSR or RXT installation (when available).
		3. SmartStart	Module is connected to SmartStart using an RSR or RXT installation (when available).
2	OEM Security Equipped	1. <b>*Without OEM Alarm</b>	No action.
		2. With OEM alarm	Module will activate ignition and transponder in order to disarm the OEM alarm upon unlock and trunk command.

## 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

LED	Status	Description	Troubleshooting
<b>Module Programming</b>			
 Solid	Solid red	Module is powered and waiting for programming to begin.	Make sure that all the connections are correct. (see wiring diagram)
 Solid x3 secs	Solid green for 3 seconds	Module has been successfully programmed.	Normal operation.
 Flashes orange	Flashes orange	Two keys have been detected (Key2Go, Ignition has been turn ON and OFF twice).	Normal operation, waiting for final step of programming.
<b>Module Programming - Error Codes</b>			
 Flashes x 3	Flashes red 3 times	Bypass data not detected	Check the bypass line connection. If more than one wire is used, make sure they are not inverted.
<b>External Module Synchronisation</b>			
 Flashes red, red, orange	Flashes red, red then orange x 10	OBDII feature not supported.	Diagnostic data bus not detected.
<b>Active Ground While Running</b>			
 Flashes	Flashes green	GROUND OUT ON (GWR) command received.	Otherwise, the Ground While Running (status) signal was lost or was never received by the module. Commands can come from RF, D2D or W2W.
 Flashes	Flashes red & orange	IGNITION ON command received.	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.
 Flashes green quickly	Flashes green quickly	START ON command received.	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.
<b>D2D &amp; W2W Commands</b>			
 Flashes x1	Flashes orange x1	LOCK command has been received	If the bypass module fails to flash, it means the module did not receive the signal.
 Flashes x2	Flashes orange x2	UNLOCK command has been received	
 Flashes x3	Flashes orange x3	TRUNK command has been received	

## 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 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](http://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 its 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.

**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.
	Press & hold for 5 seconds to activate the trunk release (optional).
<i>f</i> x1 + 	Press <i>f</i> once, then  to activate the rear hatch/tail glass release (optional).*
<i>f</i> x3 + 	Press <i>f</i> 3 times, then  to activate the panic mode.
<i>f</i> x1 + 	Press <i>f</i> once, then  to reset the remote starter runtime.

\* This output is configurable. see your authorized installation center for more information.

**Notes**

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