



Vehicle CAN Bus Integration System Rev.: 20120125



**<u>Update Alert</u>**: Firmware updates are posted to 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**

Door lock and transponder interface (no key required) for many of the latest models of Mitsubishi vehicles. Features include door trigger sensing, tach output and FOB control.



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† Mitsubishi is a registered trademark and property of Mitsubishi Motor Sales of Canada, Inc.





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## **Vehicle Application Guide**

Vehicles Mitsubishi (European Models Onl	(5) 2011	2010	2009	2008	2007	2006	AV-Panic Mode Activation	DL-Arm Factory Security	DL-Disarm Factory Security	DL-Door Lock Control	DL-Door Unlock	DL-Driver Priority Unlock	DL-Trunk / Hatch Release	FOB-Control of aftermarket alarm with OEM remote	PK-Immobilizer Bypass-Data No Key Req'd	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	ST-Brake Status (foot brake)	ST-Hand Brake Status	ST-Ignition Status
Lancer	1	1	1	1			•	•	•	•	•	•	•	D	•	•	•	D	•	•	•	•	D
Lancer (Smart Key)	1	1	1	1			•	•	•	•	•	•	•	D	•	•	•	D	•	•	٠	•	D
Lancer Evolution	1	1	1	1			•	•	•	•	•	•	•	D	•	•	•	D	•	•	•	•	D
Outlander	1	1	1	1	1		٠	•	٠	•	•	•		D	•	•	•	D	•	٠	•	•	D
Outlander (Smart Key)	1	1	1	1			•	•	•	•	•	•		D	•	•	•	D	•	•	•	•	D
ASX	2						•	•	•	•	•	•	•	D	•	•	•	D	•	•	•	٠	D
ASX (PTS)	2						٠	•	٠	•	•	•	•	D	•	•	•	D	•	٠	•	•	D

\* - Hood status is ONLY supported if the vehicle is equipped with an OEM anti-theft security alarm.

#### Legend:

D: Data-to-Data (D2D) only •: D2D and Wire-to-Wire (W2W)

AV: Horn & Lights Control CC: Comfort & Convenience Controls

DL: OE DoorLock & Alarm Controls RS: Engine Start & Status PK: Transponder & Immobilizer Override SS: Entry Point Status-Security

ST: Function/Feature Status





### Firmware: MIT1

#### Vehicle CAN Bus Integration System

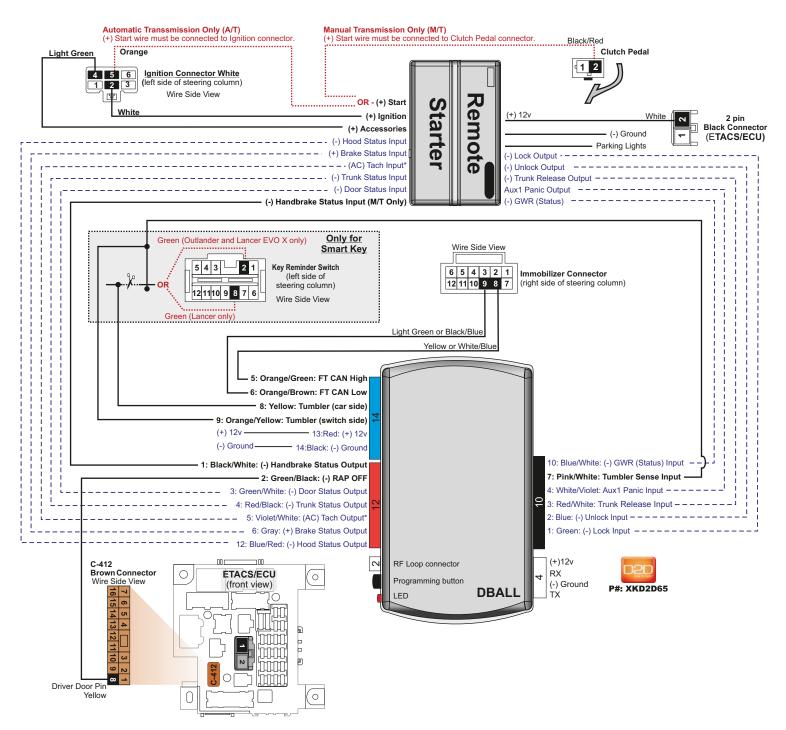
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### Installation Type 1

Refer to the Locating Components in the Vehicle (Types 1) section on page 5 for more information.



#### Note: Takeover is not available, the engine will stop when you open the door.

---- Not required in D2D mode.

\* The Tach wire is an optional connection required on some remote starters, which do **NOT** support a tach signal in D2D.

🚺 Wires are listed by pin numbers. This display is not representative of connector pin layouts, which are often stacked.



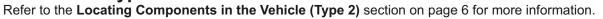


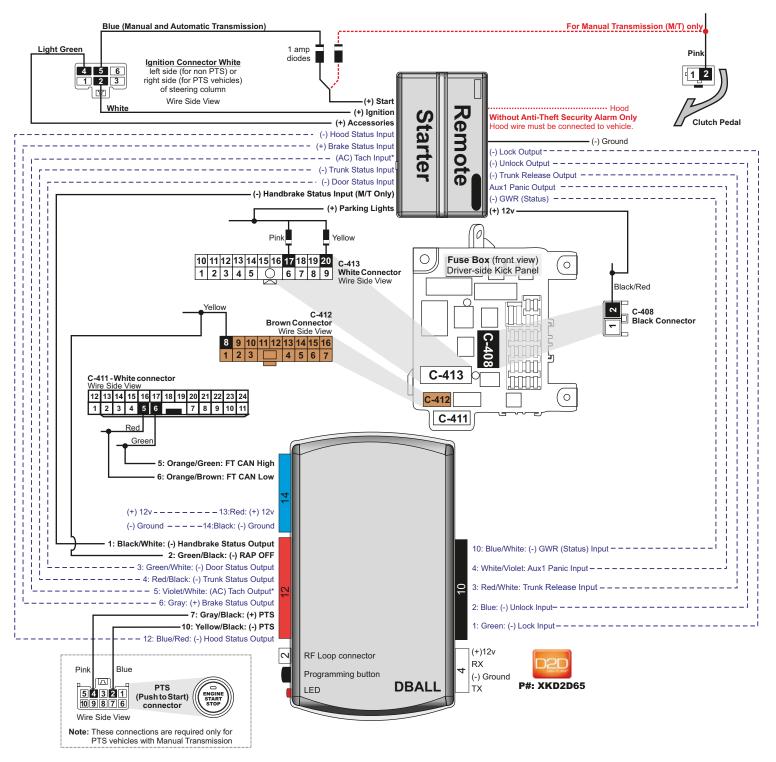
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### Installation Type 2





#### Note: Takeover is not available, the engine will stop when you open the door.

---- Not required in D2D mode.

\* The Tach wire is an optional connection required on some remote starters, which do NOT support a tach signal in D2D.

Wires are listed by pin numbers. This display is not representative of connector pin layouts, which are often stacked.

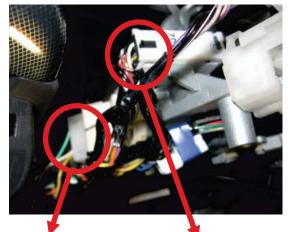






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### Locating Components in the Vehicle (Types 1)

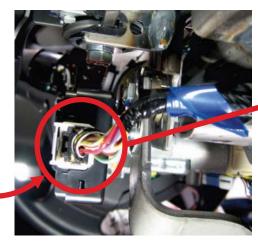


Ignition Connector White (left side of steering column) (+) Accessory: (pin 6) Light Green (+) Ignition: (pin 2) White (+) Start: (pin 5) Orange Key Reminder Switch Black & White (left side of steering column) (+) Tumbler Sense: (pin 4) Green (Outlander only) (pin 10) Green (Lancer only)



ETACS/ECU Connector Black (driver-side kick panel) (+) 12v: (pin 1) White





Immobilizer Connector Black & White (right side of steering column) FT CAN Low: (pin 10) Light Green FT CAN High: (pin 11) Yellow





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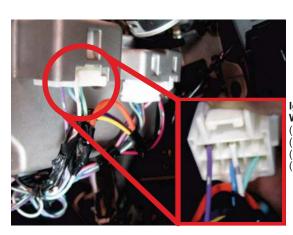
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### Locating Components in the Vehicle (Type 2)

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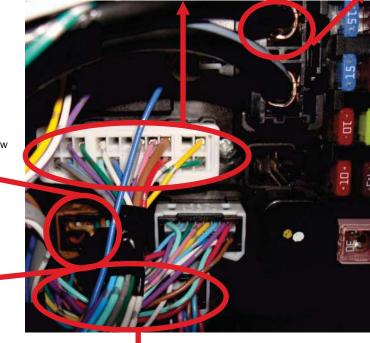


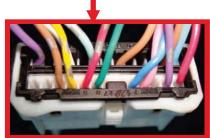
Ignition Connector White (left side of steering column) (+) Accessory: (pin 6) Light Green (+) Ignition: (pin 2) White

(+) Ignition: (pin 2) Wr (+) Start: (pin 5) Blue

> C-413 - White Connector (at fuse box in driver-side kick panel) (+) Parking Lights: (pin 10) Yellow (+) Parking Lights: (pin 13) Pink

C-408 - Black Connector (at fuse box, in driver-side kick panel) (+) 12v: Black/Red





**C-411 White Connector** (at fuse box in driver-side kick panel) Can H: (pin 6) Green Can L: (pin 5) Red

# **C-412 - Brown Connector** (at fuse box in driver-side kick panel)

(-) Auto Headlamp Shutoff Output: (pin 16) Yellow







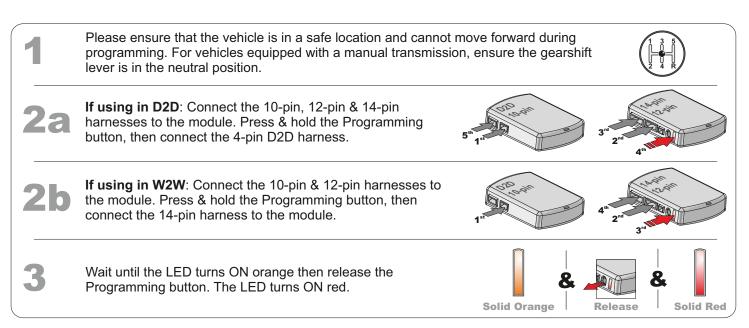
### **Module Programming**



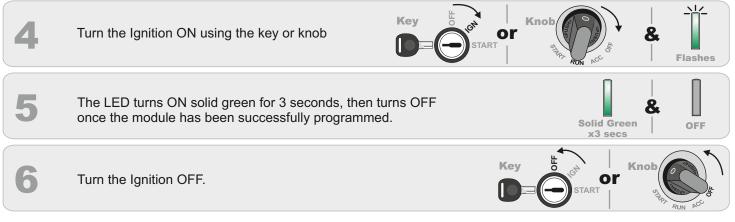
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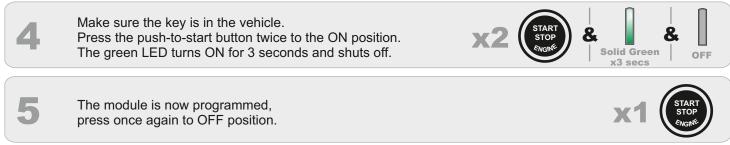
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### Module programming for vehicle with key or Knob.



### Module programming for vehicle with push-to-start.



Module reset will be done automatically upon programming.

Refer to the LED Diagnostics section on page 9 for more information and for troubleshooting purposes.



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### **Feature and Option List**

Features	Operation	Option
	RF Output type	No RF Output*
I	Activate this feature w henever an external RFTD module is used (i.e. Directed SmartStart <sup>TM</sup> **, XL201 or XL202).	RFTD Output

#### \* Default Option

\*\* RFTD Output must be enabled for Directed SmartStart<sup>™</sup> to work properly.

### **Feature Programming**

#### To enter feature programming routine

- Use the key to turn the ignition ON, then OFF.
- Within 5 sec, press and HOLD the Programming button. The orange LED turns ON after 3 seconds. Release the Programming button.
- The green LED starts flashing slowly one time to indicate the feature number is 1. After a short delay, the red LED flashes rapidly to indicate the current option of feature 1. It repeats until next action happens.

#### **Changing feature options**

- Press the lock/arm or unlock/disarm button on aftermarket transmitter to change the option of the selected feature.
- The red LED flashes rapidly the number of times equal to the current option number. After a short delay, the green LED flashes slowly the number of times to indicate the current feature. It repeats until next action happens.

#### 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 green LED flashes slowly the number of times equal to the feature number. After a short delay, the red LED flashes rapidly to indicate the current option of the current feature. It repeats until next action happens.

#### When the maximum number of feature or option is reached, the LED will starts flashing again from the first feature or option.

#### Once a feature is programmed

- Another feature(s) can be programmed.
- The feature programming can be exited.

#### Exiting feature programming

- No activity for 30 seconds; after 30 seconds, the orange LED will turn ON for 2 seconds to confirm exiting.
- OR
- Press and HOLD the Programming button for 3 seconds. After 3 seconds, the orange LED will turn ON for 2 seconds to confirm exiting.



Programming Button



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# LED Diagnostics and Troubleshooting

LED	Status	Description	Troubleshooting						
Module Programming									
Solid	Solid red.	Waiting for the vehicle to be started.	Make sure that all the connections are correct (see install sheet) and turn the ignition ON to begin the programming sequence.						
Flashes	Flashes orange continuously.	Can has been successfully detected.	Make sure you keep the key to the ON position long enough to let the programming finish.						
Flashes	Flashes green continuously	Vehicle has been successfully detected.	N/A.						
Solid X3 secs	Solid green for 3 seconds.	Module has been successfully programmed.	N/A.						
Active Grour	Active Ground While Running								
Flashes	Flashes green continuously.	Ground out (GWR) is active.	N/A.						
Off	Off.	N/A.	The Ground While Running (status) wire is incorrectly connected. Refer to the wiring diagram to make the righ connections.						
Inactive Gro	und While Running								
Flashes x1	Flashes green once.	Lock command has been received.	If it does not flash, the bypass module did not receive to signal. Verify the connections between the bypass and the remote starter module.						
Flashes x2	Flashes green twice.	Unlock command has been received.	If it does not flash, the bypass module did not receive the signal. Verify the connections between the bypass and the remote starter module.						
Flashes x3	Flashes green 3 times.	Trunk release command has been received.	If it does not flash, the bypass module did not receive the signal. Verify the connections between the bypass and the remote starter module.						





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### 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, 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 HEREBY DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING DEALERS OR INSTALLERS. 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 SHALLAPPLY 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 ALIMITED WARRANTY TO REPLACE OR REPAIR AT DIRECTED'S OPTION THE PART AS DESCRIBED ABOVE.

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.920-0007 07-06

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. <u>DISCLAIMER</u>: 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 it's 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, 4 2 0, 9 4 7; 2,426,670; 2,454,089 **European Patent:** 1,053,128 **Pat. Pending:** 2,291,306; **Made in Canada** 

