



## ***FALCON PREDATOR CAN-BUS ALARM***

**Advanced Alarm System for Vehicles with CAN-Bus**

**Installer Manual**

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## A. Installation

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### 01. Steps of installation

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1. Find out if the can-bus system of car is 2 wires(Can-H, Can-L) or 1 wire(Scan) and then adjust the on-board jumper accordingly
2. Program the Car Code to the system through the on-board switch or USB Bootloader
3. Study the wiring notes before connecting the wires

### 02. Wiring notes

#### C7 Can-bus data upgrade port

This port is for connecting the bootloader when upgrading the firmware(refer to the bootloader manual for details)

#### Jumper for Can-bus H/L or Scan

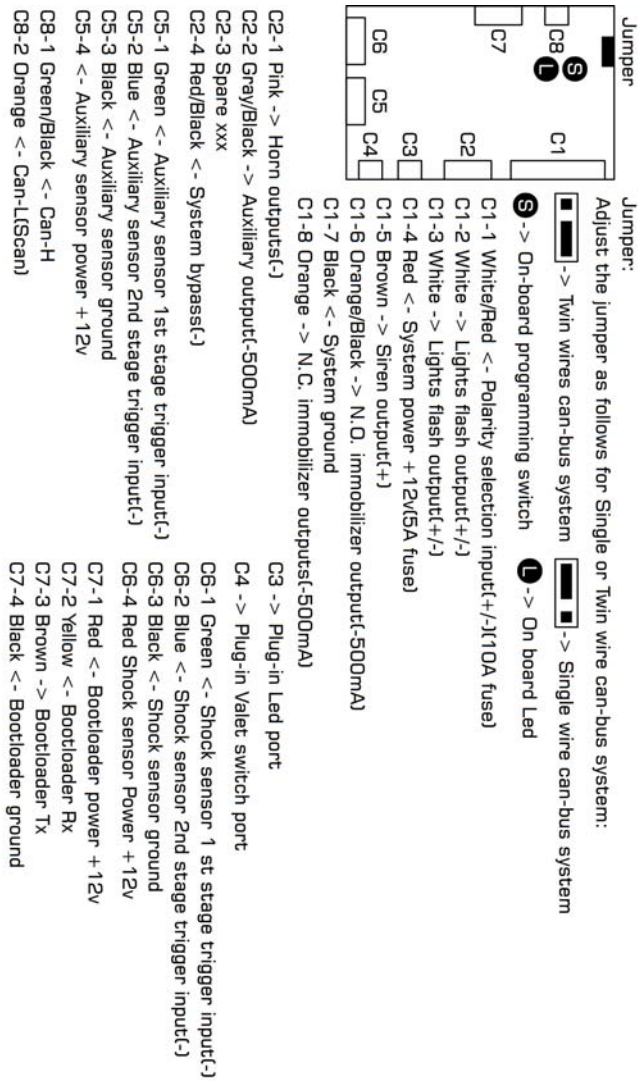
Adjust the jumper depending on whether the cars can-bus system is 2 wire Can-H/Can-L or 1 wire Scan

#### S & L On-board LED & switch

The on-board LED & switch can be found under the small cover on the alarm module and allow programming the car code to the system. The operation is as follows:(check the car code on the car list)

1. Press and hold the on-board switch until the LED turns on
2. Then the LED will turn off after releasing the switch
3. 2 sec, later the LED will start to flash
4. Press the switch once when the LED has flashed the same number of times as the 1<sup>st</sup> digit of the car code
5. The LED will turn off then start to flash again
6. Press the switch once when the LED has flashed the same number of times as the 2<sup>nd</sup> digit of the car code
7. The LED will turn off and then flash 3 times to confirm the car code has been set properly

### 03. Wiring diagram



#### C8-1 & 2 Can-H/Can-L(Scan)

Connect both wires or Scan wire only depending on the cars can-bus system

#### C1-1 White/Red - Polarity selection for C1-2 & C1-3

Connect C1-1 to [-] or [+] depending on the needs of C1-2 and C1-3 outputs

#### C1-2 & C1-3 White – Lights flash output [- or +]

Use both of C1-2 and C1-3 only if the car requires separate left and right circuits

#### C1-4 Red - System power source +12V

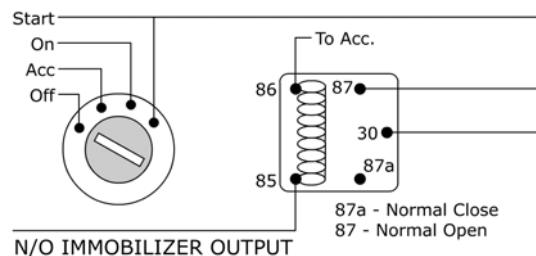
Connect to constant +12v source

#### C1-5 Brown - Additional siren output [+1A]

1. Siren output will be activated when the system is triggered and alarmed.
2. When programming option #1 is set to Siren the siren will chirp once when the system is armed and twice when it is disarmed.

#### C1-6 Orange/Black - N.O. immobiliser output [-500mA]

Connect the N.O. immobiliser output as the fig. below. The relay is switched on when the alarm is disarmed (fail secure)

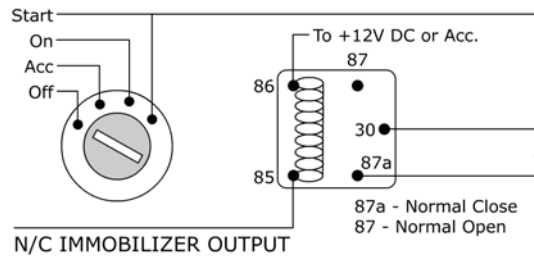


#### C1-7 Black - system ground

This wire must be connected to the chassis of the car. Scrape away any paint or dirt from the area to ensure a good connection

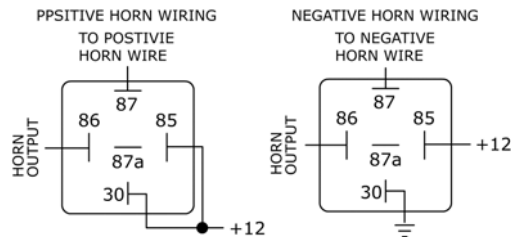
#### C1-8 Orange - N.C immobiliser output [-500mA]

Connect N.C. immobiliser output as the fig. below. The relay is switched on when the alarm is armed (fail safe)



#### C2-1 Pink - Car horn output [-]

1. Car horn output will be activated when the system is triggered.
2. When programming option #1 is set to Horn the horn will honk once when the system is armed and twice when it is disarmed.
3. When wiring, an additional relay will required as follows:



#### C2-2 Gray/Black - Auxiliary output [-500mA]

1. This arm output will activate after arming the system and could be used for closing the windows or to drive an external device as desired
2. This output will activate for 10/20/30/40 sec. or continuous after arming the system depending on the setting of option #9
3. When setting to continuous, the output will activate until the system is disarmed.

#### C2-3 Spare input [-]

Don't connect

#### C2-4 Red/Black - System bypass wire [-]

With the system armed, feed this input with negative input to bypass the shock sensor and ignition trigger wire

## B. System Programming

### 01. Setting the optional features

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Follow the steps below to program the optional features:

1. With the system disarmed and ignition off
2. Open the door and turn the ignition on
3. Press the valet switch 3 times within 10 sec.
4. The siren will sound for 2 sec. to confirm the system is in programming mode

\* Reset all optional features back to the factory default:  
Within 10 sec. press and hold the valet switch until the siren sounds for 2 sec.

#### **Programming example: To set option #4 to 40 sec.**

1. Press the valet switch 4 times within 10 sec. and the siren will chirp once after each press of the valet switch
  2. After 2 sec., the siren will chirp 4 times to confirm that feature #4 is selected for setting
  3. Within 10 sec., press the valet switch until the siren chirp 3 times to confirm the feature has changed to 40 sec. (the siren will respond with a different number of chirp for each press of the valet switch)
  4. After 2 sec., the siren will sound for 1 sec. to confirm the 40 sec. is programmed
  5. Within 10 sec. press the valet switch to select the next feature for programming. If the valet switch is not pressed again within 10 sec. the system will leave the programming mode and the siren will sound for 2 sec. to confirm
- \* The system will leave the programming mode as follows:
1. Turn off the ignition or close the door during the programming mode
  2. If the valet switch is not pressed within 10 sec

## 02. Optional feature table

Item	Features	✓	1 chirp	✓	2 chirp	✓	3 chirp	✓	4 chirp	✓	5 chirp
01	Arm & Disarm Confirmation		Disable		Flash		Horn		Siren*		Siren+Flash
02	Lights Flashing Output		Normal*		Pulse		Continuous				
03	Auto Engine Disable(AED)		Disable*		Mode-I		Mode-II				
04	Interior Light Delay		Disable		25sec.*		40sec.		60sec.		
05	Passive Arming		Disable*		Mode-I		Mode-II				
06	Passive Arming Timer		30sec.		180sec.*						
07	Auto Rearm		Disable*		Enable						
08	Alarm Duration		30sec.*		60sec.						
09	Auxiliary Output		10sec.		20sec.*		30sec.		40sec.		Continuous
10	Override Code		1 Flash*		2 ~ 10 Flashes						

**\*Factory default = asterisk**



## C. Explanation of Optional Features

### 01. Arm & disarm confirmation

This feature can make the indicator lights flash and/or car horn/siren chirp when pressing the factory remote to arm or disarm the system as follows:

#### 2 chirp = Flash

Setting this feature to Flash will make the lights flashing once when arming and twice when disarming

#### 3 chirp = Horn

This feature will make the car horn honking once when arming and twice when disarming

#### 4 chirp = Siren

This feature will make the siren chirp once when arming and twice when disarming

#### 4 chirp = Siren+Flash

This feature will have the siren chirp once and lights flash once when arming and twice when disarming

### 02. Lights flash output

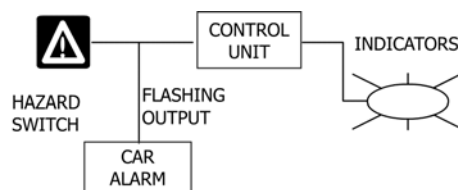
This feature provides different methods to wire the lights flash output as follows:

#### 1 chirp = Normal

When wiring the output to Indicators directly as normal then set programming to Normal

#### 2 chirp = Pulse & 3 chirp = Constant

If the indicators cannot be wired directly connect the output to the hazard lights as below and then select the appropriate format Pulse or Constant depending on the type of hazard lights



After wiring according to the above diagram and setting the format Pulse or Continuous then try to flash the lights by triggering the system. In case the lights won't flash as expected then proceed to the learning mode as follows:



1. Turn on the hazard lights to have the indicators flashing
2. Turn the ignition on and off 3 times (on-off-on-off-on-off) with system disarmed
3. The siren will chirp once to confirm the system is in learning mode
4. With 10 sec. press and hold the valet switch
5. Release the valet switch when the indicators flash 10 times after the LED is on
6. Then the LED turns off and siren chirps once to confirm the learning is done
7. The system will leave the learning mode as follows and the siren confirming with 1 chirp. In this case, the previous setting will remain
  - Turn the ignition on during the learning mode
  - If the valet switch is not pressed within 10 sec.

### 03. Auto engine disable (AED)

This feature offers the car more security by disabling the starter operation is as follows:

2 chirp = Mode-I

1. Turn the ignition off
2. The status LED starts to flash
3. 20 sec. later the AED will be active and the LED turns off to confirm
4. Turning the ignition on or pressing the unlock button of the factory remote within 20 sec. will cancel the countdown and the LED will be off to confirm
5. To start the countdown again, simply turn the ignition on then

- off and the LED will flash to confirm
6. Press the remote to arm the system during the 20 sec. countdown to activate the AED immediately
- \*To deactivate the AED:  
When disarming the system, the AED will remain on and the only way to deactivate the AED is to operate the override

### 3 chirp = Mode-II

1. Turn the ignition off
  2. The status LED starts to flash
  3. 30 sec. later the AED will be on and LED turns off to confirm
  4. Turning the ignition on or pressing the unlock button of factory remote within the 30 sec. will cancel the countdown and the LED will be off to confirm
  5. To start the countdown again simply turn the ignition on then off and the LED will flash to confirm
  6. Press the remote to arm the system during the 30 sec. countdown to activate the AED immediately
- \*To deactivate the AED:  
There are 2 way to deactivate the AED in mode-II as follows:
1. Press the unlock button to disarm the system, the AED will be deactivated at the same time
  2. By override
- \* When AED is activated, the system can't enter the following modes:
- Code learning
  - Programming of the optional features
  - Hazard lights learning
  - Valet mode
- \* The differences between Mode-I and Mode-II:
- In Mode-I, the system will enter AED mode 20 sec. after turning the ignition off
  - In Mode-II, the system will entry AED mode 30 sec. after turning the ignition off
  - In Mode-I, the AED won't be deactivated after disarming the system by pressing the unlock button of factory remote and

- can only be deactivated by using the override
- In Mode-II, the AED will be deactivated when disarming the system by pressing the unlock button of the factory remote. Operating the override will also deactivate the AED

#### 04. Interior light delay

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##### 1 chirp = Disable

The Siren/Horn and flashing outputs will activate an additional 3 times when arming the system if any of the **doors**, **boot** or **bonnet** is not closed properly and the open area will be bypassed until closed

##### 2, 3, 4 chirp = 25, 40, 60 sec.

1. The Siren/Horn and flashing outputs will activate an additional 3 times when arming the system if the **boot** or **bonnet** is not closed properly and then the open area will be bypassed until closed
2. The Siren/Horn and flashing outputs will activate an additional 3 times after 25, 40 or 60 sec. of arming the system if a **door** is not closed properly. The doors will be bypassed until closed.

#### 05. Passive arming

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When enabled, the system will arm as follows:

##### 2 chirp = Mode-I

The operation is as follows:

1. Turn the ignition off
2. Close the doors, boot and bonnet properly
3. LED starts to flash fast and the system will arm in 30 or 180 sec.
4. The Auxiliary Output will activate as per the setting of feature #9

\* Opening the door, boot or bonnet will interrupt the countdown until closed again

##### 3 chirp = Mode-II

The operation of Mode-II is exactly same as Mode-I but the Auxiliary Output won't activate

#### 06. Passive arming timer

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1 chirp = 30 sec.

The system will enter arm mode 30 sec. after closing the last opened door, boot or bonnet with ignition off

2 chirp = 180 sec.

The system will enter arm mode 180 sec. after closing the last opened door, boot or bonnet with ignition off

#### 07. Auto rearm

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2 chirp = Enable

When enabled, the system will arm itself again 30 sec. after disarming if none of the doors, boot or bonnet are opened

#### 08. Alarm duration

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1 chirp = 30 sec.

The siren/horn will sound for 30 sec. each cycle when the system is triggered

2 chirp = 60 sec.

The siren/ horn will sound for 60 sec. each cycle when the system is triggered

#### 09. Auxiliary output

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The output will activate when arming the system as follows:

1, 2, 3, 4 chirp = 10, 20, 30, 40 sec.

When set to 10/20/30/40 sec. the output will activate for 10, 20, 30 or 40 sec. after the system is armed

5 chirp = Continuous

When set to Continuous the output will activate when the system is armed until the system is disarmed

#### 10. Override code

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Follow the steps below to program the override code:

(For example: Programming 4 as the new override code)

1. Enter the programming mode

2. Within 10 sec. press the valet switch 10 times to select feature #10, the siren will chirp once for each press of the valet switch

3. After 2 sec., the siren will chirp 10 times to confirm the feature #10 is selected for programming
  4. Within 2 sec., press the valet switch once, the siren will chirp 2 times to indicate the current code is 2 (if the default code is 1)
  5. Within 2 sec. press the valet switch once, the siren will chirp 3 times to indicate the current code is 3
  6. Within 2 sec. press the valet switch once. the siren will chirp 4 times to indicate the current code is 4
  7. Then 2 sec. later the siren will sound for 1 sec. to confirm the code has been changed to 4
  8. Within 10 sec. press the valet switch to select next feature for programming or the system will leave the programming mode and the siren will sound for 2 sec. to confirm
- \* The system will leave the programming mode as follows:
1. Turn the ignition off or close the door during programming
  2. If the valet switch is not pressed within 2 sec or 10 sec.