



## FALCON PREDATOR EVO4

Vehicle Security System with Remote Starter

### Installation Manual

Table of Contents:

<b>A) Introduction</b>	<b>2</b>
A-1) Features	2
A-2) Key Function Table	Error! Bookmark not defined.
<b>B) Remote Transmitter Code Learning</b>	<b>2</b>
<b>C) Optional Programming Features</b>	<b>3</b>
C-1) Programming Option Table	3
C-2) Last Door Arming	3
C-3) Passive Lock	4
C-4) Ignition lock	4
C-5) Door Unlock Time	4
C-6) Siren or Horn Output	4
C-7) Alarm Time	4
C-8) Interior Light Delay	5
C-9) Channel 3 Output	5
C-10) Auto Re-Arming	5
C-11) Anti-Hijacking Mode	5
C-12) Ignition 2	5
<b>D) System Features</b>	<b>2</b>
D-1) Car Type	6
D-2) Remote Engine Start Mode	6
C-3) RPM (Tach) Learning	6
D-4) Alternator Voltage	6
D-5) Crank Time	6
D-6) Start Running Time	6
D-7) 24-Hour Engine Start Mode	7
D-8) Installation without remote starter features	7
<b>E) Suggested Location of Installing the Transceiver</b>	<b>7</b>
<b>F) Wiring Diagram</b>	<b>8</b>
<b>G) Wiring Note #1</b>	<b>9</b>
<b>H) Wiring Note #2</b>	<b>10</b>

**HELPLINE: 0906 700 10 20**

(All calls charged at 50p/min)

Falcon Security Ltd. Unit 9 Tanning Court, Warrington, Cheshire, WA1 2HF, UK  
Internet: <http://www.falcon-security.com> Email: [support@falcon-security.com](mailto:support@falcon-security.com)

## A) Introduction

The Falcon Predator EVO4 is a unique Vehicle Security System with Remote Engine Starter System and is designed to provide the highest level of security and convenience.

The Falcon Predator EVO4 has many programmable functions so please read this manual carefully before installing the Falcon Predator EVO4 system.

### A-1) Features

- 01> Code Hopping and Code Learning Remote System
- 02> Up to 4 remote transmitters Programmable
- 03> Remote Engine Start
- 04> Remote Arm/Disarm
- 05> Mute Arm/Disarm
- 06> Immobiliser
- 07> Remote Boot Release
- 08> Passive or Active Lock Programmable
- 09> Auto Re-arm
- 10> Lock/Unlock on driving
- 11> Silent Car Finder
- 12> Defective Zone Alert and By-pass
- 13> Keyless Entry While Ignition is on
- 14> Remote Panic

- 15> Remote Anti-Hijack
- 16> Emergency System Override
- 17> Remote Valet Mode
- 18> Last Door Arming
- 19> Siren Chirp programmable for 30 or 60 seconds
- 20> Built-In Central Locking Control
- 21> Central Lock Active Time selectable 0.5 or 3.5 seconds
- 22> Plug-In Dual Stage Shock Sensor
- 23> Shock Sensor By-pass
- 24> Intrusion Indication by chirp when disarmed
- 25> Ignition Auto Lock/Unlock
- 26> Siren or Horn selectable
- 27> Interior Light Delay Time programmable
- 28> 24hr Engine start



Press Button (1) once	Arm / Disarm	Lock/ Unlock
Press Button (1) over 2 sec.	Panic	Panic
Press Button (2) once	Boot Release	Boot Release
Press Button (2) over 2 sec.	Aux (Channel 3) Output	Aux (Channel 3) Output
Press Button (3) once	Car Finder	Anti-Hijacking
Press Button (3) over 3 sec.	Remote Start On/Off	
Press Button (1)+(2) then Button (1)	Mute Mode	
Press Button (1)+(2) then Button (1) +(2)		Valet Mode
Press Button (1)+(3)	24-Hour Engine Start Mode	24-Hour Engine Start Mode

## B) Remote Transmitter Code Learning

**a>** Follow the below procedure to program a new remote control.

With the alarm disarmed, and the doors CLOSED, switch the ignition ON/OFF 3 times (within 1 second of each other) and then back to the ON position.

The siren will chirp 2 times to indicate the alarm is in code learning mode.

**b>** To program the new remote control press button (1) within 10 seconds.

The siren will chirp twice and the hazard lights flash twice to confirm that the code has been learned. Follow the same procedure for second, third and fourth remote transmitter.

**c>** If the ignition is turned OFF or button (1) is not pressed within 10 seconds, the system will quit the code-learning mode. If this happens you must start again from the first step.

**d>** Up to 4 remote control transmitters can be programmed to the system.

### C) Optional Programming Features

The Predator EVO4 has additional features for different types of vehicles.

Read the below programming functions carefully to have the right options programmed for your vehicle and your needs.

**a>** Under the system disarm mode, keep the door open, and switch the ignition on-off, on-off, on-off and then stay On.

**b>** Siren will chirp 2 seconds to confirm entering the programming option mode.

**c>** To choose the function #1 - 14, within 10 seconds after taking step# b Press button (1) the same number of times as the function # you wish to program. Each time you press button (1), a single short chirp will follow. For example, if you want to choose #11 Start Mode Select, press button (1) 11 times.

**d>** To confirm the selected mode, Press button (2). Siren will chirp as many times as you pressed button (1) in step C to show the function you chose. For example, if you press button (1) 11 times in step C, 11 single short chirps will follow.

**e>** Now you can program the features and settings by pressing buttons (1), (2) or (3).

When you press button (1), a single chirp will sound, for Button (2) two chirps and button (3) three chirps to indicate the selected setting has been programmed.

The system will leave the programming mode if there is no action made within 10 seconds your previous action or the ignition is turned off.

#### C-1) Programming Option Table

No.	Function	BTN (1) Chirp Once	BTN (2) 2 Chirps	BTN (3) 3 Chirps
1	Last Door Arming	Disabled	Enabled	xxx
2	Passive Lock	Disabled	Enabled	xxx
3	Ignition Lock	Disabled	Enabled	xxx
4	Door Lock Time	1 Pulse	2 Pulse	4 sec.
5	Siren or Horn	SIREN	HORN	xxx
6	Alarm Time	30 Sec.	60 Sec.	xxx
7	Interior Light Delay	Disabled	Enabled	xxx
8	CH3 Output	Disabled	Enabled	xxx
9	Auto Re-Arm	Disabled	Enabled	xxx
10	Anti-Hijacking	Disabled	Enabled	xxx
11	Car Type	Automatic	Manual	xxx
12	Start Mode Select	Alternator	TACH	xxx
13	Alternator Voltage	4.5V	9V	xxx
14	Crank Time	0.6 Sec.	0.8 Sec.	1.0 Sec.
15	Start Running Time	10 Min.	20 Min.	
16	24 Hour Engine Start Every.....	3 Hour	6 Hour	Off

No. 8: When DISABLED: A constant negative output will be sent through CH3 by pressing button (2) for over 2 Sec.

No. 8: When ENABLED: A 30 seconds constant negative output will be sent through CH3 by pressing button (1) to arm the system.

\*Note: The factory defaults are pre-programmed as per the third column (grey color box).

#### C-2) Last Door Arming

Steps to enable Last Door Arming:

**a>** With the alarm disarmed, open and hold the door, and switch the ignition on/off three times, and then switch to On.

**b>** The siren will chirp for 2 seconds to confirm entering into the programming option mode.

**c>** Press button (1) once to select # 1 Last Door Arming Mode, a single short chirp will follow.

**d>** Then press button (2) once to confirm this mode. A single short chirp will follow.

**e>** Press button (2) once again to enable Last Door Arming, the siren will chirp twice to confirm.

**f>** To exit the programming option mode, just switch off the ignition or do nothing.

\* If Last Door Arming is enabled,

When the doors are closed the LED starts to flash rapidly. Then siren will chirp once, the hazard lights flash once, Immobiliser turns on and the system is armed automatically 30 seconds after the doors closed.

If Passive Lock enabled, the doors will be locked.

### **C-3) Passive Locking**

Steps to enable Passive Locking:

**a>** With the system disarmed, open and hold the door, and switch the ignition on/off three times, and then switch to On.

**b>** Siren will chirp 2 seconds to confirm entering into the programming option mode.

**c>** Press button (1) twice to select # 2 Passive Lock Mode, a single short siren will follow each button press.

**d>** Then press button (2) once to confirm, two single short chirps will follow.

**e>** Press button (2) once again to enable passive locking, the siren will chirp twice to confirm.

\* If Passive Locking is enabled: Upon the doors being closed, the LED starts to flash rapidly. The siren will chirp once, the hazard lights flash once, immobiliser turns on and doors are locked automatically 30 seconds after the last door is closed.

### **C-4) Ignition lock**

Steps to enable Ignition Locking:

Follow the procedure above to enter programming mode and set option 3 to enabled.

\* If Ignition locking is enabled: The doors will be automatically locked 15 seconds after the ignition is turned on. The doors will be not locked if opened within 15 seconds of the ignition being turned on. The doors will be unlocked immediately upon the ignition being turned off.

\* When the ignition is on, press button (1) to lock or unlock the doors.

### **C-5) Door Lock Time**

To program the Door Lock Time to Single, Double Pulse or 4 seconds:

Follow the procedure above to enter programming mode and set option 4 as described in the Programming Option Table.

### **C-6) Siren or Horn Output**

To program for Siren or Horn Output:

Follow the procedure above to enter programming mode and set option 5 as described in the Programming Option Table.

**a>** If horn is selected, an extra relay should be added.

**b>** If siren output is selected, the system will send a constant output.

**c>** If horn is selected and programmed, it has 0.5 second interval between each output.

### **C-7) Alarm Time**

Steps to program Alarm Time as 30 or 60 seconds:

Follow the procedure above to enter programming mode and set option 6 as described in the Programming Option Table.

#### **C-8) Interior Light Delay**

Follow the procedure above to enter programming mode and set option 7 as described in the Programming Option Table.

If the vehicle has a delay on turning off the interior light set Interior Light Delay to enabled or set the Interior Light Delay to disabled and connect the door switch wire of the vehicle.

If the interior light delay is programmed as disabled all sensors will be activated 3 seconds after the system is armed.

If the interior light delay is programmed as enabled, all sensors such as door, bonnet, boot and shock except for ignition will be activated 15 seconds after the system is armed.

#### **C-9) Boot Release/Channel 3 Output/Total Closure Output (optional feature)**

Channel 3 output is often used to operate a boot release or can be configured to operate Total Closure.

Follow the procedure above to enter programming mode and set option 8 as either enabled or disabled.

**a> When Disabled:** With the system armed or disarmed press button (2) for over 3 seconds, channel 3 output will be on until button (2) is released.

**b> When Enabled:** A 30 seconds negative pulse will be sent through CH3 by pressing button (1) to arm the system.

#### **C-10) Auto Re-Arming**

Steps to enable Auto Re-Arm:

Follow the procedure above to enter programming mode and set option 9 as described in the Programming Option Table.

If Auto Re-Arming is enabled, the system will be automatically armed 30 seconds after the system is disarmed.

#### **C-11) Anti-Hijacking Mode**

Steps to enable Anti-Hijacking mode:

Follow the procedure above to enter programming mode and set option 10 to enabled.

**Important:** If the user wants to use Anti-Hijacking Mode, the immobiliser relay must be connected. Unless the immobiliser relay is connected to the fuel pump, the vehicle will not shut down when Anti-Hijacking Mode is operated.

To activate Anti-Hijacking Mode: Press button (3) once when the engine is on. LED starts to flash rapidly for 15 seconds, then the parking lights start to flash and siren chirp for one cycle, but will continue to sound and flash unless the ignition key is turned off. The doors will be locked, immobiliser turned on and the alarm system armed. Press button (1) once to quit Anti-Hijacking mode.

#### **C-12) Ignition 2**

If a vehicle has ignition 2 (ACC 2), the yellow/black wire must be connected to Ignition 2 (ACC 2) in the vehicle.

**Important:** This wire must be connected to Ignition 2 (ACC 2) in the vehicle. Or it will affect performance of remote engine start.

## **D) Remote Starter**

### **D-1) Car Type**

Steps to program Car Type as Automatic or Manual:

Follow the procedure above to enter programming mode and set option 11 as described in the Programming Option Table.

### **D-2) Remote Engine Start Mode**

Steps to program Engine Start Mode as Alternator or Tach:

Follow the procedure above to enter programming mode and set option 12 as described in the Programming Option Table.

\* If Tach Sensing (RPM) is programmed:

**a>** Perform the tach learning before using the remote start for the first time.

**b>** Make sure the tach wire(Green) of the alarm system is connected to the negative of the coil as shown in the wiring diagram.

### **D-3) RPM (Tach) Learning**

Before performing the RPM (Tach) learning turn off all electrical devices such as car stereo, FM Radio or air conditioner. By doing so, the system will learn lowest RPM, which will make it smoother and easier when using the remote starter.

Take the following steps to perform the RPM learning:

**a>** Shift the gear to the neutral position and pull up the hand brake.

**b>** Switch the ignition on and start the engine.

**c>** Wait until the RPM is running stably (normally vehicle's stable RPM is 900-1,000.)

**d>** Press button (3) for 3 seconds. The hazard lights will flash for 2 seconds and then flash twice to confirm that RPM is learned.

### **Important:**

\* Please make sure to set Start Mode Select as TACH (please refer to # 12 Start Mode Select of Programming Option Table).

\* The Tach wire (Green) of the alarm system should be connected to the negative of the coil.

### **D-4) Alternator Voltage**

This setting should be left set on the default setting of 4.5V unless advised otherwise by our technical department.

### **D-5) Crank Time**

Steps to program Crank Time as 0.6, 0.8 or 1 second:

Follow the procedure above to enter programming mode and set option 14 as described in the Programming Option Table.

Normally, older vehicles and diesel vehicles need a longer crank time to start the engine. However, if the engine doesn't start smoothly, please set the crank time longer.

### **D-6) Start Running Time**

Steps to program Start Running Time as 10 minutes or 20 minutes:

Follow the procedure above to enter programming mode and set option 15 as described in the Programming Option Table.

Depending on the programmed engine running time, the engine will run for 10 or 20 minutes and then shut down automatically.

#### D-7) 24-Hour Engine Start Mode

Steps to program 24-Hour Engine Start Mode as 3 hours, 6 hours or off:

Follow the procedure above to enter programming mode and set option 16 as described in the Programming Option Table.

This feature is convenient to use in the cold winter season.

**a>** Press button (1) and (3) once at the same time to activate 24-Hour Engine Start Mode, then siren will chirp once and the hazard lights flash once to confirm.

Depending on the programmed value, the engine will automatically start every 3 or 6 hours in each 24-hour period.

**b>** Press button (1) and (3) once again at the same time to deactivate this mode. The siren will chirp twice and the hazard lights flash twice to confirm.

There are 3 situations that the 24-hour engine start mode will be cancelled as follows:

**a>** When remote engine start is used.

**b>** Doors are opened.

**c>** The system is triggered.

#### D-8) Installation without Remote Starter Features

If the remote starter features are not required, the following wires do not need to be connected:

C1-2Yellow/GreenTo Ignition Start

C1-3Blue/WhiteTo Ignition Acc

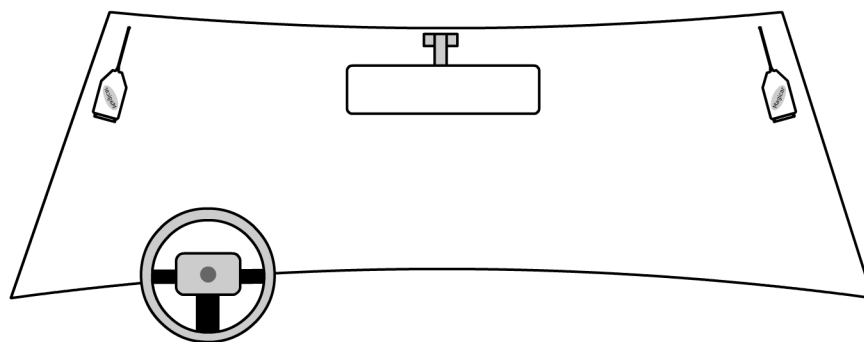
C3-5Black/RedTo handbrake light

C4-1GreenTo RPM

C4-2Yellow/BlackTo ignition 2

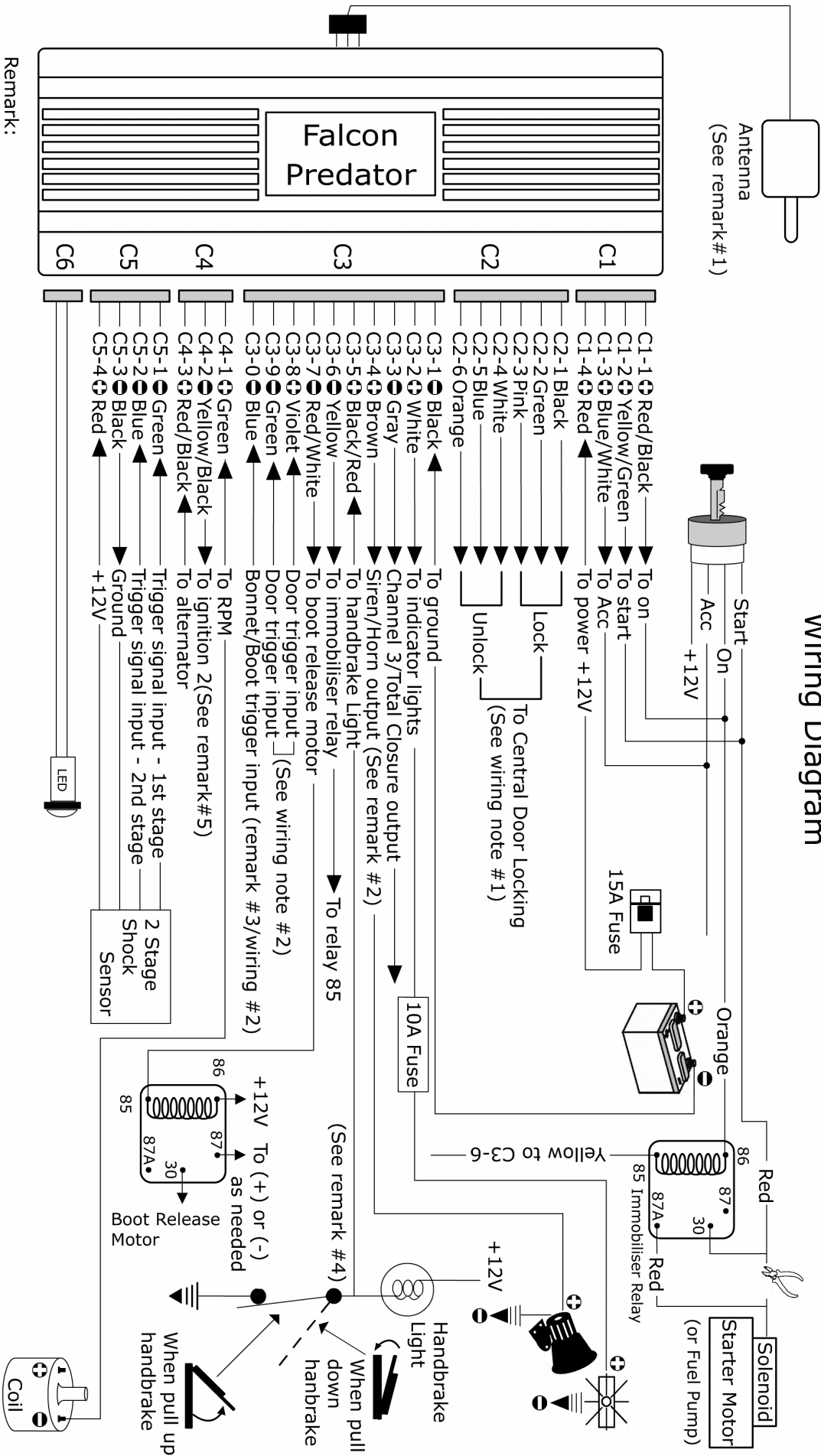
C4-3Red/BlackTo alternator

#### E) Suggested Location of Installing the Antenna



- \* Install the antenna at the right or left upper of the windshield
- \* Keep the antenna at least 5cm away from the car frame
- \* Don't power on the main unit if the antenna is not connected
- \* Keep the antenna at least 5cm apart from solar control window film

# Falcon Predator EVO4 Car Alarm With Remote Starter Wiring Diagram



F) Wiring Diagram

- Remark:
- #1: Please keep the antenna away from any metal parts and away from the shock sensor.
  - #2: If connecting to vehicles horn, please add a relay.
  - #3: Connect C3-0 to bootlight and bonnet pin-switch in parallel.
  - #4: C3-5 must be connected to ground otherwise the remote start will not work.
  - #5: If the vehicle has ignition 2 (ACC 2), this wire must be connected to ignition 2 (ACC 2) of the vehicle

## G) Wiring Note #1

### Predator EVO4 Wiring Note #1

#### Central Locking Wiring Diagram

Diagram #A

Original built-in central door locking

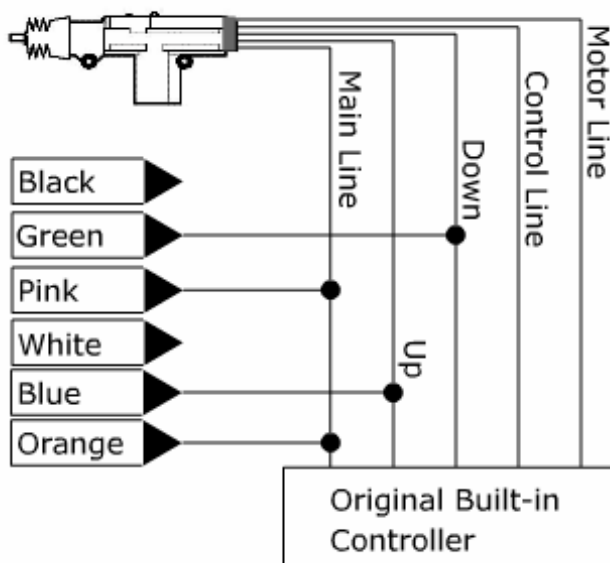


Diagram #B

Original built-in central door locking & electric power lock switch where installed  
For example: CHRYSLER

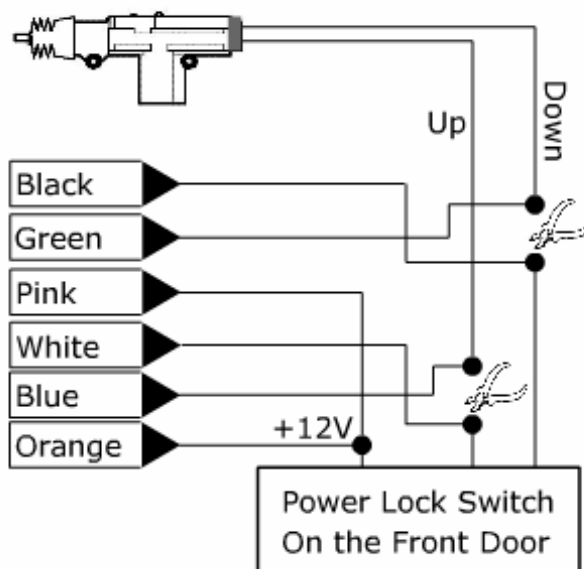


Diagram #C

Original built-in central locking & where only a switch existed in the drivers door.  
A motor is required

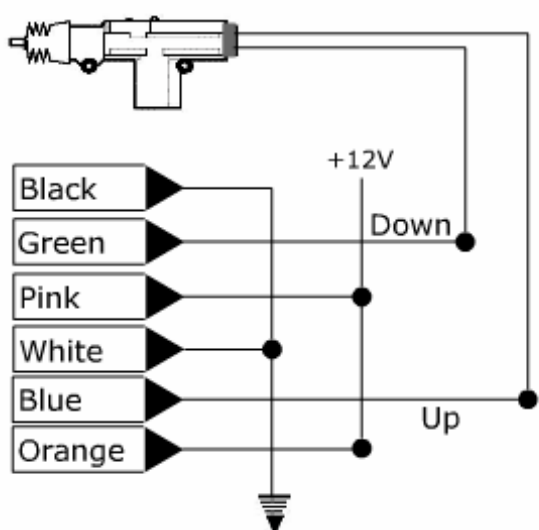
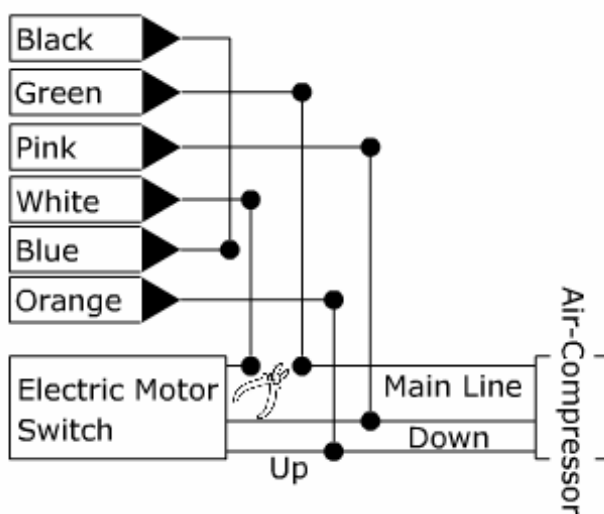


Diagram #D

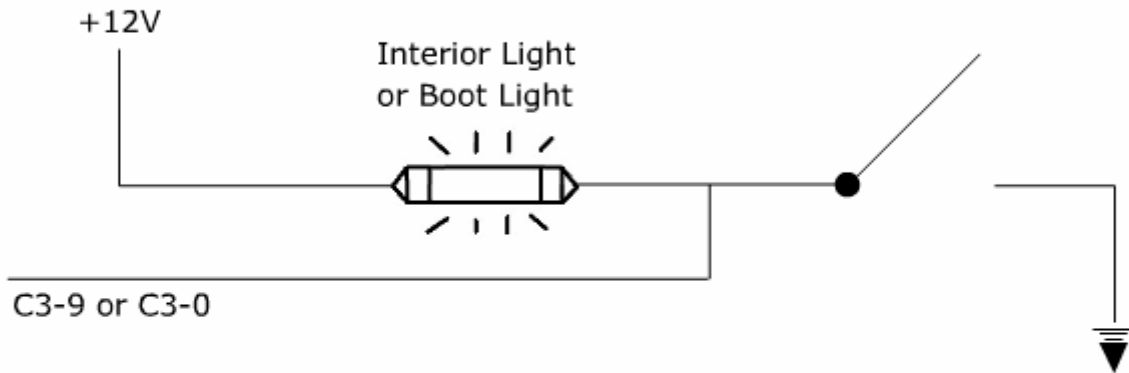
Original built-in central locking using a compressor to control the switch.  
For example: BENZ, AUDI  
(Note: Active time 3.5 sec.)



## Predator EVO4 Wiring Note #2

Connect the C3-9 Green Door-trigger wire to the interior light or C3-0 Blue Bonnet/Boot trigger wire to the boot light as follows:

Negative Trigger: When the vehicle's Interior Light or Boot Light is Negative Trigger



Positive Trigger: When the vehicle's Interior Light or Boot Light is Positive Trigger

