

SYVECS LTD

V1.1



Chevrolet C6 Plug in kit

This document is intended for use by a technical audience and describes a number of procedures that are potentially hazardous. Installations should be carried out by competent persons only.

Syvecs and the author accept no liability for any damage caused by the incorrect installation or configuration of the equipment.

Please Note that due to frequent firmware changes certain windows might not be the same as the manual illustrates. If so please contact the Syvecs Tech Team for Assistance.

Support@Syvecs.com

Parts Supplied:

Syvecs S7Plus ECU

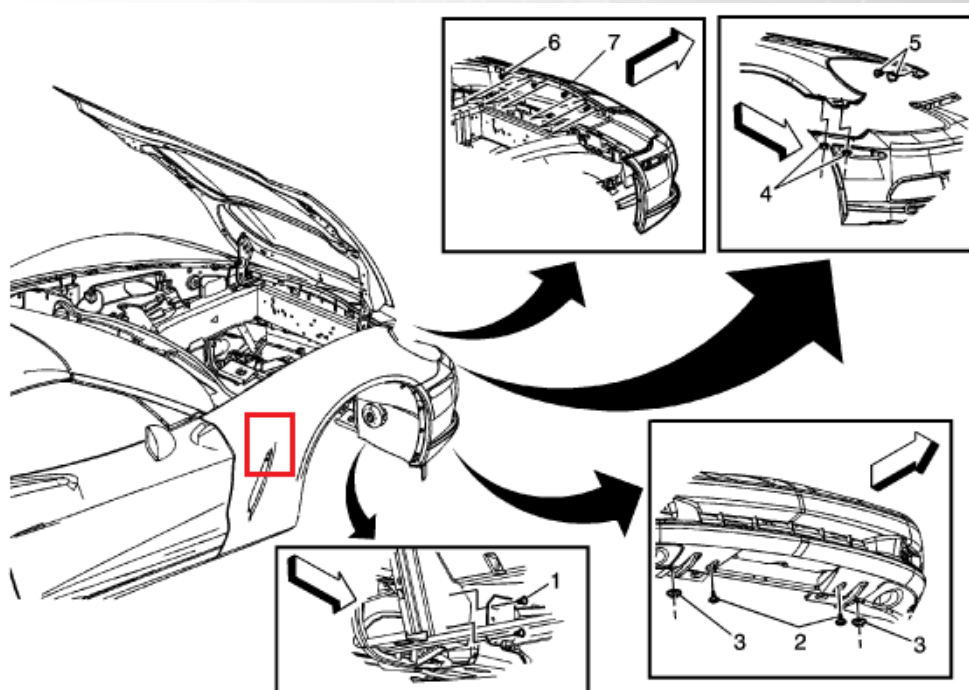
Loom Adapter

Installation

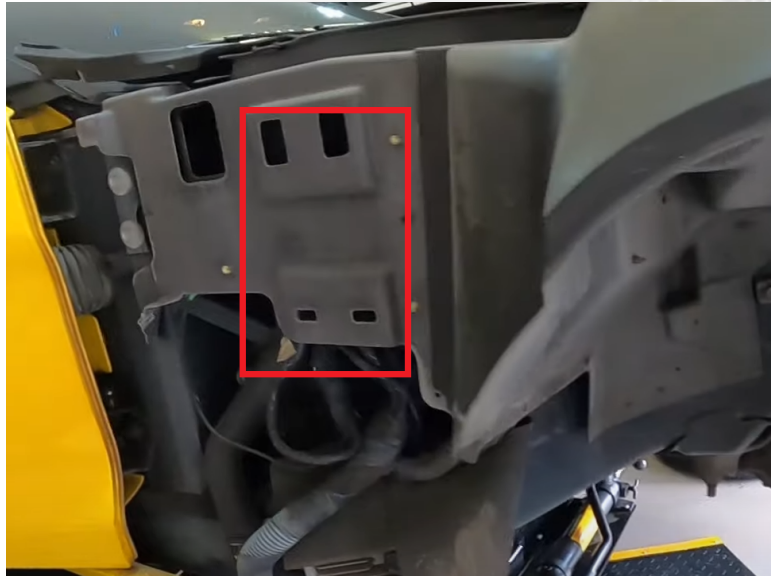
1 Remove the Negative Terminal from the battery on the Vehicle to be extra safe with electrical components.



2 The OEM ECU is found behind the front right fender as shown below, this needs to be removed to gain access to the ECU



3 Unplug and Remove the Factory ECU



4 Plug in and Mount the Syvecs S7 Kit



5 Re-Fit the fender and reconnect the battery

Calibration Switching

The Oem Cruise lever on the Corvette C6 is used to do calibration switching on the Syvecs Ecu.

Cruise Up = Cal Up

Cruise Set- Cruise Switch



The Rpm Gauge will show the active CalSelect selection when changing is preformed via cruise levers. The HP Gauge will also show Ethanol Content



Custom Features

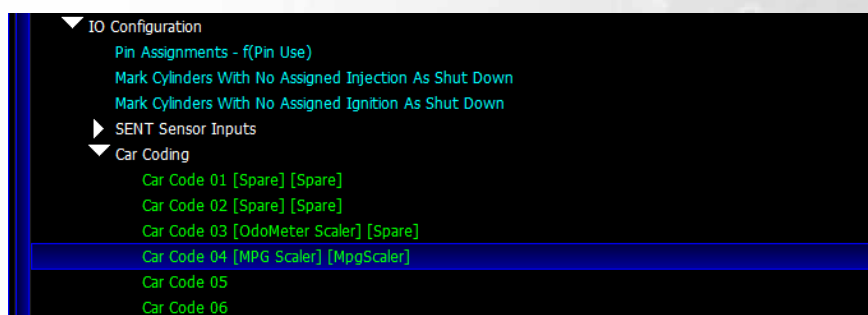
FlexFuel Content - The original dash displays the Ethanol content (FuelComp) in the Fuel Level on the dash when changing calibration switch position. It is displayed for 1 Second.



FlatShift - The Clutch Pedal on manual transmission cars acts as a Gearcut Request flag and Launch Switch. When going full throttle drivers do-not need to remove the foot off the accelerator when up shifting. The Ecu will apply torque reductions to hold the RPM and boost if the engine is turbo'd.



MPG and Odo adjustments - The MPG and Odometer scaling on the dash can be adjusted in our Scal Software under i/o Configuration - CarCoding



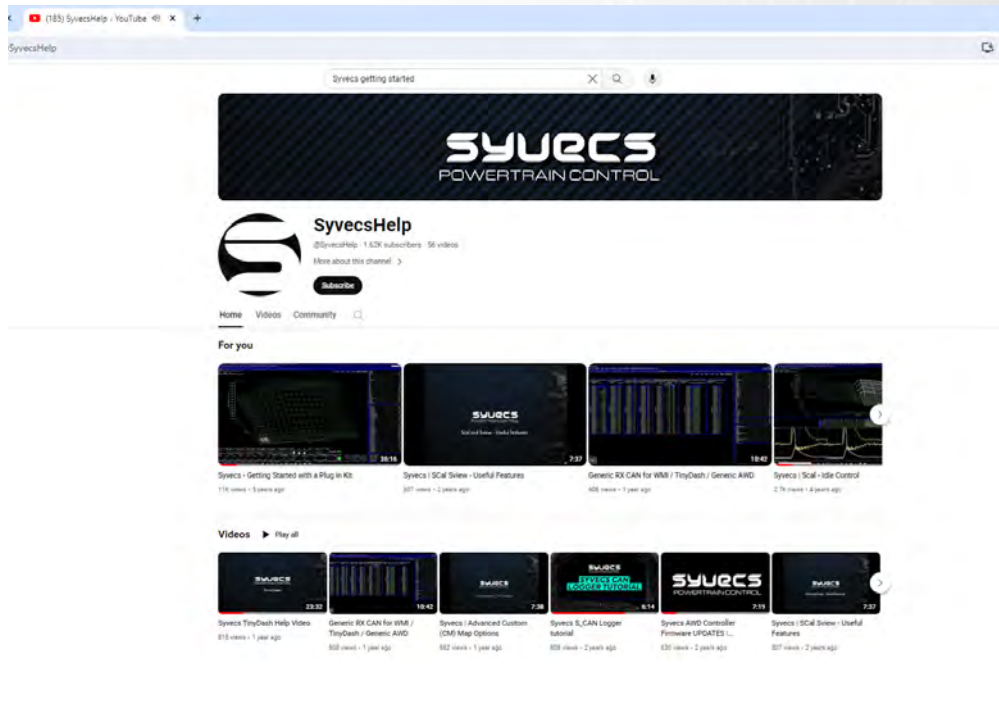
Support / Training

Dealer Support can be obtained from Support@Syvecs.com
End Users Support from Syvecs Forum

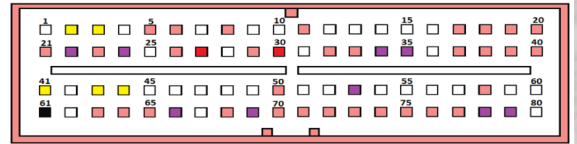
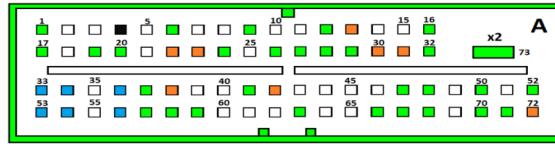
A getting started help video is found here for plug in kits
<https://www.youtube.com/watch?v=jqDPKCQYzo0&t=1498s>



More Syvecs Help videos can be found on our YouTube Page
www.youtube.com/SyvecsHelp



Pinouts



| A | DESCRIPTION | CONNECTOR A | | | |
|---|-------------|---------------|--|--|--|
| | PART NUMBER | 4-1437290-0 | | | |
| | NOTES: | 34 Way - Key1 | | | |

| Syvecs Description | Syvecs Pinout | Function | A | B | Car Note |
|--------------------|---------------|------------------------|----|--------|---------------------------------|
| PWR CTR OUT | A1 | MAIN RELAY OUTPUT | 59 | | Main Relay |
| H-Bridge1 | A2 | H-Bridge1 | | 6 | DBW + |
| H-Bridge2 | A3 | H-Bridge2 | | 5 | DBW - |
| H-Bridge3 | A4 | H-Bridge3 | | 32 | Alternator Duty Cycle Signal |
| H-Bridge4 | A5 | H-Bridge4 | 17 | | Camaro High Speed Fan |
| H-Bridge5 | A6 | H-Bridge5 | 50 | | Fuel Pump Relay |
| H-Bridge6 | A7 | H-Bridge6 | 66 | | Skip/Shift Solenoid 2010 |
| H-Bridge7 | A8 | H-Bridge7 | 48 | | Tacho |
| H-Bridge8 | A9 | H-Bridge8 | | | |
| FUEL1 | A10 | INJECTOR or PWM OUTPUT | | 20 | Injector1 |
| FUEL2 | A11 | INJECTOR or PWM OUTPUT | | 37 | Injector2 |
| FUEL3 | A12 | INJECTOR or PWM OUTPUT | | 38 | Injector3 |
| FUEL4 | A13 | INJECTOR or PWM OUTPUT | | 39 | Injector4 |
| FUEL5 | A14 | INJECTOR or PWM OUTPUT | | 18 | Injector5 |
| FUEL6 | A15 | INJECTOR or PWM OUTPUT | | 19 | Injector6 |
| FUEL7 | A16 | INJECTOR or PWM OUTPUT | | 40 | Injector7 |
| FUEL8 | A17 | INJECTOR or PWM OUTPUT | | 17 | Injector8 |
| FUEL9 | A18 | PWM OUTPUT | 68 | | Cel Light |
| FUEL10 | A19 | PWM OUTPUT | | | |
| FUEL11 | A20 | PWM OUTPUT | 57 | | Speedo |
| FUEL12 | A21 | PWM OUTPUT | 63 | | A/C Compressor |
| FUEL13 | A22 | PWM OUTPUT | 58 | | Ran Fan |
| FUEL14 | A23 | PWM OUTPUT | 67 | | Starter Relay 2007 |
| FUEL15 | A24 | PWM OUTPUT | | 11 | Reverse Lock Out Solenoid |
| FUEL16 | A25 | PWM OUTPUT | 52 | | Starter Relay 2010+ |
| IGN1 | A26 | CYL 1 IGNITION OUTPUT | | 70, 74 | Ignition 1 & 6 |
| IGN2 | A27 | CYL 2 IGNITION OUTPUT | | 73, 77 | Ignition 2 & 3 |
| IGN3 | A28 | CYL 3 IGNITION OUTPUT | | 76, 72 | Ignition 4 & 7 |
| IGN4 | A29 | CYL 4 IGNITION OUTPUT | | 75, 71 | Ignition 5 & 8 |
| IGN5 | A30 | CYL 5 IGNITION OUTPUT | | | |
| IGN6 | A31 | CYL 6 IGNITION OUTPUT | | 8 | Evap Purge |
| PWRGND | A32 | POWER GROUND | 73 | | Connected to engine loom ground |
| PWRGND | A33 | POWER GROUND | | | Connected to engine loom ground |
| PWRGND | A34 | POWER GROUND | | | Connected to engine loom ground |

| B | DESCRIPTION | CONNECTOR B | | | |
|---|-------------|---------------|--|--|--|
| | PART NUMBER | 3-1437290-7 | | | |
| | NOTES: | 26 Way - Key1 | | | |

| | | | | | |
|------------|-----|-------------------------|-------------------------|-------------------------|------------------------------------|
| PWRGND | B1 | POWER GROUND | 73 | | |
| CAN L | B2 | Can 2 | | | |
| CAN H | B3 | Can 2 | | | |
| KNOCK 1 | B4 | KNOCK 1 | | 26 | Odd bank |
| KNOCK 2 | B5 | KNOCK 2 | | 29 | Even bank |
| PVBAT | B6 | CONSTANT 12V | 20 | | |
| | | | 47 | | |
| LAM1A | B8 | Lamv / LamD1+ / LamLun1 | NTK Flying Loom 1.5m | NTK Flying Loom 1.5m | 12v |
| LAM1B | B9 | Lami / LamD1- / LamIP1 | NTK Flying Loom 1.5m | NTK Flying Loom 1.5m | Grey NTK |
| LAM1C | B10 | LamUA1 | | | White NTK |
| LAM1D | B11 | LamGND / LamLVM1 | NTK Flying Loom 1.5m | NTK Flying Loom 1.5m | Black NTK |
| LAM1HEATER | B12 | LAMBDA HEATER | NTK Flying Loom 1.5m | NTK Flying Loom 1.5m | Blue NTK |
| IVBAT | B13 | 12V | 4 | 61 | Alternator on / Starter Relay Coil |
| LAM2A | B14 | Lamv / LamD1+ / LamLun1 | NTK Flying Loom 1.5m | NTK Flying Loom 1.5m | Grey NTK |
| LAM2B | B15 | Lami / LamD1- / LamIP1 | NTK Flying Loom 1.5m | NTK Flying Loom 1.5m | White NTK |
| LAM2C | B16 | LamUA1 | | | |
| LAM2D | B17 | LamGND / LamLVM1 | NTK Flying Loom 1.5m | NTK Flying Loom 1.5m | Black NTK |
| LAM2HEATER | B18 | LAMBDA HEATER | NTK Flying Loom 1.5m | NTK Flying Loom 1.5m | Blue NTK |
| IVBAT | B19 | 12V | NTK Flying Loom x2 1.5m | NTK Flying Loom x2 1.5m | Lambda Powers x2 |
| KLINE | B20 | | | | |
| RS232RX | B21 | RS232RX | | | |
| RS232TX | B22 | RS232TX | | | |
| LANRX- | B23 | Cat5 Pin2 | | | |
| LANRX+ | B24 | Cat5 Pin1 | | | |
| LANTX- | B25 | Cat5 Pin6 | | | |
| LANTX+ | B26 | Cat5 Pin3 | | | |

| C | DESCRIPTION | CONNECTOR C | | | |
|---|-------------|---------------|--|--|--|
| | PART NUMBER | 4-1437290-1 | | | |
| | NOTES: | 34 Way - Key2 | | | |

| | | | | | |
|------------|-----|---------------------|--------------------------------|------------------------------------|------------------------------|
| KNOCKGND | C1 | KNOCKGND | | 27,30 | |
| ANGND | C2 | SENSOR GND | 13, 22, 23, 30, 31, 38, 42, 72 | | |
| ANGND | C3 | SENSOR GND | | 22, 24, 34, 35, 53, 66, 69, 78, 79 | |
| ANGND | C4 | SENSOR GND | | | |
| 5V OUT | C5 | 5V OUT | 33, 34, 36, 53, 54, 56 | | |
| 5V OUT | C6 | 5V OUT | | 2, 3, 41, 43, 44 | 30 |
| 5V OUT | C7 | 5V OUT | 470Ohm pull ups from 16 & 70 | | |
| CAN L | C8 | Can Low | 27 | | Can L |
| CAN H | C9 | Can High | 28 | | Can H |
| AN01 | C10 | BI-POLAR INPUTS | | 68 | Crank |
| AN02 | C11 | BI-POLAR INPUTS | | 64 | Cam |
| AN03 | C12 | BI-POLAR INPUTS | 71 | | Gearbox Speed |
| AN04 | C13 | BI-POLAR INPUTS | 1 | | Park Neutral Sw |
| AN05 | C14 | UNI-POLAR INPUTS | 24 | | Fuel Tank Pressure |
| AN06 | C15 | UNI-POLAR INPUTS | | 33 | Oil Level Switch |
| AN07 | C16 | UNI-POLAR INPUTS | | 23 | Auto Trans Temp |
| AN08 | C17 | UNI-POLAR INPUTS | | 58 | Map |
| AN09 | C18 | VOLT-INPUTS | 29 | | PPS1 |
| AN10 | C19 | VOLT-INPUTS | 32 | | PPS2 |
| AN11 | C20 | VOLT-INPUTS | | 65 | TPS1 |
| AN12 | C21 | VOLT-INPUTS | | 63 | TPS2 |
| AN13 | C22 | RESISTIVE INPUTS | 37 | | IAT |
| AN14 | C23 | RESISTIVE INPUTS | | 21 | ECT |
| AN15 | C24 | RESISTIVE INPUTS | 16 | 470ohm Pull up to C7 | Fuel Level Sec |
| AN16 | C25 | RESISTIVE INPUTS | 70 | 470ohm Pull up to C7 | Fuel Level Pri |
| EGT1- | C26 | EGT1 - | | | |
| EGT1+ | C27 | EGT1 + | | | |
| PWR CTR IN | C28 | MAIN RELAY INPUT SW | 19 | | Ign Switch |
| AN S1 | C29 | UNI-POLAR INPUTS | 6 | | Clutch Sw 2007 |
| AN S2 | C30 | UNI-POLAR INPUTS | 9 | | Brake Sw |
| AN S3 | C31 | UNI-POLAR INPUTS | 12 | | AC Pressure |
| AN S4 | C32 | UNI-POLAR INPUTS | | 50 | Oil Pressure |
| AN S5 | C33 | UNI-POLAR INPUTS | 26 | | Clutch Signal Position 2010+ |
| AN S6 | C34 | UNI-POLAR INPUTS | 41 | | MAF - Use for Flex Fuel |