

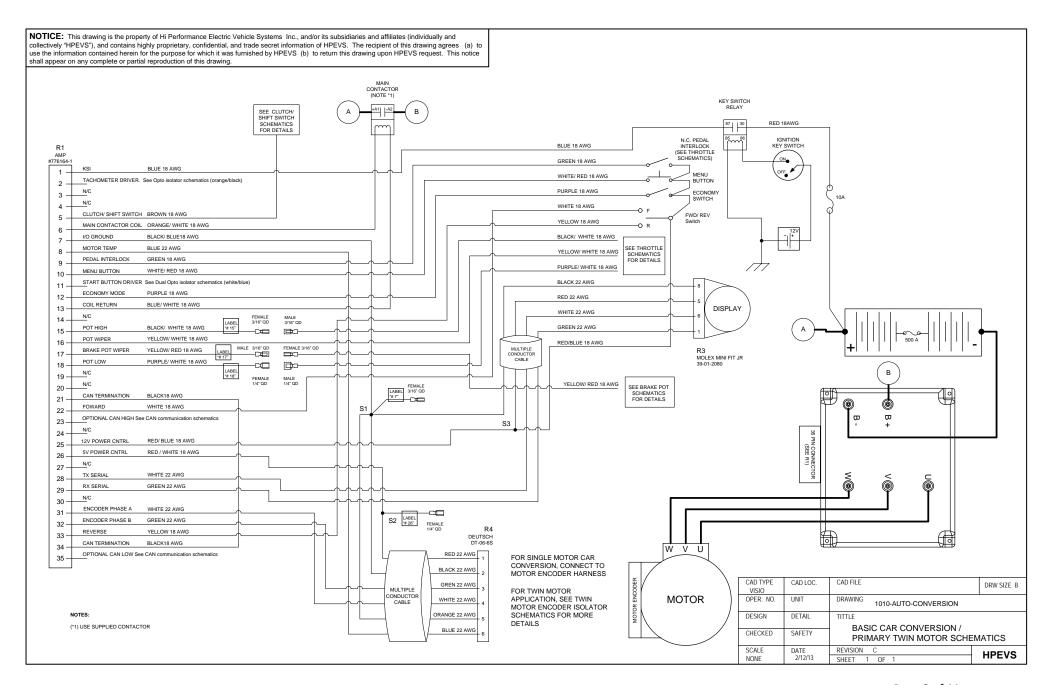
1551 S. Vineyard Avenue Ontario, CA 91761 (909) 923-1973

# **WIRING SCHEMATICS**

FOR SOFTWARE VERSIONS GENERIC 541 AND HIGHER

## **BASIC AUTOMOTIVE CONVERSION**

**REVISION: C2 Date 4/2/2013** 



### THROTTLE CONFIGURATION

Depending of the type of throttle used for the application, see below table to determine the appropriate connection. Electrical schematics are also included in page 4 through 6.

THROTTLE CONFIGURATION	TYPE	ELECTRICAL CONNECTIONS
2 WIRE with SWITCH 0-5k Ω	TYPE 2	Connect PURPLE / WHITE wire labeled #18 with PURPLE / WHITE wire. Ending connection at throttle pot low.  YELLOW / WHITE wire connected to throttle wiper
		Connect BLACK / WHITE wire labeled #15 with BLACK/ WHITE wire. Ending connection at throttle pot high.  Connect PURPLE / WHITE wire labeled #18 WITH PURPLE / WHITE wire. Ending connection at throttle pot low.
3 WIRE with SWITCH 0-5k Ω	TYPE 3	Connect YELLOW / WHITE wire connected to throttle wiper.
		Disconnect any wire connected to BLACK/WHITE wire labeled #15.  Disconnect any wire from PURPLE/ WHITE wire labeled #18.
		Connect BLACK /BLUE WIRE LABELED #7 with BLACK/ BLUE wire. Ending connection at electronic throttle ground.
ELECTRONIC		Connect RED/ WHITE wire labeled #26 with PURPLE / WHITE wire. Ending connection at throttle +5V input.
without SWITCH	TYPE 1	Connect YELLOW / WHITE wire to electronic throttle signal.

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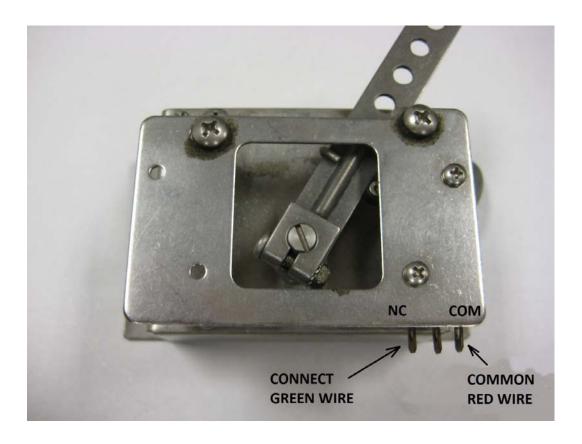
NOTICE: This drawing is the property of Hi Performance Electric Vehicle Systems Inc., and/or its subsidiaries and REVISIONS affiliates (individually and collectively "HPEVS"), and contains highly proprietary, confidential, and trade secret APPROVED DESCRIPTION information of HPEVS. The recipient of this drawing agrees (a) to use the information contained herein for the INITIAL RELEASE 1/22/2013 purpose for which it was furnished by HPEVS (b) to return this drawing upon HPEVS request. This notice shall appear on any complete or partial reproduction of this drawing. **ELECTRONIC** THROTTLE\*\* BLACK / BLUE **GROUND** YELLOW / WHITE SIGNAL **ELECTRONIC** THROTTLE PURPLE / WHITE +5V \*\* When Electronic pedal is used, the GREEN wire from pedal interlock does not need to be connected CAD TYPE CAD FILE CAD LOC. DRW SIZE A VISIO OPER. NO. UNIT DRAWING 1010-THROTTLE-001 DESIGN DETAIL TITTLE **ELECTRONIC THROTTLE** CHECKED SAFETY SCALE NONE DATE 1/22/13 REVISION A **HPEVS** SHEET 3 OF 3

#### PEDAL INTERLOCK CONNECTION

The pedal interlock connection is required for both 2 and 3 wire throttle pot assemblies. The Green wire is connected at Normally Closed tab. Red wire is connected at common tab. See below picture.

NOTE, when accelerator pedal <u>IS PRESSED</u> the interlock switch is released to its <u>NORMAL</u> position (switch not activated) thus completing the circuit since its green wire is connected to the normally closed (NC) connection.

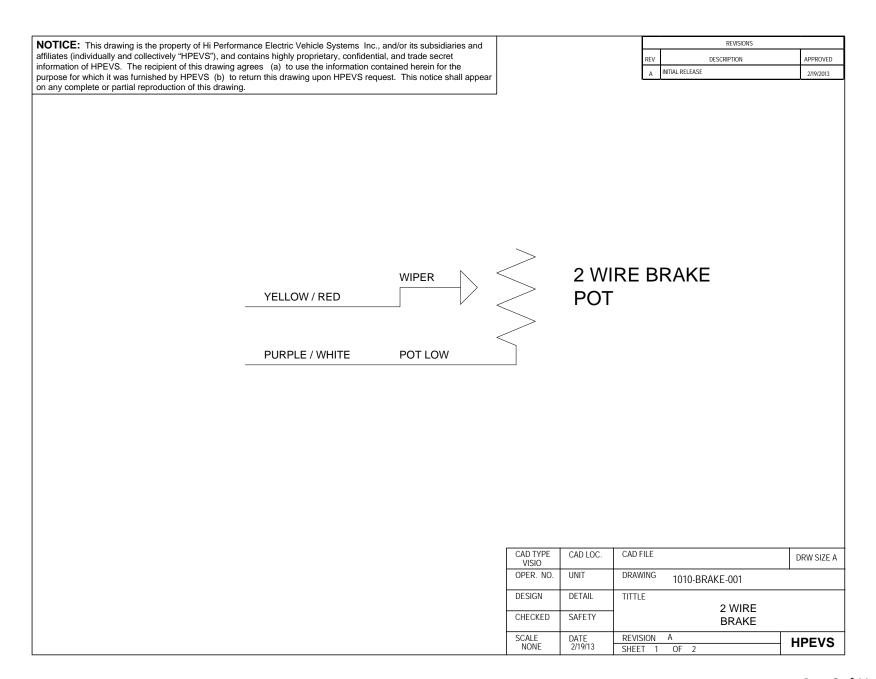
Electronic throttles usually do not have an interlock switches. In this application, the Green and Red wires are connected together.



### **BRAKE POT CONFIGURATION**

Depending of the type of brake pot used for the application, see below table to determine the appropriate connection. Electrical schematics are also included in page 9 & 10.

BRAKE POT CONFIGURATION	ТҮРЕ	ELECTRICAL CONNECTIONS
		Connect PURPLE / WHITE wire labeled #18 with PURPLE / WHITE wire. Ending connection at brake pot low.
2 WIRE with SWITCH 0-5k $\Omega$	TYPE 2	Connect YELLOW / RED wire labeled #17 with wire YELLOW/ RED wire. Ending connection at brake wiper.
		Connect RED/ BLUE wire to brake transducer +12V input.
		Connect BLACK/ BLUE wire labeled #7 with Black/BLUE wire. Ending connection at brake transducer ground.
BRAKE TRANSDUCER	TYPE 1	Connect YELLOW / RED wire labeled #17 with wire YELLOW/ RED wire. Ending connection at brake transducer output signal.



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NOTICE: This drawing is the property of Hi Performance Electric Vehicle Systems Inc., and/or its subsidiaries REVISIONS and affiliates (individually and collectively "HPEVS"), and contains highly proprietary, confidential, and trade secret APPROVED DESCRIPTION information of HPEVS. The recipient of this drawing agrees (a) to use the information contained herein for the INITIAL RELEASE 2/18/2013 purpose for which it was furnished by HPEVS (b) to return this drawing upon HPEVS request. This notice shall appear on any complete or partial reproduction of this drawing. DUAL CHANNEL ISOLATOR AND CLUTCH SWITCH FEATURES ARE REQUIRED WHEN USING MOTOR IDLE FUNCTION. IF OEM CLUTCH SWITCH IS USED, THE CIRCUIT MAY NEED TO BE RE-CONNECTED OEM START INPUT OEM CLUTCH SWITCH, SHIFT SWITCH, OR USER <u>ON</u> SUPPLIED SWITCH. (\*2) R1 ACC #776164-1 OEM KEY ON INPUT CONTROLLER CONNECTOR (NOTE\*1) (\*3) TACHOMETER SIGNAL ORANGE/ BLACK 18 AWG RED 18 AWG IGNITION KEY SWITCH BLUE BL/ CLUTCH SWITCH SIGNAL BROWN 18AWG I/O GROUND BLACK/ BLUE 18AWG BLACK/ BLUE18 AWG TACHOMETER START INPUT WHITE/ BLUE 18 AWG OEM TACH INPUT GREEN 18 AWG 12V POWER CNTRL RED/ BLUE 18 AWG 25 RED/ BLUE 18 AWG BLACK 18 AWG RED/ BLUE 18 AWG RED/BLUE S1 BLACK 18 AWG BLACK 18 AWG S2 Molex Mini Fit JR (\*1) Other electrical connections and system components 5 39-01-2105 are not displayed in this page. Double Channel I/O Isolator (\*2) Switch closed when pedal is pressed or when shifting switch is pressed with clutch-less setup. For vehicles equipped with clutch switch, disconnect the OEM wiring and reconnect it per the schematics. I/O ISOLATOR PIN FUNCTION CAD TYPE CAD LOC CAD FILE DRW SIZE B VISIO (\*3) Consult with vehicle's service manual to determine 1 - CHANNEL 1 CONTROLLER 12V OPER. NO. UNIT DRAWING 1010-clutch-001 2 - CHANNEL 1 TACHOMETER SIGNAL the correct "START" and "ON" circuits. Some vehicles 3 - CHANNEL 1 GROUND may require for the clutch switch circuit to be re-establish 4 - CHANNEL 1 VEHICLE 12V DESIGN DETAIL TITTLE when the OEM clutch switch is used with the drive system. 5 - CHANNEL 1 OUTPUT TO TACHOMETER 6 - CHANNEL 2 IGNITION KEY INPUT Clutch schematics CHECKED SAFETY 7 – CHANNEL 2 GROUND 8 - CHANNEL 2 CONTROLLER I/O GROUND 9 - CHANNEL 2 CONTROLLER 12V 10 - CHANNEL 2 CONTROLLER START INPUT DATE 2/18/13 REVISION SCALE **HPEVS** NONE SHEET 1 OF 1