



CAN IO Module

Part Number: 510-554-165

The Holley CAN Input/Output Module adds eight multi-purpose inputs and 8 ground/PWM outputs to supported ECU's. These instructions cover basic wiring. [Full instructions can be downloaded at www.holley.com on the product page for the IO Module.](http://www.holley.com) These fully cover wiring and software configuration.

The module can be used with Holley HP, Dominator, Terminator X, and Terminator X Max ECUs. HP and Dominator Require Software/Firmware Versions V6 Build 200 and up. Terminator X ECU's require Software/Firmware versions V2 Build 51 and up.

The added inputs/outputs are added via the "Inputs/Outputs ICF" in the software. The IO Module only supports inputs and outputs added in the Inputs/Outputs ICF. It does not support pre-defined inputs and outputs within the other ICFs in the system (inputs and outputs in the Nitrous and Boost Control ICFs for example). Those inputs and outputs must be setup directly to the ECU itself.

Software Setup

Download full manual for complete instructions. Each IO Module input and output must be individually configured in the IO ICF. The input and output Types labeled "CAN xxx" need to be selected for each IO module channel used. Make sure to note the CAN ID on the label on the back of the IO module before it is mounted. Input this into the CAN Settings in the software for the "CAN Serial" number. The CAN "Broadcast Rate" can be set from 1-100 Hz. 50 Hz would broadcast the value to the ECU 50 times a second for example. The "CAN Channel" needs to be selected for the desired IO Module Channel used (1-8). The rest of the setup is the same as inputs and outputs native to the ECU itself.

Wiring

Input and output wiring is not pre-installed in the wiring harness and must be installed by the user per specific application. CANbus and controller power and ground wires are pre-installed.

Wiring is included (see chart below for contents). The pre-terminated CANbus wiring must be connected to the ECU. Module switched power and ground is supplied through the CANbus connections, ensure that the switched power and ground is connected in the vehicle's CAN wiring. The pre-terminated 12 gauge ground wire is for the module outputs and should be connected to a good ground (a point that is tied battery). The user must supply and connect any sensor connectors for the specific sensors installed.

The module has five 5 volt sensor outputs and five sensor grounds. Sensors can be connected to these individually or sensors can be tied together as needed.

CONNECTOR PINOUT

| Pin | Color | Function |
|-----|--------|----------------------------------|
| 1 | White | CAN Power (Switched Ignition) |
| | Red | |
| 2 | | Output #2 |
| 3 | | Output #1 |
| 4 | Black | Ground |
| 5 | | 5V Sensor Power |
| 6 | | Output #4 |
| 7 | | 5V Sensor Power |
| 8 | | Sensor Ground |
| 9 | | Output #3 |
| 10 | | 5V Sensor Power |
| 11 | Tan | CAN_H |
| | Yellow | |
| 12 | | Sensor Ground |
| 13 | | Input #1 |
| 14 | | Input #2 |
| 15 | | Input #3 |
| 16 | | Input #4 |
| 17 | Black | Ground |
| 18 | Black | Ground |
| 19 | Orange | CAN_L |
| | Blue | |
| 20 | | Sensor Ground |
| 21 | | Input #5 |
| 22 | | Input #6 |
| 23 | | Input #7 |
| 24 | | Input #8 |
| 25 | Black | Ground |
| 26 | | Output #5 |
| 27 | Black | CAN Module Ground |
| | Green | |
| 28 | | 5V Sensor Ground |
| 29 | | Output #6 |
| 30 | | Sensor Ground |
| 31 | | Output #7 |
| 32 | | 5V Sensor Power |
| 33 | | Sensor Ground |
| 34 | | Output #8 |

INPUT, OUTPUT, SENSOR POWER & GROUND WIRE TO BE INSTALLED AS NEEDED.

OUTPUT 1-8 WIRING

| Color | Length (Ft) | Gauge |
|--------|-------------|-------|
| Red | 12 | 18 |
| Purple | 12 | 18 |
| Green | 12 | 18 |
| Orange | 12 | 18 |
| Grey | 12 | 18 |
| White | 12 | 18 |
| Yellow | 12 | 18 |
| Tan | 12 | 18 |

INPUT 1-8 WIRING

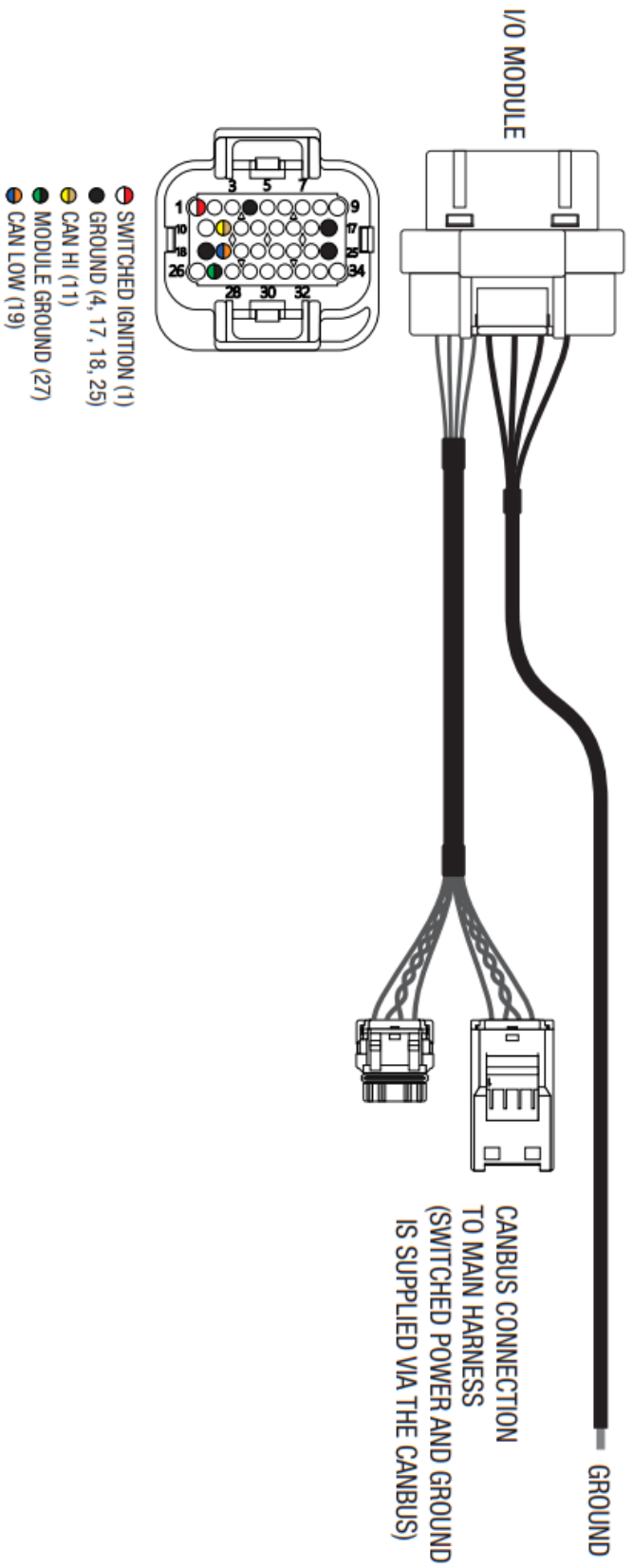
| Color | Length (Ft) | Gauge |
|--------------|-------------|-------|
| Red/Black | 12 | 20 |
| Purple/Black | 12 | 20 |
| Green/Black | 12 | 20 |
| Orange/Black | 12 | 20 |
| Grey/Black | 12 | 20 |
| White/Black | 12 | 20 |
| Yellow/Black | 12 | 20 |
| Tan/Black | 12 | 20 |

SENSOR POWER/GROUND

| Color | Length (Ft) | Gauge |
|-------------|-------------|-------|
| Blue | 3x12 | 20 |
| Black/White | 3x12 | 20 |

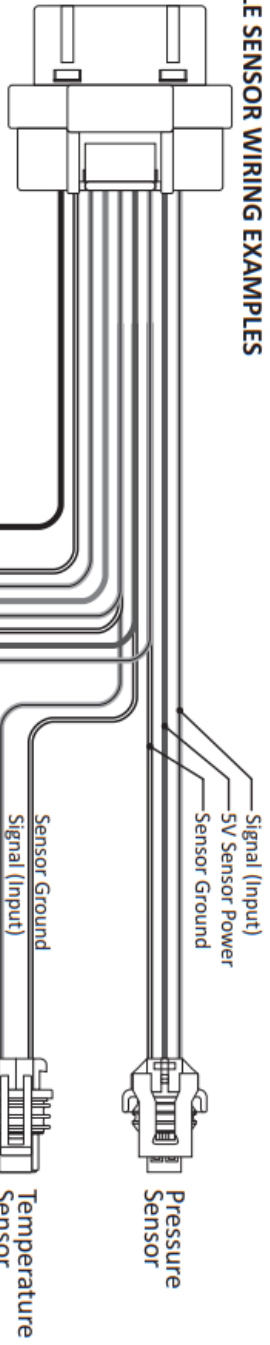
CAN I/O MODULE WIRING

CAN & Ground Pre-terminated Harness

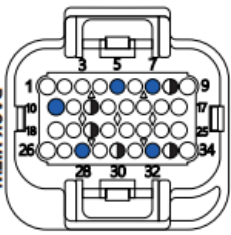


CAN I/O MODULE SENSOR WIRING EXAMPLES

I/O MODULE

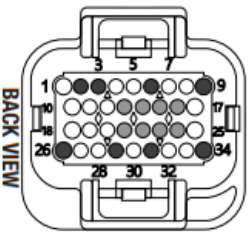


5V Sensor Power & Sensor Ground

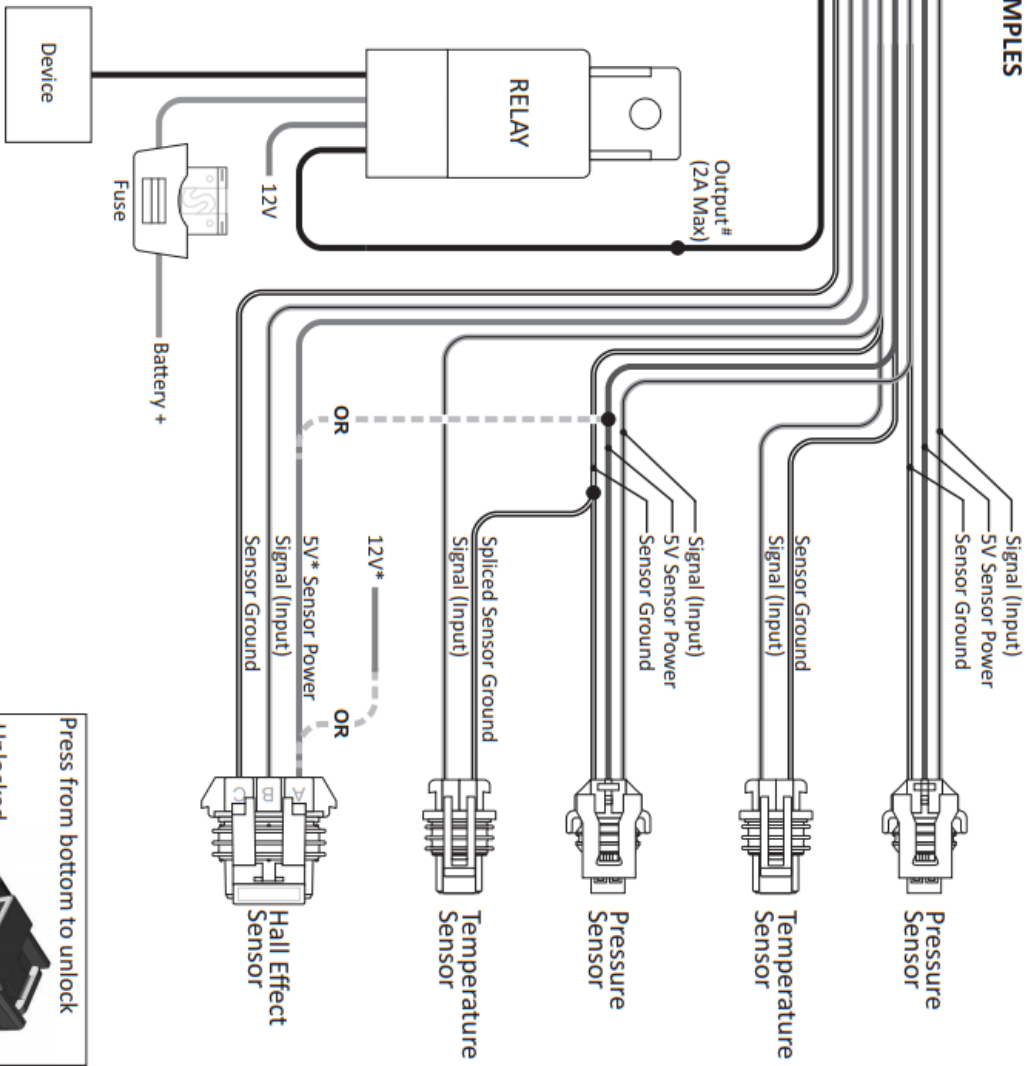


- 5V SENSOR POWER (5, 7, 10, 28, 32)
- SENSOR GROUND (8, 12, 20, 30, 33)

Input & Output



- INPUT 1 - 8 (13, 14, 15, 16, 21, 22, 23, 24)
- OUTPUT 1 - 8 (3, 2, 9, 6, 26, 29, 31, 34)



#NOTE:
Outputs can only drive up to 2 amps MAX.
If over 2 amps use a relay.

***NOTE:**
12V sensors will need to be supplied power separately.
5V sensor Power and Ground wires can use available pins in the connector OR can be spliced into other existing wires.

