



## CAN IO Module

### Part Numbers 554-165 & 554-166

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.](#) 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
	Red	(Switched Ignition)
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 Power
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

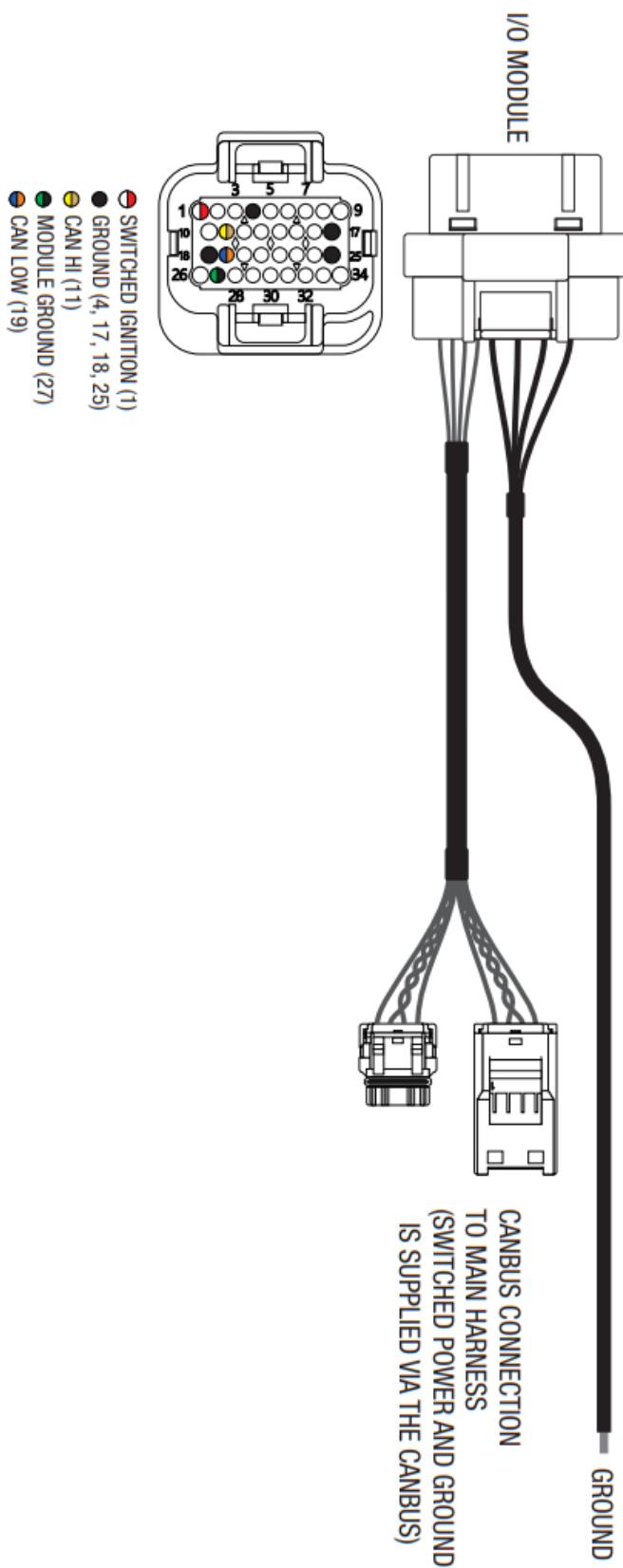
### INPUT 1-8 WIRING

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

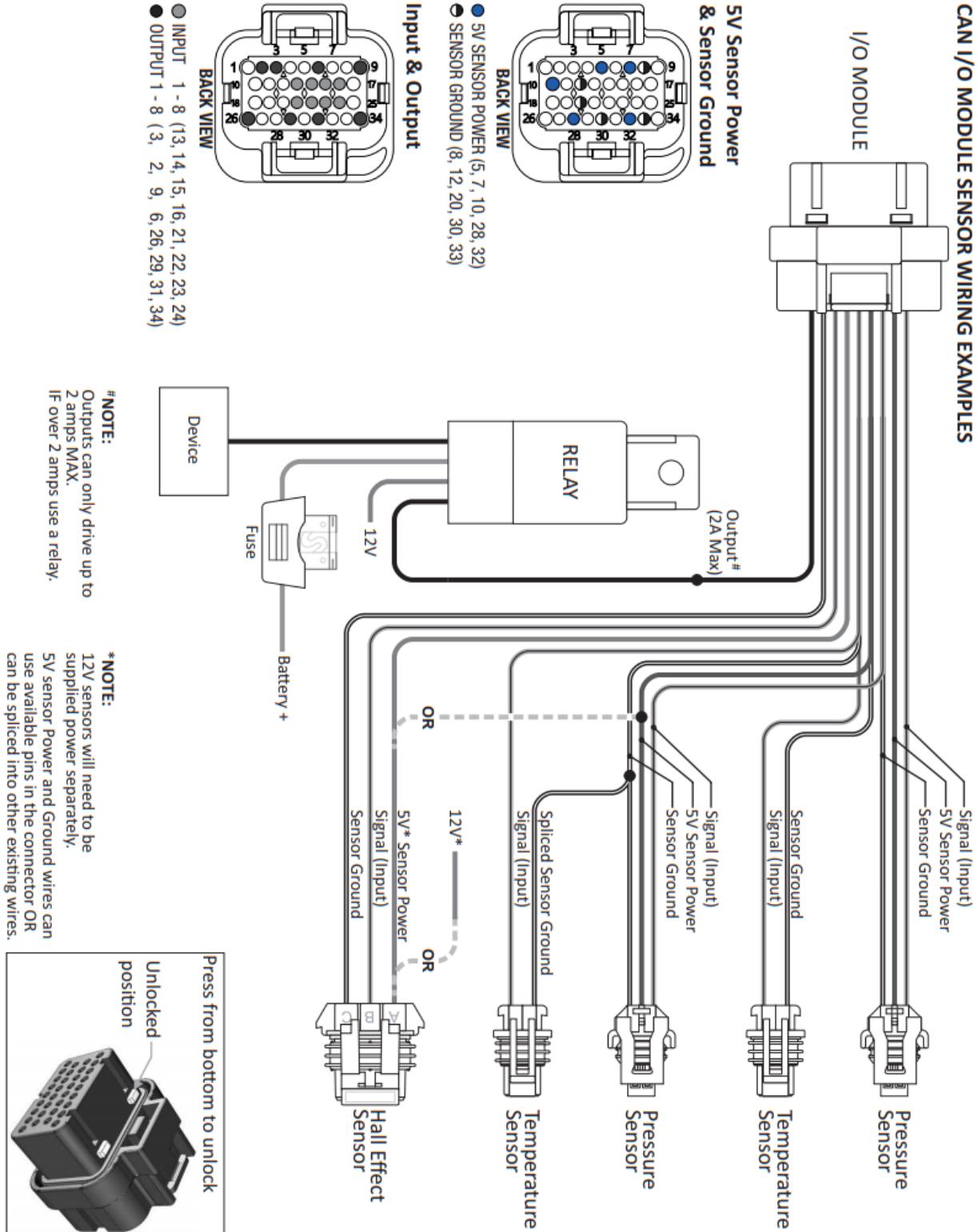
### SENSOR POWER/GROUND

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



**199R12055**  
**Revision Date:** 3-8-22