8ch EGT Controller
554-190

OVERVIEW:

The 8CH EGT controller is designed to be used with either Holley EFI via CAN or with other universal applications using analog 0-5 volt outputs. The controller is designed to be used with K-type thermocouples using “mini-K” connectors.

WIRING:

The supplied harness comes with two CAN connectors (one male, one female) that plug into Holley Main harnesses or the 558-447 kit (dominator only). The CAN connector also acts as the power and ground for the unit meaning no additional wiring is needed when using the unit with Holley EFI.

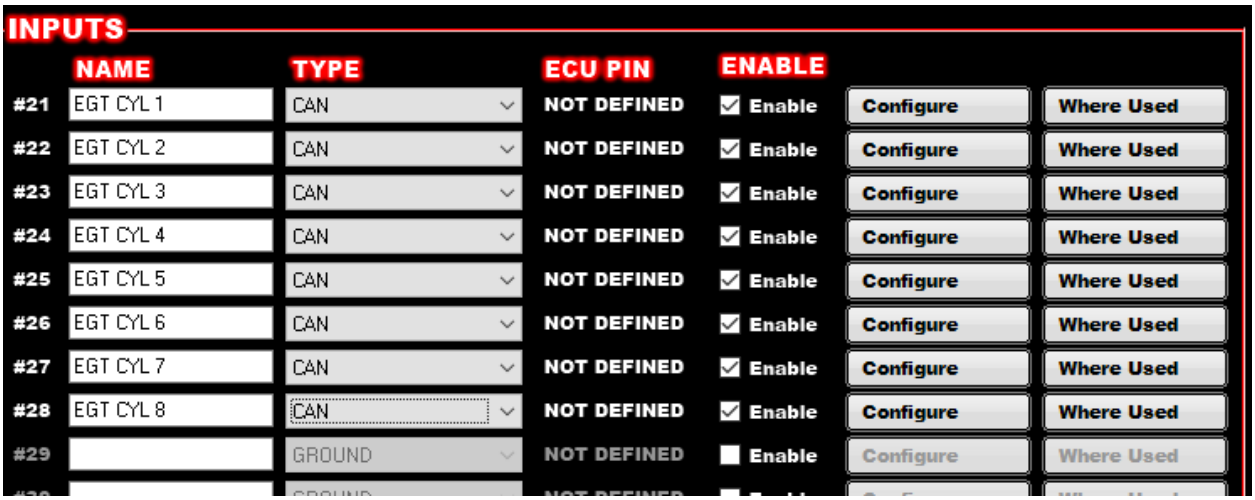
There are 8 mini-K type thermocouple connectors pre-terminated in the harness and labeled with the letters A-H. These correspond to the channels in the controller and match up to the channels in Holley EFI software.

STAND ALONE WIRING NOTE:

If the EGT controller is being wired in a standalone application, it is recommended to purchase a 558-430 CAN adapter/power harness for simple power and ground hookup. In addition, the 8 loose wires included in the kit will need to be installed in the connector. These are for the analog outputs of each channel.

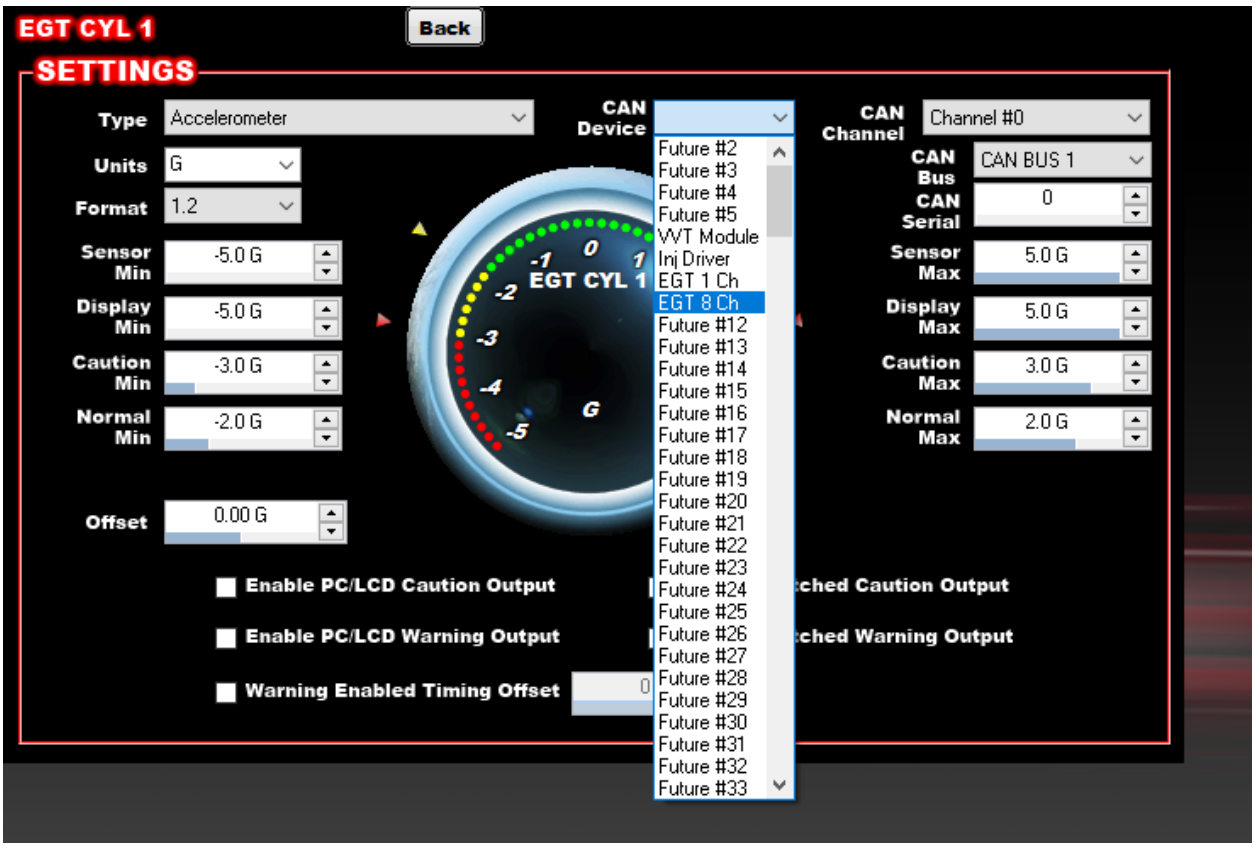
SOFTWARE SETUP:

For Holley EFI applications enable 8 inputs and change the TYPE to CAN. Label each channel with a unique name such as “EGT CYL 1”.

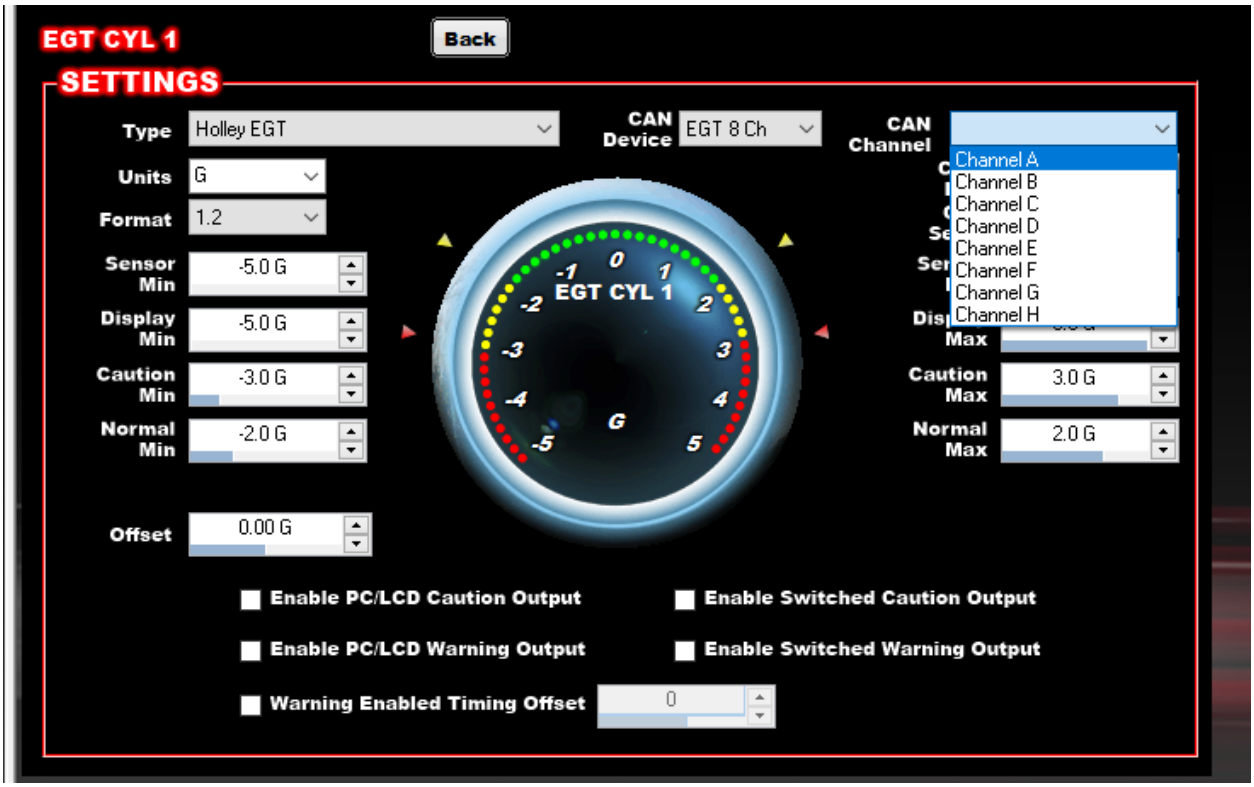


Next select the configure button for each channel and set them up as follows:

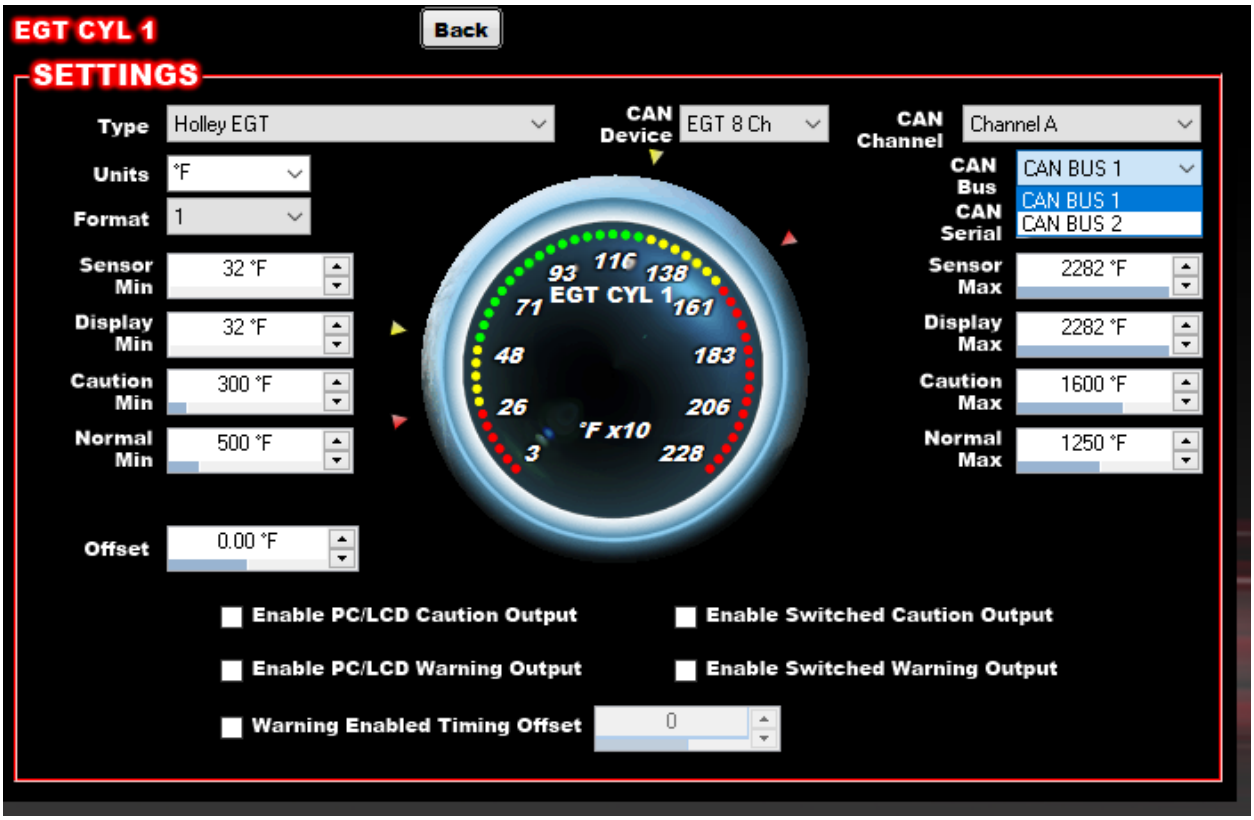
1) Select CAN device “EGT 8 Ch”



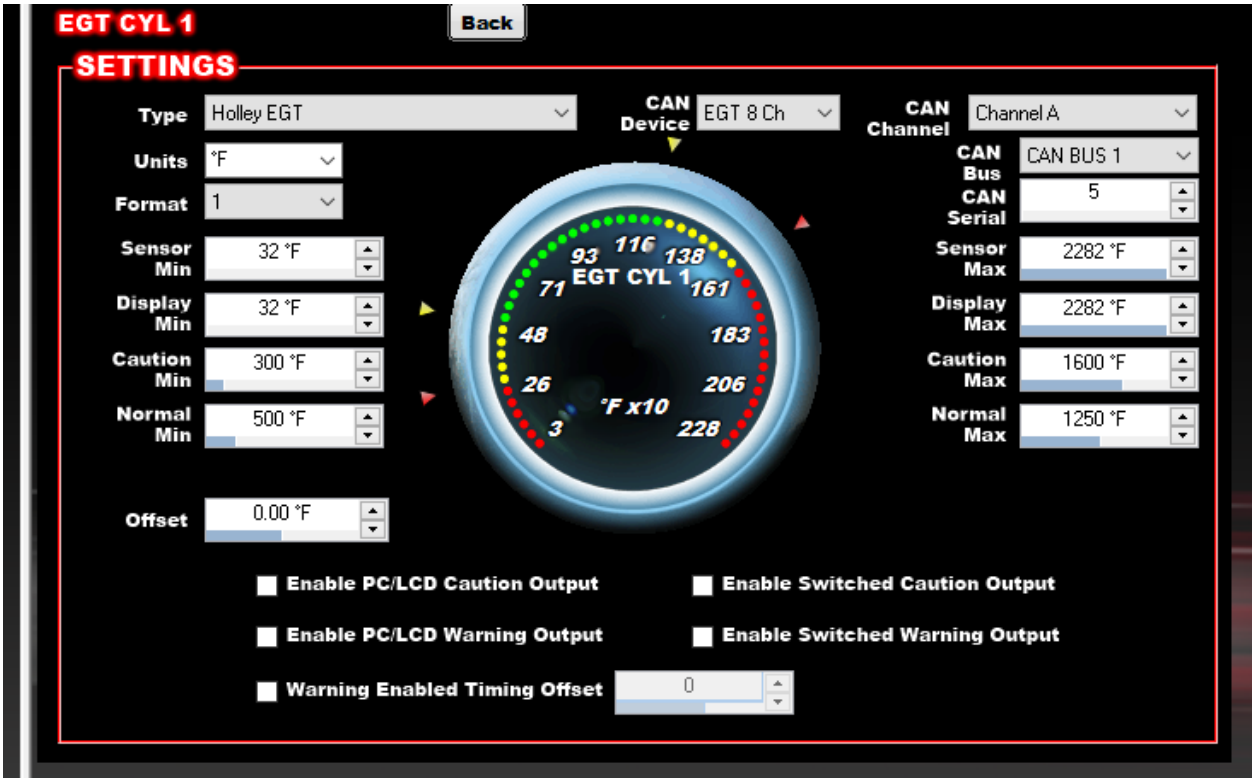
2) Select the CAN channel to match your input name



3) Select the Proper CAN Bus Channel. “CAN BUS 1” is the connector on the main harness. “CAN BUS 2” is on the J3 connector available only on dominators.



4) Select the “CAN Serial” that matches your controller. This is a unique number and will be differenct on each controller. It can be found on the bottom sticker of the controller.



ANALOG SETUP:

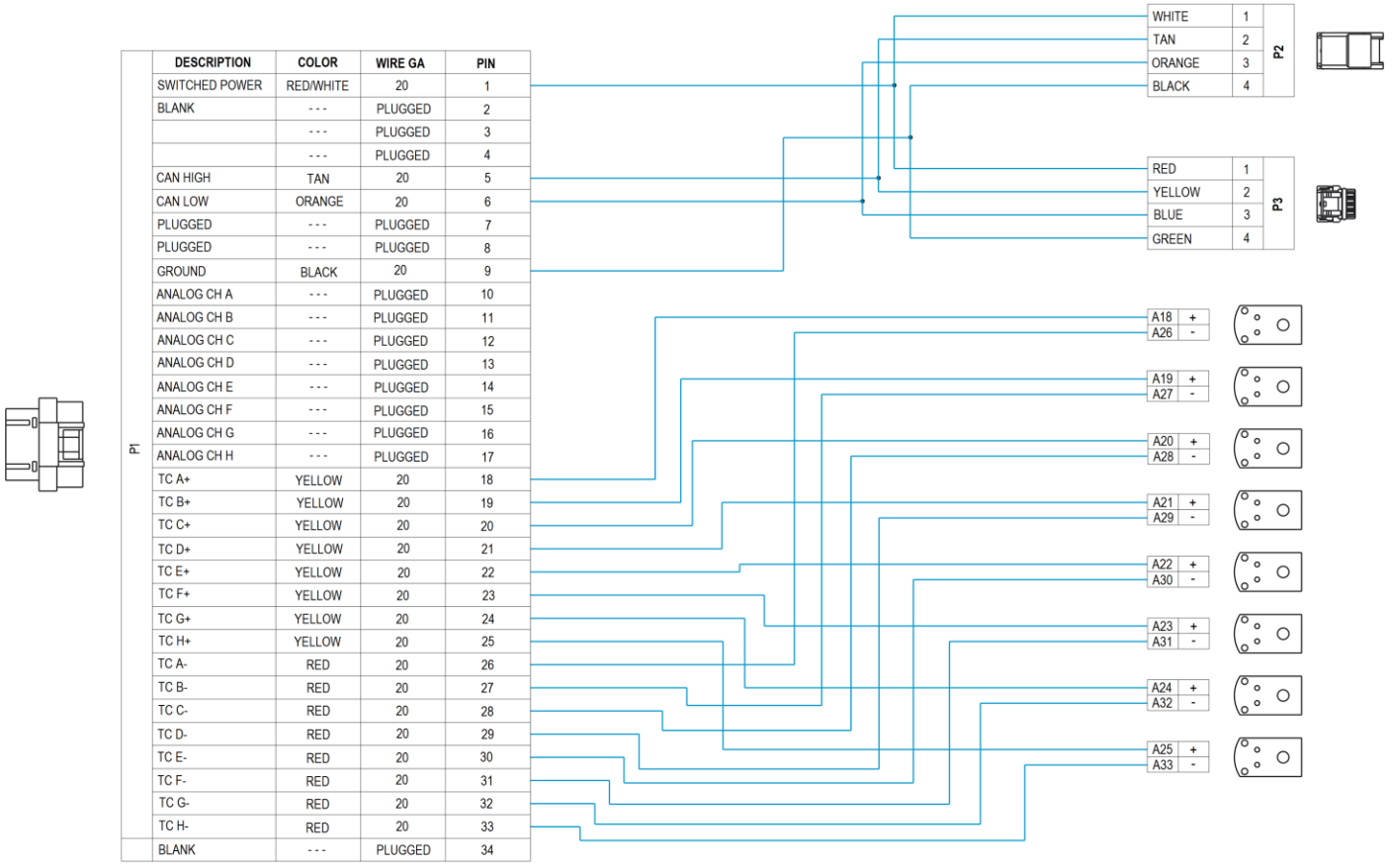
The Analog output scaling is accurate between 0.5 and 4.5 volts and covers the temperature range of 32F (0C) to 2282F (1250C). The analog output does output a full 0-5 volt range though the last .5 volts on either end is not as accurate as the rest of the curve due to the K-type probes being near the end of their ranges. The full curve is 0v = -249.25F (-156.25C) and 5V = 2563.25 (1406.25C). A reference table is provided below along with a formula to calculate the temperature from a given voltage so users can input any voltage and temp combo needed into their data recorder or EFI system.

VOLTAGE	TEMP F	TEMP C
0	-249.25	-156.25
0.5	32	0
1.0	313.25	156.25
1.5	594.5	312.5
2.0	875.75	468.75
2.5	1157	625
3.0	1438.25	781.25
3.5	1719.5	937.5
4.0	2000.75	1093.75
4.5	2282	1250
5.0	2563.25	1406.25

TEMP F = voltage * 562.5 – 249.25
TEMP C = voltage * 312.5 – 156.25

WIRING DIAGRAMS:

Pin Number	Label	Pin Number	Label
1	Power (B+)	**18**	TC + Channel 1
2	----	**19**	TC + Channel 2
3	----	**20**	TC + Channel 3
4	----	**21**	TC + Channel 4
5	CAN High	**22**	TC + Channel 5
6	CAN Low	**23**	TC + Channel 6
7	----	**24**	TC + Channel 7
8	----	**25**	TC + Channel 8
9	Ground	**26**	TC – Channel 1
10	Analog Out Channel 1	**27**	TC – Channel 2
11	Analog Out Channel 2	**28**	TC – Channel 3
12	Analog Out Channel 3	**29**	TC – Channel 4
13	Analog Out Channel 4	**30**	TC – Channel 5
14	Analog Out Channel 5	**31**	TC – Channel 6
15	Analog Out Channel 6	**32**	TC – Channel 7
16	Analog Out Channel 7	**33**	TC – Channel 8
17	Analog Out Channel 8	**34**	----



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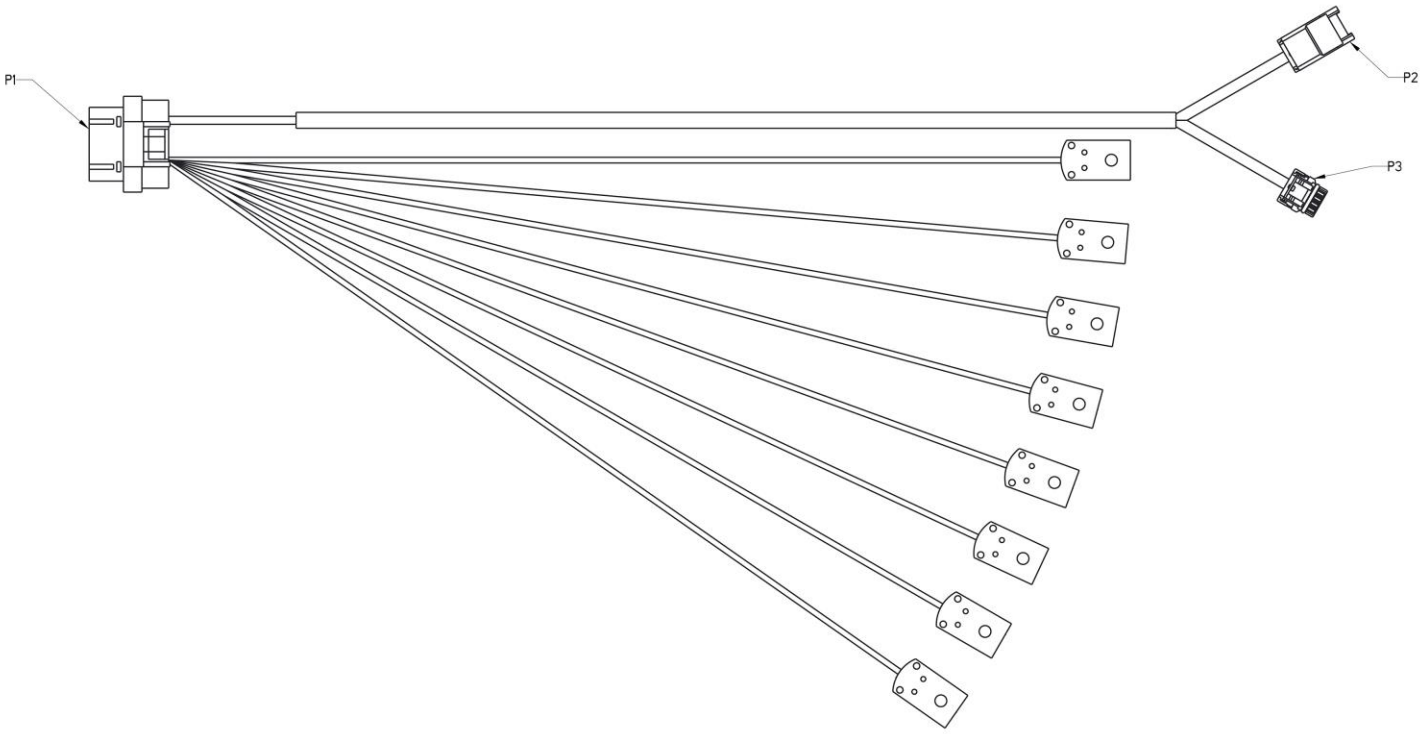
DESCRIPTION	COLOR	WIRE GA	PIN
SWITCHED POWER	RED/WHITE	20	1
BLANK	- - -	PLUGGED	2
	- - -	PLUGGED	3
	- - -	PLUGGED	4
CAN HIGH	TAN	20	5
CAN LOW	ORANGE	20	6
PLUGGED	- - -	PLUGGED	7
PLUGGED	- - -	PLUGGED	8
GROUND	BLACK	20	9
ANALOG CH A	- - -	PLUGGED	10
ANALOG CH B	- - -	PLUGGED	11
ANALOG CH C	- - -	PLUGGED	12
ANALOG CH D	- - -	PLUGGED	13
ANALOG CH E	- - -	PLUGGED	14
ANALOG CH F	- - -	PLUGGED	15
ANALOG CH G	- - -	PLUGGED	16
ANALOG CH H	- - -	PLUGGED	17
TC A+	YELLOW	20	18
TC B+	YELLOW	20	19
TC C+	YELLOW	20	20
TC D+	YELLOW	20	21
TC E+	YELLOW	20	22
TC F+	YELLOW	20	23
TC G+	YELLOW	20	24
TC H+	YELLOW	20	25
TC A-	RED	20	26
TC B-	RED	20	27
TC C-	RED	20	28
TC D-	RED	20	29
TC E-	RED	20	30
TC F-	RED	20	31
TC G-	RED	20	32
TC H-	RED	20	33
BLANK	- - -	PLUGGED	34



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