This document serves as a reference for the conversion between GEVCU6 and GEVCU7.
They use the exact same plugs and wiring harness but assign different functions
to the pins. This is a cross reference chart for how to convert GEVCU6 wiring to
work with GEVCU7.

For ease of referencing the pins, in this document they are numbered as so. This is a view
looking into the pins on the GEVCU7 board:

```
          (18 Pin Conn)                    (30 Pin Conn)
        1  2  3  4  5  6             19 20 21 22 23 24 25 26 27 28
        7  8  9  10 11 12            29 30 31 32 33 34 35 36 37 38
        13 14 15 16 17 18            39 40 41 42 43 44 45 46 47 48
```

GEVCU6 Pins	GEVCU7 Pins	Function
1,2,7,8,14,15	22,23	+5V out from GEVCU
3	1	VIN (+12V to GEVCU)
4	13	DOUT0
5	15	DOUT2
6	18	DOUT5
9,13,39-48	2-4,32,41,42	GROUND (NOTE 1)
10	14	DOUT1
11	17	DOUT4
12	7	DOUT6
16	16	DOUT3
17,36-38	N/A	+12V OUT (NO EQUIV. ON GEVCU7)
18	8	DOUT7
19	39	AIN0
20	29	AIN1
21	19	AIN2
22	40	AIN3 (NOTE 2)
23	N/A	PACK-H
24	N/A	PACK-L (NOTE 3)
26	43	DIN0
27	44	DIN1 (NOTE 4)
28	45	DIN2
28	46	DIN3
29	34	CAN0-H
30	24	CAN0-L
31	35	CAN1-H (NOTE 5)
32	36	CAN1-L
33	N/A	PACK-MID
34	N/A	SHUNT-L (NOTE 6)
35	N/A	SHUNT-H

NOTE1:
Pins 32,41,42 on GEVCU7 to be used as analog ground reference.

NOTE2:
GEVCU7 has 4 more AIN pins as well. All 8 analog input pins are meant for 0-5V input.

NOTE3:
GEVCU7 has no direct ability to measure pack voltage. However, this can still be done
via the existing 8 analog inputs with sufficient caution and planning. The inputs are
rated to +5v so pack voltage could be measured through use of an external voltage divider.

NOTE4:
GEVCU7 has 12 digital input pins. They are broken into two groups. DIN0-DIN5 are meant for +12V input.
DIN6-DIN11 instead are suitable to be used at +5v. They will still operate at +12v but 13v is the
maximum voltage that should be used on them. Any input which might range to a higher voltage

should use the DIN0-DIN5 pins.

NOTE 5:
GEVC7 also has a third CAN bus. This third bus is CAN-FD capable. The second CAN bus, CAN1, can also be put into SingleWire CAN mode.

NOTE6:
GEVCU7 has no shunt input. It was never properly functional on GEVCU6 though the pins were there. It is advisable to instead use an external current sensor which reports either with a 0-5v signal or over CAN.