Subaru MY01- Non-DBW S6PnP Pinouts

Below is the I/O Schedule for the Subaru MY01- Non-DBW S6PnP Carrier Board :

Model Years 2001 - Non DBW

Five connectors -

A:

09 08 07 06 05 04 03 [] 02 01
21 20 19 18 17 16 15 14 13 12 11 10
31 30 29 [] 28 27 [] 26 25 24 23 22

B:

09 08 07 [] 06 05 04 03 02 01
19 18 17 16 15 14 13 12 11 10
28 27 26 25 24 23 [] 22 21 20

C:

07 06 05 04 03 [] 02 01
16 15 14 13 12 11 10 09 08
24 23 22 [] 21 20 19 18 17

D:

07 06[]05 04 03 02 01
15 14 13 12 11 10 09 08
22 21 20 19 18 [] 17 16

E:

06 05 04 03 02 01
12 11 10 09 08 07
17 16 [] 15 14 13

FUEL1 Fuel Injector 1 (A1)
FUEL2 Fuel Injector 2 (C6)
FUEL3 Fuel Injector 3 (C5)
FUEL4 Fuel Injector 4 (C4)
FUEL5 Rear O2 Heater (C13), __UEGO_HEATER
FUEL6 Shift Light (A15)
FUEL7 __TGVHDR, pull up resistor __R5_1 & __R6_1 and __SB2 & __SB3 for left TGV
FUEL8 __TGVHDR, pull up resistor __R7_1 & __R8_1 and __SB4 & __SB5 for right TGV

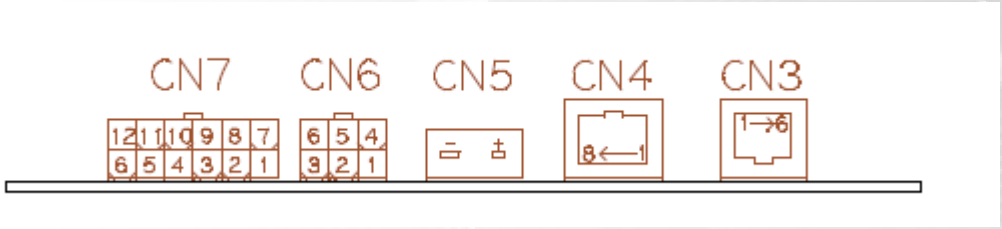
FUEL9 AVCS L (E16) and flyback schottky diode __D1_Anode
FUEL10 AVCS R (E12) and flyback schottky diode __D2_Anode
FUEL11 Idle (C10)
FUEL12 Tacho (C9) and pull up resistor __R3_1
FUEL13 Fan1 (A17)
FUEL14 Fan2 (A28)
FUEL15 Wastegate (A24)
FUEL16 A/C Clutch (A27)

IGN1 Ignition 1 (C24)
IGN2 Ignition 2 (C23)
IGN3 Ignition 3 (C22)
IGN4 Ignition 4 (C21)
IGN5 Fuel Pump Control (C15, C16)
IGN6 __TTLHDR

AN1 Crank (B2)
AN2 Cam (B1)
AN3 AVCS L (E9)
AN4 AVCS R (E2)
AN5 Vehicle Speed (D1)
AN6 MAF Signal (E13)
AN7 TGV L (B13)
AN8 TGV R (B23)
AN9 Throttle (B7)
AN10 MAP (B8)
AN11 O2 Signal (B17)
AN12 A/C Request (D6 on EU or D5 on JDM)
AN13 Coolant Temp (B18)
AN14 Air Temp (B27)
AN15 Test Mode (D5 on EU or D14 on JDM) [KILL/ALS/LAUNCH/CAL]
AN16 Neutral Switch (D8) [ALS/LAUNCH/PIT]

Syvecs PNP Auxiliary Connector Pinouts

As those who have installed their own S6PnP units will have noticed, there are 5 additional connectors on the rear edge of the board. Below are the pinouts for these connectors looking from the back of the mating connectors :



Comms :
Pin 1 - RS232 RX
Pin 2 - RS232 TX
Pin 3 - Comms GND
Pin 4 - CAN HI
Pin 5 - CAN LO
Pin 6 - Power GND

Ethernet :
Pin 1 - LAN TX+
Pin 2 - LAN TX-
Pin 3 - LAN RX+
Pin 4 - Not Connected
Pin 5 - Not Connected
Pin 6 - LAN RX-
Pin 7 - Not Connected
Pin 8 - Not Connected

UEGO LAMBDA :
Pin 1 - LAM V (Nernst Cell Voltage) (Red or Grey)
Pin 2 - LAM I (Ion Pump Current) (White)
Pin 3 - LAM GND (Cell Ground) (Black)
Pin 4 - VBAT (Heater +) (Orange or Blue)
Pin 5 - INJ* (Heater -) (Yellow)
Pin 6 - PWRGND

NB: Pin 5 is version specific, check the actual pinout using Calibration -> Comments. Subaru MY99/00 has INJ8, for example.

Auxiliary :

Pin 1 - IGN1 / PWRGND
Pin 2 - IGN2 / PWRGND
Pin 3 - IGN3 / PWRGND
Pin 4 - IGN4 / PWRGND
Pin 5 - IGN5 / PWRGND
Pin 6 - IGN6 / PWRGND
Pin 7 - VBAT
Pin 8 - 12VOUT

Pin 9 - 5VOUT#2
Pin 10 - ANGDN#2 (Sensor Ground)
Pin 11 - Not Connected (Reserved)
Pin 12 - Not Connected (Reserved)

NB : Pins 1-6 only connected to free outputs, so Subaru MY99/00 has pins 1&2 to PWRGND, IGN3-6 are available though. MY92-96 on the other hand has pins 1 to 4 to PWRGND, only IGN5&6 are available. 12VOUT is low current, use only for sensors.

Thermocouple

This connector is a standard miniture K-Type, if a sensor is wired correctly and plugged in it will work. NB: The linearisation for any sensor configured to use this input should be flatline 0 this will cause the built in curve to be used. It is possible to specify custom curves but this is only appropriate to the most advanced engine developers.

General Notes

These connectors have a standard pinout. Any future products will feature the same pinout, so a lead made for an NTK sensor for a Subaru MY92-96 will work fine on an Evo VIII PNP. Any external interfaces created to these pinouts should be inherently safe if moved from one model to another; moving an external device which used IGN3 on an MY99 board to an MY92 board will cause that function to simply turn off, rather than be in an uncertain state.