Windsor (86-95 Mustang)PNP

BMW E46 M54 ECU Documentation

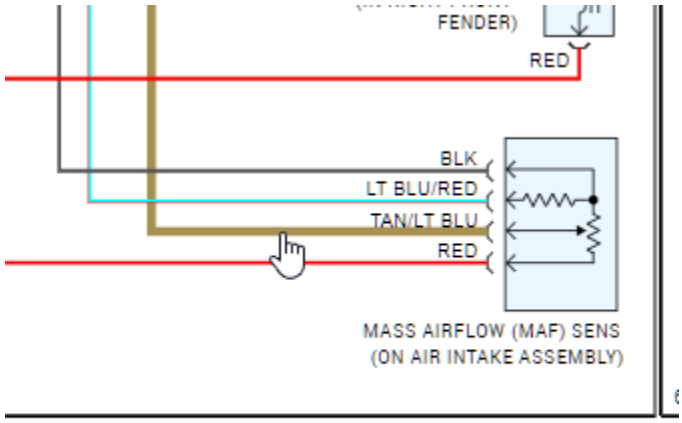
IMPORTANT DETAIL

This ECU is designed to connect directly to the factory harness of the Windsor-engined Ford Mustang models.

There are several important details:

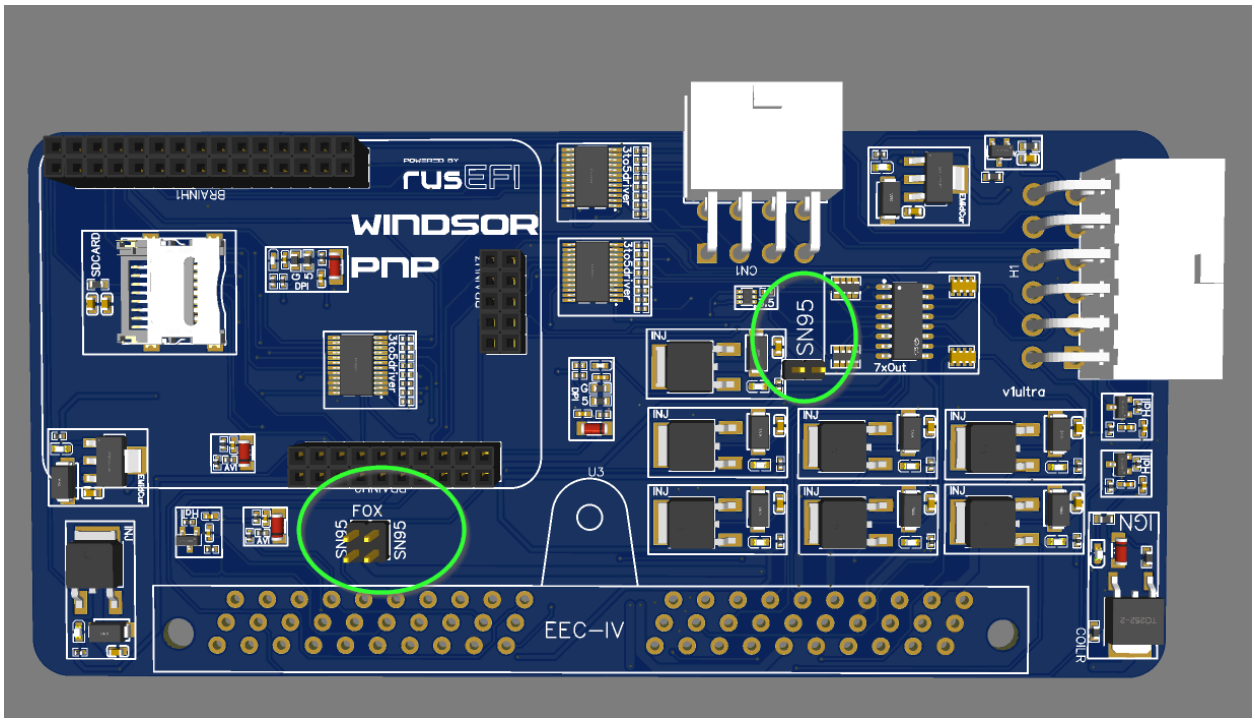
1. The base map is configured to operate using the TPS. This mode of operation for a turbocharged car is suboptimal, which is why it is provisioned to wire a MAP sensor to the MAF harness lead (thus eliminating the MAF). The connection diagram is as follows:

Where:



- BLK (black)
  is GROUND
- TAN/LT BLU
  is SIGNAL
- +5 volts
  must be sourced
  From TPS or aux harness

This ECU is equipped with a series of jumpers to enable operation in both Fox and SN95 Windsor applications. It is CRITICAL that these jumpers are set correctly to allow proper ECU functions.

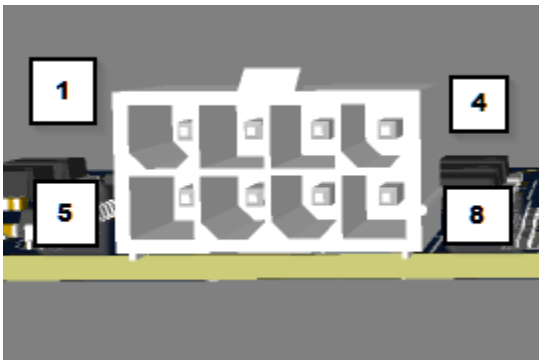


If being installed in an SN95, these jumpers need to be placed next to their respective indicators. In the left hand indicators, they need to be install such as that the jumpers form a || shape, and the extra jumper in the rightmost part

Aux Connector Diagrams

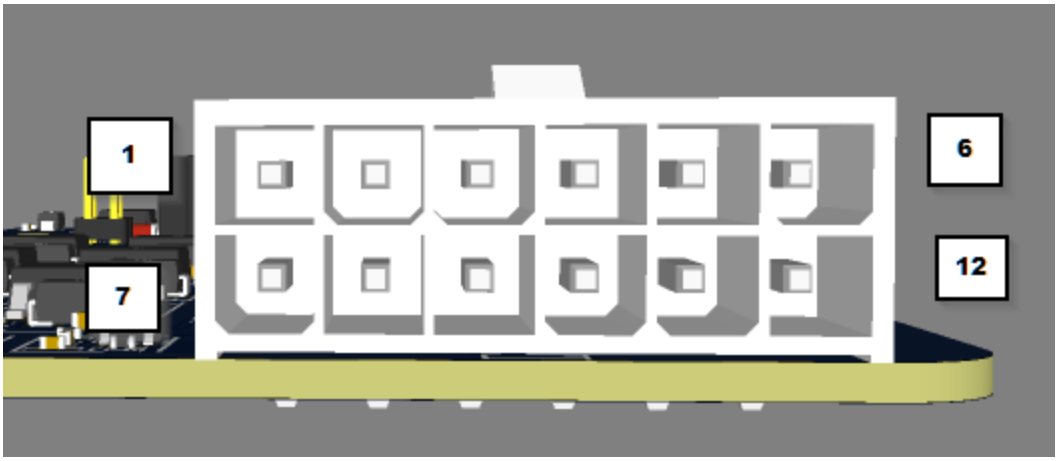
This Windsor PNP Unit has two Aux connectors, one for accessories, and one for ignition coils. The one facing to the rear of the unit is for SMART ignition oils, and the one facing sideways is for accessories.

Ignition Connector Diagram



Pin	Function	Description	Warnings
1	Ignition 4	Output for smart coils	ONLY use smart coils!
2	Ignition 3	Output for smart coils	ONLY use smart coils!
3	Ignition 2	Output for smart coils	ONLY use smart coils!
4	Ignition 1	Output for smart coils	ONLY use smart coils!
5	Ignition 8	Output for smart coils	ONLY use smart coils!
6	Ignition 7	Output for smart coils	ONLY use smart coils!
7	Ignition 6	Output for smart coils	ONLY use smart coils!
8	Ignition 5	Output for smart coils	ONLY use smart coils!

Aux Connector Diagram



Pin	Function	Description
1	5V	Provides 5V for sensors
2	FAN	Generic ground output
3	NOS	Generic ground output
4	CANH	CAN High for communications
5	CANL	CAN Low for communications
6	GND	Provides Ground for sensors
7	12V	Provides 1A 12V supply
8	CAM	Input for hall cam sensors
9	BOOST	Generic ground output
10	2STEP	Input for grounded switch
11	FLEX	Input for flex fuel sensor
12	TACH	Output for a tachometer