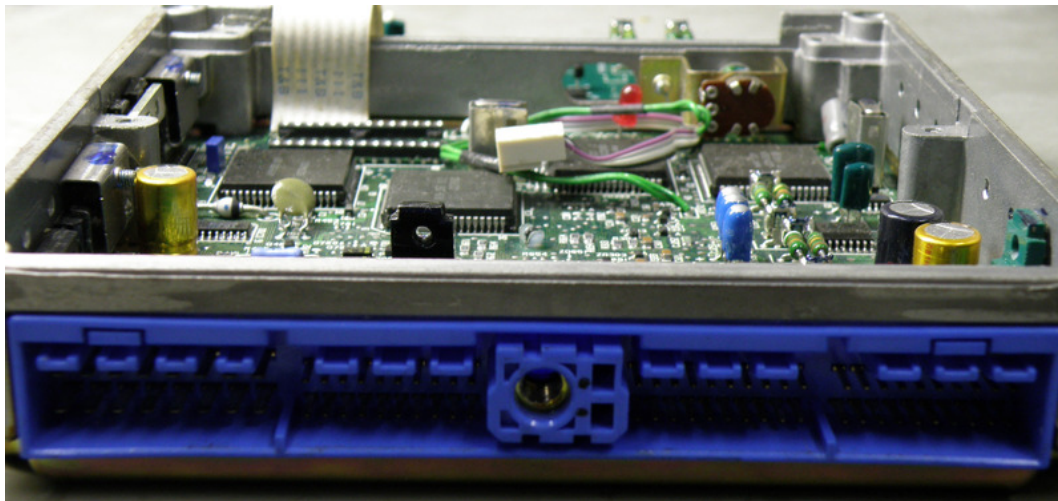


# Nistune Z32 ECU Modifications for R33 RB25DET Skyline Installation

Revision 1 - 22 October 2009



*Thanks to Eric at DTA Motorsports and Skyline Stu for ECU pinout information*

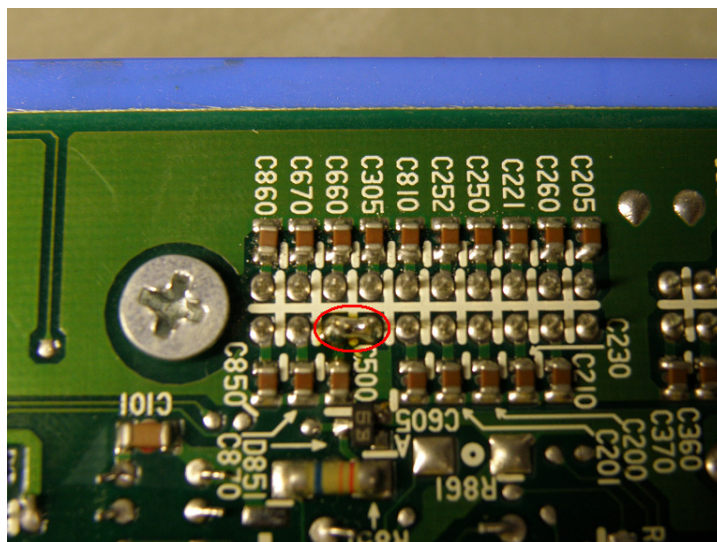
These are the steps to perform if modifying the Z32 ECU for a direct R33 harness plugin. Following these changes load the **Z32\_transplanted\_R33maps\_merged.ENT** into the Type 2 board.

*Note: that VCT is supported but TPS switch does not exist on the RB25 ECU and Z32 uses limp values for determine TPS idle indication. We recommend Z32 1990-1992 model (8 bit) ECUs for this modification.*

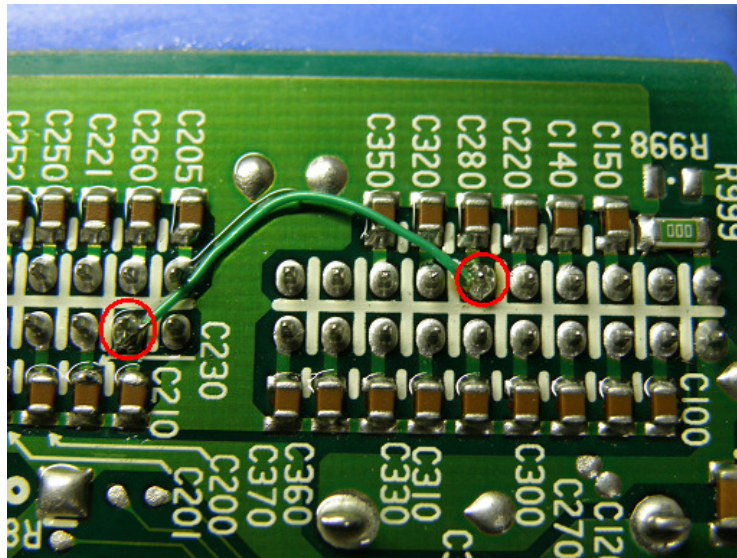
*Note: No responsibility taken for incorrect information provided here. Double check your wiring and buzz the pins on the ECU connector before using in the vehicle!*

## Z32 ECU Pins 23 and 24 Solder together

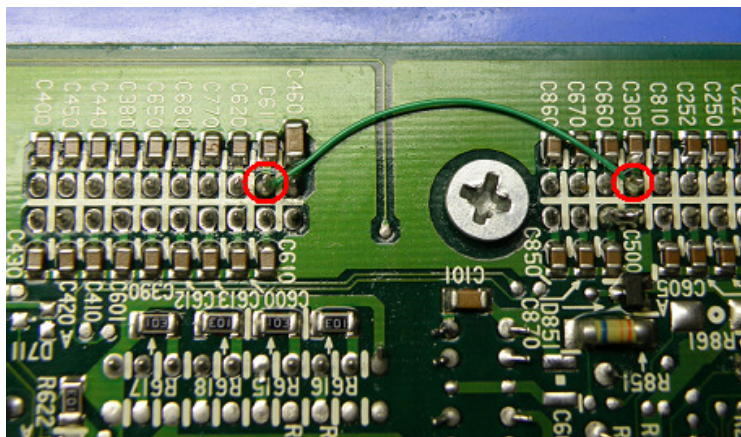
*Notes: Takes knock sensor inputs from RB25 knock sensor wires 23 (cylinder 1-3) and 24 (cylinder 4-6) and puts them into single knock sensor input in pin 23 used on the Z32 ECU. Benefits are that knock sensing from both sides of the engine are used. However during tuning we have found that knock sensing can be over sensitive and may be better disabled if switching to knock maps on upgraded vehicles*



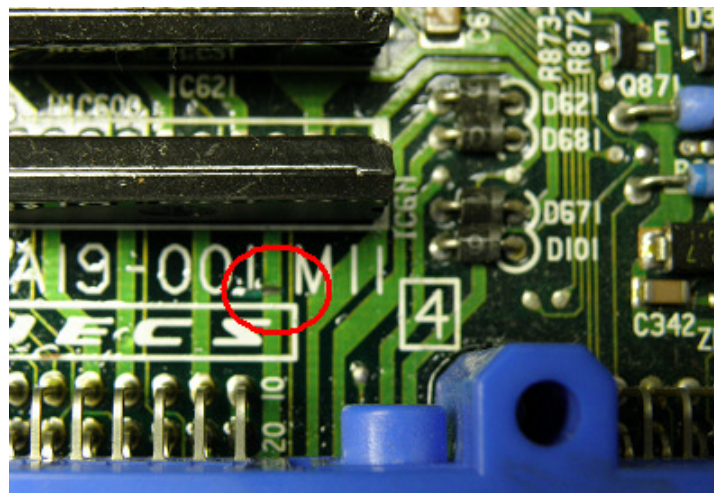
*Notes: Takes single O2 sensor from RB25 wire 29 and sends it to both O2 sensor inputs for LHS and RHS on Z32 ECU. This avoids the potential condition of RHS bank being detected as default value of 0.3 volts meaning a potentially lean condition*



Z32 pin 19 is radiator fan so must have its track cut on the top side of the ECU

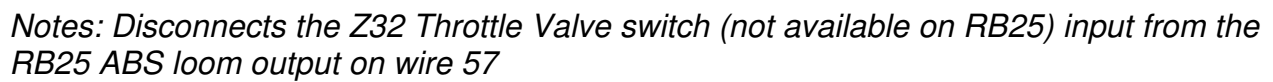


**Z32 pin 19 is radiator fan so must have its track cut on the top side of the ECU**

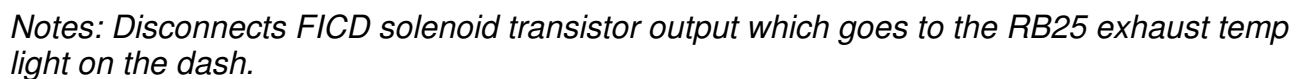


*Notes: Reroutes the power steering switch input from the RB25 wire 19 (Z32 radiator output) to Z32 ECU pin 34 (power steering switch)*





A close-up photograph of a green printed circuit board (PCB) populated with various electronic components. In the center, a black integrated circuit (IC) is visible, with the text '19-001 M11' and 'ECS' printed on its surface. A red circle is drawn around a small component on the right side of the IC. Other components labeled include 'HIC600', 'IC621', 'IC91', 'D621', 'D681', 'D671', 'D101', 'R873', 'R872', 'Q871', 'C671', and 'C342'. A blue component is partially visible at the bottom right. The PCB has gold-colored solder pads and traces.



*Notes: Simulates fuel temperature sensor. Removes the fuel temperature DTC code from ECU and simulates a fuel temp voltage on consult gauges. Resistor value TBD. RB25 does not have a fuel temp sensor.*

## Z32 to R33 injector wiring changes

- R33 pin 105 to Z32 pin 110 (Injector)  
R33 pin 110 to Z32 pin 105 (Injector)  
R33 pin 112 to Z32 pin 114 (Injector)  
R33 pin 114 to Z32 pin 112 (Injector)