

| Wire Colors  |              |              |             | Software Selectable |           |            | Venus3 8Cyl Layout |                   |          |                 | Software Selectable |                 |            |       | Wire Colors  |             |              |        |  |
|--------------|--------------|--------------|-------------|---------------------|-----------|------------|--------------------|-------------------|----------|-----------------|---------------------|-----------------|------------|-------|--------------|-------------|--------------|--------|--|
|              |              |              | Sim<br>leds | Pr 3                | Priority2 | Priority1  | Pin Name           |                   |          | Pin Name        |                     | Priority1       | Priority2  | Pr 3  | Sim<br>leds  |             |              |        |  |
|              | E24          | E22          |             |                     |           |            |                    | P1 - 12 Way Input |          |                 |                     |                 |            |       |              |             | E22          | E24    |  |
|              | Green        | Green        |             |                     |           |            |                    | Water Temp        | 7        | 1               | Air Temp            |                 |            |       |              |             | Yellow       | Yellow |  |
|              | Red          | Red          |             |                     |           |            |                    | Lambda            | 8        | 2               | TPS                 |                 |            |       |              |             | Blue         | Blue   |  |
|              | Red          | Red          |             |                     |           |            |                    | .+5 Volt Out      | 9        | 3               | MAP                 |                 |            |       |              |             | Blue         | Blue   |  |
|              | Red          | Red          |             |                     |           |            |                    | .+12 Volt Ign     | 10       | 4               | GND                 |                 |            |       |              |             | Black        | Black  |  |
|              | N/C          | Yellow       |             |                     |           |            |                    | TDC Sensor        | 11       | 5               | TDC Power           |                 |            |       |              |             | Blue         | N/C    |  |
|              | Blue         | Green        |             |                     |           |            |                    | Crank Sensor      | 12       | 6               | Crank Power         |                 |            |       |              |             | Red          | Red    |  |
|              |              |              |             |                     |           |            |                    |                   | Internal |                 | 3Bar Alt Sensor     | Altitude Sensor | Map Sensor |       |              |             |              |        |  |
|              |              |              |             |                     |           |            |                    |                   |          |                 |                     |                 |            |       |              |             |              |        |  |
| E33          | E32          | E31          |             |                     |           |            | P2 - 10 Way Output |                   |          |                 |                     |                 |            |       | E31          | E32         | E33          |        |  |
| Black/Red    | Black/Red    | Black/Red    | N6          |                     |           | Coil 1 Drv | Coil Negative 1    | 6                 | 1        | Coil Negative 2 | Coil 2 Drv          |                 |            | N5    | Black/Purple | N/C         | Black/Purple |        |  |
| Black/Brown  | N/C          | Black/Brown  | N4          |                     |           | Inj 4 Drv  | Coil Negative 3    | 7                 | 2        | Coil Negative 4 | Inj 3 Drv           |                 |            | N3    | Black/Orange | N/C         | Black/Orange |        |  |
| Black/Yellow | Black/Yellow | Black/Yellow | N2          |                     |           | Inj 2 Drv  | Coil Negative 5    | 8                 | 3        | Coil Negative 6 | Inj 1 Drv           |                 |            | N1    | Black/White  | Black/White | Black/White  |        |  |
| Green        | Green        | Green        | RPM         | GP3                 |           | RPM Out    | GP Output 3        | 9                 | 4        | Relay Out       | Relay Out           |                 |            | Relay | Blue/Black   | Blue        | Blue         |        |  |
| Blue/White   | Blue/White   | Blue/White   | GP2         | GP2                 | Cam 2     | Idle Valve | GP Output 2        | 10                | 5        | GP Output 1     | Dual Idle           | Cam 1           | GP1        | GP1   | Blue/Orange  | Blue/Orange | Blue/Orange  |        |  |
|              |              |              |             |                     |           |            |                    |                   |          |                 |                     |                 |            |       |              |             |              |        |  |
|              | P05-P3       | USB          |             |                     |           |            | 6 Way USB          |                   |          |                 |                     |                 |            |       |              | USB         | P05-P3       |        |  |
|              | Green        | N/C          |             |                     |           |            | Tuning Pot         | 4                 | 1        | Dual Map Sw     |                     |                 |            |       | N/C          | Yellow      |              |        |  |
|              | Yellow       | Yellow       |             |                     |           |            | Receive            | 5                 | 2        | Transmit        |                     |                 |            |       | Green        | Green       |              |        |  |
|              | Red          | Red          |             |                     |           |            | .+5 Volt Out       | 6                 | 3        | GND             |                     |                 |            |       | Blue         | Blue        |              |        |  |

***|Note!! Coil and Injector numbers used here are firing phases from the ECU. It is not the firing order on your engine.  
Refer to the drawings for Phase to firing order comparison.***

GP Output 1 to 3 = Negative drivers 20 Volt 8.9 Amp Drivers  
RPM Output = Negative driver 20 Volt 8.9 Amp Drivers with 1K pullup to 12V  
Coil Negative 1 to 6 = Negative Coil Drivers for Basic Coils 500 Volt 18 Amp Drivers  
An optional 3 Bar map sensor can be soldered onto board. It can be used as Altitude or MAP sensor. For an internal MAP sensor you need to make a hole in the lid for the pipe to come through.  
Basic Coil = Coil without driver - 0.5 to 0.9 Ohm Primary winding - Charges with earth signal and discharges with open signal  
Smart Coil = Coil with Built in driver - Charges with positive signal and discharges with earth signal. External 220 Ohm 5 Watt resistor to 12V must be added for each driver.  
If you use the 3 Bar onboard sensor for MAP then you must use a 2.5 Bar external sensor for Altitude.

**Lexus 1UZ 2 Coil**

| Coil Phaze | Fire Order Ex. 1 8 4 3 6 5 7 2 |
|------------|--------------------------------|
|            | <i>Wasted Spark</i>            |
| Coil Neg 1 | 1 - 4 - 6 - 7                  |
| Coil Neg 2 | 8 - 3 - 5 - 2                  |
|            |                                |
|            |                                |

| Inject Phaze | Fire Order Ex. 1 8 4 3 6 5 7 2 |
|--------------|--------------------------------|
|              | <i>Split Seq</i>               |
| Coil Neg 6   | 1 - 6                          |
| Coil Neg 5   | 8 - 5                          |
| Coil Neg 4   | 4 - 7                          |
| Coil Neg 3   | 3 - 2                          |