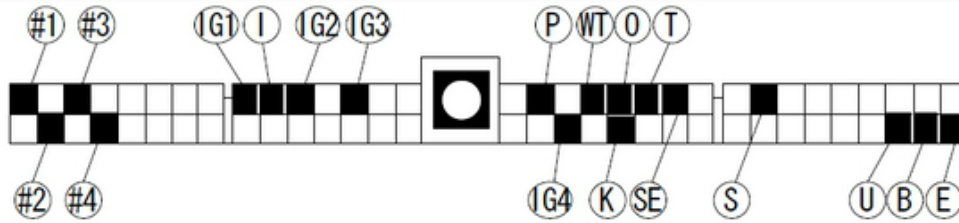


NISSAN・SILVIA (S15・SR20DET・6MT)STARTDATA MANUAL=NP5-4 Harness

NISSAN SILVIA ECU Side Terminal[NP5-4 Base]
Refer the following for special setting when
modifying the wiring, etc.



To prepare the vehicle data, write S15 STARTDATA on HKS website
to F-CONVPRO. Setting by using an actual vehicle according to
each vehicle characteristics is required.
* S15 STARTDATA is data only to start the engine.

The data were prepared based on the vehicle using high-octane gasoline (the
octane level is approximately 98-100), and the following parts were installed:

- EVC6IR2,4
- Silent Hi-POWER Muffler
- Racing suction KIT
- M40i Spark Plug
- S type Intercooler

Suppose the vehicle is a boost-up specs using a factory injector.
The max boost is set to $\approx 0.9K$ considering the performance of the
factory injector and fuel pump. Excessive boost-up may lead to the engine da

Explanatory Notes

- ⓑ: Power Supply (12V)
- Ⓢ: Backup Power Supply (12V)
- ⓔ: Ground
- ⓔⓔ: Center Ground
- Ⓟ: Pressure Sensor, Airflow Signal, etc.
- ⓕⓈⓈ: Press Sensor Signal for HKS FCD
- ⓐⓕⓕ: Airflow Signal for HKS AFR
- Ⓢ: Speed Signal
- ⓈⓈⓈ: Speed Signal for HKS SLD
- Ⓡ: RPM Signal
- ⓈⓈⓈ: RPM Signal Level Converter Required.
- Ⓢ: Injector Signal
- ⓈⓈ: Primary Injector Signal
- ⓈⓈ: Secondary Injector Signal
- Ⓢ: Throttle Angle Signal
- ⓇⓈ: Ignition Signal
- ⓇⓈⓈ: Leading Ignition Signal
- ⓇⓈⓈ: Trailing Ignition Signal
- ⓇⓈⓈⓈ: Rotor Detect Signal(Leading Side)
- ⓇⓈⓈⓈ: Rotor Detect Signal(Trading Side)
- ⓈⓈ: Water Temp Signal
- ⓈⓈ: Intake Air Temp Signal
- Ⓢ: Knocking Signal
- Ⓢ: O2 Sensor Signal
- S/C・T/C: Supercharger・Turbocharger
- A/T: Automatic Transmission
- M/T: Manual Transmission

※ When there is more than one signal, a
number comes after the mark.
The number comes with the injector and
ignition signals mean a number of cylinder.

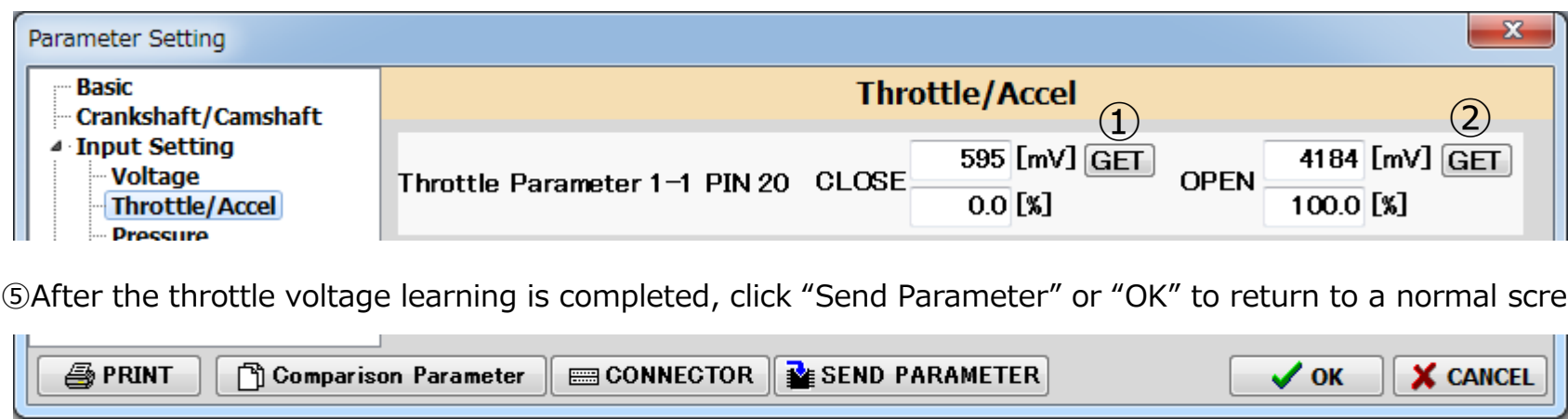
This explains the main points to prepare STARTDATA using the modified harness NP5-4 for
Nissan Silvia(S15, SR20DET). For mapping, parameter settings, and data logging, refer to the
operation manual of F-CON V Pro Ver.3.4.

■ Before using S15STARTDATA...

When preparing S15STARTDATA, the following throttle sensor voltage input was performed.

Make sure to complete the throttle sensor learning before starting the vehicle set-up.

- ① Turn on the ignition. Check if the power of F-Con unit is on.
- ② Select "Send All Data" from "Communication" mane.
- ③ Click "GET" of CLOSE side (①) in Throttle/Accel under Parameter Setting without acceleration.
- ④ Click "GET" of OPEN side (②) in Throttle/Accel under Parameter Setting while an accelerator is fully opened



⑤ After the throttle voltage learning is completed, click "Send Parameter" or "OK" to return to a normal screen.

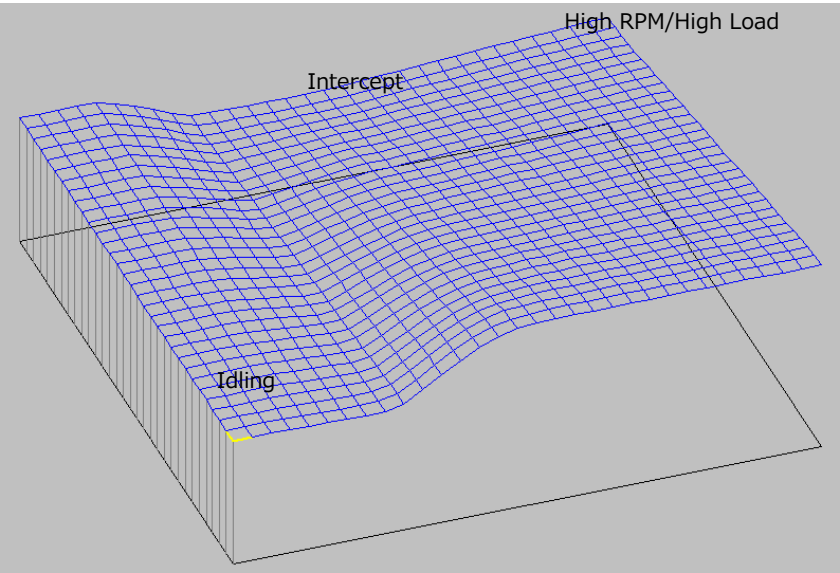
Vehicle Setup Points (Setup on Chassis Dynamo Meter)

■ Standard Ignition Time Main Map Based on information from F-CONIS[C_TX][C_RX], the ignition time map tracing the factory ECU ignition time was prepared to maintain the vehicle condition. (At intercept≒BTDC14, and under high speed & high load area ≒BTDC17)

To prepare STARTDATA, the knocking signal from the factory knocking sensor was confirmed using Oscilloscope, and the vehicle conditions were checked from its output waveform.

This map's values may vary depending on the vehicle's individual difference. Attention must be paid to the vehicle' knocking during setting up the vehicle.

Use the acceleration trim ignition time map and other items that may effect on the engine response as default data. The setup must be performed in accordance with each vehicle characteristics.



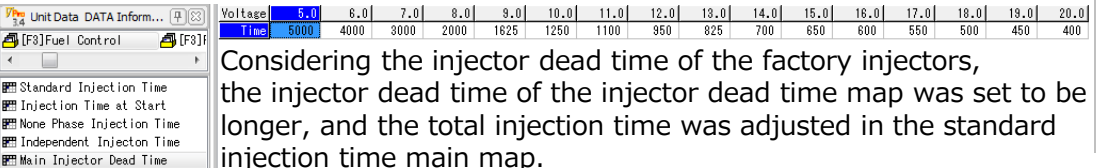
| Unit Data DATA Inform... | | 2484 | 2710 | 2935 | 3161 | 3387 | 3613 | 3839 | 4065 | 4290 | 4516 | 4742 | 4968 | 5194 | 5419 | 5645 | 5871 | 6097 | 6323 | 6548 | 6774 | 7000 |
|--------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| [F1]Axis Setting | -0.80 | 24.0 | 25.7 | 27.2 | 28.3 | 29.0 | 29.3 | 29.4 | 29.4 | 29.4 | 29.4 | 29.4 | 29.4 | 29.5 | 29.5 | 29.5 | 29.5 | 29.5 | 29.5 | 29.5 | 29.5 | 29.6 |
| [F2]Conversion Table | -0.74 | 23.9 | 25.6 | 27.0 | 28.1 | 28.8 | 29.1 | 29.2 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.3 | 29.4 | 29.4 | 29.4 | 29.4 | 29.4 | 29.4 | 29.4 |
| [F3]Fuel Control | -0.68 | 23.7 | 25.3 | 26.7 | 27.8 | 28.5 | 28.8 | 28.9 | 28.9 | 28.9 | 28.9 | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | 29.1 | 29.1 | 29.1 | 29.1 | 29.1 |
| [F3]Fuel Map 1 | -0.62 | 23.4 | 25.0 | 26.3 | 27.4 | 28.0 | 28.3 | 28.5 | 28.5 | 28.5 | 28.5 | 28.6 | 28.6 | 28.6 | 28.6 | 28.6 | 28.6 | 28.7 | 28.7 | 28.7 | 28.7 | 28.7 |
| [F3]Fuel Map 2 | -0.56 | 23.1 | 24.6 | 25.9 | 26.9 | 27.5 | 27.8 | 28.0 | 28.0 | 28.0 | 28.0 | 28.1 | 28.1 | 28.1 | 28.1 | 28.2 | 28.2 | 28.2 | 28.2 | 28.3 | 28.3 | 28.3 |
| [F3]Fuel Map 3 | -0.49 | 22.7 | 24.2 | 25.4 | 26.4 | 27.0 | 27.3 | 27.4 | 27.5 | 27.5 | 27.6 | 27.6 | 27.6 | 27.7 | 27.7 | 27.7 | 27.7 | 27.8 | 27.8 | 27.8 | 27.9 | 27.9 |
| [F3]Fuel Cut | -0.43 | 22.4 | 23.8 | 25.0 | 25.9 | 26.5 | 26.8 | 26.9 | 27.0 | 27.0 | 27.1 | 27.1 | 27.1 | 27.2 | 27.2 | 27.2 | 27.3 | 27.3 | 27.4 | 27.4 | 27.4 | 27.4 |
| [F4]A/F | -0.37 | 22.1 | 23.4 | 24.6 | 25.4 | 26.0 | 26.3 | 26.4 | 26.5 | 26.5 | 26.6 | 26.6 | 26.7 | 26.7 | 26.7 | 26.8 | 26.8 | 26.9 | 26.9 | 27.0 | 27.0 | 27.0 |
| [F5]Ignition Control | -0.31 | 21.8 | 23.0 | 24.1 | 25.0 | 25.5 | 25.8 | 25.9 | 26.0 | 26.0 | 26.1 | 26.1 | 26.2 | 26.2 | 26.3 | 26.3 | 26.4 | 26.4 | 26.5 | 26.5 | 26.6 | 26.6 |
| [F5]Ignition Map 1 | -0.25 | 21.5 | 22.7 | 23.7 | 24.5 | 25.0 | 25.3 | 25.4 | 25.5 | 25.5 | 25.6 | 25.6 | 25.7 | 25.8 | 25.8 | 25.9 | 25.9 | 26.0 | 26.0 | 26.1 | 26.2 | 26.2 |
| [F5]Ignition Map 2 | -0.19 | 21.1 | 22.3 | 23.3 | 24.0 | 24.5 | 24.8 | 24.9 | 25.0 | 25.0 | 25.1 | 25.2 | 25.2 | 25.3 | 25.4 | 25.4 | 25.5 | 25.5 | 25.6 | 25.7 | 25.7 | 25.8 |
| [F6]ISC | -0.13 | 20.8 | 21.9 | 22.9 | 23.6 | 24.0 | 24.3 | 24.4 | 24.5 | 24.5 | 24.6 | 24.7 | 24.8 | 24.8 | 24.9 | 25.0 | 25.0 | 25.1 | 25.2 | 25.2 | 25.3 | 25.3 |
| [F7]Boost | -0.06 | 20.5 | 21.5 | 22.4 | 23.1 | 23.5 | 23.8 | 23.9 | 24.0 | 24.0 | 24.1 | 24.2 | 24.3 | 24.4 | 24.4 | 24.5 | 24.6 | 24.7 | 24.7 | 24.8 | 24.9 | 24.9 |
| [F8]Valve Timing | 0.00 | 20.2 | 21.1 | 22.0 | 22.6 | 23.0 | 23.3 | 23.4 | 23.5 | 23.5 | 23.6 | 23.7 | 23.8 | 23.9 | 24.0 | 24.0 | 24.1 | 24.2 | 24.3 | 24.4 | 24.4 | 24.4 |
| [F9]Option Output | 0.06 | 19.8 | 20.7 | 21.5 | 22.1 | 22.5 | 22.8 | 22.9 | 23.0 | 23.0 | 23.1 | 23.2 | 23.3 | 23.4 | 23.5 | 23.6 | 23.7 | 23.8 | 23.9 | 23.9 | 24.0 | 24.0 |
| | 0.12 | 19.5 | 20.4 | 21.1 | 21.7 | 22.1 | 22.3 | 22.4 | 22.5 | 22.6 | 22.6 | 22.7 | 22.8 | 22.9 | 23.0 | 23.1 | 23.2 | 23.3 | 23.4 | 23.5 | 23.6 | 23.6 |
| | 0.18 | 19.2 | 20.0 | 20.7 | 21.2 | 21.6 | 21.8 | 21.9 | 22.0 | 22.1 | 22.2 | 22.3 | 22.4 | 22.5 | 22.6 | 22.7 | 22.8 | 22.9 | 23.0 | 23.1 | 23.1 | 23.2 |
| | 0.24 | 18.9 | 19.6 | 20.2 | 20.7 | 21.1 | 21.2 | 21.4 | 21.5 | 21.6 | 21.7 | 21.8 | 21.9 | 22.0 | 22.1 | 22.2 | 22.3 | 22.4 | 22.5 | 22.6 | 22.7 | 22.8 |
| | 0.30 | 18.5 | 19.2 | 19.8 | 20.2 | 20.6 | 20.7 | 20.8 | 20.9 | 21.1 | 21.2 | 21.3 | 21.4 | 21.5 | 21.6 | 21.8 | 21.9 | 22.0 | 22.1 | 22.2 | 22.3 | 22.3 |
| | 0.36 | 18.2 | 18.8 | 19.4 | 19.8 | 20.1 | 20.2 | 20.3 | 20.4 | 20.6 | 20.7 | 20.8 | 20.9 | 21.0 | 21.2 | 21.3 | 21.4 | 21.5 | 21.7 | 21.8 | 21.9 | 21.9 |
| | 0.43 | 17.9 | 18.4 | 18.9 | 19.3 | 19.6 | 19.7 | 19.8 | 19.9 | 20.1 | 20.2 | 20.3 | 20.4 | 20.6 | 20.7 | 20.8 | 21.0 | 21.1 | 21.2 | 21.4 | 21.4 | 21.5 |
| | 0.49 | 17.6 | 18.1 | 18.5 | 18.8 | 19.1 | 19.2 | 19.3 | 19.4 | 19.6 | 19.7 | 19.8 | 20.0 | 20.1 | 20.2 | 20.4 | 20.5 | 20.7 | 20.8 | 20.9 | 21.0 | 21.0 |
| | 0.55 | 17.2 | 17.7 | 18.1 | 18.4 | 18.6 | 18.7 | 18.8 | 18.9 | 19.1 | 19.2 | 19.4 | 19.5 | 19.6 | 19.8 | 19.9 | 20.1 | 20.2 | 20.4 | 20.5 | 20.6 | 20.6 |
| | 0.61 | 16.9 | 17.3 | 17.6 | 17.9 | 18.1 | 18.2 | 18.3 | 18.4 | 18.6 | 18.7 | 18.9 | 19.0 | 19.2 | 19.3 | 19.5 | 19.6 | 19.8 | 19.9 | 20.1 | 20.1 | 20.2 |
| | 0.67 | 16.6 | 16.9 | 17.2 | 17.4 | 17.6 | 17.7 | 17.8 | 17.9 | 18.1 | 18.2 | 18.4 | 18.5 | 18.7 | 18.9 | 19.0 | 19.2 | 19.3 | 19.5 | 19.6 | 19.7 | 19.8 |
| | 0.73 | 16.3 | 16.5 | 16.7 | 16.9 | 17.1 | 17.2 | 17.3 | 17.4 | 17.6 | 17.7 | 17.9 | 18.1 | 18.2 | 18.4 | 18.6 | 18.7 | 18.9 | 19.0 | 19.2 | 19.3 | 19.4 |
| | 0.79 | 15.9 | 16.1 | 16.3 | 16.5 | 16.6 | 16.7 | 16.8 | 16.9 | 17.1 | 17.2 | 17.4 | 17.6 | 17.8 | 17.9 | 18.1 | 18.3 | 18.4 | 18.6 | 18.8 | 18.9 | 18.9 |
| | 0.86 | 15.6 | 15.7 | 15.9 | 16.0 | 16.1 | 16.2 | 16.3 | 16.4 | 16.6 | 16.8 | 16.9 | 17.1 | 17.3 | 17.5 | 17.6 | 17.8 | 18.0 | 18.2 | 18.3 | 18.4 | 18.5 |
| | 0.92 | 15.3 | 15.4 | 15.4 | 15.5 | 15.6 | 15.7 | 15.8 | 15.9 | 16.1 | 16.3 | 16.5 | 16.6 | 16.8 | 17.0 | 17.2 | 17.4 | 17.5 | 17.7 | 17.9 | 18.0 | 18.0 |
| | 0.98 | 15.0 | 15.0 | 15.0 | 15.1 | 15.1 | 15.2 | 15.3 | 15.5 | 15.7 | 15.9 | 16.0 | 16.2 | 16.4 | 16.6 | 16.8 | 17.0 | 17.1 | 17.3 | 17.5 | 17.6 | 17.7 |
| | 1.04 | 14.8 | 14.8 | 14.7 | 14.7 | 14.8 | 14.9 | 15.0 | 15.1 | 15.3 | 15.5 | 15.7 | 15.9 | 16.1 | 16.3 | 16.4 | 16.6 | 16.8 | 17.0 | 17.2 | 17.3 | 17.4 |
| | 1.10 | 14.7 | 14.6 | 14.6 | 14.6 | 14.6 | 14.7 | 14.8 | 15.0 | 15.2 | 15.4 | 15.6 | 15.8 | 15.9 | 16.1 | 16.3 | 16.5 | 16.7 | 16.9 | 17.0 | 17.2 | 17.2 |

Vehicle Setup Points (Setup on Chassis Dynamo Meter)

■ Standard Ignition Time Main Map

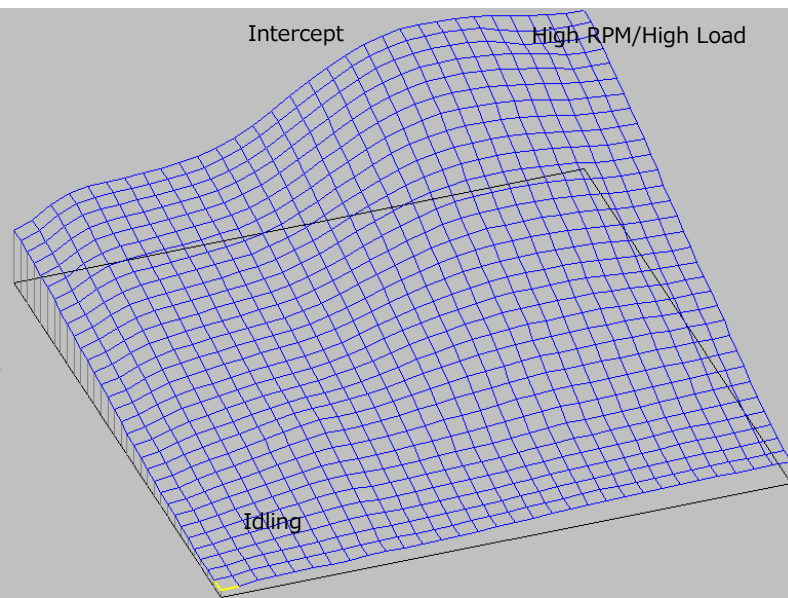
Based on information from F-CONIS “F Main Input・Output”, the ignition timing map tracing the factory ECU ignition time was prepared to maintain the vehicle condition.
(At intercept≒17500μSEC, and under high area (nearly the rev limit) ≒15700μSEC afterward.)

Under the high RPM area, the boost pressure slightly dropped, but the injector opening rate became nearly equal to 87% or higher; therefore, the limit of the factory boost pressure increase should be about 1.0K. Also, it was confirmed that the value of the AF was about 11.0 under the high RPM and high load area.



Considering the injector dead time of the factory injectors, the injector dead time of the injector dead time map was set to be longer, and the total injection time was adjusted in the standard injection time main map.
Use the non-phase injection time map, acceleration trim map (fuel correction), and other items that may effect on the engine response as default data. The setup must be performed in accordance with each vehicle characteristics.

| | | | | | | | | | | | | | | | | | | | | | |
|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2484 | 2710 | 2935 | 3161 | 3387 | 3613 | 3839 | 4065 | 4290 | 4516 | 4742 | 4968 | 5194 | 5419 | 5645 | 5871 | 6097 | 6323 | 6548 | 6774 | 7000 |
| -0.80 | 1227 | 1244 | 1291 | 1366 | 1455 | 1548 | 1637 | 1718 | 1786 | 1841 | 1885 | 1922 | 1955 | 1985 | 2012 | 2038 | 2062 | 2086 | 2108 | 2124 | 2132 |
| -0.74 | 1297 | 1311 | 1356 | 1428 | 1515 | 1607 | 1697 | 1779 | 1849 | 1906 | 1954 | 1995 | 2031 | 2064 | 2094 | 2122 | 2149 | 2174 | 2198 | 2216 | 2224 |
| -0.68 | 1470 | 1480 | 1518 | 1581 | 1660 | 1748 | 1839 | 1924 | 2000 | 2063 | 2117 | 2164 | 2208 | 2248 | 2284 | 2318 | 2350 | 2381 | 2408 | 2430 | 2439 |
| -0.62 | 1732 | 1737 | 1765 | 1814 | 1881 | 1961 | 2051 | 2142 | 2226 | 2296 | 2356 | 2409 | 2459 | 2507 | 2552 | 2595 | 2636 | 2676 | 2710 | 2736 | 2748 |
| -0.56 | 2039 | 2041 | 2063 | 2102 | 2156 | 2224 | 2311 | 2408 | 2508 | 2591 | 2658 | 2713 | 2766 | 2817 | 2868 | 2921 | 2974 | 3026 | 3070 | 3103 | 3117 |
| -0.49 | 2357 | 2362 | 2393 | 2440 | 2495 | 2555 | 2639 | 2745 | 2866 | 2967 | 3044 | 3097 | 3143 | 3188 | 3237 | 3296 | 3361 | 3425 | 3478 | 3515 | 3531 |
| -0.43 | 2693 | 2709 | 2765 | 2837 | 2911 | 2977 | 3065 | 3182 | 3323 | 3445 | 3535 | 3587 | 3621 | 3649 | 3688 | 3745 | 3814 | 3881 | 3936 | 3972 | 3988 |
| -0.37 | 3087 | 3122 | 3211 | 3325 | 3440 | 3537 | 3646 | 3773 | 3924 | 4055 | 4151 | 4199 | 4220 | 4231 | 4256 | 4301 | 4359 | 4414 | 4456 | 4483 | 4493 |
| -0.31 | 3530 | 3582 | 3702 | 3863 | 4030 | 4178 | 4320 | 4461 | 4609 | 4734 | 4825 | 4870 | 4886 | 4891 | 4905 | 4933 | 4968 | 4997 | 5015 | 5024 | 5028 |
| -0.25 | 3960 | 4032 | 4186 | 4397 | 4624 | 4832 | 5016 | 5175 | 5314 | 5424 | 5503 | 5546 | 5566 | 5574 | 5582 | 5592 | 5597 | 5593 | 5581 | 5568 | 5562 |
| -0.19 | 4298 | 4399 | 4595 | 4858 | 5140 | 5404 | 5631 | 5813 | 5955 | 6058 | 6130 | 6176 | 6205 | 6219 | 6221 | 6209 | 6183 | 6148 | 6112 | 6082 | 6069 |
| -0.13 | 4546 | 4699 | 4949 | 5265 | 5598 | 5909 | 6175 | 6385 | 6542 | 6653 | 6730 | 6782 | 6816 | 6829 | 6817 | 6777 | 6720 | 6655 | 6589 | 6559 | 6542 |
| -0.06 | 4753 | 4969 | 5278 | 5647 | 6025 | 6373 | 6671 | 6910 | 7090 | 7219 | 7308 | 7368 | 7402 | 7406 | 7372 | 7300 | 7208 | 7114 | 7043 | 6987 | 6981 |
| 0.00 | 4977 | 5252 | 5616 | 6034 | 6453 | 6832 | 7155 | 7420 | 7626 | 7776 | 7879 | 7943 | 7973 | 7964 | 7909 | 7810 | 7688 | 7568 | 7477 | 7423 | 7403 |
| 0.06 | 5228 | 5543 | 5952 | 6414 | 6870 | 7279 | 7628 | 7920 | 8151 | 8322 | 8436 | 8503 | 8527 | 8505 | 8436 | 8320 | 8180 | 8041 | 7934 | 7868 | 7844 |
| 0.12 | 5494 | 5835 | 6275 | 6772 | 7263 | 7706 | 8088 | 8413 | 8673 | 8866 | 8990 | 9058 | 9077 | 9047 | 8969 | 8849 | 8705 | 8558 | 8438 | 8360 | 8329 |
| 0.18 | 5764 | 6123 | 6583 | 7108 | 7635 | 8121 | 8546 | 8911 | 9203 | 9416 | 9551 | 9623 | 9639 | 9603 | 9519 | 9396 | 9251 | 9104 | 8979 | 8892 | 8857 |
| 0.24 | 6034 | 6409 | 6890 | 7441 | 8006 | 8540 | 9016 | 9424 | 9747 | 9980 | 10128 | 10206 | 10224 | 10184 | 10093 | 9963 | 9813 | 9661 | 9530 | 9438 | 9399 |
| 0.30 | 6306 | 6700 | 7204 | 7787 | 8395 | 8980 | 9507 | 9955 | 10306 | 10558 | 10719 | 10807 | 10828 | 10785 | 10685 | 10541 | 10377 | 10213 | 10072 | 9972 | 9929 |
| 0.36 | 6579 | 6995 | 7528 | 8148 | 8802 | 9436 | 10010 | 10497 | 10877 | 11149 | 11324 | 11421 | 11444 | 11395 | 11282 | 11122 | 10939 | 10759 | 10603 | 10492 | 10444 |
| 0.43 | 6853 | 7292 | 7858 | 8519 | 9218 | 9901 | 10520 | 11045 | 11454 | 11748 | 11938 | 12041 | 12061 | 12003 | 11876 | 11698 | 11497 | 11299 | 11127 | 11006 | 10953 |
| 0.49 | 7127 | 7591 | 8190 | 8891 | 9636 | 10366 | 11032 | 11598 | 12040 | 12359 | 12561 | 12666 | 12680 | 12609 | 12465 | 12270 | 12051 | 11837 | 11652 | 11520 | 11468 |
| 0.55 | 7402 | 7890 | 8522 | 9264 | 10055 | 10833 | 11546 | 12155 | 12634 | 12978 | 13193 | 13299 | 13305 | 13220 | 13059 | 12846 | 12610 | 12379 | 12179 | 12036 | 11975 |
| 0.61 | 7678 | 8190 | 8855 | 9638 | 10475 | 11302 | 12063 | 12718 | 13235 | 13606 | 13836 | 13944 | 13943 | 13844 | 13666 | 13433 | 13177 | 12927 | 12711 | 12556 | 12489 |
| 0.67 | 7953 | 8490 | 9188 | 10012 | 10895 | 11770 | 12580 | 13281 | 13837 | 14235 | 14482 | 14596 | 14591 | 14480 | 14285 | 14031 | 13754 | 13482 | 13247 | 13079 | 13006 |
| 0.73 | 8227 | 8788 | 9520 | 10384 | 11312 | 12235 | 13091 | 13835 | 14427 | 14853 | 15116 | 15237 | 15231 | 15112 | 14902 | 14630 | 14330 | 14037 | 13783 | 13601 | 13521 |
| 0.79 | 8496 | 9081 | 9845 | 10749 | 11720 | 12687 | 13585 | 14366 | 14989 | 15436 | 15713 | 15841 | 15836 | 15714 | 15494 | 15208 | 14892 | 14580 | 14308 | 14112 | 14027 |
| 0.86 | 8752 | 9360 | 10156 | 11096 | 12108 | 13114 | 14048 | 14859 | 15504 | 15966 | 16251 | 16383 | 16380 | 16259 | 16036 | 15743 | 15415 | 15089 | 14872 | 14600 | 14511 |
| 0.92 | 8983 | 9612 | 10436 | 11411 | 12458 | 13498 | 14463 | 15297 | 15957 | 16426 | 16713 | 16845 | 16844 | 16724 | 16504 | 16209 | 15877 | 15561 | 15265 | 14941 | 14856 |
| 0.98 | 9172 | 9819 | 10667 | 11670 | 12747 | 13816 | 14804 | 15656 | 16325 | 16796 | 17081 | 17210 | 17208 | 17091 | 16875 | 16519 | 16158 | 15808 | 15444 | 15208 | 15034 |
| 1.04 | 9301 | 9961 | 10825 | 11849 | 12947 | 14036 | 15041 | 15905 | 16579 | 17050 | 17331 | 17456 | 17452 | 17337 | 17126 | 16857 | 16585 | 16311 | 15962 | 15537 | 15405 |

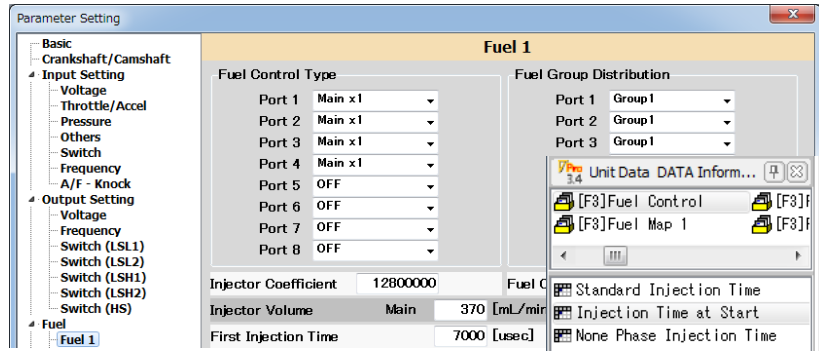


Refer to the manual of F-CON V Pro Ver.3.4 for use of the fuel mapping, etc.

★ Actual signal output duration is the sum of (standard injection time x fuel correction) + Injector dead time setting.

Vehicle Setup Points (Setting Items, etc.)

OTHER

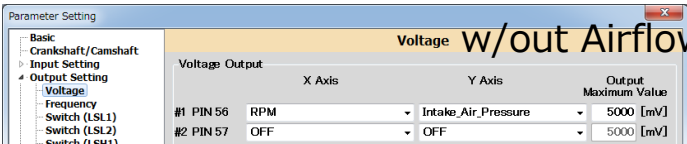
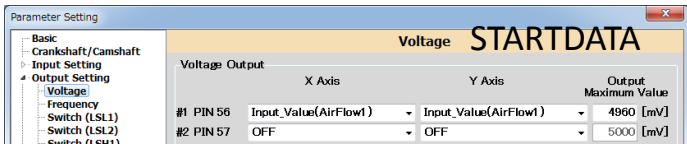


Fuel control during engine starting has been modified in Parameter•Fuel 1. Whilst there are difference between each vehicle, if the engine is starting to an acceptable level, please retain the default data and continue setup.

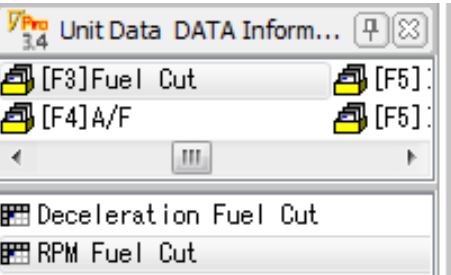
| | -20 | -10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 |
|---|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1 | 89510 | 54490 | 24910 | 16930 | 12140 | 10740 | 9340 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 |
| 2 | 89510 | 54490 | 24910 | 16930 | 12140 | 10740 | 9340 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 |
| 3 | 89510 | 54490 | 24910 | 16930 | 12140 | 10740 | 9340 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 |
| 4 | 89510 | 54490 | 24910 | 16930 | 12140 | 10740 | 9340 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 |
| 5 | 89510 | 54490 | 24910 | 16930 | 12140 | 10740 | 9340 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 |
| 6 | 89510 | 54490 | 24910 | 16930 | 12140 | 10740 | 9340 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 |
| 7 | 89510 | 54490 | 24910 | 16930 | 12140 | 10740 | 9340 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 |
| 8 | 89510 | 54490 | 24910 | 16930 | 12140 | 10740 | 9340 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 | 7780 |

Airflow Meter Parameter

“Start Data” is designed to work with stock airflow meters and not setup to be used airflow-less. Airflow meter signals are not clipped with maximum value set at 5000MV



w/out Airflow Meter



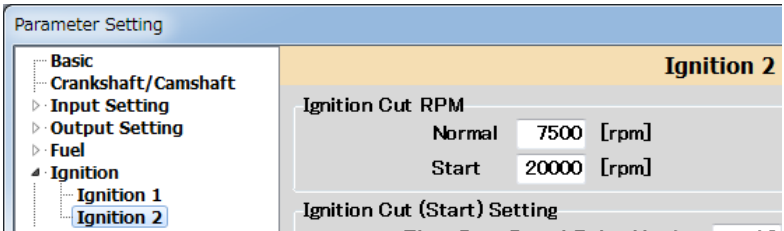
| Port | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------|------|------|------|------|-------|-------|-------|-------|
| Cut | 7000 | 6950 | 7000 | 6950 | 20000 | 20000 | 20000 | 20000 |
| Return | 6900 | 6900 | 6900 | 6900 | 20000 | 20000 | 20000 | 20000 |

RPM Fuel Cut Map

For those vehicles equipped with the factory CAT or Metal Catalyzer, the rev limiter is controlled by fuel cut.

For STARTDATA, the impact from the fuel cut is reduced by the setting shown above.

For those vehicles without CATs, the rev limiter can be controlled by editing Ignition Cut RPM of Parameter Setting as shown in the diagram on the right. Make sure not to perform this setting for the vehicle equipped with a CAT. If neglected, it may cause damage to a CAT by unburnt gas which results in damage to an engine.



■ Speed Limiter Cancel Function (Formula is shown on the right.)

The speed signal setting is done in #1 PIN 45 of Frequency Output Setting under Parameter Setting.

For S15STARTDATA, the following setting was done to cancel the speed limiter.

The speed limiter cancel function is set to activate at 58.3[Hz] by input 58.3 to the output maximum value.

For S15STARTDATA, the output maximum value is set to the value shown above, and the ECU's speed recognition is clipped approximately at 165km.

In Frequency of Input Setting under Parameter Setting, "JIS_Speed" was selected for Option Frequency Input's Frequency 1 PIN 58, and "2" was input for Number of JIS Car Speed Signal Pulse.

■ Formula to Calculate Frequency Input Value

$$F=N\times SPD/5,6515$$

F=Frequency (HZ)

N=Speed Pulse

SPD=Car Speed (KM/H)

Parameter Setting

Basic

Crankshaft/Camshaft

Input Setting

Output Setting

Voltage

Frequency

Switch (LSL1)

Switch (LSL2)

Switch (LSL3)

Frequency

| Frequency | | | | |
|------------------|-------------|-------------|-------------|----------------------|
| Frequency Output | | X Axis | Y Axis | Output Maximum Value |
| #1 PIN 45 | Input_Value | Input_Value | 58.3 [Hz] | |
| #2 PIN 46 | OFF | OFF | 2000.0 [Hz] | |

Parameter Setting

Basic

Crankshaft/Camshaft

Input Setting

Voltage

Throttle/Accel

Pressure

Others

Switch

Frequency

A/F - Knock

Output Setting

Voltage

Frequency

Switch (LSL1)

Switch (LSL2)

Switch (LSH1)

Switch (LSH2)

Switch (HS)

Fuel

Fuel 1

Fuel 2

Twin Injector

Frequency

Option Frequency Input

Frequency 1 PIN 58 JIS_Speed

Frequency 2 PIN 59 OFF

Car Speed Control Data

JIS_Speed

Wheel Speed 1 Tire Circumference 0 [mm]

Wheel Speed 1 Number of Pulse 0

Wheel Speed 1 Trim Coefficient 0.0 [%]

Wheel Speed 2 Tire Circumference 0 [mm]

Wheel Speed 2 Number of Pulse 0

Wheel Speed 2 Trim Coefficient 0.0 [%]

Number of JIS Car Speed Signal Pulse 2