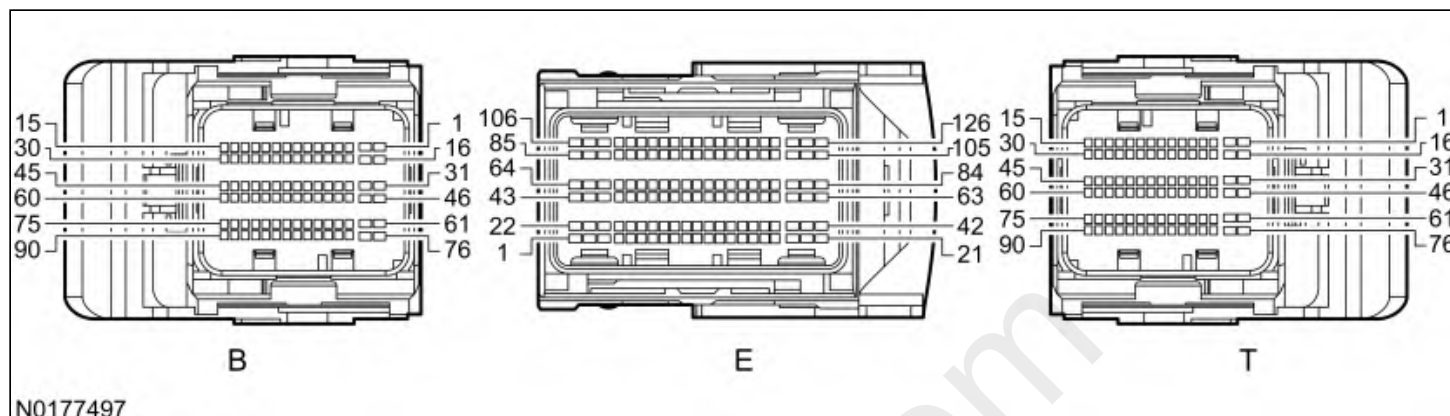


## 7.3L F-Series Super Duty

## 306 Pin PCM



## Typical Diagnostic Reference Values

| Inputs         | Component/PID Only | Measured/PID Values |             |                  |                  | Units Measured/PID |
|----------------|--------------------|---------------------|-------------|------------------|------------------|--------------------|
|                |                    | KOEO                | Hot Idle    | 48 KM/H (30 MPH) | 89 KM/H (55 MPH) |                    |
| AAT            | AAT Sensor         | 18 (64.4)           | 18 (64.4)   | 16 (60.8)        | 15 (59)          | DEG C (DEG F)      |
| AAT_V          | AAT Sensor         | 2.97                | 2.97        | 3.17             | 3.21             | VOLTS              |
| AC_REQ         | PID                | NO                  | NO          | NO               | NO               | YES/NO             |
| APP            | APP Sensor         | 0                   | 0           | 9                | 23               | %                  |
| APP1           | APP Sensor         | 0.82                | 0.82        | 1.11             | 1.53             | VOLTS              |
| APP1 (APP_D)   | APP Sensor         | 16                  | 16          | 22               | 30               | %                  |
| APP2           | APP Sensor         | 0.42                | 0.42        | 0.56             | 0.78             | VOLTS              |
| APP2 (APP_E)   | APP Sensor         | 8                   | 8           | 11               | 15               | %                  |
| APP_MAXDIFF    | PID                | 0                   | 0           | 0                | 0                | DEG                |
| BARO           | PID                | 100 (14.50)         | 100 (14.50) | 100 (14.50)      | 100 (14.50)      | kPa (PSI)          |
| BARO_V         | PID                | 3.93                | 3.94        | 3.94             | 3.94             | VOLTS              |
| BOO1           | BPP Switch         | OFF                 | OFF         | OFF              | OFF              | ON/OFF             |
| BOO2           | BPP Switch         | OFF                 | OFF         | OFF              | OFF              | ON/OFF             |
| BRKOV RD_POSS  | PID                | 4                   | 4           | 5                | 5                | NUMERIC VALUE      |
| BRKOV R_ACTION | PID                | 0                   | 0           | 0                | 0                | NUMERIC VALUE      |

| Inputs       | Component/PID Only | Measured/PID Values |             |                  |                  | Units Measured/PID |
|--------------|--------------------|---------------------|-------------|------------------|------------------|--------------------|
|              |                    | KOEO                | Hot Idle    | 48 KM/H (30 MPH) | 89 KM/H (55 MPH) |                    |
| CAM_SYNC     | PID                | NO                  | NO          | NO               | NO               | YES/NO             |
| CATEMP11     | CAT11 Sensor       | 326 (618.8)         | 301 (573.8) | 351 (663.8)      | 412 (773.6)      | DEG C (DEG F)      |
| CATEMP21     | CAT21 Sensor       | 326 (618.8)         | 301 (573.8) | 351 (663.8)      | 412 (773.6)      | DEG C (DEG F)      |
| CHT          | CHT Sensor         | 100 ( )             | 95 (203)    | 95 (203)         | 99 (210.2)       | DEG C (DEG F)      |
| CHT_V        | CHT Sensor         | 3.39                | 3.54        | 3.54             | 3.45             | VOLTS              |
| CLRDIST      | PID                | 0 (0)               | 0 (0)       | 0 (0)            | 0 (0)            | KM (MILES)         |
| DECHOKE      | PID                | YES                 | NO          | NO               | NO               | YES/NO             |
| DIST_BRKOVDR | PID                | 11 (6.84)           | 11 (6.84)   | 11.5 (7.15)      | 13 (8.08)        | KM (MILES)         |
| DTCCNT       | PID                | 0                   | 0           | 0                | 0                | NUMERIC VALUE      |
| ECT          | ECT Sensor         | 96 (204.8)          | 88 (190.4)  | 86 (186.8)       | 88 (190.4)       | DEG C (DEG F)      |
| EQ_RAT11     | PID                | 0                   | 1.02        | 0.99             | 0.99             | RATIO              |
| EQ_RAT21     | PID                | 0                   | 1.02        | 0.97             | 1.00             | RATIO              |
| ETC_ACT      | PID                | 7.99                | 4.80        | 7.85             | 5.23             | DEG                |
| ETC_TRIM     | PID                | -0.44               | -0.44       | -0.44            | -0.44            | DEG                |
| FANSS        | FS Sensor          | 0                   | 250         | 350              | 475              | RPM                |
| FLI          | Fuel Level Sensor  | 35 (H)              | 35 (H)      | 40 (H)           | 35 (H)           | %                  |
| FPM          | PID                | 39                  | 40          | 40               | 40               | %                  |
| FTP_V        | FTP Sensor         | 2.62                | 2.19        | 2.09             | 2.18             | VOLTS              |
| HTRCM11      | HO2S11 Sensor      | 0.00                | 0.00        | 0.00             | 0.00             | mA                 |
| HTRCM12      | HO2S12 Sensor      | 0.00                | 0.00        | 0.00             | 0.00             | mA                 |
| HTRCM21      | HO2S21 Sensor      | 0.00                | 0.00        | 0.00             | 0.00             | mA                 |
| HTRCM22      | HO2S22 Sensor      | 0.00                | 0.00        | 0.00             | 0.00             | mA                 |
| IAT          | IAT Sensor         | 39 (102.2)          | 34 (93.2)   | 27 (80.6)        | 24 (75.2)        | DEG C (DEG F)      |
| IAT1         | IAT Sensor         | 39 (102.2)          | 35 (95)     | 28 (82.4)        | 24 (75.2)        | DEG C (DEG F)      |
| IAT1_V       | IAT Sensor         | 2.10                | 2.31        | 2.61             | 2.77             | VOLTS              |
| INJPWR_M     | PID                | 12.67               | 14.21       | 14.16            | 14.18            | VOLTS              |
| INJ1-8_F     | PID                | NO                  | NO          | NO               | NO               | YES/NO             |
| KNOCK_1      | KS11 Sensor        | 999                 | 41          | 78               | 75               | COUNT              |
| KNOCK_2      | KS12 Sensor        | 999                 | 43          | 68               | 53               | COUNT              |
| KNOCK_3      | KS21 Sensor        | 999                 | 26          | 55               | 36               | COUNT              |
| KNOCK_4      | KS22 Sensor        | 999                 | 22          | 51               | 36               | COUNT              |
| LOAD_ABSL    | PID                | 0.00 (I)            | 21          | 17               | 20               | %                  |
| LONGFT1      | PID                | (I)                 | -20 TO +20  | -20 TO +20       | -20 TO +20       | %                  |
| LONGFT2      | PID                | (I)                 | -20 TO +20  | -20 TO +20       | -20 TO +20       | %                  |
| MAF          | MAF Sensor         | 3.29                | 13.70       | 15.29            | 52.48            | g/s                |
| MAF_HZ       | MAF Sensor         | 5.00                | 2.98        | 2.90             | 2.06             | kHz                |
| MIL_DIS      | PID                | 0 (0)               | 0 (0)       | 0 (0)            | 0 (0)            | KM (MILES)         |

| Inputs        | Component/PID Only | Measured/PID Values |               |                  |                  | Units Measured/PID |
|---------------|--------------------|---------------------|---------------|------------------|------------------|--------------------|
|               |                    | KOEO                | Hot Idle      | 48 KM/H (30 MPH) | 89 KM/H (55 MPH) |                    |
| MISFIRE       | PID                | FALSE               | FALSE         | FALSE            | FALSE            | TRUE/FALSE         |
| MP_LRN        | PID                | FALSE               | FALSE         | FALSE            | FALSE            | TRUE/FALSE         |
| NUM_MISFIRE   | PID                | 0                   | 0             | 3                | 3                | COUNT              |
| O2S11_CUR     | HO2S11 Sensor      | 0 (I)               | switching     | switching        | switching        | mA/uA              |
| O2S11_IMPED   | HO2S11 Sensor      | 5                   | 1.05          | 1.04             | 1.07             | VOLTS              |
| O2S11_READY   | HO2S11 Sensor      | NO                  | YES           | YES              | YES              | YES/NO             |
| O2S11_TR      | HO2S11 Sensor      | 0                   | 122.10        | 122.10           | 122.10           | Kohm               |
| O2S12         | HO2S12 Sensor      | (I)                 | switching (D) | switching (D)    | switching (D)    | VOLTS              |
| O2S21_CUR     | HO2S21 Sensor      | (I)                 | switching     | switching        | switching        | mA/uA              |
| O2S21_IMPED   | HO2S21 Sensor      | 5                   | 1.04          | 1.04             | 1.05             | VOLTS              |
| O2S21_READY   | HO2S21 Sensor      | NO                  | YES           | YES              | YES              | YES/NO             |
| O2S21_TR      | HO2S21 Sensor      | 0                   | 125.30        | 125.30           | 125.30           | Kohm               |
| O2S22         | HO2S22 Sensor      | (I)                 | switching (D) | switching (D)    | switching (D)    | VOLTS              |
| OCTADJ_R_LRND | PID                | 0                   | 0             | 0                | 0                | %                  |
| OSS_RAW       | OSS Sensor         | 0                   | 0             | 1113             | 2006             | RPM                |
| PTO           | PID                | OFF                 | OFF           | OFF              | OFF              | ON/OFF             |
| PTOIR_V       | PID                | 0                   | 0             | 0                | 0                | VOLTS              |
| PTOLOAD       | PID                | INACTIVE            | INACTIVE      | INACTIVE         | INACTIVE         | ACTIVE/INACTIVE    |
| RO2FT1        | PID                | 0                   | 0.02          | -0.01            | 0                | %                  |
| RO2FT2        | PID                | 0                   | 0.02          | -0.02            | 0                | %                  |
| RPM           | CKP Sensor         | 0                   | 799           | 1678             | 1270             | RPM                |
| SHRTFT1       | PID                | (I)                 | -10 TO +10    | -10 TO +10       | -10 TO +10       | %                  |
| SHRTFT2       | PID                | (I)                 | -10 TO +10    | -10 TO +10       | -10 TO +10       | %                  |
| SYNC          | PID                | NO                  | YES           | YES              | YES              | YES/NO             |
| TP1_LRN_TRIM  | ETBTPS             | 6.13                | 6.13          | 6.13             | 6.13             | DEG                |
| TP1_PER       | ETBTPS             | 14                  | 12            | 14               | 43               | %                  |
| TP_REL        | PID                | 7                   | 5             | 7                | 37               | VOLTS              |
| VCTSYS        | PID                | DISABLED            | ENABLED       | ENABLED          | ENABLED          | ENABLED/DISABLED   |
| VCT_EXH_ACT1  | PID                | 0                   | 0.13          | 33.75            | 29.13            | DEG                |

| Inputs       | Component/PID Only | Measured/PID Values |          |                  |                  | Units Measured/PID |
|--------------|--------------------|---------------------|----------|------------------|------------------|--------------------|
|              |                    | KOEO                | Hot Idle | 48 KM/H (30 MPH) | 89 KM/H (55 MPH) |                    |
| VCT_EXH_ACT2 | PID                | 0                   | 0        | 0                | 0                | DEG                |
| VCT_EXH_DIF1 | PID                | 0                   | -0.13    | -0.56            | -20.75           | DEG                |
| VCT_EXH_DIF2 | PID                | 0                   | 0        | 0                | 0                | DEG                |
| VSS          | PID                | 0                   | 0        | 48 km/h (30 MPH) | 89 km/h (55 MPH) | km/h / MPH         |

| Outputs       | Component/PID Only        | Measured/PID Values |             |                  |                  | Units Measured/PID |
|---------------|---------------------------|---------------------|-------------|------------------|------------------|--------------------|
|               |                           | KOEO                | Hot Idle    | 48 KM/H (30 MPH) | 89 KM/H (55 MPH) |                    |
| AEIS_ACTION   | PID                       | 0                   | 0           | 0                | 0                | NUMERIC VALUE      |
| AEIS_POSS     | PID                       | 0                   | 0           | 0                | 0                | NUMERIC VALUE      |
| BOOSTP_EVAL   | PID                       | YES                 | YES         | NO               | NO               | YES/NO             |
| CYL1-6_ACCL   | PID                       | (I)                 | -1 TO +1    | -1 TO +1         | -1 TO +1         | NUMERIC VALUE      |
| DIST_AEIS     | PID                       | 0 (0)               | 0 (0)       | 0 (0)            | 0 (0)            | KM (MILES)         |
| ETC [TAC_PCT] | PID                       | 9                   | 5           | 9                | 8                | %                  |
| EVAP020C      | PID                       | NO                  | NO          | NO               | NO               | YES/NO             |
| EVAPCP        | EVAPCP Valve              | 0                   | 56          | 97               | 43               | %                  |
| EVAPCV        | CANV Valve                | 0                   | 0           | 0                | 0                | %/ON-OFF           |
| EVAPPCT       | PID                       | 0                   | 56          | 97               | 56               | %                  |
| EVAPSOAK      | PID                       | NO                  | NO          | NO               | NO               | YES/NO             |
| EVAPSTA       | PID                       | NOT RUNNING         | NOT RUNNING | NOT RUNNING      | NOT RUNNING      | STATUS             |
| EVBV          | EVAP Vapor Blocking Valve | 0                   | 0           | 100              | 100              | %/OPEN-CLOSED      |
| FAN_DSD       | PID                       | 0                   | 0           | 0                | 0                | %                  |
| FP            | Fuel Pump Control Module  | 75                  | 31          | 31               | 31               | %/ON/OFF           |
| FUELSYS_CL    | PID                       | NO                  | YES         | YES              | YES              | YES/NO             |
| FUELSYS_OL    | PID                       | NO                  | NO          | NO               | NO               | YES/NO             |
| FUEL_RDY      | PID                       | NO                  | NO          | NO               | NO               | YES/NO             |
| HFC           | PID                       | OFF                 | OFF         | OFF              | OFF              | ON/OFF             |
| HTR11         | HO2S11 Sensor             | OFF                 | ON          | ON               | ON               | ON/OFF             |

| Outputs         | Component/PID Only | Measured/PID Values |          |                  |                  | Units Measured/PID   |
|-----------------|--------------------|---------------------|----------|------------------|------------------|----------------------|
|                 |                    | KOEO                | Hot Idle | 48 KM/H (30 MPH) | 89 KM/H (55 MPH) |                      |
| HTR12           | HO2S12 Sensor      | OFF                 | ON       | ON               | ON               | ON/OFF               |
| HTR21           | HO2S21 Sensor      | OFF                 | ON       | ON               | ON               | ON/OFF               |
| HTR22           | HO2S22 Sensor      | OFF                 | ON       | ON               | ON               | ON/OFF               |
| LFC             | PID                | OFF                 | OFF      | OFF              | OFF              | ON/OFF               |
| MFC             | PID                | OFF                 | OFF      | OFF              | OFF              | ON/OFF               |
| O2S11_HTR       | HO2S11 Sensor      | 20                  | 27       | 28               | 24               | %                    |
| O2S21_HTR       | HO2S21 Sensor      | 20                  | 24       | 23               | 18               | %                    |
| O2_DS_<br>DISBL | PID                | YES                 | NO       | NO               | NO               | YES/NO               |
| PATSENABL       | PID                | ENABLED             | ENABLED  | ENABLED          | ENABLED          | ENABLED/<br>DISABLED |
| PTOIL           | PTO Lamp           | INACTIVE            | INACTIVE | INACTIVE         | INACTIVE         | ACTIVE/<br>INACTIVE  |
| SPARKADV        | PID                | 7                   | 17       | 20               | 24               | DEG                  |
| VCT_EXH_<br>DC1 | VCT12 Solenoid     | 0                   | 0        | 44               | 31               | %                    |
| VCT_EXH_<br>DC2 | VCT22 Solenoid     | 0                   | 0        | 0                | 0                | %                    |

| Other | Component/PID Only | Measured/PID Values |          |                  |                  | Units Measured/PID |
|-------|--------------------|---------------------|----------|------------------|------------------|--------------------|
|       |                    | KOEO                | Hot Idle | 48 KM/H (30 MPH) | 89 KM/H (55 MPH) |                    |
| VPWR  | PID                | VBAT                | VBAT     | VBAT             | VBAT             | VOLTS              |
| VREF  | PID                | 5                   | 5        | 5                | 5                | VOLTS              |

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