

TO READ CODES: Use the diagnostic data reader or depress and hold the diagnostic request switch with the ignition on, engine at idle or not running. Press and hold the switch. Active codes will be flashed on the stop engine light, followed by the inactive codes being flashed on the check engine light. The cycle will repeat until the operator releases the diagnostic request switch.

## Flash Code

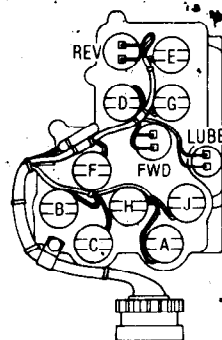
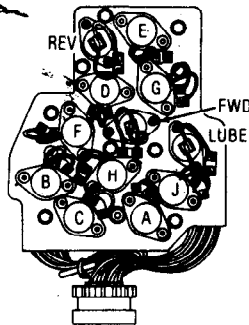
## DDEC Description

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|    |                                                |    |                                        |    |                                               |
|----|------------------------------------------------|----|----------------------------------------|----|-----------------------------------------------|
| 11 | PTO input low                                  | 34 | Boost pressure circuit low             | 58 | Torque overload                               |
| 12 | PTO input high                                 | 35 | Oil pressure circuit low               | 61 | Injector response time long                   |
| 13 | Coolant level circuit low                      | 36 | Oil pressure circuit high              | 62 | Digital output open or short to battery       |
| 14 | Intercooler, coolant or oil temp. circuit high | 37 | Fuel pressure circuit low              | 63 | PWM open or short to battery                  |
| 15 | Intercooler, coolant or oil temp. circuit low  | 38 | Fuel pressure circuit high             | 64 | Turbo speed circuit failed                    |
| 16 | Coolant level circuit high                     | 41 | Too many SRS (missing TRS)             | 67 | Coolant pressure circuit high or low          |
| 17 | Bypass position circuit high                   | 42 | Too few SRS (missing SRS)              | 68 | IVS switch fault, open or grounded circuit    |
| 18 | Bypass position circuit low                    | 43 | Coolant level low                      | 71 | Injector response time short                  |
| 21 | TPS circuit high                               | 44 | Intercooler, coolant or oil temp. high | 72 | Vehicle overspeed                             |
| 22 | TPS circuit low                                | 45 | Oil pressure low                       | 75 | Battery voltage high                          |
| 23 | Fuel temp. circuit high                        | 46 | Battery voltage low                    | 76 | Engine overspeed with engine brake            |
| 24 | Fuel temp. circuit low                         | 47 | Fuel pressure high                     | 81 | Oil level or cranksense pressure circuit high |
| 25 | No codes                                       | 48 | Fuel pressure low                      | 82 | Oil level or cranksense pressure circuit low  |
| 26 | Aux shutdown #1 or #2 active                   | 52 | AD conversion fail                     | 83 | Oil level or cranksense pressure high         |
| 27 | Air temp. circuit high                         | 53 | EEPROM write or nonvolatile fail       | 84 | Engine overspeed                              |
| 28 | Air temp. circuit low                          | 54 | Vehicle speed sensor fault             | 85 | Water pump or baro. pressure circuit high     |
| 31 | Aux. output short or open circuit (high side)  | 55 | J1939 data link fault                  | 86 | Water pump or baro. pressure circuit low      |
| 32 | SEL short or open circuit                      | 56 | J1587 data link fault                  | 87 | Coolant pressure low                          |
| 33 | Boost pressure circuit high                    | 57 | J1922 data link fault                  | 88 |                                               |

CLAMP-DOWN  
SOLENOIDSBOLT-DOWN  
SOLENOIDS

## 4 SPEED

| LATCHING SOLENOIDS |   |   |   |   |   | N/L SOLENOIDS |   |   |
|--------------------|---|---|---|---|---|---------------|---|---|
| RANGE              | B | C | D | F | J | H             | G | E |
| 4                  | X | X | X | X | O | X             |   |   |
| 3                  | X | X | O | X | O | X             |   |   |
| 2                  | X | O | O | X | O | X             |   |   |
| 1                  | O | O | O | X | O | X             |   |   |
| N                  | O | O | O | O | X | —             |   |   |
| R                  | O | O | O | O | O | X             |   |   |
| LOCKUP             |   |   |   |   |   |               | X |   |
| TRIM BOOST         |   |   |   |   |   |               |   | — |

## 5 SPEED

| LATCHING SOLENOIDS |   |   |   |   |   |   | N/L SOLENOIDS |   |   |
|--------------------|---|---|---|---|---|---|---------------|---|---|
| RANGE              | A | B | C | D | F | J | H             | G | E |
| 6                  | X | X | X | X | X | O | X             |   |   |
| 4                  | X | X | X | O | X | O | X             |   |   |
| 3                  | X | X | O | O | X | O | X             |   |   |
| 2                  | X | O | O | O | X | O | X             |   |   |
| 1                  | O | O | O | O | X | O | X             |   |   |
| N                  | O | O | O | O | O | X | —             |   |   |
| R                  | O | O | O | O | O | O | X             |   |   |
| LOCKUP             |   |   |   |   |   |   |               | X |   |
| TRIM BOOST         |   |   |   |   |   |   |               |   | — |

X DENOTES POSITIVE VOLTAGE OR PULSE: PRESSURIZED  
O DENOTES NEGATIVE VOLTAGE OR PULSE: EXHAUSTED  
— DENOTES NO VOLTAGE: EXHAUSTED

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