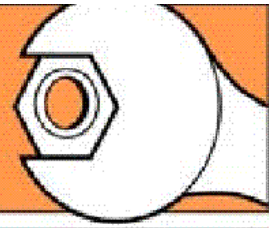




# DAEWOO

## SERVICE BULLETIN



### LIFT TRUCK SERIES

G15S-2 G18S-2 G20SC-2 Plus  
GC15S-2 GC18S-2 GC20SC-2 Plus  
GC20E-3 GC25E-3 GC30E-3 GC32E-3 Plus  
G20E-3 G25E-3 G30E-3 G32E-3 Plus  
GC20P-3 GC25P-3 GC30P-3 GC32P-3 Plus  
G20P-3 G25P-3 G30P-3 G32P-3 G33P-3 Plus  
G35S-2 G40S-2 G45S-2 G50SC-2 Plus  
G50S-2 G60S-2 G70S-2 Plus

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CODE 7500

LT7500-E4

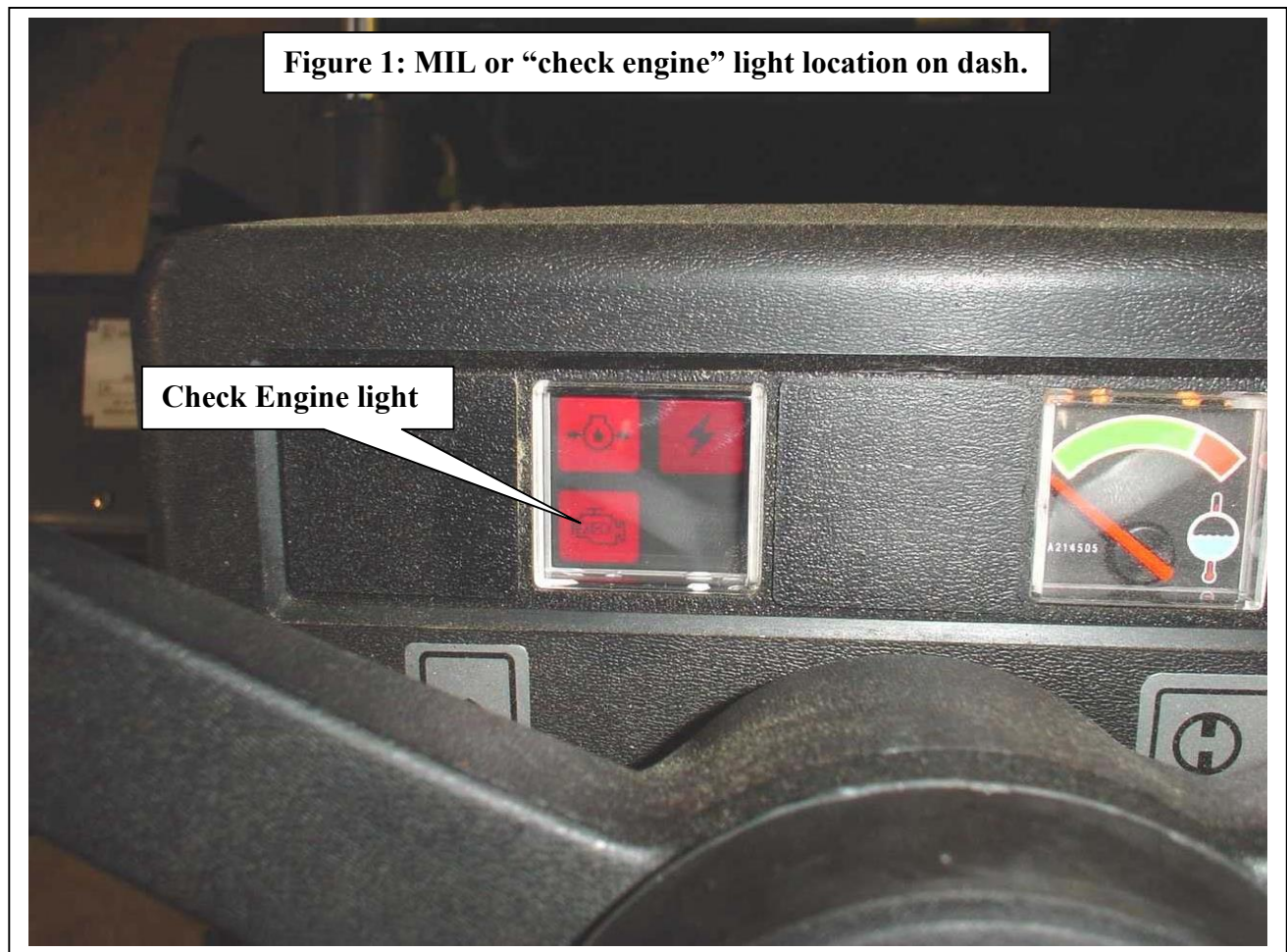
### SUBJECT: TIER II FUEL SYSTEM FAULT CODES AND MANUALS

Daewoo recently published Service Bulletin LT7500-D4 to announce the availability of the Tier II Engine Analyzer Tool Kit. Daewoo strongly recommends that each dealership and branch have one or more kits. Fortunately, the fuel systems also have built-in fault code diagnostics that do not require the service tool. This diagnostic system is designed for **very simple** troubleshooting when a service tool and computer are not available. Daewoo considers this a user-friendly advantage over much of the competition with the new Tier II fuel systems.

Applicable Daewoo serial number prefixes: FQ, FR, FY, G2, G3, G4, G5, G6, G9, GA, GB, GH, GQ. These trucks say "Plus" on the side near the model number.

### Diagnostics

The Check Engine light, found on the steering column dashboard under the steering wheel, is used to display the flashing diagnostic fault codes. This is also called the Malfunction Indicator Lamp (MIL). See Figure 1 on the next page. When the ignition key is turned to the "ignition" position the light comes on. The light goes out after the engine starts unless an active fault has been detected. When that happens the light remains on until the fault is cleared. The fault codes are stored in the memory of the Small Engine Control Module (SECM).



### **Displaying the fault codes:**

To display the fault codes:

1. Turn the ignition key on without cranking the engine.
2. Depress the accelerator pedal to the floor three times within five seconds.

### **Clearing the fault codes:**

To clear the fault codes:

1. Turn the ignition key on without cranking the engine.
2. Depress the accelerator pedal to the floor ten times within five seconds.

Note: Do not clear the codes until the faults have been diagnosed and corrected.



### **Reading the fault codes:**

All fault codes are two-digit codes. When the codes are retrieved and displayed per the method above, the light flashes the appropriate number of times for each digit with a short pause between digits, and a long pause between fault codes. For example, “fault code 12” is displayed as one flash, then a .5 second delay, then two flashes. Then the code flashes again (or the next code) after a 1.2-second delay.

Code 12 is displayed at the beginning of every code list. For example, if two fault conditions exist and the SECM displays codes 52 and 74, the code list flashes 12, 52, 74, 12, 52, 74, 12, 52, 74, etc., using code 12 to indicate the beginning of the code list. Note: If no fault exists, code 12 flashes continuously.

### **Interpreting the fault codes:**

Some of the faults shut down the engine immediately, some cause a delayed shutdown. Some trigger a “limp home” mode. For others the SECM simply indicates a fault and takes no further action.


The following page is a list of all the fault codes with a brief description—a fault-code “cheat sheet” for LP engines. It is imperative that every Daewoo technician keeps a copy of this on hand as the new low-emissions trucks are placed in service. Daewoo suggests that technicians practice displaying fault codes on new trucks; code 12 can be displayed when no fault condition exists.

### **Manuals:**

Woodward Industrial Controls has published a manual for each of the three types of engines equipped with their fuel system on Daewoo trucks. They contain detailed descriptions of the fault codes along with detailed troubleshooting procedures. The manuals can be found on our web site in PDF format, titled “Fuel System Supplement” in the Service Literature section. Please download these files to your computer as needed. As new versions of engine service manuals from Daewoo become available, they will also be posted to the web site, and be made available through our Parts Department. Please check the web site periodically for updates for your particular model and serial number.

### **Support:**

The combination of the cheat sheet on the next page and the manuals from the Daewoo web site should allow technicians to get a good jump on troubleshooting should a fault condition develop. Please use the available tools before contacting Daewoo product support.



## DAEWOO TIER II ENGINE/FUEL SYSTEM FAULT CODES

<b>FAULT CODE</b>	<b>NAME</b>	<b>FAULT DESCRIPTION</b>
12	NONE	Signifies the end of one pass through the fault list
14	ECTSensorInputLow	Normally set if the coolant sensor wire is shorted to ground
15	ECTSensorInputHigh	Set if the coolant sensor wire is disconnected or open
16	ECTRangeHigh	Coolant sensor has measured an excessive temperature or shorted to GND
22	ThrottleSensorInputLo	TPS1 signal wire is open
23	ThrottleSensorInputHi	TPS1 signal wire is shorted
24	ThrottleSensorRangeLo	TPS Sensor malfunction
25	ThrottleSensorRangeHi	TPS Sensor malfunction
26	ETCSticking	ETC driver signal wire is open or the throttle plate is sticking inside the throttle body
27	PredictedTPSDifference	TPS1 is different than calculated position
28	ETCSpringTestFailed	Throttle return spring failed keyup test
29	ETCDriverFault	Throttle driver over-current or driver signals shorted
33	MapSensorInputLow	MAP signal disconnected or open circuit
34	MapSensorInputHigh	MAP signal shorted or sensor failure
37	IATSensorInputLow	TMAP sensor failure or shorted circuit
38	IATSensorInputHigh	TMAP disconnected or IAT signal open
42	EST1Low	Coil driver signal low or under current
43	EST1High	Coil driver signal high or over current
52	LowOilPressure	Low engine oil pressure
53	BatterySensorInputLow	Battery voltage measured below 8.0 VDC
54	BatterySensorInputHigh	Battery voltage measured above 15.9 VDC
55	XDRPSensorInputLow	Measured sensor transducer power is below 4.6 VDC
56	XDRPSensorInputHigh	Measured sensor transducer power is above 5.2 VDC
57	Engine OverSpeed	RPM increased above maximum rpm setpoint
61	Pedal1SensorInputLo	APP1 signal disconnected, open circuit or sensor malfunction
62	Pedal1SensorInputHi	APP1 sensor failure or shorted circuit
63	Pedal1SensorRangeLo	APP1 potentiometer malfunction
64	Pedal1SensorRangeHi	APP1 potentiometer malfunction
65	Pedal2SensorInputLo	APP2 sensor failure or shorted signal
66	Pedal2SensorInputHi	APP2 signal disconnected, open circuit or sensor malfunction
67	Pedal2SensorRangeLo	APP2 potentiometer malfunction
68	Pedal2SensorRangeHi	APP2 potentiometer malfunction
69	Pedal1ToPedal2Difference	Measured APP2 pedal position signal is different than APP1 signal
71	AFRTrimValveOutput	FTV modulation driver signal fault
72	AFRTrimValveLowerDC	FTV duty cycle at lower (LEAN) limit
73	AFRTrimValveUpperDC	FTV duty cycle at upper (RICH) limit
74	O2SensorSwitching	O2 sensor not switching across the reference AFR voltage
77	OxygenSensorInputHigh	O2 sensor signal shorted to +5 VDC