General Description

This section covers the instrumentation control unit model 3 (ICU3). It is optional on both the Argosy COE and the Century Class Conventional.

ICU3

The ICU3 is a basic electronic dashboard that accepts input from the fuel level sensor, the transmission temperature sensor (if installed), and the J1587 datalink. The information is processed by a microcomputer and displayed on electronic gauges driven by stepper motors. Only air gauges operate mechanically.

The following gauges are standard:

- Speedometer
- Tachometer
- Engine Oil Pressure Gauge
- Coolant Temperature Gauge
- Fuel Level Gauge
- Primary Air System Pressure Gauge
- Secondary Air System Pressure Gauge

The transmission fluid temperature gauge is optional, but it is required on vehicles with automatic transmissions.

The speedometer and tachometer are large-faced electronic gauges located below the driver information center. See **Fig. 1**.

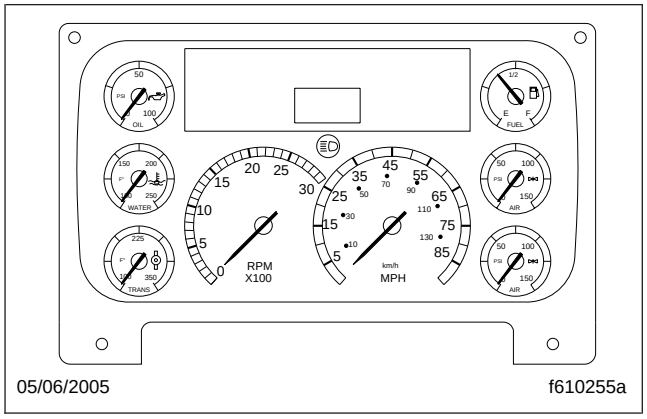


Fig. 1, ICU3

The other gauges are small-faced gauges on the driver's instrument panel, to either side of the speedometer and tachometer. The engine oil pressure, coolant temperature, transmission fluid temperature, and fuel level gauges are electronic; the two system air gauges, primary and secondary, are mechanical.

Only the air pressure gauges are replaceable in the field. The ICU3 can not drive gauges located on the auxiliary instrument panel.

Dash Message Center

The heart of the ICU3 is the dash message center. It has two parts: a set of 26 warning and indicator lights similar to those found on a conventional lightbar, and a dash driver display screen. The dash driver display screen is a 1-line by 7-character liquid crystal display (LCD) which is normally used to display the odometer reading. In addition, there is a separate voltmeter display underneath the odometer display.

The information that can be provided by the message center includes:

- odometer readings
- a listing of active faults

Mode/Reset Switch

The mode/reset switch is located on the right-hand side of the instrument cluster, if installed. See **Fig. 2**.

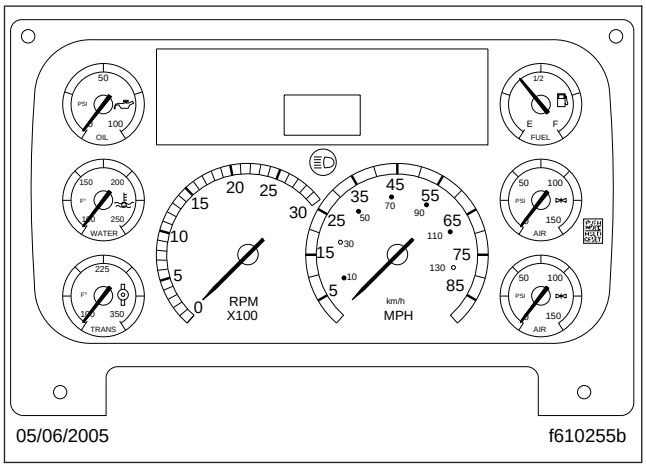


Fig. 2, ICU3 with Mode/Reset Switch

General Information

The mode/reset switch is used to scroll through the displays on the driver display screen, and to reset the trip distance and trip hours values to zero.

When the odometer reading is displayed and the parking brake is applied:

- Press the mode/reset switch once to display trip distance.
- Press the mode/reset switch a second time to display trip hours (engine hours).
- Press the mode/reset switch a third time and the SELECT screen and the current units, MI or KM, will display.
- Release the parking brake to return to the diagnostic screen.

To reset trip miles and/or trip hours to zero, press and hold the mode/reset switch for 1 second or longer. To toggle between MI (miles) or KM (kilometers), press and hold the mode/reset switch while in the SELECT screen.

The mode/reset switch can also be used to display complete fault codes for diagnostic purposes. For more information, see **Specifications, 410**.

Warning and Indicator Lights

There are spaces on the ICU3 for 26 warning and indicator lights. See **Fig. 3** for a typical installation.

There are four rows of lights. The lights in the top row are all optional and may be installed in any order, except for two lights which are typically installed at a fixed position.

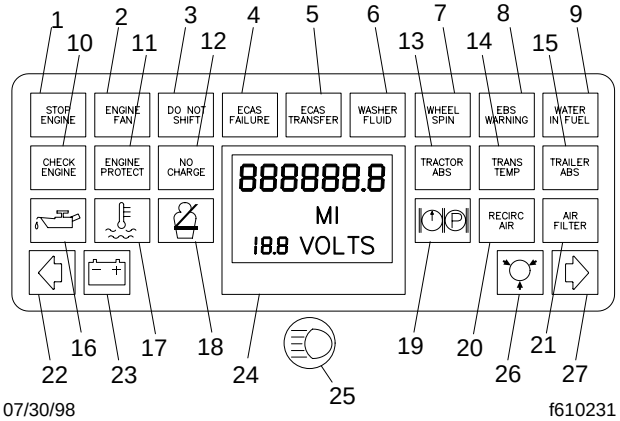
- Position 1: Stop Engine Warning (Red)—installed on vehicles with Cummins engines only
- Position 7: Wheel Spin Indicator (Amber)

NOTE: Positions 1 through 8 are ground-activated circuits; position 9 is power-activated.

On the other three rows, the lights are installed at fixed positions that do not vary. Some lights are optional; if an optional light is not requested, the position is blank (does not light up).

The following fixed-position lights are standard:

- Check Engine Indicator (Amber)
- Low Engine Oil Pressure Warning (Red)
- High Coolant Temperature Warning (Red)



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Typical installation shown. Location of legends installed in the top row may vary, and other legends may be specified.

1. Stop Engine Warning (Cummins engine only)
2. Engine Fan On Indicator (optional)
3. Do Not Shift Indicator (optional)
4. ECAS Failure Warning (optional)
5. ECAS Transfer Indicator (optional)
6. Low Washer Fluid Indicator (optional)
7. Wheel Spin Indicator (optional)
8. EBS Warning (optional)
9. Water In Fuel Indicator (optional)
10. Check Engine Indicator
11. Engine Protection Warning (optional)
12. Alternator No Charge Indicator (optional)
13. Tractor ABS Warning
14. Transmission Temperature Warning (optional)
15. Trailer ABS Warning (optional)
16. Low Engine Oil Pressure Warning
17. High Coolant Temperature Warning
18. Fasten Seat Belt Warning
19. Parking Brake On Warning
20. Recirculated Air Indicator
21. Air Restriction Indicator
22. Left Turn Signal
23. Low Battery Voltage Warning
24. Dash Driver Display Screen
25. High Beams On Indicator
26. Low Air Pressure Warning
27. Right Turn Signal

Fig. 3, Dash Message Center, ICU3

- Fasten Seat Belt Warning (Red)
- Left Turn Signal (Green)
- Low Battery Voltage Warning (Red)
- Tractor ABS Indicator (Amber)
- Parking Brake On Warning (Red)

- Recirculated Air Indicator (Amber)
- Low Air Pressure Warning (Red)
- Right Turn Signal (Green)
- High Beams On Indicator (Blue)

The following fixed-position lights are optional:

- Engine Protection Warning (Red)
- Alternator No Charge Indicator (Amber)
- High Transmission Temperature Indicator (Amber)—installed on vehicles with automatic transmissions
- Trailer ABS Indicator (Amber)—installed on vehicles designed to be used with a trailer
- Air Restriction Indicator (Amber)

The following lights are optional and their installed location may vary anywhere in the top row:

- Engine Fan On Indicator (Amber)
- Do Not Shift Indicator (Amber)
- ECAS Failure Warning (Red)
- ECAS Transfer Indicator (Amber)
- Low Washer Fluid Indicator (Amber)
- EBS (Electronic Braking System) Warning (Red)
- Water In Fuel Indicator (Amber)

All light bulbs are replaceable in the field, including gauge light bulbs and warning/indicator light bulbs.

Principles of Operation

Ignition Sequence

When the ignition keyswitch is turned on, the ICU3 runs through the ignition sequence. See **Fig. 4**. If the headlights are turned on, the screen displays the odometer and waits for the ignition to be turned on.

IMPORTANT: When the ignition keyswitch is first turned on, all the electronic gauges complete a full sweep of their dials, the warning and indicator lights light up, and the buzzer sounds for three seconds.

The following warning and indicator lights go on during the ignition sequence:

- Low Engine Oil Pressure Warning
- High Coolant Temperature Warning
- Low Air Pressure Warning
- Parking Brake On Warning
- Low Battery Voltage Indicator
- Fasten Seat Belt Warning
- All engine warning lights, including Engine Protection, Check Engine, and Stop Engine (on Cummins only)
- All ABS warning lights, including Wheel Spin, Tractor ABS, and Trailer ABS (if installed)

NOTE: Even though the engine and ABS warning lights go on during the ignition sequence, they are not controlled by the ICU3, but by their own system ECU (electronic control unit).

Once the ignition keyswitch has been turned on, the ICU performs a self-test, looking for active faults. During the first half of the self-test, all segments of the display illuminate as follows: "888888.8." During the second half of the self-test, the software revision level is displayed.

If there are no active faults, the screen displays the odometer.

If, however, the ICU3 has received active fault codes from other devices, it displays them, one after the other, until the parking brake is released or the ignition keyswitch is turned off.

The screen displays a code, called the message identifier (MID), indicating the ECU or system that is not functioning properly.

Example: If the engine or engine control unit is not functioning properly, the screen displays "ECU 128." For a complete list of possible screen displays, see **Specifications, 400**.

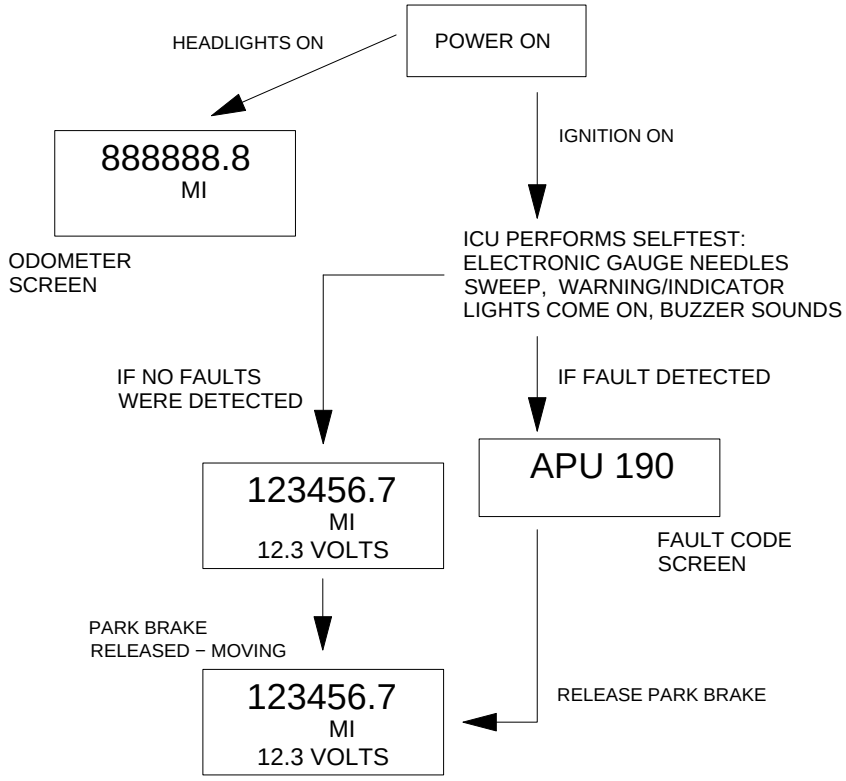
NOTE: If the ICU3 receives a message from an ECU that has not been pre-programmed into the ICU's memory, it displays "SYS MID" instead.

Once the parking brake is released, the ICU3 displays the odometer again.

Odometer

The odometer is set to display in either miles or kilometers, depending on the primary scale of the speedometer. The legend, either "MI" or "KM," illumi-

General Information



During the first half of the self-test, all segments of the display illuminate. During the second half of the self-test, the software revision level is displayed.

NOTE: If there is more than one fault, the ICU3 displays them, one after another, changing every three seconds, until the park brake is released.

Fig. 4, ICU3 Ignition Sequence

nates between the odometer and the volts display when the engine is running or the headlights are turned on.

The odometer is a seven-digit display with a decimal point, until the vehicle has traveled 999,999.9 miles or kilometers (km). At one million miles (km), the odometer resets itself to "1000000," without the decimal point, and can continue up to 9,999,999. The odometer only displays significant figures (no leading zeros).

IMPORTANT: Although the odometer uses data supplied by the engine ECU to update its count, it keeps its own mileage starting from the zero point, which marks where it was first installed.

Buzzer

The buzzer sounds during the ignition sequence and whenever one of the following conditions exists:

- The engine oil pressure falls below the preset level, which is 5 to 9 psi (35 to 60 kPa) on most engines.
- The coolant temperature rises above the preset level, which is 215°F (101°C) on Caterpillar and Detroit Diesel engines; 221°F (105°C) on Mercedes-Benz engines; and 220°F (104°C) on Cummins engines.
- The air pressure falls below the preset level, which is 44 psi (300 kPa).

- The parking brake is set with the vehicle moving at a speed greater than 2 miles per hour (3 km/h).

An optional ground-activated buzzer can be controlled by another ECU on the vehicle.

Replacement

The instrumentation control unit model 3 (ICU3) is a self-contained one-piece unit, including housing, gauges, and the dash message center. It is attached to wing panels that are fastened to the dash. See **Fig. 1**.

Air pressure gauges and light bulbs are the only components that are replaceable in the field. For air pressure gauge replacement, see **Subject 110**. For light bulb replacement, see **Subject 120**.

To replace individual switches or flipper valves, see **Section 54.03, Subject 110**.

NOTE: To remove the auxiliary instrument panel, see **Section 54.03, Subject 100**.

1. If replacing the ICU, attach a sticker to the driver side door frame indicating the mileage from the driver display, and the date that the ICU is being replaced.

IMPORTANT: Before draining the air, it can be helpful to move the adjustable steering column to the lowest possible position.

2. Drain both air systems, primary and secondary.

⚠ CAUTION

Electronic components of the ICU3 are vulnerable to damage from static electricity. If available, wear a wrist grounding strap connected to a ground in the cab or workbench. If a grounding strap is not available, touch a grounded component immediately before doing any work which could bring a tool or body part in contact with ICU3 circuitry.

3. Remove the four fasteners from the corners of the bezel attached to the front of the ICU housing. See **Fig. 2**. Fasteners used on the ICU3 are Torx® T25 dog-point screws. See **Fig. 3**.

⚠ CAUTION

Do not forcibly pull the driver's panel from the dash. This may dislodge wires from the harness electrical connectors on the back of the ICU housing and damage the wires, the ICU, or the dash.

4. Pull the old ICU away from the dash. When removing the old ICU from an Argosy COE, carefully work the ICU housing free of the wing panels. Do not remove the wing panels unless they are damaged. Pull the top of the unit towards you until the back of the housing is free, then pull up to remove the rest of the unit.
5. Remove the connectors from the back of the housing.

   5.1 From behind the ICU housing, disconnect the two electrical connectors in the center of the housing.

   IMPORTANT: Bleed off all air before trying to remove the air hoses.

   5.2 Disconnect all air hoses. Using a paint pen, mark the hoses for ease of installation.
6. Remove the old ICU from the vehicle. See **Fig. 2**.
7. Install the new ICU3 on the dash. See **Fig. 2**.

   7.1 Connect the air hoses to the air gauges as marked during removal.

   7.2 Connect the two electrical connectors, as removed.

   7.3 Install the wing panels, if removed.

   7.4 Place the ICU3 in the dash and install the fasteners.
8. Turn on the ignition and test the operation of the new ICU3. All the electronic gauges should make one complete sweep and return to their normal indicating positions; the warning and indicator lights should turn on, then off. Mechanical (air) gauges do not make a sweep.

   If any gauges are not working properly, the ICU3 will need to be serviced or replaced.

Instrumentation Control Unit 3 Replacement

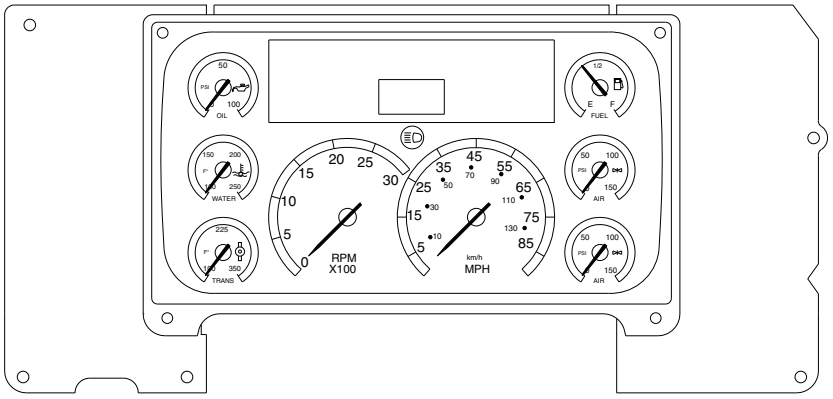


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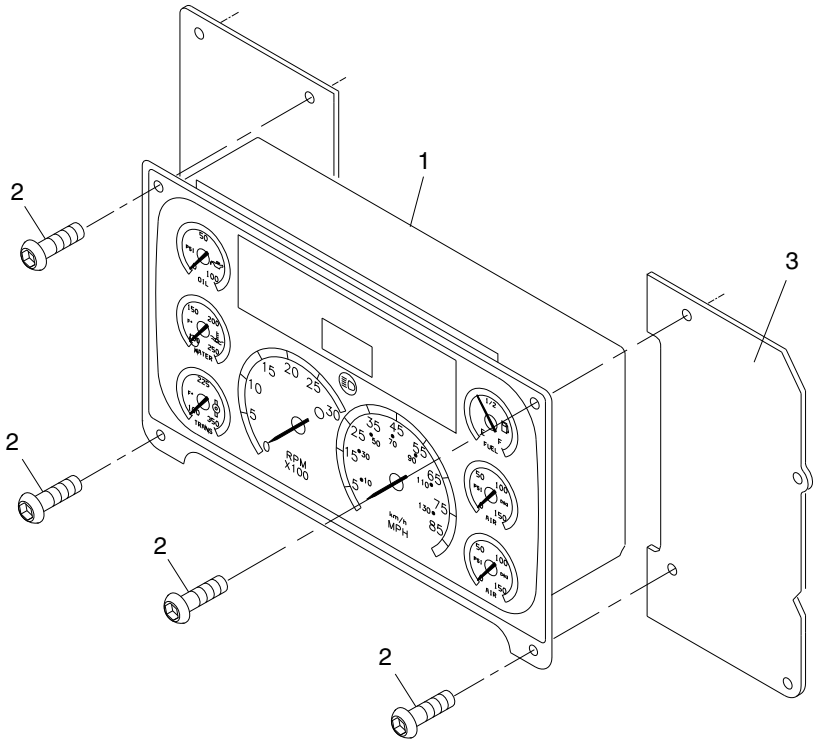
Fig. 1, ICU3 With Wing Panels



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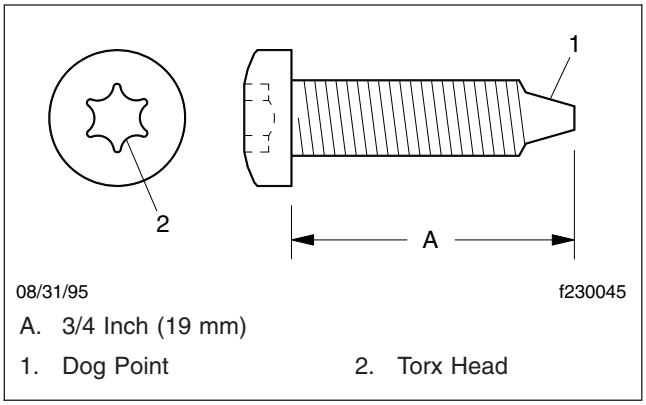
1. ICU Housing
2. T25 Dog-Point Screw
3. Wing Panel

Fig. 2, ICU3 Installation



A. 3/4 Inch (19 mm)
1. Dog Point
2. Torx Head

Fig. 3, Dog-Point Screw

Replacement

IMPORTANT: Before draining the air, it can be helpful to move the adjustable steering column to the lowest possible position. This makes it easier to remove the ICU.

1. Drain both air systems, primary and secondary.

CAUTION

To avoid damaging the ICU, please read and follow the cautions in Subject 100 regarding grounding the ICU and forcibly pulling it from the dash.

2. Remove the ICU3. See **Fig. 1**. For detailed instructions, see **Subject 100**.

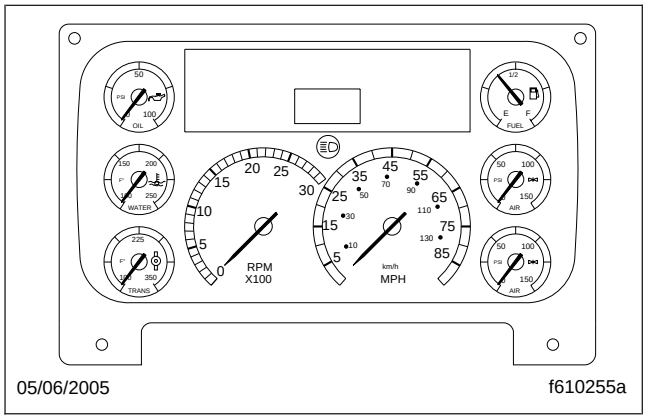


Fig. 1, ICU3

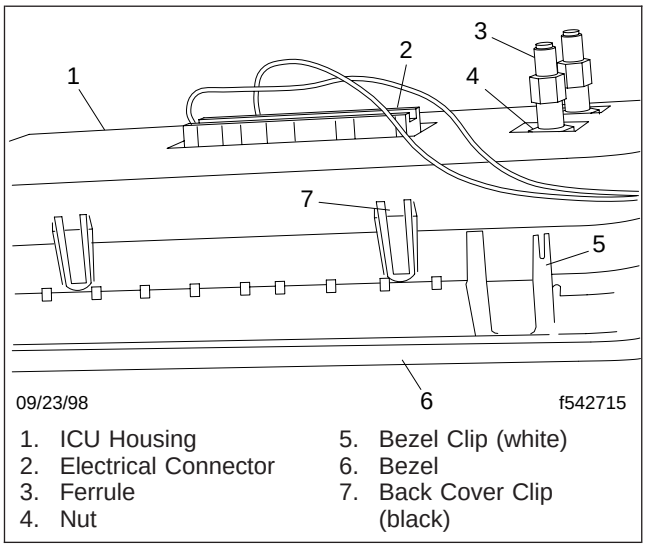
3. Remove the reset button from the front of the ICU housing, if installed.

CAUTION

Use extreme care to avoid breaking the clips when prying them off the ICU housing. The clips are under tension and are easy to damage.

4. Using a thin-bladed screwdriver, very carefully pry off the nine large white clips from the sides of the ICU housing. Remove the bezel from the ICU housing. See **Fig. 2**.

   4.1 From the back of the ICU housing, remove the ferrule from the threaded tube coming out the back of the air gauge.



1. ICU Housing
2. Electrical Connector
3. Ferrule
4. Nut
5. Bezel Clip (white)
6. Bezel
7. Back Cover Clip (black)

Fig. 2, Air Pressure Gauge Installation

   4.2 Remove the nut from the threaded air tube.

5. Remove the old air gauge from the ICU.

6. Install the new air gauge.

   6.1 Insert the new gauge into the hole in the ICU housing.

   6.2 Tighten the nut on the threaded tube.

   6.3 Install the ferrule.

7. Position the bezel on the ICU housing. Fasten the nine white clips to the sides of the ICU housing.

8. Install the reset button on the ICU housing, if removed.

9. Install the ICU3. For detailed instructions, see **Subject 100**.

10. Start the engine and wait for the air pressure to build up. When it has, test the operation of the new gauge.

Replacement

IMPORTANT: Before draining the air, it can be helpful to move the adjustable steering column to the lowest possible position. This makes it easier to remove the ICU.

1. Drain both air systems, primary and secondary.

CAUTION

To avoid damaging the ICU, please read and follow the cautions in Subject 100 regarding grounding the ICU and forcibly pulling it from the dash.

2. Remove the ICU3. See **Fig. 1**. For detailed instructions, see **Subject 100**.

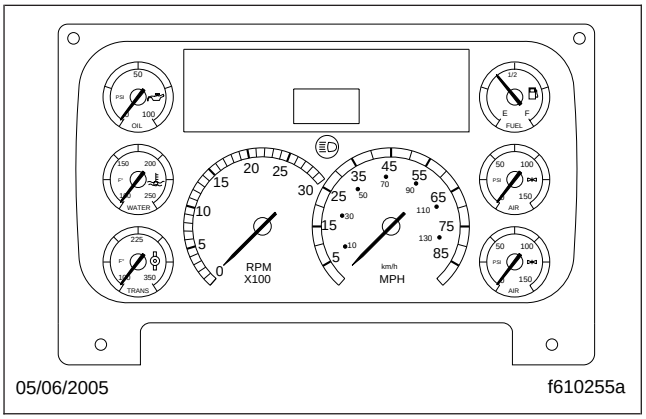


Fig. 1, ICU3

CAUTION

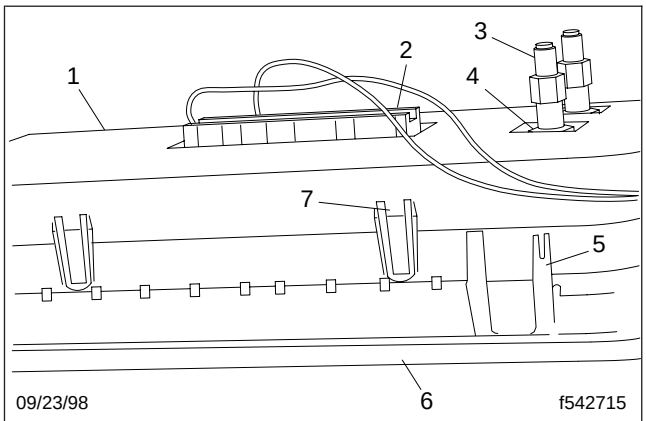
Use extreme care to avoid breaking the clips when prying them off the ICU housing. The clips are under tension and are easy to damage.

3. Pry off the five small black clips from the sides of the ICU housing. Remove the back cover from the ICU housing. See **Fig. 2**.

4. Remove the burnt-out light bulb(s). See **Fig. 3**.

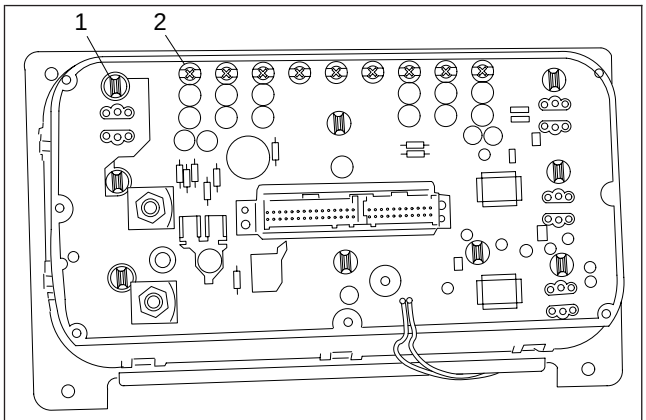
   4.1 To remove gauge light bulbs, twist the bulb holder behind the affected gauge until the bulb comes out.

   4.2 To remove warning/indicator light bulbs, use a small screwdriver to twist out the bulb base behind the affected light.



1. ICU Housing
2. Electrical Connector
3. Ferrule
4. Nut
5. Bezel Clip (white)
6. Bezel
7. Back Cover Clip (black)

Fig. 2, Back Cover Installation



1. Gauge Light Bulb Holder
2. Warning and Indicator Light Bulb Base

Fig. 3, Light Bulb Installation

5. Install the new light bulb(s).

   5.1 To install gauge light bulbs, twist the bulb holder into the slot from which the old one was removed.

   5.2 To install warning/indicator light bulbs, insert the new bulb base into the proper slot and use a small screwdriver to tighten it.

6. Position the back cover on the ICU housing. Fasten the five black clips to the sides of the ICU housing.

Light Bulb Replacement

7. Install the ICU3. For detailed instructions, see **Subject 100**.
8. Turn on the ignition keyswitch. Check all bulbs for correct operation.

Fuel Level Gauge Diagnosis

The fuel level gauge is controlled by the ICU using a variable resistance input from the fuel level sending unit that is located in the fuel tank. The fuel level sending unit resistance varies linearly from 31±2Ω with a full tank to 247±3Ω when empty.

If the ICU3 is measuring a resistance greater than 284Ω between circuit 47 and ground, a fault will be set for fuel level circuit open. If the ICU3 is measuring less than 23.5Ω between circuit 47 and ground, a fault will be set for fuel level circuit shorted low. ServiceLink may be used to monitor for these faults. The gauge will read empty until the measurement from the sensor is between 284Ω and 23.5Ω. Refer to **Table 1** for the fuel level diagnostic procedure.

NOTE: If the fuel level sensor is below the minimum resistance (short to ground) or above the maximum (open), the fuel gauge will read empty. Shorting the fuel sensor wires will not drive the gauge to full scale.

Fuel Level Gauge Diagnosis

Step	Test Procedure	Test Result	Action
1	If a 100 ohm resistor is available, disconnect the fuel level sender connector and place the resistor across circuit 47 and ground in the wiring harness connector to simulate the fuel level sending unit. Turn the ignition to the ON position and observe the fuel gauge. If, after gauge initialization, the gauge points closely to the half tank mark, then the wiring and ICU are all operating correctly. Jump to Step 4 if there is no problem with the wiring and ICU. Does the fuel level gauge stay at empty even though there is fuel in the tank or is the complaint an inaccurate and intermittent reading? Note - turn the ignition to OFF and disconnect the batteries before continuing.	Stays at Empty	Go to Step 2.
		Inaccurate or Intermittent	Go to Step 4.
2	Disconnect the connector at the fuel level sender and measure the resistance of the sender. What is the resistance of the sender?	Greater than 284Ω or Less than 23.5Ω	Go to Step 4.
		Between 284Ω and 23.5Ω	Go to Step 3.
3	Connect the fuel level sender and disconnect the connectors on the back of the ICU. Measure the resistance in the vehicle wiring between circuit 47 in connector pin D1 and the ground circuit in connector pin D2. What is the resistance of the circuit?	Greater than 284Ω	Troubleshoot and repair an open circuit on either circuit 47 or the ground between the ICU connector and the fuel level sender.
		Between 284Ω and 23.5Ω	This is the valid resistance range. If the fuel tank is full and the resistance is close to 31Ω, replace the ICU. Otherwise no problem is indicated.
		Less than 23.5Ω	Troubleshoot and repair a short to ground on circuit 47 between the ICU connector and the fuel level sender.

Troubleshooting

Fuel Level Gauge Diagnosis			
Step	**Test Procedure**	**Test Result**	**Action**
4	Remove the fuel sending unit from the fuel tank. Connect an ohm meter to the pins at the fuel level sender connector. Slowly move the level of the float arm from full to empty. See **Fig. 1**. Does the resistance vary linearly from 31±2Ω to 247±3Ω?	Yes	Troubleshoot and repair for corrosion or an intermittent connection in the circuitry between the ICU and the fuel level sender.
		No	Replace the fuel level sending unit.

Table 1, Fuel Level Gauge Diagnosis

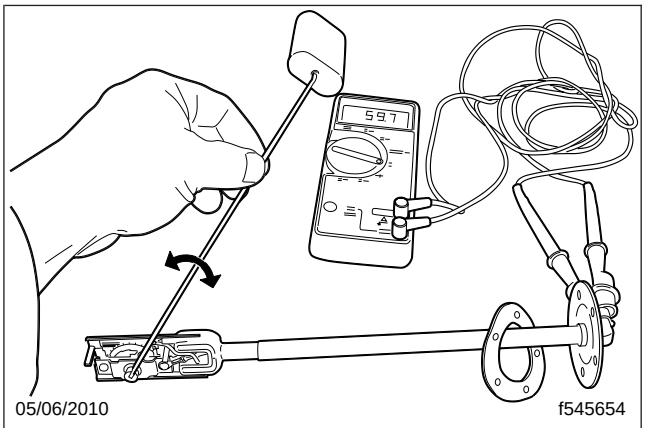


Fig. 1, Testing the Fuel Level Sending Unit

The instrumentation control unit model 3 (ICU3) has two pink connectors that plug into pins located in the center of the unit, on the back. Connector #1 has 24 cavities, numbered A1 through A12, and B1 through B12. Connector #2 has 32 cavities, numbered C1 through C16, and D1 through D16.

See **Fig. 1** for a schematic of the wiring and pinout connections for the ICU3.

To fully identify fault codes, see **Section 54.03, Specifications 400**, for a complete list of parameter identifiers (PIDs), sub-system identifiers (SIDs), and failure mode identifiers (FMIs).

Wire numbers for optional indicators depend on the option installed. The wire number given applies only to the option listed and will change if a different option is installed at that location. Optional indicator #9 is 12V power-activated; all other optional indicators are ground-activated.

NOTE: Do not use reserved pins for testing or programming.

ICU3 Connector #1 Pin Assignments, Pins A1 Through B12		
Number	**Description**	**Wire**
A1	Panel Lights	29A
A2	Reserved	—
A3	Low Air Pressure	18
A4	Transmission Temperature (optional; automatic transmission)	30G
A5	Air Restriction	183A
A6	Engine Fan On (Optional Indicator 2)	To GND*
A7	Do Not Shift (Optional Indicator 3)	To GND*
A8	ECAS Failure (Optional Indicator 4)	To GND*
A9	No Charge (optional)	137
A10	Reserved	—
A11	Reserved	—
A12	Headlights (high beams)	20H
B1	ECAS Transfer (Optional Indicator 5)	To GND*
B2	Reserved	—
B3	J1587 Datalink (–)	1587–C
B4	Reserved	—
B5	Reserved	—
B6	Reserved	—
B7	Reserved	—
B8	Low Washer Fluid (Optional Indicator 6)	320A
B9	Reserved	—
B10	J1587 Datalink (+)	1587+C
B11	Tractor ABS	376L
B12	Ground-Activated Buzzer (optional)	437Z

* Depends on option installed.

Table 1, ICU3 Connector #1 Pin Assignments, Pins A1 through B12

Specifications

ICU3 Connector #2 Pin Assignments, Pins C1 through D16		
Number	**Pin Assignment**	**Wire**
C1	EBS Warning (Optional Indicator 8)	To GND*
C2	Reserved	—
C3	Reserved	—
C4	Reserved	—
C5	Parking Brake	125
C6	Reserved	—
C7	Reserved	—
C8	Left Turn	38L
C9	Reserved	—
C10	Recirculated Air	98K
C11	Wheel Spin (optional indicator 7)	376S
C12	Transmission Fluid Temperature Gauge (–)	30G
C13	Transmission Fluid Temperature Gauge (+)	30
C14	Stop Engine—CUM only (optional indicator 1)	N16
C15	Check Engine	C799
		D419
		N25
C16	Engine Protection (optional; shutdown warning)	C659
		D509
		N01
D1	Fuel Level (+)	47
D2	Fuel Level (–)	47G
D3	Panel Light Ground	GND1
D4	Water In Fuel (Optional Indicator 9)	To Power*
D5	Reserved for J1939 Datalink (+)	1939+C
D6	Reserved	—
D7	Reserved	—
D8	Right Turn	38R
D9	Reserved for J1939 Datalink (–)	1939–C
D10	EMI Ground	GNDC
D11	Reserved for J1939 (shield)	1939
D12	Trailer ABS (optional; trailer only)	376F
D13	Printed Circuit (PC) Board Ground	GND1
D14	Battery Power	437
D15	Ignition Power	437A

ICU3 Connector #2 Pin Assignments, Pins C1 through D16		
Number	**Pin Assignment**	**Wire**
D16	Headlight Power (odometer illumination)	359

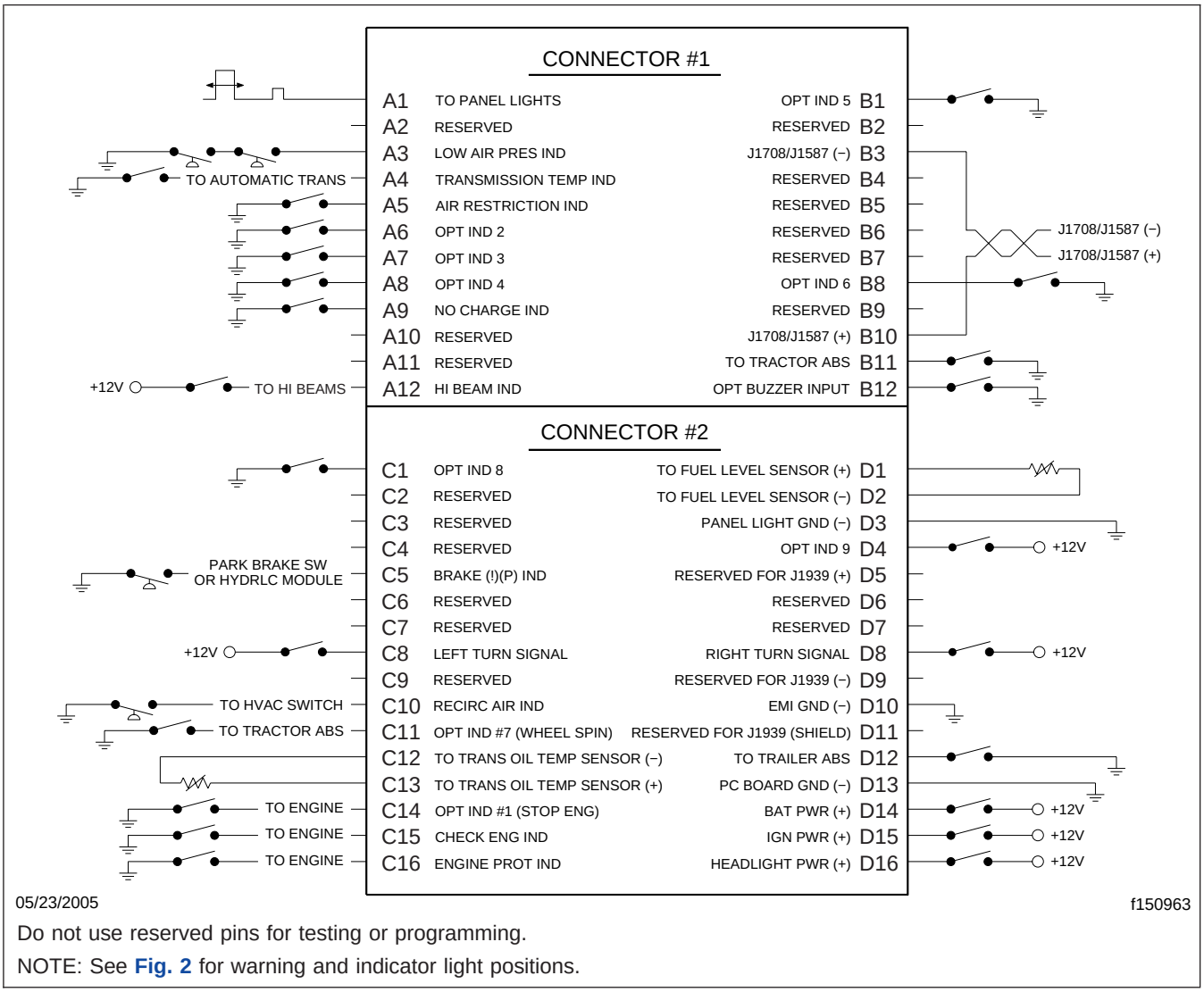
* Depends on option installed.

Table 2, ICU3 Connector #2 Pin Assignments, Pins C1 through D16

Message Identifiers (MIDs)		
MID	**Description**	**Text Message**
128	Engine Control Unit	ECU 128
136	Anti-Lock Brakes (ABS)	AbS 136
140	Instrumentation Control Unit	ICU 140
164	B-Panel Unit	bPU 164
181	Communications Unit—Satellite	SAT 181
190	Air Conditioning Protection Unit	APU 190
219	Collision Detection Radar	CdU 219
231	Communications Unit—Cellular	CEL 231
232	SPACE (Seat Belt Unit)	SbU 232

Table 3, Message Identifiers (MIDs)

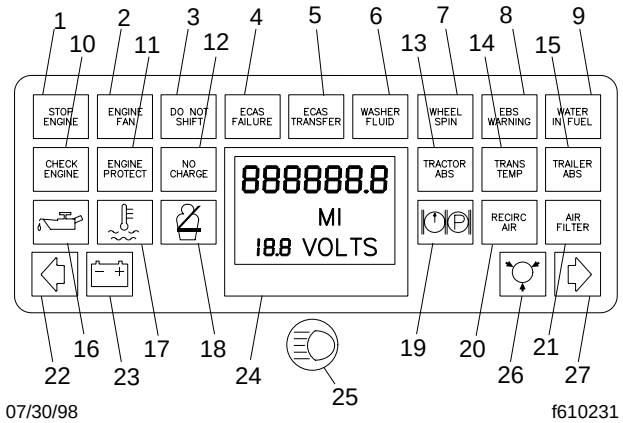
Specifications



Do not use reserved pins for testing or programming.

NOTE: See **Fig. 2** for warning and indicator light positions.

Fig. 1, ICU3 Pinouts



07/30/98 f610231

Typical installation shown. Location of legends installed in the top row may vary, and other legends may be specified.

1. Stop Engine Warning (Cummins engine only)
2. Engine Fan On Indicator (optional)
3. Do Not Shift Indicator (optional)
4. ECAS Failure Warning (optional)
5. ECAS Transfer Indicator (optional)
6. Low Washer Fluid Indicator (optional)
7. Wheel Spin Indicator (optional)
8. EBS Warning (optional)
9. Water In Fuel Indicator (optional)
10. Check Engine Indicator
11. Engine Protection Warning (optional)
12. Alternator No Charge Indicator (optional)
13. Tractor ABS Warning
14. Transmission Temperature Warning (optional)
15. Trailer ABS Warning (optional)
16. Low Engine Oil Pressure Warning
17. High Coolant Temperature Warning
18. Fasten Seat Belt Warning
19. Parking Brake On Warning
20. Recirculated Air Indicator
21. Air Restriction Indicator
22. Left Turn Signal
23. Low Battery Voltage Warning
24. Dash Driver Display Screen
25. High Beams On Indicator
26. Low Air Pressure Warning
27. Right Turn Signal

Fig. 2, Dash Message Center, ICU3

Mode/Reset Switch Functions

The mode/reset switch has two functions, push and hold. (1) To scroll between screens, push the switch in and release it. (2) To reset screen data, press the switch and hold it in for at least one second.

Use the following flow charts to cycle through the Mode/Reset switch functions and screens.

See **Fig. 1** for Mode/Reset Switch Start Sequence.

See **Fig. 2** for Mode/Reset Switch Trip Screens.

See **Fig. 3** for Mode/Reset Switch Engine Miles and Service Screens.

See **Fig. 4** for Mode/Reset Switch Fault Screens.

See **Fig. 5** for Mode/Reset Switch Service Screens.

See **Fig. 6** for Mode/Reset Switch Oil Level Screens.

See **Fig. 7** for Mode/Reset Switch Reset and Toggle Screens.

Service Interval Tables

For service interval miles look-up values, see **Table 1**.

For service interval hours look-up values, see **Table 2**.

Service Interval Distance Settings		
Number	**Miles**	**Kilometers**
1	1000	1610
2	1500	2415
3	2000	3220
4	2500	4025
5	3000	4830
6	3500	5635
7	4000	6440
8	4500	7245
9	5000	8050
10	5500	8855
11	6000	9660
12	6500	10465
13	7000	11270
14	7500	12075
15	8000	12880
16	8500	13685
17	9000	14490
18	9500	15295
19	10000	16100
20	11000	17710
21	12000	19320
22	13000	20930
23	14000	22540
24	15000	24150
25	16000	25760
26	17000	27370
27	18000	28980
28	19000	30590
29	20000	32200
30	21000	33810
31	22000	35420
32	23000	37030
33	24000	38640
34	25000	40250

Table 1, Service Interval Distance Settings

Service Interval Hours Settings	
Number	**Hours**
1	50
2	75
3	100
4	125
5	150
6	175
7	200
8	225
9	250
10	300
11	350
12	400
13	450

Mode/Reset Switch Functions

Service Interval Hours Settings	
Number	**Hours**
14	500
15	550
16	600
17	650
18	700
19	750
20	800
21	850
22	900
23	950
24	1000

Table 2, Service Interval Hours Settings

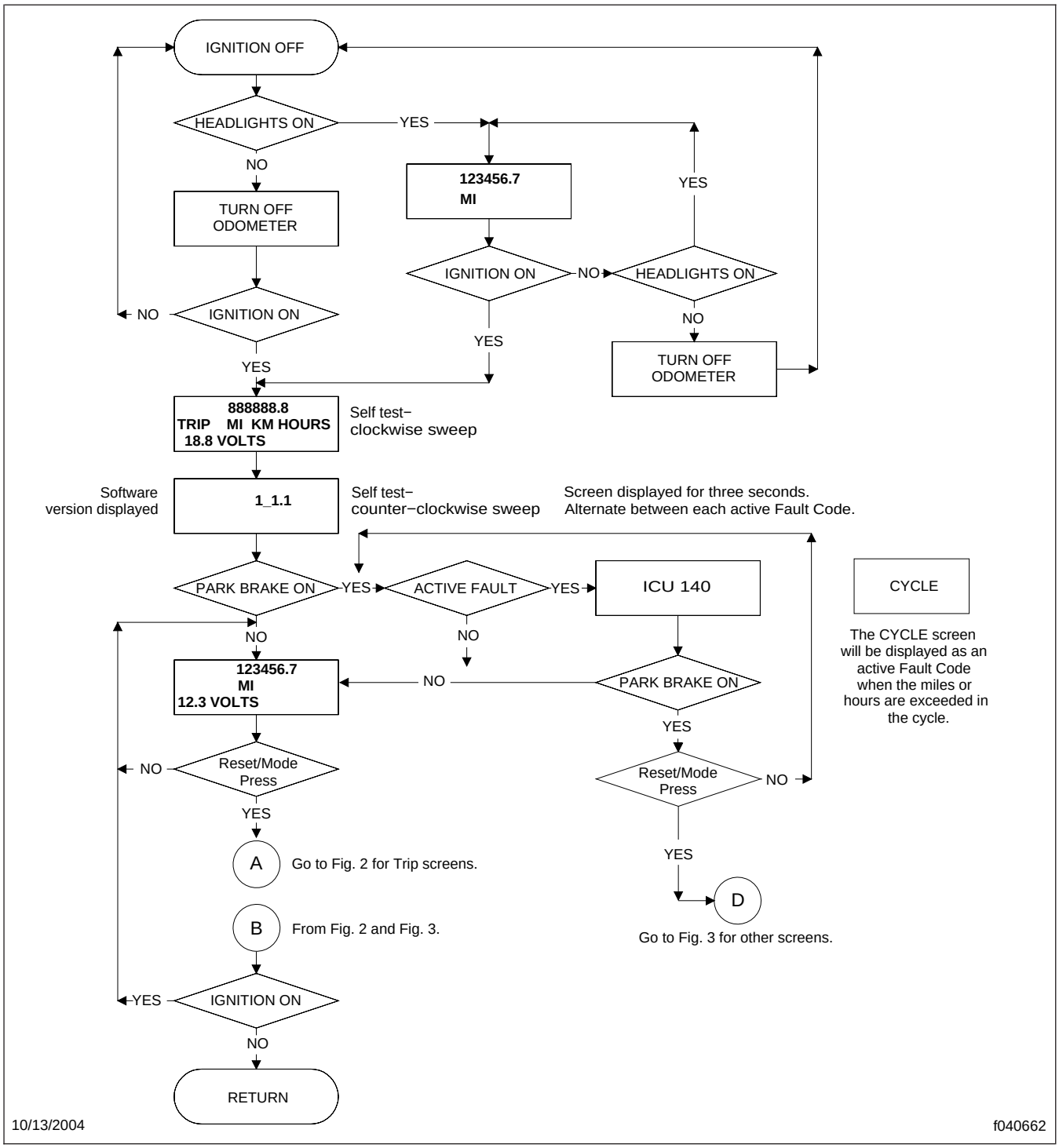


Fig. 1, Mode/Reset Switch Start Sequence

Mode/Reset Switch Functions

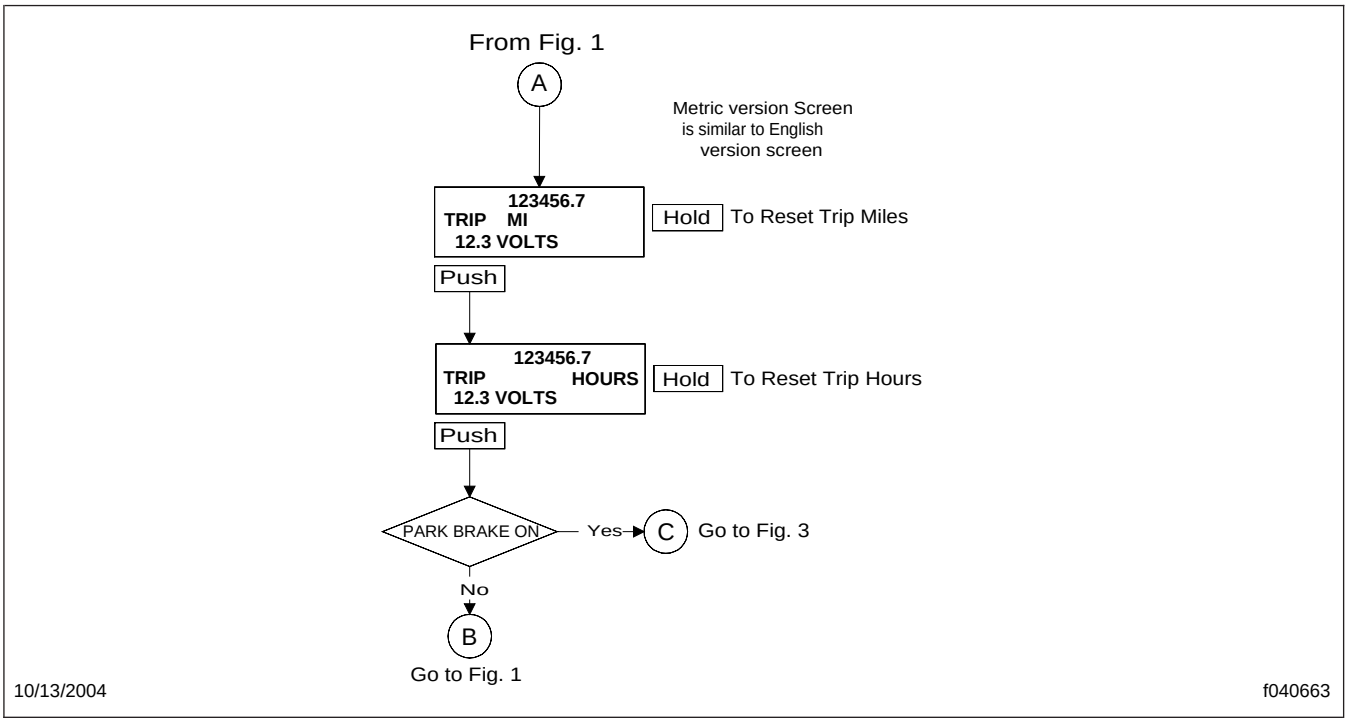


Fig. 2, Mode/Reset Switch Trip Screens

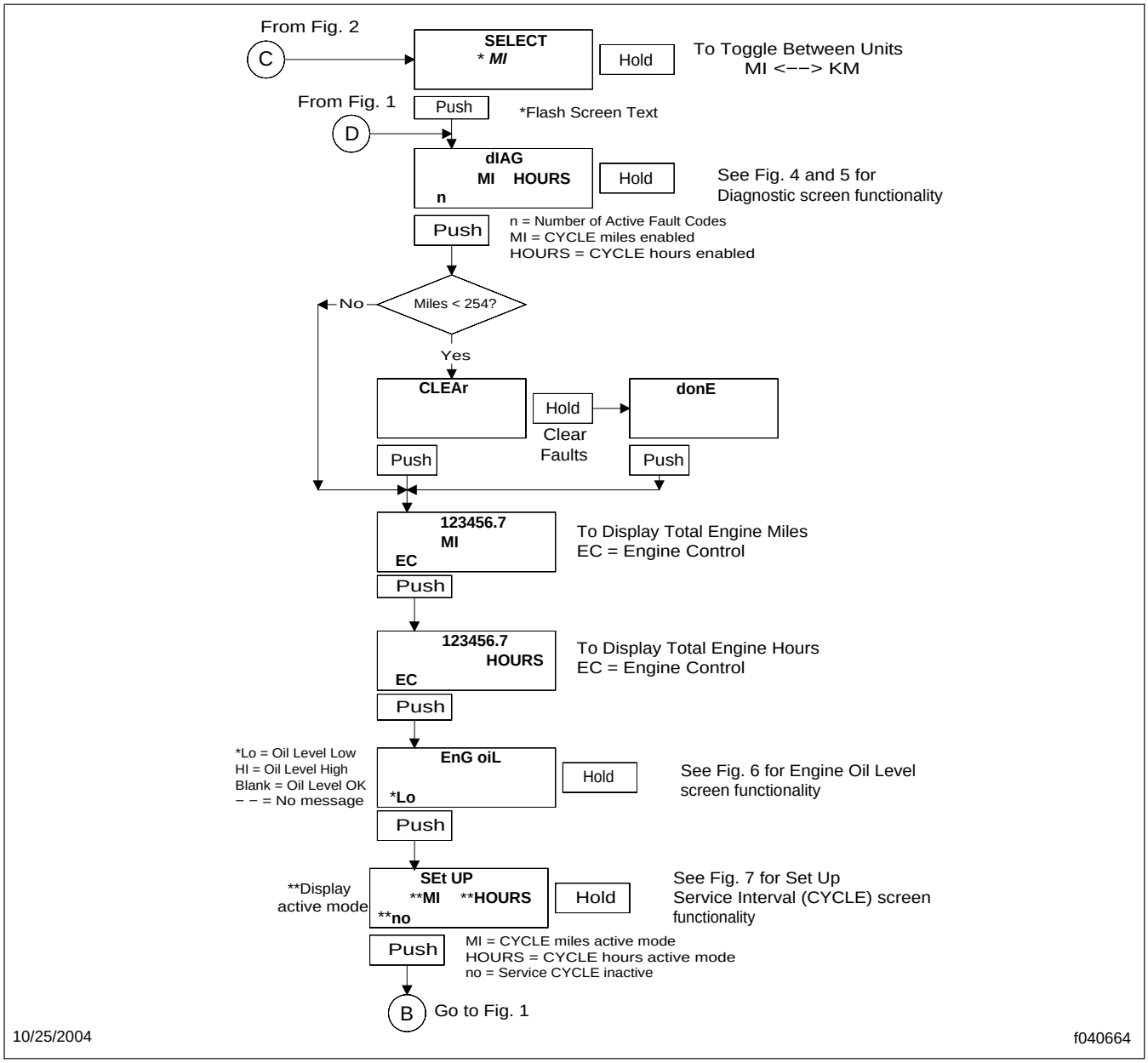


Fig. 3, Mode/Reset Switch Engine Miles and Service Screens

Mode/Reset Switch Functions

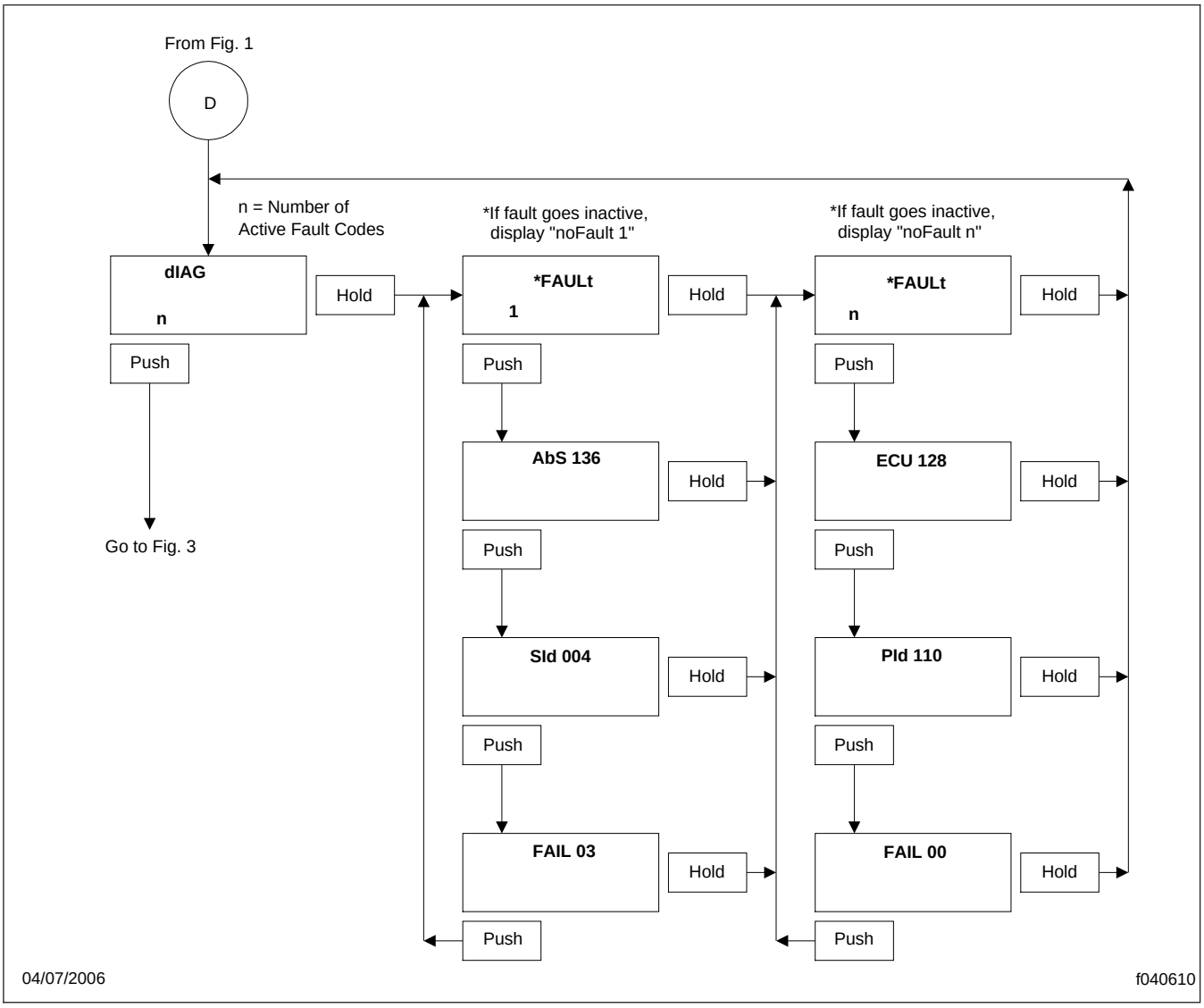


Fig. 4, Mode/Reset Switch Fault Screens

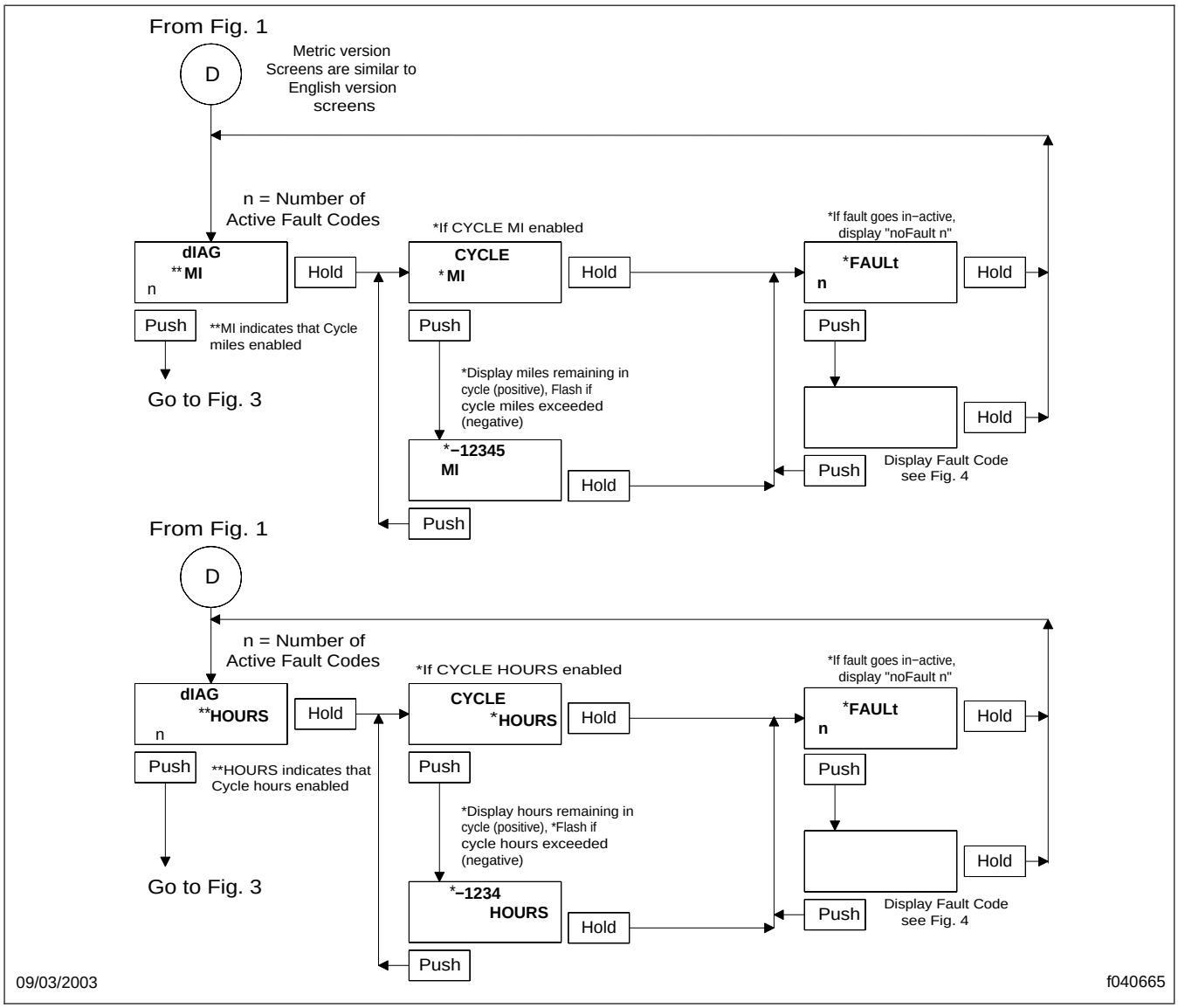


Fig. 5, Mode/Reset Switch Service Screens

Mode/Reset Switch Functions

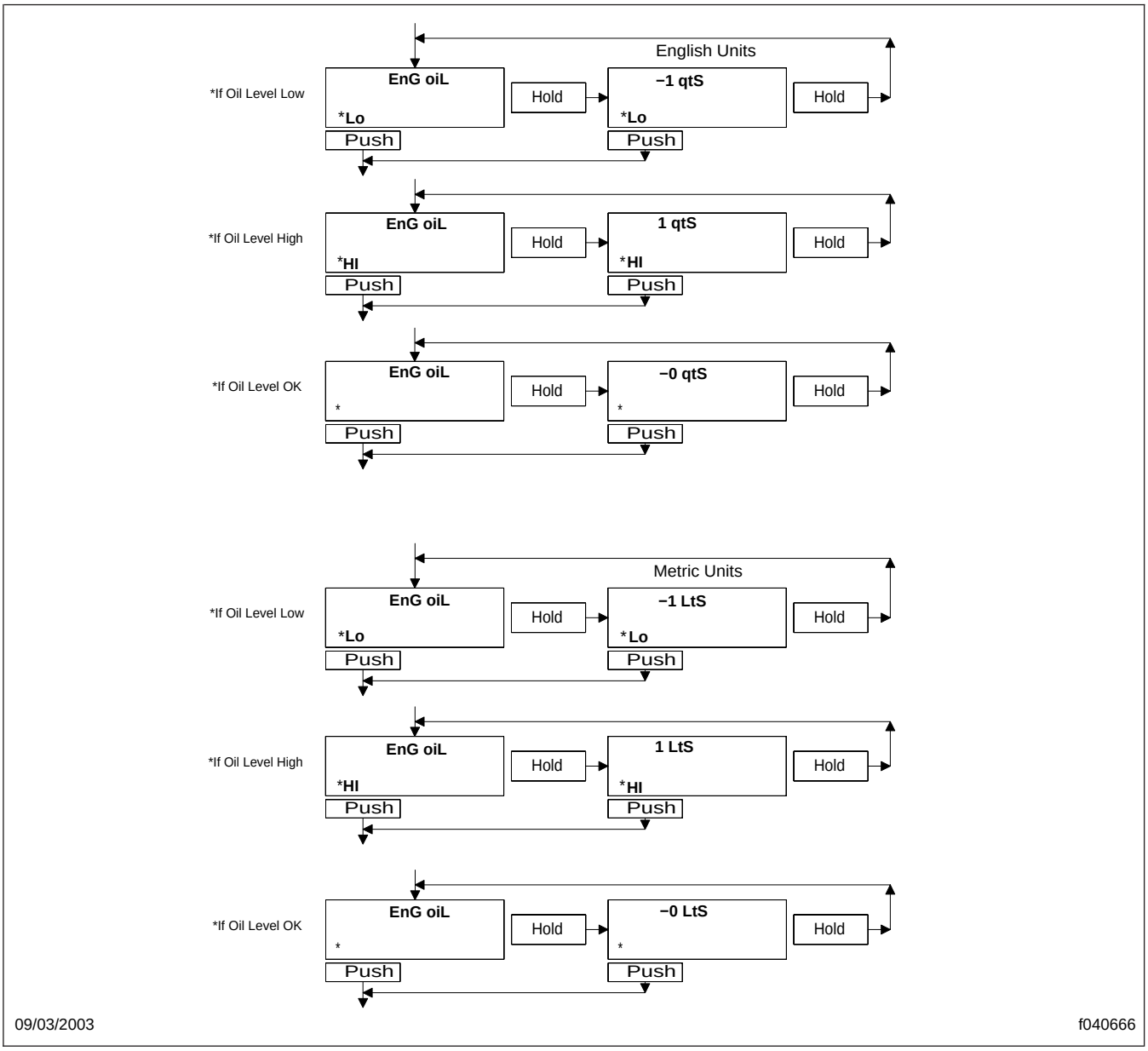


Fig. 6, Mode/Reset Switch Oil Level Screens

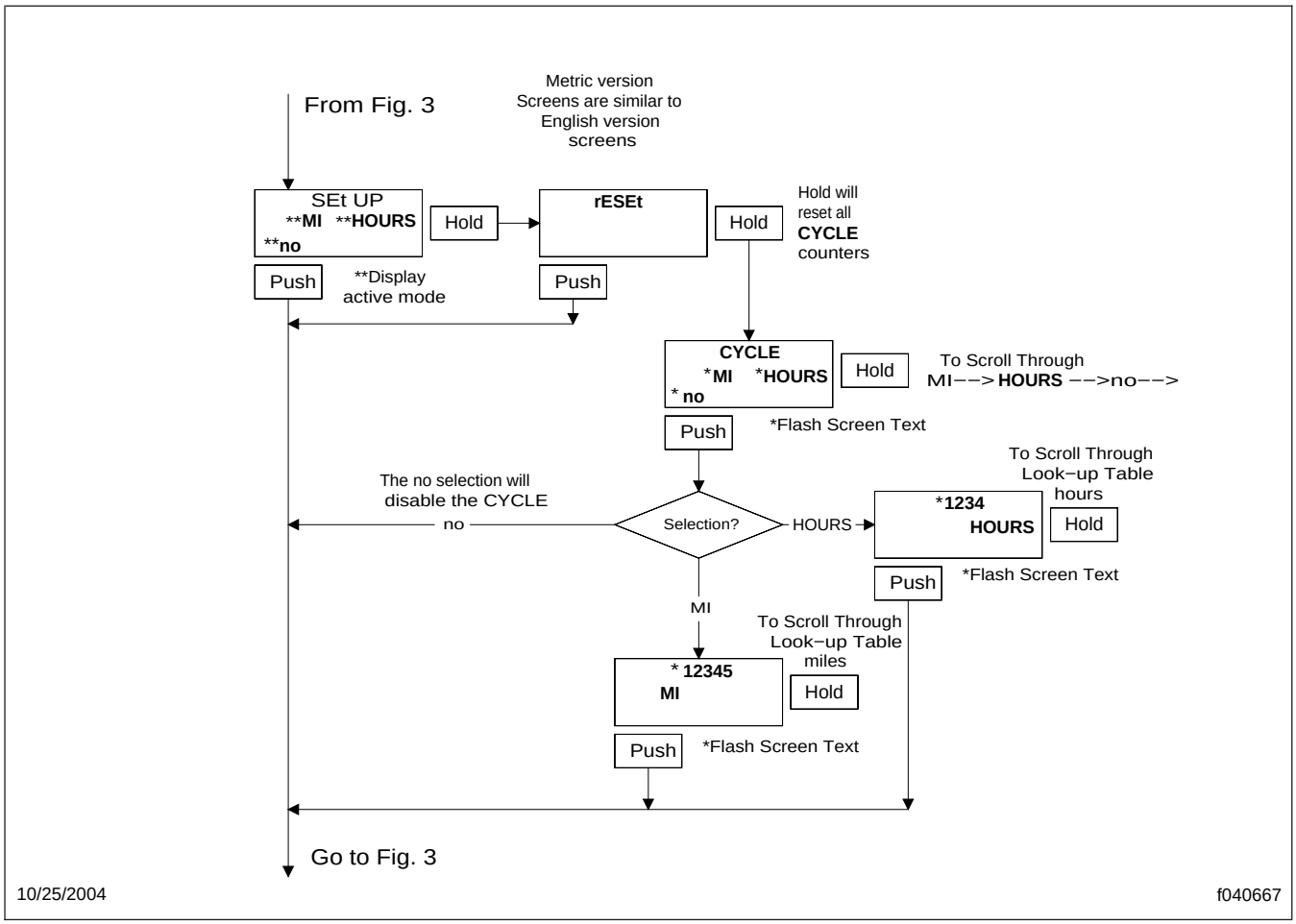


Fig. 7, Mode/Reset Switch Reset and Toggle Screens