

FLA COE
 FLB COE
 FLD Conventional
 Business Class
 FLC 112 Conventional

> Century Class Conventional
 > Argosy COE
 Cargo
 Columbia

122SD and Coronado
 Business Class M2
 Cascadia
 108SD/114SD

Description of Revisions: *This bulletin replaces the version dated May 2016. The module number for the ICU2M speedometer is revised in [Table 4](#).*

General Information

Production of the ICU2M instrumentation control unit has been discontinued. The ICU4M should be installed if the ICU2M needs replacement.

Several circuits need to be relocated before the ICU4M can be installed. Refer to the guidelines in this bulletin to relocate the circuits, then refer to the applicable workshop manual for instructions on removing and replacing the ICU. See [Table 1](#).

ICU Replacement Procedures		
Vehicle	Procedure	Section
Century Class	ICU2M Removal	Section 54.19, Subject 100
	ICU4M Installation	Section 54.25, Subject 100

Table 1, ICU Replacement Procedures

NOTE: None of the original ICU2M parts, except mounting screws, will be reused. All replacement part numbers should be supplied in the tables below.

ICU2M to ICU4M Conversion

1. Disconnect the batteries.

NOTE: The keypad for the ICU2M is not used on the ICU4M. The keypad will remain in place after the conversion, but will not be operational.

2. Remove the ICU2M. Refer to the applicable workshop manual for instructions.

NOTE: Refer to 23-13143 for a description of connectors used on the ICU2M.

3. Remove circuit 442B from cavity A2, and seal the circuit.
4. Remove circuit GND C from cavity D10, and seal the circuit.

NOTE: On the Argosy only, optional telltale 24-01347-009 must be moved to slot 5 of the new cluster.

5. Install the ICU4M. Refer to the applicable workshop manual for instructions.

NOTE: The top row of indicating lamps in the ICU are optional lens locations and must be replaced with new ones for the ICU4. Use ShopTech to refer to the engineering ICU warning lamp legend for ordering replacements. See [Table 2](#).

6. Connect the batteries.
7. Once installation is complete, test the ICU4M to ensure there are no errors in ServiceLink related to parts or parameters not matching the new ICU.
8. When the operation of the ICU4M is verified, add a global annotation in PartsPro per Parts Technical Bulletin 00-009.

Freightliner Service Bulletin

FLA COE
FLB COE
FLD Conventional
Business Class
FLC 112 Conventional

> Century Class Conventional
> Argosy COE
Cargo
Columbia

122SD and Coronado
Business Class M2
Cascadia
108SD/114SD

ICU Warning Lamp Legend	
ICU2	ICU4
24-00585	24-01347

Table 2, ICU Warning Lamp Legend

Parts

ICU2M to ICU4M Conversion						
ICU2M Parts				ICU4M Conversion Parts		
ICU2M (732)	English/Metric (810)	EPA (99C)	RSA (49B)	Light Bar	Top Trim	Gauge Panel*
A22-48313-019	MPH/KPH	PRE EPA2007	No	A22-61097-300	A18-49740-001	22-59420-xxx
A22-48313-019	KPH/MPH	PRE EPA2007	No	A22-61097-320	A18-49740-001	22-59420-xxx
A22-48313-019	KPH Only	PRE EPA2007	No	A22-61097-330	A18-49740-001	22-59420-xxx
A22-48313-019	MPH/KPH	PRE EPA2007	Yes	A22-61097-400	A18-49740-001	22-59420-xxx
A22-48313-019	KPH/MPH	PRE EPA2007	Yes	A22-61097-420	A18-49740-001	22-59420-xxx
A22-48313-019	KPH Only	PRE EPA2007	Yes	A22-61097-430	A18-49740-001	22-59420-xxx
A22-48313-019	MPH/KPH	EPA2007	No	A22-61097-100	A18-49740-001	22-59420-xxx
A22-48313-019	KPH/MPH	EPA2007	No	A22-61097-120	A18-49740-001	22-59420-xxx
A22-48313-019	KPH Only	EPA2007	No	A22-61097-130	A18-49740-001	22-59420-xxx
A22-48313-019	MPH/KPH	EPA2007	Yes	A22-61097-200	A18-49740-001	22-59420-xxx
A22-48313-019	KPH/MPH	EPA2007	Yes	A22-61097-220	A18-49740-001	22-59420-xxx
A22-48313-019	KPH Only	EPA2007	Yes	A22-61097-230	A18-49740-001	22-59420-xxx
A22-48313-020 or -022	MPH/KPH	PRE EPA2007	No	A22-61097-300	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	KPH/MPH	PRE EPA2007	No	A22-61097-320	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	KPH Only	PRE EPA2007	No	A22-61097-330	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	MPH/KPH	PRE EPA2007	Yes	A22-61097-400	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	KPH/MPH	PRE EPA2007	Yes	A22-61097-420	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	KPH Only	PRE EPA2007	Yes	A22-61097-430	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	MPH/KPH	EPA2007	No	A22-61097-100	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	KPH/MPH	EPA2007	No	A22-61097-120	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	KPH Only	EPA2007	No	A22-61097-130	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	MPH/KPH	EPA2007	Yes	A22-61097-200	A18-49740-000	22-59223-xxx
A22-48313-020 or -022	KPH/MPH	EPA2007	Yes	A22-61097-220	A18-49740-000	22-59223-xxx

FLA COE
 FLB COE
 FLD Conventional
 Business Class
 FLC 112 Conventional

> Century Class Conventional
 > Argosy COE
 Cargo
 Columbia

122SD and Coronado
 Business Class M2
 Cascadia
 108SD/114SD

**Freightliner
 Service Bulletin**

ICU2M to ICU4M Conversion						
ICU2M Parts				ICU4M Conversion Parts		
ICU2M (732)	English/Metric (810)	EPA (99C)	RSA (49B)	Light Bar	Top Trim	Gauge Panel*
A22-48313-020 or -022	KPH Only	EPA2007	Yes	A22-61097-230	A18-49740-000	22-59223-xxx
A22-48313-021	MPH/KPH	PRE EPA2007	No	A22-61097-330	A18-49741-000	22-59449-xxx
A22-48313-021	KPH/MPH	PRE EPA2007	No	A22-61097-330	A18-49741-000	22-60373-xxx
A22-48313-021	KPH Only	PRE EPA2007	No	A22-61097-330	A18-49741-000	22-63524-xxx
A22-48313-021	MPH/KPH	PRE EPA2007	Yes	A22-61097-430	A18-49741-000	22-59449-xxx
A22-48313-021	KPH/MPH	PRE EPA2007	Yes	A22-61097-430	A18-49741-000	22-60373-xxx
A22-48313-021	KPH Only	PRE EPA2007	Yes	A22-61097-430	A18-49741-000	22-63524-xxx
A22-48313-021	MPH/KPH	EPA2007	No	A22-61097-130	A18-49741-000	22-59449-xxx
A22-48313-021	KPH/MPH	EPA2007	No	A22-61097-130	A18-49741-000	22-60373-xxx
A22-48313-021	KPH Only	EPA2007	No	N/A	N/A	N/A
A22-48313-021	MPH/KPH	EPA2007	Yes	A22-61097-230	A18-49741-000	22-59449-xxx
A22-48313-021	KPH/MPH	EPA2007	Yes	A22-61097-230	A18-49741-000	22-60373-xxx
A22-48313-021	KPH Only	EPA2007	Yes	N/A	N/A	N/A

* Refer to "Parts Bulletin 54-053 - Driver's Instrument Panel" for information on ordering instrument panels with pre-punched gauge panels.

Table 3, ICU2M to ICU4M Conversion

NOTE: A mounting screw P/N 23-11345-707 is required to mount the panel to the top trim.

Feature Modifications

NOTE: A06-41592-007 is 7 inches (17 cm) long. If longer lengths are required use one of the following: A06-41592-020 = 20 inches (50cm) or A06-41592-094 = 94 inches (246 cm).

Speedometer Conversion				
ICU2M			ICU4M Conversion	
ICU2M (810)	Trim Ring	US/Metric	ICU4M	Jumper
22-46507-000	Black	MPH/KPH	A22-59203-001	A06-41592-007
22-46507-001	Black	KPH/MPH	A22-59203-021	A06-41592-007
22-46507-002	Black	KPH Only	A22-59203-031	A06-41592-007
22-46507-010	Chrome	MPH/KPH	A22-59203-101	A06-41592-007
22-46507-011	Chrome	KPH/MPH	A22-59203-121	A06-41592-007
22-46507-012	Chrome	KPH Only	A22-59203-131	A06-41592-007

Table 4, Speedometer Conversion

Tachometer Conversion			
ICU2M		ICU4M Conversion	
ICU2M (812)	Trim Ring	ICU4M	Jumper
22-46508-000	Black	A22-59204-001	A06-41592-007

Freightliner Service Bulletin

FLA COE
FLB COE
FLD Conventional
Business Class
FLC 112 Conventional

> Century Class Conventional
> Argosy COE
Cargo
Columbia

122SD and Coronado
Business Class M2
Cascadia
108SD/114SD

Tachometer Conversion			
ICU2M		ICU4M Conversion	
ICU2M (812)	Trim Ring	ICU4M	Jumper
22-46508-010	Chrome	A22-59204-101	A06-41592-007

Table 5, Tachometer Conversion

Voltmeter Conversion			
ICU2M		ICU4M Conversion	
ICU2M (836)	Trim Ring	ICU4M	Jumper
22-46509-000	Black	A22-59209-001	A06-41592-007
22-46509-010	Chrome	A22-59209-101	A06-41592-007

Table 6, Voltmeter Conversion

NOTE: The Air Pressure Gauges for the ICU2 were mechanical gauges. Refer to the note above regarding jumper lengths.

Air Pressure Gauge Conversion				
ICU2M			ICU4M Conversion	
ICU2M (838)	Trim Ring	US/Metric	ICU4M	Jumper
22-53813-000 or -100	Black	PSI	A22-59219-201	A06-41592-007
22-53813-001 or -101	Black	KPA	A22-59219-221	A06-41592-007
22-53813-010 or -110	Chrome	PSI	A22-59219-301	A06-41592-007
22-53813-011 or -111	Chrome	KPA	A22-59219-321	A06-41592-007

Table 7, Air Pressure Gauge Conversion

Primary and Secondary Air Gauges				
ICU2M			ICU4M Conversion	
Air Pressure ICU2 (840)	Trim Ring	English/Metric	Primary/Secondary	Air Pressure ICU4)
22-46511-000	Black	PSI	Primary	A22-59217-201
22-46511-001	Black	KPA	Primary	A22-59217-221
22-46511-010	Chrome	PSI	Primary	A22-59217-301
22-46511-011	Chrome	KPA	Primary	A22-59217-321
22-46512-000	Black	PSI	Secondary	A22-59218-201
22-46512-001	Black	KPA	Secondary	A22-59218-221
22-46512-010	Chrome	PSI	Secondary	A22-59218-301
22-46512-011	Chrome	KPA	Secondary	A22-59218-321

Table 8, Primary and Secondary Air Gauges

FLA COE
 FLB COE
 FLD Conventional
 Business Class
 FLC 112 Conventional

> Century Class Conventional
 > Argosy COE
 Cargo
 Columbia

122SD and Coronado
 Business Class M2
 Cascadia
 108SD/114SD

**Freightliner
 Service Bulletin**

Turbo Boost Gauge Conversion				
ICU2M			ICU4M Conversion	
ICU2M (842)	Trim Ring	US/Metric	ICU4M	Jumper
22-46513-000	Black	PSI	A22-59211-001	A06-41592-007
22-46513-001	Black	KPA	A22-59211-021	A06-41592-007
22-46513-010	Chrome	PSI	A22-59211-101	A06-41592-007
22-46513-011	Chrome	KPA	A22-59211-121	A06-41592-007

Table 9, Turbo Boost Gauge Conversion

Fuel Gauge Conversion			
ICU2M		ICU4M Conversion	
ICU2M (844)	Trim Ring	ICU4M	Jumper
22-46514-000	Black	A22-59207-001	A06-41592-007
22-46514-010	Chrome	A22-59207-101	A06-41592-007

Table 10, Fuel Gauge Conversion

Engine Oil Pressure Gauge Conversion				
ICU2M			ICU4M Conversion	
ICU2M (854)	Trim Ring	US/Metric	ICU4M (852)	Jumper
22-46516-000	Black	PSI	A22-59205-001	A06-41592-007
22-46516-001	Black	KPA	A22-59205-021	A06-41592-007
22-46516-010	Chrome	PSI	A22-59205-101	A06-41592-007
22-46516-011	Chrome	KPA	A22-59205-121	A06-41592-007

Table 11, Engine Oil Pressure Gauge Conversion

Engine Oil Temperature Gauge Conversion				
ICU2M			ICU4M Conversion	
ICU2M (854)	Trim Ring	US/Metric	ICU4M (854)	Jumper
22-46517-000	Black	F	A22-59210-001	A06-41592-007
22-46517-001	Black	C	A22-59210-021	A06-41592-007
22-46517-010	Chrome	F	A22-59210-101	A06-41592-007
22-46517-011	Chrome	C	A22-59210-121	A06-41592-007

Table 12, Engine Oil Temperature Gauge Conversion

Coolant Temperature Gauge Conversion				
ICU2M			ICU4M Conversion	
ICU2M (856)	Trim Ring	US/Metric	ICU4M (856)	Jumper
22-46518-000	Black	F	A22-59206-001	A06-41592-007
22-46518-001	Black	C	A22-59206-021	A06-41592-007
22-46518-010	Chrome	F	A22-59206-101	A06-41592-007
22-46518-011	Chrome	C	A22-59206-121	A06-41592-007

Table 13, Coolant Temperature Gauge Conversion

Freightliner Service Bulletin

FLA COE
FLB COE
FLD Conventional
Business Class
FLC 112 Conventional

> Century Class Conventional
> Argosy COE
Cargo
Columbia

122SD and Coronado
Business Class M2
Cascadia
108SD/114SD

Transmission Oil Temperature Gauge Conversion				
ICU2M			ICU4M Conversion	
ICU2M (864)	Trim Ring	US/Metric	ICU4M (864)	Jumper
22-46520-000	Black	F	A22-59212-001	A06-41592-007
22-46520-001	Black	C	A22-59212-021	A06-41592-007
22-46520-010	Chrome	F	A22-59212-101	A06-41592-007
22-46520-011	Chrome	C	A22-59212-121	A06-41592-007

Table 14, Transmission Oil Temperature Gauge Conversion

Axle Oil Temperature Gauge Conversion					
ICU2M				ICU4M Conversion	
ICU2M (866)	Trim Ring	US/Metric	Axle Rear	ICU4M (866)	Jumper
22-46521-000	Black	F	Forward	A22-59213-001	A06-41592-007
22-46521-001	Black	C	Forward	A22-59213-021	A06-41592-007
22-46521-010	Chrome	F	Forward	A22-59213-101	A06-41592-007
22-46521-011	Chrome	C	Forward	A22-59213-121	A06-41592-007
22-46522-000	Black	F	Rear	A22-59214-001	A06-41592-007
22-46522-001	Black	C	Rear	A22-59214-021	A06-41592-007
22-46521-010	Chrome	F	Rear	A22-59214-101	A06-41592-007
22-46521-011	Chrome	C	Rear	A22-59214-121	A06-41592-007

Table 15, Axle Oil Temperature Gauge Conversion

NOTE: Pre-EPA07 vehicles have TAMs (thermocouple amplifier modules) that are not compatible with the ICU4M, which uses a thermistor. Refer to the instructions in this bulletin for modifying the pyrometer on pre-EPA07 vehicles.

Pyrometer Conversion				
ICU2M			ICU4M Conversion	
ICU2M (858)	Trim Ring	US/Metric	ICU4M (858)	Jumper
22-46519-000	Black	F	A22-59215-001	A06-41592-007
22-46519-001	Black	C	A22-59215-021	A06-41592-007
22-46519-010	Chrome	F	A22-59215-101	A06-41592-007
22-46519-011	Chrome	C	A22-59215-121	A06-41592-007

Table 16, Pyrometer Conversion

Modifying the Pyrometer on Pre-EPA07 Vehicles

NOTE: Refer to D06-24539 and BOM 858-C00727 when performing this procedure.

1. Disconnect the batteries.
2. Unplug both connectors on the pyrometer amplifier.
3. Cut both sets of wires at the amplifier.
4. Working with the harnesses on a work bench, connect the red wire to the brown wire, and the pink wire to the yellow wire.

FLA COE
FLB COE
FLD Conventional
Business Class
FLC 112 Conventional

> Century Class Conventional
> Argosy COE
Cargo
Columbia

122SD and Coronado
Business Class M2
Cascadia
108SD/114SD

**Freightliner
Service Bulletin**

5. Install shrink tubing on the purple wire, and fold it back into the harness.
6. Remove the thermocouple from the exhaust, and install the new thermistor (p/n 06-53404-000).
7. Attach the spliced harness back on the vehicle.
8. Connect the batteries.
9. Check for proper gauge sweeping during the ignition sequence, and verify that there are no fault codes.

Warranty

This is an informational bulletin only. Warranty does not apply.