FLA COE FLB COE FLD Conventional > Business Class FLC 112 Conventional
> Century Class Conventional
> Argosy COE
Cargo

> Columbia Condor Coronado Business Class M2 Freightliner Service Bulletin

**Description of Revisions:** This bulletin replaces the version dated May 2000. The part numbers for the ICU3 Service Clusters in **Table 1** have been updated.

### **General Information**

To minimize vehicle downtime and assist field service technicians in quickly replacing ICU3 driver instrument clusters (Instrumentation Control Unit, Level I), Freightliner PDCs now stock a selection of ICU3 service clusters.

IMPORTANT: Since the ICU3 is designed on a per vehicle basis, the clusters in stock for immediate shipment may not exactly match the original, but should be better than or equal to the original cluster.

NOTE: An exact ICU3 replacement cluster can be ordered according to the original vehicle specifications. Since each ICU3 is custom-built, allow up to 10 working days for delivery.

This bulletin explains how to choose the correct replacement service cluster, describes service cluster configurations, explains how to replace the ICU3 cluster and its components, and summarizes the process. Read the entire document before beginning work.

## **Choosing the Correct Service Cluster**

Choose the correct service cluster based on these three criteria:

- 1. Vehicle type Choose either:
  - · Business Class or
  - Argosy/Columbia

Specifying the correct vehicle type ensures the service cluster will be shipped with the correct face lens and bezel. The service cluster must be shipped with a bezel to prevent the needles from falling out of calibration, which will void the warranty.

- 2. Transmission temperature gauge Choose either:
  - With the transmission temperature gauge (required on some vehicles with automatic transmissions) or
  - Without the transmission temperature gauge
- 3. Gauge face configuration Choose one of these three:
  - . U.S./Metric for the U.S. market
  - Metric/U.S. for Canada or Mexico
  - · Metric only for export

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For the correct ICU3 service cluster part number, based on the three choices, see Table 1.

ICU3 Service Cluster Part Numbers				
Vehicle type	Options	U.S. (U.S./Metric)	Canada & Mexico (Metric/U.S.)	Export (Metric only)
Business Class	With Transmission Temperature Gauge	VDO A2C53102205	VDO A2C53102207	VDO A2C53102206
	Without Transmission Temperature Gauge	VDO A2C53102202	VDO A2C53102204	VDO A2C53102203
	M-B Engine with Transmission Temperature Gauge	VDO 1 911 222 170S	VDO 1 911 222 194S	VDO 1 911 222 187S
	M-B Engine Without Transmission Temperature Gauge	VDO 1 911 222 149S	VDO 1 911 222 163S	VDO 1 911 222 156S
Argosy/Columbia	With Transmission Temperature Gauge	VDO A2C53102199	VDO A2C53102201	VDO A2C53102200
	Without Transmission Temperature Gauge	VDO A2C53102196	VDO A2C53102198	VDO A2C53102197
	M-B Engine With Transmission Temperature Gauge	VDO 1 911 222 424S	VDO 1 911 222 280S	VDO 1 911 222 431S
	M-B Engine Without Transmission Temperature Gauge	VDO 1 911 222 390S	VDO 1 911 222 417S	VDO 1 911 222 400S

Table 1, ICU3 Service Cluster Part Numbers

# **Service Cluster Configurations**

Service clusters are configured as follows:

- TACHOMETER All service clusters include a functional tachometer gauge even if it wasn't originally specified on the vehicle.
- RESET BUTTON All service clusters include the trip mileage reset button. The button will function on the service cluster even if the original cluster did not include this option.
- AIR PRESSURE GAUGES The only replaceable gauges on the ICU3 are the air pressure gauges. If any other gauge in the cluster fails, the cluster must be replaced.

All Argosy/Columbia service clusters come with air pressure gauges, since they are standard original equipment. Business Class service clusters **do not** come with air pressure gauges, since they are optional. When installing a service cluster in a Business Class vehicle, remove the air gauges from the old cluster or order new air gauges, then install them in the replacement cluster.

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TELLTALES — Each of the nine optional warning lights located in the top row at the center of the ICU3
consists of a lamp and a small plastic bezel with the warning message printed on it. The plastic bezel
covering the lamp is referred to as a "telltale" lens.

Though service clusters come with lamps in all warning light locations, only the warning lights wired for the original cluster will illuminate when the ICU3 service cluster is plugged in to the main cab harness. Bulbs for warning lights that are not used do not need to be removed from the cluster.

The service cluster does not include the top row telltales; these must be removed from the old cluster and placed in the same positions in the service cluster. This can be done without disassembling the ICU3. Using a pair of needlenose pliers or a similar tool, grab the exposed tab at the top of the telltale slot (from the back) and carefully pull the telltale out from the top of the ICU.

## Replacing the ICU3 Cluster and its Components

Use either the Business Class instructions or the Argosy/Century Class instructions that follow to replace the ICU3 and its components.

#### **Business Class**

See the *Business Class Trucks Service Manual*, **Section 54.17**, for complete information about the ICU3 (Instrumentation Control Unit, Level I).



Electronic components of the level I ICU (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 that could bring a tool or body part in contact with level I ICU circuitry.

Use the following work instructions to replace the ICU3 cluster:

1. Remove the old cluster from the dash. For instructions, see the *Business Class Trucks Service Manual*, **Section 54.17, Subject 100**.

NOTE: Step 2 applies to Business Class vehicles only; Argosy/Century service clusters include air pressure gauges.

- 2. Remove the air pressure gauges from the old cluster and install them in the service cluster. For instructions, see the *Business Class Trucks Service Manual*, **Section 54.17**, **Subject 110**.
- 3. Remove the telltales from the top row of the old cluster and install them in the same places in the service cluster. Using a pair of needlenose pliers or a similar tool, grab the exposed tab at the top of the telltale slot (from the back) and carefully pull the telltale out from the top of the ICU. Install telltales in the service cluster by sliding them into the appropriate slot of the service cluster from the top.
- 4. Install the service cluster into the dash. For instructions, see the *Business Class Trucks Service Manual*, **Section 54.17, Subject 100**.

### Argosy/Columbia

See the Century Class Trucks Workshop Manual, Section 54.20, for complete information about the ICU3 (Instrumentation Control Unit, Level I).

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Use the following work instructions to replace the ICU3 cluster:

1. Remove the old cluster from the dash. For instructions, see the *Century Class Trucks Workshop Manual*, **Section 54.20, Subject 100**.

NOTE: Air pressure gauges are included with Argosy/Columbia service clusters. It is not necessary to replace them.

- 2. Remove the telltales from the top row of the old cluster and install them in the same places in the service cluster. Using a pair of needlenose pliers or a similar tool, grab the exposed tab at the top of the telltale slot (from the back) and carefully pull the telltale out from the top of the ICU. Install telltales in the service cluster by sliding them into the appropriate slot of the service cluster from the top.
- 3. Install the service cluster into the dash. For instructions, see the *Century Class Trucks Workshop Manual*, **Section 54.20, Subject 100**.

## **Summary**

In summary:

- Use the part number information in Table 1 to order the correct ICU3 service cluster.
- If necessary, order replacement air pressure gauges, lamps, or telltales by their individual part numbers.
- · Remove the old ICU3 cluster.
- For Business Class vehicles only, carefully remove the air pressure gauges, if any, from the old cluster and install them in the new service cluster.
- Remove telltale lenses from the old cluster and install them in the new service cluster.
- Install the replacement service cluster.

#### **Parts**

Parts are available through the PDCs.

## Warranty

This is an informational bulletin only; warranty does not apply.