

Title: Factory Installed Air Conditioning, EC4.0 System BE, CE, FE, RE Bus Models

Applies To: BE, CE, FE, RE Bus Models any Air Conditioning feature with the 4.0 in description BE and CE only – 48ADC EC4.0

# **Change Log**

Please refer to the change log text box below for recent changes to this article:

05/05/2020 - Adding diagnostic info on compressor, updating Transair location, charging info distinction, addressing feedback, updating feature codes	^
11/13/2018 - Added 48CXE to feature list 08/02/2016 - Corrected Formatting and Layout.	
04/24/2015 - Added link for system specs and capacity's per article feedback	$\checkmark$

# **Description**

This article includes the operating instructions and the service manual for the Trans/Air EC4.0 air conditioning system.

Units built with factory installed air conditioning will have an option code for the air conditioning system installed in the components section in ISIS. (Sample shown below) Verify the operating system ordered on the unit prior to utilizing the appropriate iKNow article for service information, note this article is for features with 4.0 in the description.

Sample Feature Codes		
	Description	

Feature Code				
0048USZ	AIR CONDITIONER, BODY IC Air, 96,000 BTU, Evaporator, Condenser & Compressor, With Rear Flush Mounted Evaporator and EC2.5 Control System			
0048AAS	AIR CONDITIONER, BODY IC Air, 120,000 BUT, Evaporator, Condenser & Comrpessor, With EC3.0 Control System			
0048CWK	AIR CONDITIONER, DASH IC Air, 40,000 BTU, Stand-Alone Dash Air Evaporator, SMC2S Condenser & Compressor, and EC4.0 Control System			
0048ADC	AIR CONDITIONER, DASH IC Air, With Heat, Evaporator, with EC4.0 Control System, with 60K & 120K Body Systems			
0048GTK	STAND-ALONE AC DASH IC W/EC4.0 SYS IC Air, 40,000 BTU, Stand-Alone Dash Air Evaporator, Radiator Mounted Condenser & 10CID Compressor in Primary Drive Location, EC4.0 Control System			

# **Operating Instructions**



## **BASIC OPERATION**

With the vehicle running, press the <u>MODE</u> button to turn EC4.0 system on. The A/C indicator will light up indicating system is in A/C mode. Fan speed indicator 1 will light up indicating the fan speed is Low. Thermostat will also turn on automatically. LED display shows cabin air temperature.

## Select mode of operation (Heat / Defog Optional)

Press the <u>MODE</u> button to change the operation mode between A/C, Defog or Heat.

### Change fan speed

Press the FAN button to change the fan speed between Low, Medium, and High.

### Change set point temperature

The thermostat LCD display shows cabin air temperature during normal operation. Press <u>UP</u> or <u>DOWN</u> arrow once for set point mode. The set point temperature and a flashing decimal point will be displayed on the LED in set point mode. Press the <u>UP</u> or <u>DOWN</u> arrow again to adjust the set point to the desired value. After 5 seconds, EC4.0 will switch back to normal operating mode displaying cabin temperature. The new set point then becomes effective.

The default set point temperature is 70°F. This setting is stored in EC4.0s non-volatile memory. It takes effect every time the system turns on. To change the default set point temperature setting, go into the setting mode and adjust the set point to the desired value, then press the <u>UP</u> and <u>DOWN</u> arrow **simultaneously**. The new set point value will be stored into the non-volatile memory and become the default set point.

### Turn system off

Press the <u>MODE</u> button until all the mode indicators turn off. The fan speed indicators and the thermostat LCD display will turn off consequently.

#### Fan Only mode operation

Press the <u>FAN</u> button while the EC4.0 system is off. The A/C system will be running in Fan Only mode. (Only evaporator blowers run, compressor and condenser remain off.) Press the <u>FAN</u> button to set the fan to desired speed (Low, Medium or High). In Fan Only mode, the thermostat LCD still shows the cabin air temperature. To turn Fan Only mode off, keep pressing the <u>FAN</u> button until all the fan speed indicators turn off.

# **Troubleshooting**

Fault Code	Fault Code Description			
НР	High pressure fault			
LP	Low pressure fault			
Lu	Low clutch voltage/blown fuse			
Sr	Maintenance required			
System Indicator				
li Return air temperature above 90°F				
Lo Return air temperature below 60°F				
Sr	1500 Hr Service Reminder			

No service required when the thermostat LCD shows "Hi" or "Lo".

Turn the system off and then turn it back on to reset the "Sr" code. Service is required if "Sr" code cannot be reset.

#### Compressor

For issues such as those listed below, see exact details on the Valeo website (<u>http://www.valeocompressors.com/</u>) and look at their troubleshooting section

• oil contamination (change in color, metal filings, ect.)

- leaking
- not cooling
- noise
- smoke

Valeo website also contains service procedures for the magnetic clutch, cylinder heads, seals, ect..

If replacing the compressor, the discharge line <u>must</u> be flushed with <u>non</u>-solvent based flushing agents. Also, the Filter Drier <u>must</u> be replaced.

# **Service Manuals**

### EC4.0 Sercive Manual

### Click here for the charging system specs and capacity's

Note: The charging system info located on the electrical access door for each bus, as shown below, <u>does not</u> contain the amount of oil that was originally contained in the compressor/s, so when replacing the lubricant take that into consideration calculating total lubricant required. Check the label on the compressor for its lubricant info.



# **Technical Support**

Trans/Air Manufacturing Website (800) 673-2446

Please refer to the Trans/Air website for the following:

- Manuals
- Maintenance & Troubleshooting, see below for location



- System Performance
- Electrical Diagrams

Please refer to Valeo website for support on compressors http://www.valeocompressors.com/

Related iKNow Articles				
<u>IK2200001</u>	BUS BODY	Bus Air Conditioning Service Contacts for HVAC Information		
IK2200090 BUS BODY Factory Installed Air Conditioning, EC3.0 System				
<u>IK2200089</u>	BUS BODY	Factory Installed Air Conditioning, EC2.5 System		

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