

PARAMETERS

To view the parameter list, first enter the Diagnostic Mode. While in the diagnostic mode, press an UP or DOWN arrow key to switch the display to the Parameter Display. With the first Parameter displayed, press the DOWN arrow key to scroll through the list from first to last or press the UP arrow to scroll from the last to first.

When scrolling through the parameters, the current parameter will display for 2 seconds. After 2 seconds, the display will show the data for that parameter.

CODE	DESCRIPTION
P1	RETURN AIR TEMPERATURE
P2	COIL TEMPERATURE
P3	AMBIENT TEMPERATURE
P4	SUCTION LINE TEMPERATURE
P5	SUCTION PRESSURE
P6	DISCHARGE PRESSURE
P7	SUPERHEAT
P8	ANALOG SET POINT TEMPERATURE
P9	A/C CONTROL WINDOW #1/ DEFAULT 1 °F
P10	A/C CONTROL WINDOW #2/ DEFAULT 1 °F
P11	A/C CONTROL WINDOW #3/ DEFAULT 1 °F
P12	HEAT CONTROL WINDOW/ 2 DEGREE HEAT & 4 DEGREE REHEAT
P13	COMPRESSOR SAFETY OFF DELAY
P14	FAN TIME DELAY/SECONDS
P15	UNLOADER/HEAT VALVE DELAY/ SECONDS
P16	HIGH PRESSURE SWITCH - OPEN / CLOSED
P17	CONDENSER FAN SPEED SWITCH
P18	MAXIMUM TEMPERATURE SETPOINT
P19	MINIMUM TEMPERATURE SETPOINT
P20	COMPRESSOR HOURS/ HIGH
P21	COMPRESSOR HOURS / LOW
P22	EVAPORATOR HOURS / HIGH
P23	EVAPORATOR HOURS / LOW
P24	MAINTENANCE 1 HOURS / HIGH
P25	MAINTENANCE 1 HOURS / LOW
P26	MAINTENANCE 2 HOURS / HIGH
P27	MAINTENANCE 2 HOURS / LOW
P28	FREEZE ALARM SETTING
P29	RELAY MODULE VOLTAGE
P30	MAIN BOARD SOFTWARE VERSION
P31	DISPLAY SOFTWARE VERSION
P32	KI - NOT USED
P33	Kp - NOT USED
P34	HEAT SETPOINT OFFSET
P35	DEFAULT DISPLAY TEMPERATURE
P40	ENABLE HIDDEN ALARM
P41	FRESH AIR DAMPER
P42	DEFROST OPERATION

For further description on parameters, consult the Operation and Service manual for the unit.

TEST MODE

To enter the test mode, first enter the Diagnostic Mode. Press the COOL button 5 times to switch the display to the Test Screen (if the COOL button is unavailable, use the FRESH AIR button). "100" will be displayed, this indicates the controller is in the Test Mode and all relays are de-energized. Press the DOWN arrow key to bring the Micromate to the next test screen and energize the corresponding component(s). Press the UP arrow key to move backwards through the list.

TEST	DESCRIPTION
T00	ALL RELAYS DE-ENERGIZED
T01	EVAPORATOR FANS ON HIGH SPEED
T02	EVAPORATOR FANS ON LOW SPEED
T03	CONDENSER FANS ON HIGH SPEED
T04	CONDENSER FANS ON LOW SPEED
T05	ENERGIZE CLUTCH AND LLS
T06	ENERGIZE UNLOADER VALVE 1
T07	ENERGIZE UNLOADER VALVE 2
T08	ENERGIZE FRESH AIR DAMPER
T09	ENERGIZE HEAT VALVE
T10	ENERGIZE FAULT LIGHT
T11	ENERGIZE BOOST PUMP
T12	SPARE, MOTOR FAULT OR FLOOR BLOWER CIRCUIT

For Technical Support, call 1-800-450-2211

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TRANSPORT AIR CONDITIONING

CARRIER MICROMATE DIAGNOSTIC TOOL

ERROR CODES

A Self Test is performed by the Micromate Logic Board each time the board is powered up. Errors, if any, will be indicated and the unit will not be allowed to start.

The error codes will be shown on the display with the code "ER-#", where "ER" is the error prefix and "#" is the error number.

CAUTION: Do not under any circumstances attempt to service the microprocessor. Should a problem develop with the microprocessor, replace it.

ERROR	DESCRIPTION
ER1	LOGIC BOARD DATA MEMORY FAILURE
ER2	LOGIC BOARD PROGRAM MEMORY FAILURE
ER3	A/D AND MULTIPLEXER FAILURE
ER4	FAILURE IN COMMUNICATIONS BETWEEN THE LOGIC BOARD AND MICROMATE
ER5	DISPLAY PROGRAM MEMORY FAILURE

DIAGNOSTIC MODE

To use the Micromate as a diagnostic tool, it is first placed in the Diagnostic Mode. In the Diagnostic Mode, Alarms and parameters may be read and the electrical system test may be performed. To place the Micromate in the Diagnostic Mode, press the UP and DOWN arrow keys simultaneously for 3 seconds. The Micromate will blank for 1 second and enter the alarm screen. If no key is pressed for 30 seconds, the mode is exited and the display will revert back to the default display. Pressing the ON/OFF key once at any time will exit this mode to the default display.

ALARM CODES

The Micromate Logic Board continuously monitors system parameters and will generate an alarm if a parameter exceeds preset limits.

In the alarm read screen, the Micromate display will indicate alarms with the code A-## or I-## where "A" is an active alarm prefix, "I" is an inactive alarm prefix and "##" is the alarm number. If no alarms are present, the display will show "- - -" To view the alarm codes, enter the Diagnostic Mode.

If multiple alarms are present the user can scroll through each alarm by pressing the AUTO key. When the end of the alarm list is reached the display will show "- - -".

The evaporator hours reading at the point an alarm is generated will also be recorded. To view the hour reading, press the AUTO key while the alarm number is visible on the display. The reading is presented as two sets of three numbers up to 999,999. The first push of the AUTO key will display the thousands, and the next push will display hundreds, tens, and ones.

The alarm queue will hold up to 10 alarms. When the alarm queue is full, it will generate an "A-99" alarm, indicating that the queue is full.

If the AUTO key is held down for 5 seconds while "- - -" is displayed, all inactive alarms are cleared. Active alarms will not clear until the out of specification condition is corrected.

ALARM	DESCRIPTION
A11	COIL FREEZE
A12	HIGH VOLTAGE
A13	LOW VOLTAGE
A14	RETURN AIR PROBE FAILURE
A15	SUCTION TRANSDUCER FAILURE
A16	DISCHARGE TRANSDUCER FAILURE
A17	LOW PRESSURE SHUTDOWN
A21	HIGH DISCHARGE PRESSURE
A22	BREAKER TRIP ALARM OR FAILED RELAY
A23	EVAPORATOR FAN OVERLOAD OPEN
A24	CONDENSER FAN OVERLOAD OPEN
A25	MOTOR FAILURE (BRUSHLESS)
A26	NOT USED
A31	MAINTENANCE ALARM 1
A32	MAINTENANCE ALARM 2
A33	LOW PRESSURE WARNING
A34	HIGH PRESSURE WARNING
A99	ALARM QUEUE FULL

For further information on the Micromate Diagnostic Service Tool, consult the Operation and Service manual for your particular unit.