Advanced program capabilities.

Internal Display Terminal (IDT)

Multiple communication interface options:
- LonWorks®
- BACnet™ Ethernet
- BACnet™ MS/TP
- Modbus®

Precise temperature and humidity control.
Desert Aire Dehumidification Equipment
Standard Limited Warranty

Desert Aire warrants the dehumidifying unit to be free from defects in materials and workmanship subject to the terms, conditions and limitations stated herein.

TERMS
Desert Aire warrants all components (except as noted) for a period of two (2) years from the date of shipment. This warranty shall be limited to the supply of new or rebuilt parts for the part which has failed because of defects in workmanship or material, and does not include the cost for labor, transportation or other costs not herein provided for. Replaced parts are warranted only for the remaining portion of the original warranty period.

CONDITIONS
The warranty is subject to the following conditions:

1. The unit must be properly installed and maintained in accordance with the Desert Aire “Installation and Operation Manual” provided with each unit and/or other documentation provided.
2. The Start-Up Report must be completed and returned to Desert Aire Service for evaluation. If no deficiencies are identified a Warranty Validation Letter will be issued that provides all warranty dates and coverage. If installation or start-up deficiencies are present, these must be corrected and communicated to Desert Aire in order to activate warranty.
3. This warranty shall not apply to any part that has been tampered with, or has been subject to misuse, negligence or accident. A warranty can be obtained for altered equipment but only with written consent from Desert Aire.
4. The following parts and components are excluded from the warranty: belts, filters, driers, fuses and refrigerant.
5. Refrigerant coils or other components that corrode due to improperly balanced pool chemistry or corrosive air quality will not be warranted.
6. All replacements or repairs will be FOB Germantown, WI.
7. This warranty shall be null and void if defects or damages result from unauthorized opening of the refrigerant circuit, tampering with factory set controls, or operating outside the original design conditions.
8. Desert Aire shall not be liable for labor costs incurred in diagnosing the problem, or the removal or replacement of the part or parts being repaired.
9. Desert Aire must preauthorize all warranty coverage described herein.
**Extended Warranty:**
Your Desert Aire unit may have extended warranties beyond this Standard Limited Warranty document. Extended warranties are only available at the time of the purchase of the original equipment. These extended warranties are covered under a separate document and their terms and conditions are separate from this document. It is mentioned in this document for informational purposes only. Any Extended Warranties will be identified on the Warranty Validation Letter.

Any and all incidental or consequential damages are expressly excluded from this warranty. Some states do not allow the exclusion of incidental or consequential damages for personal injury, so the above limitations may not apply to you for certain damages. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. No person or representative is authorized to make any warranty or assume any liability not strictly in accordance with the aforementioned.

Inquiries regarding warranty matters should be addressed to:

Desert Aire Corp  
c/o Service Manager  
N120 W18485 Freistadt Road  
Germantown, WI 53022  
PH: (262) 946-7400  
TOLL FREE: (800) 443-5276  
FAX: (262) 946-7401  
E-MAIL: service@desert-aire.com

Additional copies of this manual can be purchased for a nominal fee from Desert Aire. Desert Aire also posts the most current revision of our I/O Manuals on our website. For a digital copy of the I/O Manual for your unit revision, please submit request to the contact information listed above.
Product Warning for the State of California

⚠️ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
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1. **Installation**

1.1. **Humidity and Temperature Control Package**

Your Desert Aire CM3540 controller is designed for precise monitoring and control of air temperature and relative humidity (RH) within a conditioned environment.

This CM3540 control system is easy to install and operate. It features a display mounted on the controller face which allows you to view and adjust set points and modes of operation. It also indicates the operating status of major components inside of the dehumidifier.

Most sensors and inputs have been factory-installed and wired inside of the dehumidifier. An additional sensor, included in the control assembly, needs to be mounted in the return air duct or the zone to be conditioned. This device senses the conditioned zone air temperature and relative humidity to control the LW dehumidifier. For BMS Points Lists please send inquiry to service@desert-aire.com and include your model number, serial number and BMS protocol.

1.2. **Sensor Installation**

1.2.1. **Duct-Mount Temperature and Relative Humidity Sensor**

The duct-mount return air temperature and relative humidity sensor is used to select the operational modes of the dehumidifier and provide consistent conditions throughout the space.

Install the duct-mount sensor in the return air duct of the dehumidifier. **CAUTION:** Do not mount the sensor in a section of duct where false readings may occur due to stratification, solar heat gain, thermal losses in winter or where water is likely to drip on it.

**Note:** If the sensor is installed outdoors, it must be mounted within a weatherproof enclosure.

Install using 24-16 AWG stranded wire; 18 AWG stranded wire recommended. Do not run sensor wiring adjacent to, OR in the same conduit as, wires carrying more than 24 VAC. See manufacturer’s specifications for more details.

1.2.2. **Zone-Mount Temperature and Relative Humidity Sensor**

In cases where a return duct is not used, a zone temperature and relative humidity sensor is used to select the operational modes of the dehumidifier and provide consistent conditions in the zone.
Install the zone-mount sensor in an area representative of the zone conditions, shielded from any abnormal external heat or humidity sources. **CAUTION:** Do not mount the sensor in any area where false readings may occur due to stratification, solar heat gain, thermal losses or influenced by supply air diffusers. Install using 24-16 AWG stranded wire; 18 AWG stranded wire is recommended. Do not run sensor wiring adjacent to, OR in the same conduit as, wires carrying more than 24 VAC. See manufacturer’s specifications for more details.
2. LW Controller Details

2.1. Menu Overview and General Instructions (Figures 1 and 2)
Your Desert Aire CM3540 Controller is pre-programmed and configured at the factory for use in the application specified. The internal display (IDT – Figure 1) allows the operator to monitor the operation and adjust the set points of your Desert Aire LW dehumidifier. The IDT has an LCD screen and six keys. The keys from left to right are:

- ALARM Key
- PROGRAM (Prg) Key
- ESCAPE (Esc) Key
- DOWN Key
- UP Key
- ENTER Key

The Home Screen displaying the Desert Aire logo (Figure 2) can show three items. The current Zone Relative Humidity and Temperature will always be shown on the bottom two lines of this screen. Also, if the unit is in an alarm mode, ALARM will be flashing on the top line of this screen. The “LW” in the upper right of the screen indicates the product series of the program installed in the controller. Below this line, “Esc → Menu” indicates that if the Esc key is pressed, the Main Menu will be displayed. Pressing Esc on any other screen will take you back one screen.
Menu screens allow the user to select from a series of actions. The action that is capitalized on the screen is selected by pressing the ENTER key. To cycle through the selections on a menu screen, use the UP and DOWN keys.

If set points or selections can be altered on a screen, the ENTER key will cycle through those items. Once the cursor is over an item, the UP and DOWN arrow keys will modify the setting. Numeric values require that the ENTER key be pressed to accept the value. An “on” or “off” selection will be altered as soon as the UP or DOWN keys are pressed.

To view the alarms from any menu, simply press the ALARM key. The UP and DOWN keys will display any active alarm. When an alarm is triggered, the top line of the display will flash “ALARM” and continues flashing until the alarm is acknowledged. Alarm acknowledgement and history instructions are shown on the main Alarm Screen. To escape from the alarm screens, press the Esc key until the Home Screen is displayed.

Screens which display a small up arrow in the upper right and a small down arrow in the lower right are part of a series of screens which can be accessed by pressing either the UP or DOWN arrow keys. If the operator has not pressed a key for an hour, the terminal display will return to the Home Screen.

2.2. Main Menu (Figure 3)
Pressing the Esc key from the Home Screen displays the MAIN MENU. This menu allows the operator to select the STATUS MENU, Unit Set points, Occupancy Menu, Service Menu or Unit Revision.

To return to the HOME SCREEN, press the Esc key.
2.2.1. Status Menu (Figure 4)

Selecting the STATUS MENU from the MAIN MENU allows access to the Unit Status, I/O Status or the Pressure Cut-outs screen.

To return to the MAIN MENU, press the Esc key.

2.2.1.1 Unit Status (Figure 5)

Selecting Unit Status from the STATUS MENU displays a text explanation of the unit.

If a remote condenser is available, the screen displays “RC Available.” If no remote condenser is available, the screen displays “RC Unavailable.” The occupied state is listed either as “Occupied” or “Un-Occupied.” The Unit Status will show one of the following states:

- Unit Off/Satisfied
- Heating Required
- Cooling Required
• Dehumidifying
• Dehum / Heat
• Dehum / Cool

The Compressor “On” or “Off” status will be shown. If “Timing” is shown on the compressor line of the display, this indicates the compressor is required, but is being held off until the compressor protection timer times out. Since the unit can be commanded OFF from the BMS communication card, the last line indicates this command state. The current date and time will also be shown.

To return to the Unit Status Menu, press the Esc key.

Figure 5

2.2.1.2 I/O Status (Figure 6)
Selecting the I/O Status from the STATUS MENU displays Digital Inputs, Analog Inputs, Digital Outputs and Analog Outputs.

To return to the Unit Status Menu, press the Esc key.

Figure 6
2.2.1.2.1 Digital Inputs (Figure 7)

The Digital Inputs Screen shows the state of the contacts wired into ports J2 and J12 of the controller. This screen is provided for troubleshooting the control system.

- Occupied: “On” if this contact is made, and “Off” if this contact is open.
- System On/Off: “On” allowing the system to run, and “Off” to shutdown the system.
- Blower O/L: “On” if no overload exists, and “Off” if the blower motor has overloaded.
- Comp O/L: “On” if the overload exists, and “Off” if the compressor motor has overloaded.

**Note:** Refer to the CM3540 electrical schematics for point identification.

To return to the I/O STATUS, press the Esc key.

![Digital Inputs Screen](image)

2.2.1.2.2 Analog Inputs (Figure 8)

The Analog Inputs Screen shows the state of the contacts wired into ports J2 of the controller. This screen is provided for troubleshooting the control system. The Analog Inputs Screen shows the current readings of the Zone Relative Humidity, Zone Temperature, Return Air Temperature, Suction Line Temperature, Suction Pressure and Discharge Pressure.

To return to the I/O STATUS, press the Esc key.
### 2.2.1.2.3 Digital Outputs (Figure 9)

The Digital Outputs Screen shows the state of the devices wired into ports J3, J10 and J11 of the controller. This screen is provided for troubleshooting the control system.

- Reheat Sol: Turns on the remote condenser solenoid for reheat.
- Heating: Turns on any auxiliary heat for the space.
- Compressor: Turns on the compressor.
- Supply Blwr: Turns on the supply air blower.
- Defrost Sol: Turns on the defrost solenoid.
- Liquid Sol: Turns on the liquid solenoid.
- Occupancy: Turns on the occupancy relays.

**Note:** Refer to the CM3540 electrical schematic for point identification.
2.2.1.2.4 Analog Outputs (Figure 10)

The Analog Outputs Screen shows the position of the devices wired into port J9 of the controller. This screen is provided for troubleshooting the control system.

- 1 Unused Output
- 2 Mod Heat: Modulating air heat output displayed from 0-100%

To return to the I/O STATUS, press the Esc key.

![Figure 10](image1)

2.2.1.3 Pressure Cut-outs (Figure 11)

The Pressure Cutouts Screen displays the refrigerant high discharge pressure and low suction pressure cut-out values for both refrigerant circuits. These pressure settings are factory-set and cannot be changed by the operator.

To return to the STATUS MENU, press the Esc key.

![Figure 11](image2)
2.2.2. Unit Setpoints (Figure 12)
Selecting the Set points from the MAIN MENU will display the Zone Set points screen. The Zone Temperature and Zone R.H. allow the zone condition set points to be modified. To modify these set points, press the ENTER key until the desired set point is selected and use the arrow keys until the desired setting is shown. The range of the Zone Temperature Setpoint is 32.0° to 99.9°F. The range of the Zone Humidity Setpoint is 0.0% RH to 99.9% RH. Press the ENTER key to accept the set point value. This screen also displays the actual conditions from the zone sensor in the conditioned space.

To return to the MAIN MENU, press the Esc key.

2.2.3. Occupancy Menu (Figure 13)
Select the SCHEDULE SETUP from the MAIN MENU to show the OCCUPANCY SCHEDULE MENU. From this menu you can access and adjust the Schedule Options, Temporary Holidays, Annual Holidays, Temporary Occupancy and Time settings.

To return to the MAIN MENU, press the Esc key.
2.2.3.1 Schedule Options (Figure 14)

This screen allows you to set the number of active occupancy schedules. Setting at least one active schedule allows the occupancy schedule timing to be set from the Current Schedule Screen. If the number of active schedules is left at zero, no occupancy scheduling will be active.

To return to the OCCUPANCY MENU, press the Esc key.

![Figure 14](image)

2.2.3.1.1 Current Schedule (Figure 15)

The bottom of this screen allows you to set the occupancy timing for the selected Day Of Week (DOW).

- Select the schedule to modify the Start and Stop Times. This is the time span that the unit will be in occupied mode. All times are set in the 24-hour format.
- As the DOW is selected, the UP and DOWN keys allow for Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday and any holiday to be occupied during that time.
- Up to 10 schedules can be active at any time. These allow for different start and stop times on various days of the week, weekends or programmed holidays.

To return to the OCCUPANCY MENU, press the Esc key.
2.2.3.2 Temporary Holidays (Figure 16)

The Temporary Holiday settings are for holidays that change dates from year to year, such as Memorial Day or Thanksgiving. Up to 10 different temporary holidays can be set from this screen. Select the number to assign to the Annual Holiday and then select the Start Date and the End Date for that holiday.

To return to the OCCUPANCY MENU, press the Esc key.

2.2.3.3 Annual Holidays (Figure 17)

The Annual Holiday settings are for holidays with dates that remain constant year to year, such as New Years Day and the 4th of July. Up to 10 different annual holidays can be set from this screen. Select the number to assign to the Annual Holiday and then select the Start Date and the End Date for that holiday.

To return to the OCCUPANCY MENU, press the Esc key.
2.2.3.4 Temporary Occupancy (Figure 18)

This screen allows the unit to be set to the occupied mode for a preset amount of time.

- Press the ENTER key and enter the number of hours you would like the unit to be temporarily in the occupied mode.
- Press the ENTER key again and enter the number of minutes you would like the unit to be temporarily in the occupied mode.
- Press the ENTER key again and the cursor will begin blinking over the “Press Prg to set” message. Pressing the Prg key will override the schedule and allow the unit to be temporarily occupied. The screen will now show “Override On”.
- To clear this occupied override, set the hours and minutes to zero and press the Prg key. This screen will now show “Override Off”.

To return to the OCCUPANCY MENU, press the Esc key.
2.2.3.5 Set Time (Figure 19)
This screen sets the time, date and day of week.

- To modify these settings, press the ENTER key until the cursor is over the appropriate item and use the arrow keys until the desired setting is shown. All times are set in the 24-hour format.
- Pressing the ENTER key will step to the next item. If any item was modified, the message “Enter to Set” will be shown.
- Press the ENTER key to accept the time and date values.

To return to the OCCUPANCY MENU, press the Esc key.

2.2.4 Service Menu (Figure 20 and 21)
Selecting the SERVICE MENU will display the Login Screen (Figure 20). Enter the service password, 1234, and press the ENTER key.
The SERVICE MENU gives access to the Deadbands, Differentials, Sensor Offsets, Air Heat Settings and Condenser Settings (Figure 21).

![SERVICE MENU](image)

Figure 21

To return to the MAIN MENU, press the **Esc** key. The user remains logged in for 10 minutes after the password is entered. During this time, the Login screen reads “Still Logged In, Press Prg to Enter”. Within this 10 minute log-in, the service menu may be re-entered by simply pressing the **Prg** key.

### 2.2.4.1 Deadbands (Figure 22)

The DEADBANDS selection from the SERVICE MENU allows access to the Cooling and Heating Deadbands (DBs). The Cooling DB is added to the zone set point to determine when the unit will require cooling. The Heating DB is subtracted from the zone set point to determine when heating is required. Using the settings shown in Figures 12 and 22, cooling will be required when the zone temperature is above 70°F + 2°F, or 72°F, and heating will be required when the zone temperature is below 70°F - 2°F, or 68°F. This sets a 4°F deadband when the zone temperature is between 68° and 72°F. Within this deadband, the cooling and heating requirements are satisfied. The range of the Cooling DB is 0.0°F to 9.9°F. The range of the Heating DB is 0.0°F to 9.9°F. Refer to the differential screen to set the cooling and heating switch differentials.

To return to the SERVICE MENU, press the **Esc** key.
2.2.4.2 Differentials (Figure 23)

The Differentials selection from the SERVICE MENU allows you to modify the Cooling, Heating and Humidity Differentials. These differential settings are defined as the difference between the actuation and de-actuation point of the associated variable. Using the settings shown in Figures 12, 22 and 23 of this manual, cooling will be required when the zone temperature is above 72°F. The compressor, however, will activate when the zone temperature is 1°F above that, 73°F, and deactivate below 72°F. The range of the Cooling and Heating Differential is 0.0°F to 9.9°F. The range of the Humidity Differential is 0.0% RH to 9.9% RH. To modify these set points, press the ENTER key and use the arrow keys until the desired setting is shown. Press the ENTER key again to accept the set point value.

To return to the SERVICE MENU, press the Esc key.
2.2.4.3 Sensor Offsets (Figure 24)

The Sensor Offsets screen allows you to adjust the control values of the analog input points if calibration shows these devices to be inaccurate. The range of these offsets is -99.9 to 99.9. Use care when applying an offset to an analog value as erratic operation can result. To modify the offsets, press the ENTER key until the desired offset is selected and use the arrow keys until the desired setting is shown. Press the ENTER key again to accept the offset value.

To return to the SERVICE MENU, press the Esc key.

Figure 24

2.2.4.4 Air Heat Settings (Figure 25)

Selecting the Air Heat Settings displays the Air Heat Settings screen. This screen allows the Air Heat PID Gain (or Proportional Band), Reset (or Integral) and the Rate (or Derivative) to be modified for loop tuning. The range of the Gain is 0.0° to 999.9°F. The range of the Reset is 0 to 999. The range of the Rate is 0 to 999. To modify these set points, press the ENTER key and use the arrow keys until the desired setting is shown. Pressing the ENTER key will now change the set point. The set point, actual zone temperature and the output of the control settings are displayed at the bottom of this screen for reference.

To return to the SERVICE MENU, press the Esc key.
2.2.4.5 Condenser Settings (Figure 26 to 28)

Selecting the Condenser Settings displays the condenser settings for the cooling mode. If the unit has no provisions for a cooling condenser, the Condenser Settings screen will appear as Figure 26. In this case, the compressor will only be allowed to run if dehumidification is required and cooling is not required. To allow the compressor to run whenever dehumidification is required, press the ENTER key, select “No” and modify this setting to “Yes”. Please note that in this case, overheating the space may occur or cause safety devices to trip. If this occurs, contact Desert Aire’s Service Department at (262) 946-7400.

In this case where the dehumidifier has provisions for a remote condenser but the condenser is not yet connected, the Condenser Settings will appear as Figure 27.
After the remote condenser has been attached and is ready for use, select the “not available” setting and modify this to “available”. The Condenser Settings screen will now appear as Figure 28 and any waste heat will be sent to the remote condenser.

To return to the SERVICE MENU, press the Esc key.

2.2.5 Unit Revision (Figure 29)
The Unit Revision Screen (Figure 29) shows the version of the application program that is running along with the release date of the software. This information should be passed to the Desert Aire Service Department in the event that a service call is necessary.
To return to the MAIN MENU, press the **Esc** key.
3. **Alarms**

All alarms in the CM3540 control system are Manual Reset. Manual Reset Alarms are alarms that stop the unit and do not restart until the alarm is acknowledged and the alarm condition is reset manually on the alarm screen. The red Alarm LED will stay illuminated until the alarm is acknowledged AND the alarm condition is reset.

3.1. **Alarm Menu**

3.1.1. **Alarm Screen (Figure 30)**

The ALARM MENU can be accessed anytime by pressing the ALARM button. The main Alarm Screen includes instructions for viewing and resetting alarms, as well as a means to access the Alarm History Screen. Pressing the ENTER button while viewing this alarm screen or the active alarm screen will reset the alarm if it has returned to its safe state. Any active alarm, shown in Figure 30, can be viewed by pressing the DOWN key from this page. If no active alarms are shown, no alarms are active. To view the Alarm History Screen, press the ALARM button.

To return to the home screen, press the Esc button.

![Alarm Screen](image)

Figure 30

3.1.2. **Low Suction Pressure (Figure 31)**

The Low Suction Pressure Alarm will only be activated when the Suction Pressure falls below the Low Suction Pressure Cut-out Set point for over 5 minutes. In this state, the unit will stop and not restart until the unit is reset manually. This condition would only occur on a loss of refrigerant in a circuit or an extremely low operating temperature. The red ALARM LED on the display will stay lit until the alarm is reset.
3.1.3. **High Discharge Pressure**

The High Discharge Pressure Alarm is activated when the Discharge Pressure rises above the High Pressure Cut-out Set point. The unit will stop and not restart until the alarm condition is reset manually. The red ALARM LED on the display will stay lit until the alarm is reset.

3.1.4. **Compressor Overload**

The Compressor Overload Alarm is activated when an overload for a compressor opens. The unit will stop and not restart until the alarm condition is reset manually. The red ALARM LED on the display will stay lit until the alarm is reset.

3.1.5. **Blower Overload**

The Blower Overload Alarm is activated when an overload for the blower opens. The unit will stop and not restart until the alarm condition is reset manually. The red ALARM LED on the display will stay lit until the alarm is reset.

3.1.6. **Alarm History Screen (Figure 32)**

The Alarm History Screen is accessible from the Alarm Screen by pressing the ALARM key. This screen lists a history of alarm conditions by time and date which have existed on the LW system. The most recent alarm will be displayed as 001 along with the Zone Air Temperature, Zone Relative Humidity, Suction Line Temperature, Suction Pressure, Discharge Pressure and the unit’s Status when the alarm occurred. Following is a list of codes that can appear for the unit Status.

- 0 – Unit is off or the zone is satisfied
- 1 – Heating is required
- 2 – Cooling is required
- 3 – Dehumidification is required
- 4 – Dehumidification and heat is required
- 5 – Dehumidification and cooling is required
To access the history of alarms, press the **DOWN** key. The last 100 alarm conditions are saved in this history with the 101st being overwritten.

Figure 32
4. **Hardware Details**

4.1. **Programmable Controller**
The programmable controller is pre-programmed by Desert Aire for the control of your unit. The Desert Aire replacement part number for this controller is available by calling our service department.

4.2. **Suction Pressure Transducer**
The Suction Pressure Transducer is a 0.5 - 4.5 VDC to 0 - 250 psig ratiometric device. The body is brass with a ¼” SAE female refrigerant connection. A schrader core is installed in the ¼” access fitting. This allows the transducer to be removed without losing the refrigerant charge. This transducer must be supplied with 4.5 to 5.5 VDC power. A display reading of 0.0 psig for the transducer indicates the device is disconnected or defective. For this device to function, 5.0 VDC must be present from the black to green wires on the transducer. To verify the output of the transducer, measure the DC voltage (should read between 0.5 to 4.5 VDC) from the white to green wires on the transducer and use this voltage in the following formula to determine the pressure (0-250 psig).

\[
\text{Pressure (psig)} = (62.5)*(V) - 31.25
\]

Example, if \( V = 2.50 \) VDC, then;

\[
\begin{align*}
\text{Pressure (psig)} &= (62.5)*(2.50) - 31.25 \\
&= 156.25 - 31.25 \\
&= 125 \text{ psig}
\end{align*}
\]

The Desert Aire replacement part number for the Suction Pressure Transducer is available by calling our service department at (262) 946-7400.

4.3. **Discharge Pressure Transducer**
The Discharge Pressure Transducer is a 0.5 - 4.5 VDC to 0 - 652 psig ratiometric device. The body is brass with a ¼” SAE female refrigerant connection. A schrader core is installed in the ¼” access fitting. This allows the transducer to be removed without losing the refrigerant charge. This transducer must be supplied with 4.5 to 5.5 VDC power. A display reading of 0.0 psig for the transducer indicates the device is disconnected or defective. For this device to function, 5.0 VDC must be present from the black to green wires on the transducer. To verify the output of the transducer, measure the DC voltage (should read between 0.5 to 4.5 VDC) from the white to green wires on the transducer and use this voltage in the following formula to determine the pressure (0-652 psig).
Pressure (psig) = (163)*(V) – 81.5

Example, if V = 2.50 VDC, then;

Pressure (psig) = (163)*(2.50) – 81.5
= 407.5 – 81.5
= 326 psig

The Desert Aire replacement part number for the Discharge Pressure Transducer is available by calling our service department at (262) 946-7400.

4.4. **Defrost and Ambient Temperature Sensor**

These Temperature Sensors are resistive NTC Bulb type devices with 10-foot cables. The temperature range is -58.0° to 212.0° F and the environmental rating is IP67. The failure mode of this device will display a reading of -623.3° F if the sensor is open, and display a reading of 687.3° F if the sensor is shorted. The Desert Aire replacement part number for the Temperature Sensor is available by calling our service department.

4.5. **Zone Air Temperature / Relative Humidity Sensor**

**CAUTION:** Do not mount the sensor in any area where false readings may occur due to stratification, solar heat gain, thermal losses or influenced by supply air diffusers. Install using 24-16 AWG stranded wire; 18 AWG stranded wire is recommended. Do not run sensor wiring adjacent to, OR in the same conduit as, wires carrying more than 24 VAC. See manufacturer’s specifications for more details.
5. Appendix

File downloads for BMS connectability are available on Desert Aire’s website at www.desert-aire.com.