

5. Compressor contactor closes its contacts L1, L2 and L3 to T1, T2 and T3 to provide power to the compressor motor COMP 1; COMP 2, if conditions are correct. In addition, contactor C1 closes its contact L3 to T3, energizing the condenser fan motor.



WARNING

BURN HAZARD!
DO NOT TOUCH! DISCHARGE LINE MAY BE HOT!

6. Check that each compressor is operating correctly. The scroll compressors in these units **MUST** operate in the proper rotation. To ensure the compressors are operating in the correct direction, check the compressor discharge line pressure or temperature after each compressor is started. The discharge pressure and discharge line temperature should increase. If this does not occur and the compressor is producing an exceptional amount of noise, perform the following checks.
 - Ensure all compressors are operating in the proper direction. If a single motor is operating backwards, check the power wiring for that motor and correct any leads that have been interchanged at the contactor or at the motor.
7. With all safety devices closed, the system will continue cooling operation until the thermostat is satisfied.
8. Disconnecting the jumper wire between R and Y1 and Y2 and between R and G on TB1 terminal block will simulate a satisfied thermostat. The compressors will cycle off and IIC (pin 12) will initiate its time delay cycle. The compressor and the supply fan will cycle off.
9. After a time delay of approximately 3 minutes, the compressor control circuits will be ready to respond to a subsequent call for cooling from the wall thermostat.
10. Open disconnect switch. Reconnect the field thermostat wire at terminal R on terminal block TB1.

COMPRESSOR DISCHARGE TEMPERATURE SWITCH (CDTS) (USED ON 20 TON & 25 TON UNIT ONLY)

Compressor Discharge Temperature Switch (CDTS) is a thermostatic switch located on the discharge line which turns off the compressor if the temperature of hot gas is 275°F or greater.

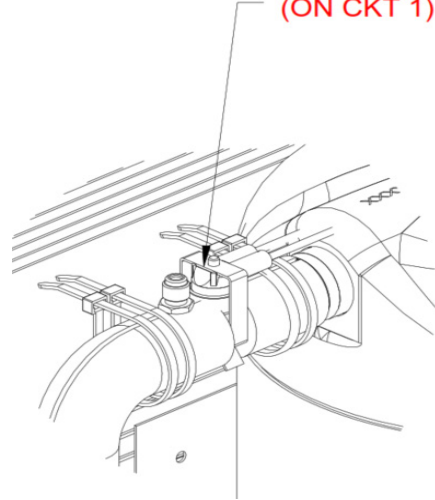
The CDTS is located on each compressor's discharge line within 6 inches of the discharge line braze joint. Discharge temperature switch must not be moved from its factory installed location or electrically disconnected.

OPERATING TEMPERATURE:

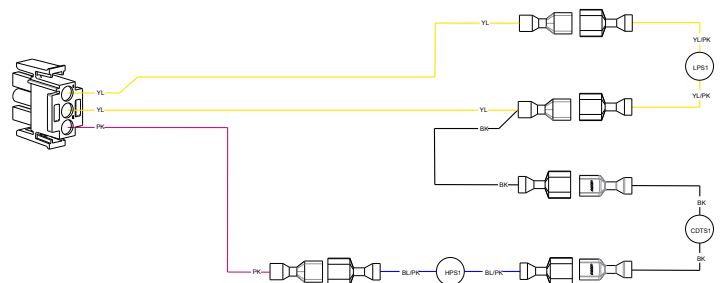
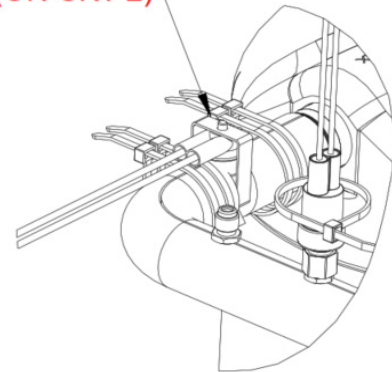
OPEN: 126.7 / 137.8 DEG.C
260.0 / 280.0 DEG.F

CLOSE: 76.7 / 98.9 DEG.C
170.0 / 210.0 DEG.F

CDTS
(ON CKT 1)



CDTS
(ON CKT 2)



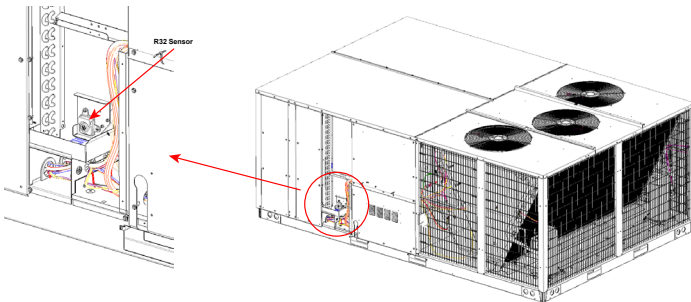
REFRIGERATION DETECTION SYSTEM (RDS)

RDS FUNCTION

The mitigation system is a stationary device that detects the presence of R-32 refrigerant above 25% LFL using refrigerant sensors and then initiates mitigation actions. The mitigation system's primary function is to reduce the concentration of leaked R-32 refrigerant to prevent serious safety hazards. The mitigation actions are accomplished by halting HVAC operation and continuing indoor blower operation to provide airflow. Once refrigerant concentration reaches below a safe threshold, the unit will remain in mitigation mode for five minutes to evacuate any remaining R-32 refrigerant within the unit. Upon completion, the unit will resume its normal operation.

RDS OPERATION

During operation, the mitigation system is controlled by a refrigerant sensor(s), which is secured to a designated location(s) for active monitoring. Throughout this period, the HVAC operation stops, and the indoor blower fan remains **on** providing airflow at or above Qmin to evacuate excess concentration. If the unit has a zone damper(s), all zones will open automatically, as part of the mitigation mode, to provide ventilation throughout all ducting. If the unit is installed with a communicating thermostat, the thermostat will display relevant alerts/information concerning mitigation mode. Once sensors read concentration levels below a safe threshold, a five-minute timer will initiate. Once the time is over, the unit will resume back to its normal operation. If the sensors detect another concentration excess, the unit will go back into mitigation mode and will repeat the same process.



MAINTENANCE



WARNING

ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD
FAILURE TO FOLLOW SAFETY WARNINGS EXACTLY COULD RESULT IN DANGEROUS OPERATION, SERIOUS INJURY, DEATH OR PROPERTY DAMAGE.

IMPROPER SERVICING COULD RESULT IN DANGEROUS OPERATION, SERIOUS INJURY, DEATH OR PROPERTY DAMAGE.

- BEFORE SERVICING, DISCONNECT ALL ELECTRICAL POWER TO FURNACE.
- WHEN SERVICING CONTROLS, LABEL ALL WIRES PRIOR TO DISCONNECTING. RECONNECT WIRES CORRECTLY.
- VERIFY PROPER OPERATION AFTER SERVICING.



WARNING

HIGH VOLTAGE

DISCONNECT ALL POWER BEFORE SERVICING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

TO PREVENT PERSONAL INJURY OR DEATH DUE TO IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE, REFER TO THIS MANUAL. FOR ADDITIONAL ASSISTANCE OR INFORMATION, CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.



CAUTION

SHEET METAL PARTS, SCREWS, CLIPS AND SIMILAR ITEMS INHERENTLY HAVE SHARP EDGES, AND IT IS NECESSARY THAT THE INSTALLER AND SERVICE PERSONNEL EXERCISE CAUTION.

Preventive maintenance is the best way to avoid unnecessary expense and inconvenience. Have this system inspected at regular intervals by qualified service personnel, at least twice a year. Routine maintenance should cover the following items:

1. Tighten set screws, and wire connections.
2. Clean evaporator mechanically or with cold water, if necessary. Usually any fouling is only matted on the entering air face of the coil and can be removed by brushing.
3. Replace filters as needed (see below).
4. Check for blockage of condensate drain.
5. Check power and control voltages.
6. Check running amperage.
7. Check operating temperatures and pressures.
8. Check and adjust temperature and pressure controls.
9. Check and adjust damper linkages.
10. Check operation of all safety controls.
11. Examine gas furnaces (see below and the User's Information Manual).
12. Check condenser fans and tighten set screws.

FILTERS



CAUTION

TO PREVENT PROPERTY DAMAGE DUE TO FIRE AND LOSS OF EQUIPMENT EFFICIENCY OR EQUIPMENT DAMAGE DUE TO DUST AND LINT BUILD UP ON INTERNAL PARTS, NEVER OPERATE UNIT WITHOUT AN AIR FILTER INSTALLED IN THE RETURN AIR SYSTEM.

Every application may require a different frequency of replacement of dirty filters. Filters must be replaced at least every three (3) months during operating seasons.

Dirty filters are the most common cause of inadequate heating or cooling performance. Filter inspection should be made at least every two months; more often if necessary because of local conditions and usage. Dirty throwaway filters should be discarded and replaced with a new, clean filter.

Disposable return air filters are supplied with this unit. See the unit Specification Sheet or Technical Manual for the correct size and part number. To remove the filters, remove the filter access panel on return side of the unit.

Removing old Air Filters:

Always remove the filters on the bottom first and then the top ones. Following are the steps to remove the air filters:

Step 1: Pull the part marked as 'A' horizontally, as it slides out, start removing air filters one by one.

Step 2: Remove the screw marked as 'B'

Step 3: Pull the part marked as 'C'. This will allow the sliding part to slide down by an inch. Once it slides down by an inch, pull the strap and remove all filters one by one.

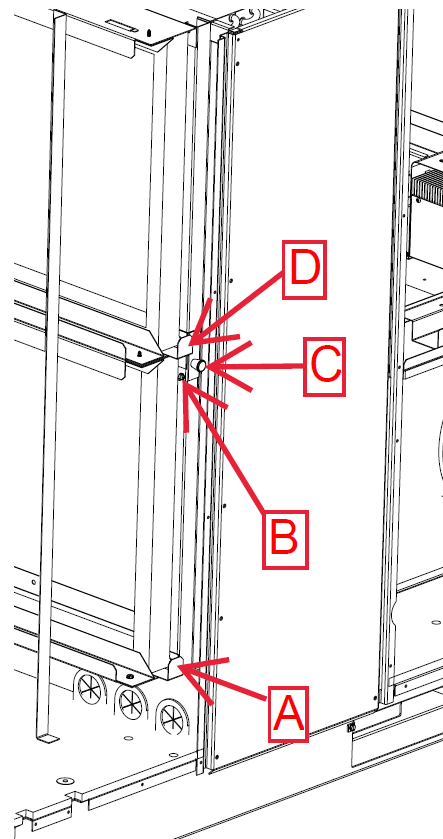
Replacing with new filters:

Follow the above steps in reverse order. First install the top filters and then the bottom filters.

Step 1: With strap 'D' pulled, add filters one by one (Qty 4) on the top and push the strap marked as 'D'.

Step 2: Pull the part marked as 'C' and at the same time keeping it pulled position, push it upwards until it aligns with the screw hole marked as 'B' and release the pull. Install screw at the location 'B' to lock the movement.

Step 3: Pull strap marked as 'A' by 1 to 2 inch and add filters at the bottom slots one by one and push the strap back.



CABINET FINISH MAINTENANCE

Use a fine grade automotive wax on the cabinet finish to maintain the finish's original high luster. This is especially important in installations with extended periods of direct sunlight.

RECOVERY

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely. When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labeled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.

The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of the flammable refrigerant. If in doubt, the manufacturer should be consulted. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition.

The recovered refrigerant shall be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The compressor body shall not be heated by an open flame or other ignition sources to accelerate this process. When oil is drained from a system, it shall be carried out safely.

CHARGING PROCEDURES

In addition to conventional charging procedures, the following requirements shall be followed.

- Ensure that contamination of different refrigerants does not occur when using charging equipment.
- Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate position according to the instructions.
- Ensure that the REFRIGERATING SYSTEM is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete (if not already).
- Extreme care shall be taken not to overfill the REFRIGERATING SYSTEM.
- Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

CLEAN INDOOR COIL (QUALIFIED SERVICER ONLY)

Before cleaning the indoor coil, A2L sensor must be removed from the unit to avoid damage and contamination. Air filters should also be removed before performing maintenance. The coil with the filtered air flowing over it should be inspected and cleaned as frequently as necessary to keep the finned areas free of debris. Any air blowing or water rinsing should be performed from inside-out (opposite operating airflow direction) to prevent damage to the tube, fin coil and any other components. Prior to resuming unit operation, ensure to reinstall the A2L sensor.

CLEAN OUTSIDE COIL

The coil with the outside air flowing over it should be inspected annually and cleaned as frequently as necessary to keep the finned areas free of lint, hair and debris. **NOTE:** Clean the opposite direction of air flow.

MAINTENANCE OF MICROCHANNEL HEAT EXCHANGERS (MCHE)

Frequent servicing is essential to maintaining the required MCHE performance. For every installed Danfoss MCHE, service records must be documented.



CAUTION

PRIOR TO SERVICING MCHE, BE SURE TO DISCONNECT THE POWER SUPPLY AND USE LOCK-OUT METHODS TO PREVENT THE POWER FROM ACCIDENTALLY BEING TURNED ON.

SHUT DOWN PERIODS

During periods when the MCHE is not operated for longer than a week, the MCHE must be completely cleaned following the cleaning procedure. This practice must also be performed during short shut-down periods where corrosive deposits accumulate on the MCHE.

CLEANING PROCEDURE

Relative to tube & fin heat exchangers, MicroChannel heat exchanger coils tend to accumulate more dirt on the surface of the coil and less dirt inside the coil, making them easier to clean. Follow the steps below for proper cleaning:

STEP 1: REMOVE SURFACE DEBRIS

Remove surface dirt, leaves, fibers, etc. with a vacuum cleaner (preferably with a brush or other soft attachment rather than a metal tube), compressed air blown from the inside out, and/or a soft bristle (not wire!) brush. Do not impact or scrape the coil with the vacuum tube, air nozzle, etc.

STEP 2: RINSE

Rinse the coil by following procedure:

1. Rinse the coil by approved MCHE cleaner first, or rinsing by water directly;
2. Waiting for 5 minutes;
3. Wash the coil by water;

Adjust the angle of gimbaled nozzle and insert it through fans. Using an extension rod if the nozzle cannot reach the bottom side. Preferably cleaning the coils from the inside-out and top to bottom (see figure 1), running the water through every fin passage until it comes out clean. The fins of MicroChannel coils are stronger than traditional tube & fin coil fins but still need to be handled with care. Do not hit the coil with the hose. We recommend placing your thumb over the end of the hose to obtain a gentler spray and reduce the possibility of impact damage. Please **PAY MORE ATTENTION** when using a pressure cleaning equipment to prevent damage.

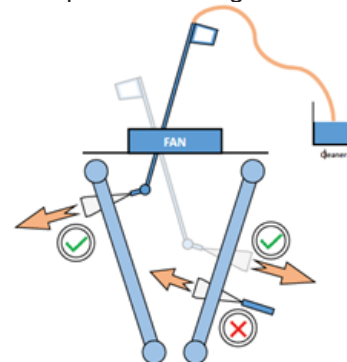


FIGURE 1

Highest pressure of cleaning equipment shall not exceed 15 bar, and tentatively move the cleaning equipment from far to near to prevent damage.

- KEEP the outlet of washer away from coil for at least 4in (see figure 2);
- KEEP the water gun perpendicular to the coil surface and the angle error shall less than 20°, or $\pm 40^\circ$ if the distance from washer to coil is more than 12in (see figure 2);
- Water outlet angle for high pressure cleaning equipment shall over 15° (see figure 3).

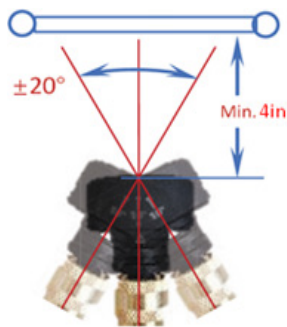


FIGURE 2



FIGURE 3

Warranty claims related to cleaning damage, especially for incorrect pressure washing operation, or corrosion resulting from applying non-recommended cleaners, will NOT be honored.

STEP 3: REMOVE SURFACE DEBRIS

Depending on the installation and fin geometry, MicroChannel heat exchangers could possibly retain more water compared to traditional tube & fin coils. It is advised to blow off or vacuum out the residual water from the coil to speed up drying and prevent pooling. Daikin recommends a quarterly cleaning of the coils, as the minimum. The cleaning frequency should be increased depending on the level of dirt/dust accumulation and the environment (e.g., coastal areas with chlorides and salts) or industrial areas with aggressive substances.



WARNING

FIELD APPLIED COATINGS ARE NOT RECOMMENDED FOR BRAZED ALUMINUM MICROCHANNEL HEAT EXCHANGERS. MICROCHANNEL HEAT EXCHANGERS MUST NOT BE COATED USING ANY OTHER COATING. COATING OF A COIL USING A SUPPLIER OR COATING PROCESS IS NOT APPROVED. IT MAY ALSO REDUCE THE LIFETIME AND/OR THE PERFORMANCE OF THE MICROCHANNEL HEAT EXCHANGER.

CONDENSER FANS

Bearings on the condenser fan motors are permanently lubricated. No additional oiling is required.

FUNCTIONAL PARTS

Refer to the unit Parts Catalog for a list of functional parts. Parts are available from your distributor.

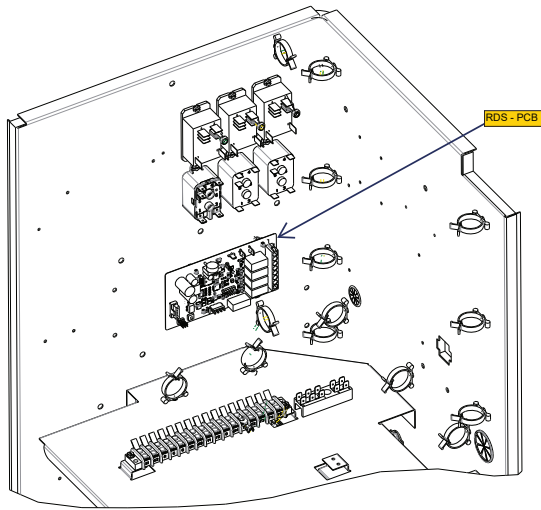
RDS

Servicing measures for the REFRIGERANT DETECTION SYSTEM:

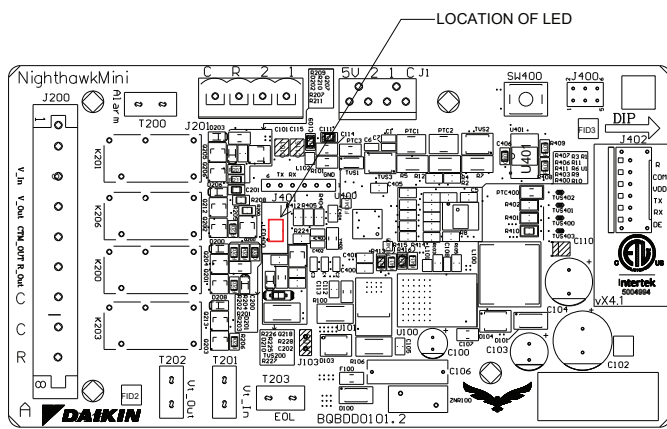
Before servicing, identify the mode of operation of the system by reading the LED flashing pattern on the PCB within the control box and matching the LED flashing pattern with mode of operation in the A2L PCB fault code table on the wiring diagram which is attached on the back side of the control box panel. After identifying the mode of operation, take recommended actions as specified in the recommended action for PCB LED Flashing Codes Table . REFRIGERANT SENSORS for REFRIGERANT DETECTION SYSTEMS shall only be replaced with sensors specified by the manufacturer.

LED STATUS	
MODE	LED FLASHING PATTERN
NORMAL OPERATION	SLOW LED FLASHING PATTERN (2 SECONDS ON 2 SECONDS OFF)
R-32 LEAK ALARM	FAST LED FLASHING PATTERN
DELAY MODE	LED WILL BE ON CONTINUOUSLY
SYSTEM VERIFICATION MODE	FAST LED FLASHING PATTERN
CONTROL BOARD INTERNAL FAULT	LED WILL FLASH 2 TIMES AND THEN BE OFF FOR 5 SECONDS
R32 SENSOR COMMUNICATION FAULT	LED WILL FLASH 3 TIMES AND THEN BE OFF FOR 5 SECONDS
R32 SENSOR FAULT	LED WILL FLASH 4 TIMES AND THEN BE OFF FOR 5 SECONDS

RDS PCB FAULT CODE TABLE



RDS PCB



PCB LED

RECOMMENDED ACTION FOR RDS PCB LED FLASHING CODES

LED TROUBLESHOOT STATUS					
	MODE	DEFINITION	LED FLASHING PATTERN	RECOMMENDED ACTIONS	NOTES
1	Normal Operation	No faults to report.	Slow LED flashing pattern (2 seconds on and 2 seconds off)	No actions needed.	
2	R32 Leak Alarm	R32 leak is currently being detected.	Fast LED Flashing Pattern	A technician will need to find where the refrigerant leak and address it. Unit shall be thawed before servicing.	In terms of the controls, no action is needed. The controls and sensor are working fine.
3	Delay Mode	After R32 leak or alarm has been cleared, the unit will remain in alarm mode for 5 minutes before returning to normal operation.	LED will be on continuously	No action needed - If the system was previously experiencing an actual R32 Leak, the refrigerant can no longer be detected by the sensor meaning it's either gone and the system won't work anymore or there was a false alarm. If the system was experiencing a Fault, the fault is gone and the system will return to normal operation in 5 min.	After any alarm or fault, it is required to remain in R32 mitigation mode for 5 minutes.
4	System Verification Mode	Manual test run by contractor to simulate R32 Leak Alarm (test will last for 5 minutes max).	Fast LED Flashing Pattern	No actions needed.	To enter system verification test mode, press the button on the control 2 times within 5 seconds. The control will enter a simulated R32 Leak Alarm state and remain in that mode for 5 minutes. After 5 minutes, the control will return to Normal Operation automatically. If the contractor wants to end the test early they need to press the button one time.
5	Control Board Internal Fault	Control board has detected an issue with the R32 detection system.	LED will flash 2 times and then be off for 5 seconds, before repeating pattern	1) Unplug and plug the R32 sensor back in. Cycle power to the system. 2) If the control is in "Normal Operation" or "Delay Mode", there is no more issue. If not, continue with diagnostics 3) Unplug R32 sensor and leave unplugged. Cycle power to the system 4) If the control still displays "Control Board Internal Fault" (2 flash pattern), replace the control. If the control now displays "R32 Sensor Communication Fault" (3 flash pattern), replace the sensor.	This error could indicate an on board relay failure or a short with the sensor communications. A sensor communication short could occur on the board itself or external to the board. These steps will determine if the error is on the board or external to the board.
6	R32 Sensor Communication Fault	Control board does not have communications with R32 sensor.	LED will flash 3 times and then be off for 5 seconds, before repeating pattern	1) Unplug and plug the R32 sensor back in. Cycle power to the system. 2) If control is in "Normal Operation" or "Delay Mode", there is no more issue. If not, continue with diagnostics. 3) If the control still displays "R32 Sensor Communication Fault" (3 flash pattern), replace both the sensor and the PCB.	If the control cannot talk to the sensor there could be a problem with the sensor, a problem with the sensor harness or a problem internal to the control. The field will not be able to measure anything to reliably fix this error assuming the connector is properly secured to the control. Replacing both is the only option.
7	R32 Sensor Fault	R32 Sensor has reported an internal issue.	LED will flash 4 times and then be off for 5 seconds, before repeating pattern	Replace R32 sensor.	Communications to the sensor are perfectly fine. The sensor itself is reporting an internal fault.

NOTE: FOR DECOMMISSIONING, PLEASE SEE DECOMMISSIONING SECTION IN SERVICE MANUAL.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - STANDARD

DSC180D - STD STATIC						
SPEED Tap	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	2489	442	436	0.17	0.17
	0.4	1540	561	560	0.21	0.21
	0.6	1029	619	620	0.24	0.24
	0.8	492	678	677	0.26	0.26
	1.0	-	-	-	-	-
	1.2	-	-	-	-	-
T2	0.2	4085	494	499	0.34	0.35
	0.4	3417	619	583	0.43	0.41
	0.6	2773	680	683	0.47	0.48
	0.8	1974	752	750	0.52	0.52
	1.0	1492	797	795	0.55	0.55
	1.2	1243	844	841	0.59	0.59
T3	0.2	4888	533	540	0.49	0.50
	0.4	4424	609	619	0.56	0.57
	0.6	3767	721	685	0.66	0.63
	0.8	3225	772	773	0.71	0.71
	1.0	2608	837	833	0.77	0.76
	1.2	2005	886	883	0.81	0.81
T4	0.2	7235	661	674	1.24	1.27
	0.4	6874	729	738	1.37	1.39
	0.6	6579	788	797	1.48	1.50
	0.8	6301	835	846	1.57	1.59
	1.0	6023	881	895	1.65	1.68
	1.2	5436	986	940	1.85	1.77
T5	0.2	8207	665	678	1.34	1.37
	0.4	7783	737	747	1.49	1.51
	0.6	7436	793	802	1.60	1.62
	0.8	7098	845	857	1.70	1.73
	1.0	6725	896	909	1.81	1.83
	1.2	6023	1002	956	2.02	1.93
T6	0.2	6824	633	644	1.04	1.06
	0.4	6489	700	710	1.15	1.16
	0.6	6119	758	767	1.24	1.26
	0.8	5803	809	820	1.33	1.35
	1.0	5187	916	869	1.50	1.43
	1.2	4817	964	926	1.58	1.52
T7	0.2	7041	640	653	1.10	1.13
	0.4	6682	709	719	1.22	1.24
	0.6	6354	768	777	1.33	1.34
	0.8	6035	819	830	1.41	1.43
	1.0	5470	917	879	1.58	1.52
	1.2	5111	971	925	1.68	1.60
T8	0.2	7291	650	663	1.19	1.21
	0.4	6936	719	728	1.32	1.33
	0.6	6604	778	786	1.42	1.44
	0.8	6311	828	840	1.51	1.54
	1.0	5998	877	890	1.60	1.63
	1.2	5388	980	935	1.79	1.71
T9	0.2	7399	656	669	1.23	1.26
	0.4	7019	725	734	1.36	1.38
	0.6	7138	800	815	1.50	1.53
	0.8	6826	843	851	1.59	1.60
	1.0	6501	888	888	1.67	1.67
	1.2	6149	942	928	1.77	1.74
T10	0.2	7700	719	739	1.39	1.42
	0.4	7502	764	782	1.47	1.51
	0.6	7247	805	821	1.55	1.58
	0.8	6941	848	857	1.63	1.65
	1.0	6620	892	893	1.72	1.72
	1.2	6275	946	932	1.82	1.80

DSC240D- STD STATIC						
SPEED TAP	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	4329	529	538	0.30	0.31
	0.4	3748	613	632	0.35	0.36
	0.6	3175	698	713	0.40	0.41
	0.8	2598	765	776	0.44	0.45
	1	1961	826	824	0.48	0.47
	1.2	1581	861	858	0.50	0.49
T2	0.2	6131	630	641	0.66	0.67
	0.4	5728	698	709	0.73	0.75
	0.6	5383	751	766	0.79	0.81
	0.8	4875	824	839	0.87	0.88
	1	4430	881	903	0.93	0.95
	1.2	4032	933	953	0.98	1.00
T3	0.2	7378	770	720	1.14	1.07
	0.4	7012	770	779	1.14	1.15
	0.6	6713	819	832	1.21	1.23
	0.8	6434	862	879	1.28	1.30
	1	6147	907	928	1.34	1.37
	1.2	5641	968	994	1.43	1.47
T4	0.2	9035	831	853	2.04	2.09
	0.4	8705	885	905	2.17	2.22
	0.6	8441	931	949	2.28	2.33
	0.8	8214	972	986	2.38	2.42
	1	8010	1008	1024	2.47	2.51
	1.2	7817	1037	1057	2.54	2.59
T5	0.2	9243	853	876	2.19	2.25
	0.4	8881	909	928	2.33	2.38
	0.6	8628	954	971	2.45	2.49
	0.8	8428	991	1006	2.54	2.58
	1	8219	1027	1042	2.64	2.68
	1.2	8010	1058	1077	2.72	2.76
T6	0.2	8648	779	797	1.53	1.56
	0.4	8257	839	853	1.64	1.67
	0.6	7965	884	897	1.73	1.76
	0.8	7705	928	943	1.82	1.85
	1	7445	966	984	1.89	1.93
	1.2	7209	1002	1024	1.96	2.01
T7	0.2	9025	801	820	1.71	1.75
	0.4	8641	862	877	1.84	1.87
	0.6	8368	908	921	1.94	1.97
	0.8	8107	952	965	2.03	2.06
	1	7863	986	1003	2.10	2.14
	1.2	7616	1023	1043	2.18	2.23
T8	0.2	9429	837	846	1.94	1.96
	0.4	9073	885	900	2.05	2.09
	0.6	8768	931	945	2.16	2.19
	0.8	8508	972	987	2.26	2.29
	1	8261	1007	1024	2.34	2.38
	1.2	8052	1043	1064	2.42	2.47
T9	0.2	9997	863	886	2.26	2.32
	0.4	9632	919	940	2.40	2.46
	0.6	9340	967	985	2.53	2.57
	0.8	9089	1009	1024	2.64	2.68
	1	8863	1047	1063	2.74	2.78
	1.2	8649	1077	1098	2.81	2.87
T10	0.2	10340	881	905	2.45	2.52
	0.4	9935	939	958	2.61	2.66
	0.6	9652	986	1003	2.74	2.79
	0.8	9429	1024	1039	2.85	2.89
	1	9195	1061	1077	2.95	2.99
	1.2	8961	1093	1112	3.04	3.09

NOTES:

If high static fan is needed it should be ordered as factory installed.

Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.

Refer to the 'Airflow Adjustment' section on page 15 for airflow adjustments.

Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - STANDARD

DSC300D STD STATIC						
Speed Tap	Static	Airflow	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	5677	764	679	0.75	0.67
	0.4	5447	804	725	0.79	0.71
	0.6	5218	844	773	0.83	0.76
	0.8	4937	883	822	0.87	0.81
	1	4689	923	867	0.91	0.85
	1.2	4376	963	914	0.95	0.90
T2	0.2	6841	842	753	1.14	1.02
	0.4	6594	790	874	1.07	1.19
	0.6	6555	802	881	1.09	1.20
	0.8	6377	907	836	1.23	1.13
	1	6174	941	872	1.28	1.18
	1.2	5651	1007	959	1.37	1.30
T3	0.2	7993	996	879	1.78	1.57
	0.4	7824	1024	913	1.83	1.63
	0.6	7646	1052	946	1.88	1.69
	0.8	7489	1079	976	1.92	1.74
	1	7307	1104	1007	1.97	1.80
	1.2	7131	1133	1043	2.02	1.86
T4	0.2	10787	1065	993	3.14	2.92
	0.4	10524	1091	1020	3.21	3.01
	0.6	10331	1120	1040	3.30	3.07
	0.8	10170	1147	1075	3.38	3.17
	1	10010	1167	1112	3.44	3.28
	1.2	9814	1194	1147	3.52	3.38
T5	0.2	10969	1086	1011	3.38	3.15
	0.4	10712	1110	1036	3.46	3.23
	0.6	10532	1138	1056	3.54	3.29
	0.8	10369	1162	1087	3.62	3.38
	1	10197	1183	1118	3.69	3.48
	1.2	10010	1209	1150	3.76	3.58
T6	0.2	9218	832	787	1.79	1.70
	0.4	8927	869	828	1.87	1.79
	0.6	-	-	-	-	-
	0.8	-	-	-	-	-
	1	-	-	-	-	-
	1.2	-	-	-	-	-
T7	0.2	9642	879	828	2.07	1.95
	0.4	9358	913	866	2.15	2.04
	0.6	9096	949	893	2.23	2.10
	0.8	8916	983	938	2.31	2.21
	1	8754	1008	991	2.37	2.33
	1.2	-	-	-	-	-
T8	0.2	9934	1083	971	2.78	2.49
	0.4	9735	1110	999	2.85	2.56
	0.6	9559	1138	1027	2.92	2.64
	0.8	9379	1162	1056	2.98	2.71
	1	9201	1187	1086	3.05	2.79
	1.2	9006	1212	1120	3.11	2.87
T9	0.2	10398	1123	1008	3.16	2.84
	0.4	10203	1149	1034	3.24	2.91
	0.6	10034	1176	1060	3.31	2.99
	0.8	9863	1199	1087	3.38	3.06
	1	9698	1222	1116	3.44	3.14
	1.2	9516	1245	1147	3.51	3.23
T10	0.2	10958	1088	1013	3.38	3.15
	0.4	10701	1112	1038	3.45	3.22
	0.6	10521	1140	1058	3.54	3.29
	0.8	10359	1164	1089	3.61	3.38
	1	10187	1186	1120	3.68	3.48
	1.2	10000	1211	1152	3.76	3.58

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section on page 15 for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DSC180W HIGH STATC						
SPEED TAP	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	2070	436	436	0.17	0.17
	0.4	1373	539	536	0.21	0.21
	0.6	999.7	604	614	0.24	0.24
	0.8	-	-	-	-	-
	1	-	-	-	-	-
	1.2	-	-	-	-	-
	1.4	-	-	-	-	-
	1.6	-	-	-	-	-
	1.8	-	-	-	-	-
	2	-	-	-	-	-
T2	0.2	2121	441	447	0.18	0.18
	0.4	1357	528	551	0.21	0.22
	0.6	1035	608	616	0.24	0.25
	0.8	-	-	-	-	-
	1	-	-	-	-	-
	1.2	-	-	-	-	-
	1.4	-	-	-	-	-
	1.6	-	-	-	-	-
	1.8	-	-	-	-	-
	2	-	-	-	-	-
T3	0.2	6518	631	640	0.72	0.73
	0.4	6166	686	706	0.78	0.81
	0.6	5853	741	764	0.85	0.87
	0.8	5478	803	825	0.92	0.94
	1	4895	863	890	0.99	1.02
	1.2	4431	923	952	1.05	1.09
	1.4	4051	987	985	1.13	1.13
	1.6	3388	1052	1063	1.20	1.21
	1.8	2974	1087	1100	1.24	1.26
	2	2544	1124	1132	1.28	1.29
T4	0.2	9407	785	781	0.86	0.86
	0.4	9046	821	818	0.90	0.90
	0.6	8725	857	855	0.94	0.94
	0.8	8393	895	893	0.98	0.98
	1	8084	930	927	1.02	1.02
	1.2	7749	966	963	1.06	1.06
	1.4	7302	1015	1004	1.11	1.10
	1.6	6860	1058	1045	1.16	1.15
	1.8	6409	1105	1084	1.21	1.19
	2	5980	1146	1124	1.26	1.23
T5	0.2	9342	815	810	1.22	1.21
	0.4	9023	850	847	1.27	1.26
	0.6	8740	885	883	1.32	1.32
	0.8	8449	922	919	1.37	1.37
	1	8181	955	951	1.42	1.42
	1.2	7896	989	986	1.47	1.47
	1.4	7575	1027	1021	1.53	1.52
	1.6	7205	1067	1058	1.59	1.58
	1.8	6812	1113	1095	1.66	1.63
	2	6446	1154	1133	1.72	1.69
	2.2	6010	1200	1172	1.79	1.75

T6	0.2	8791	766	775	1.43	1.45
	0.4	8453	824	837	1.54	1.56
	0.6	8175	870	888	1.63	1.66
	0.8	7911	912	938	1.71	1.75
	1	7640	950	981	1.78	1.83
	1.2	7386	986	1016	1.84	1.90
	1.4	7118	1028	1058	1.92	1.98
	1.6	6582	1082	1117	2.02	2.09
	1.8	6206	1124	1158	2.10	2.16
	2	5852	1172	1210	2.19	2.26
T7	0.2	9167	790	803	1.59	1.62
	0.4	8822	848	863	1.71	1.74
	0.6	8546	902	912	1.82	1.84
	0.8	8276	937	963	1.89	1.94
	1	8015	973	1005	1.96	2.02
	1.2	7756	1010	1042	2.03	2.10
	1.4	7462	1047	1082	2.11	2.18
	1.6	7177	1092	1119	2.20	2.25
	1.8	6673	1138	1177	2.29	2.37
	2	6364	1182	1218	2.38	2.45
T8	0.2	9536	816	828	1.77	1.79
	0.4	9212	870	885	1.89	1.92
	0.6	8934	913	932	1.98	2.02
	0.8	8680	955	977	2.07	2.12
	1	8445	990	1016	2.15	2.20
	1.2	8170	1024	1056	2.22	2.29
	1.4	7938	1060	1093	2.30	2.37
	1.6	7669	1101	1130	2.39	2.45
	1.8	7185	1150	1150	2.49	2.49
	2	6823	1187	1227	2.57	2.66
T9	0.2	9916	836	849	1.95	1.98
	0.4	9546	892	912	2.08	2.13
	0.6	9271	936	954	2.18	2.22
	0.8	9036	977	1000	2.28	2.33
	1	8766	1013	1043	2.36	2.43
	1.2	8527	1044	1080	2.43	2.52
	1.4	8295	1092	1117	2.55	2.60
	1.6	8073	1115	1148	2.60	2.68
	1.8	7832	1153	1185	2.69	2.76
	2	7291	1200	1240	2.80	2.89
T10	0.2	10290	859	872	2.15	2.18
	0.4	9974	913	927	2.29	2.32
	0.6	9693	957	974	2.40	2.44
	0.8	9455	996	1017	2.49	2.55
	1	9222	1030	1058	2.58	2.65
	1.2	8986	1063	1098	2.66	2.75
	1.4	8736	1097	1132	2.75	2.84
	1.6	8530	1127	1163	2.82	2.91
	1.8	8305	1163	1197	2.91	3.00
	2	8016	1199	1231	3.00	3.08
	2.2	7453	1246	1284	3.12	3.22

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section on page 15 for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DSC240W - HIGH STATIC						
SPEED TAP	Static	AIR FLOW	RPM 1	RPM 2	BHP1	BHP2
T1	0.2	6492	631	620	0.71	0.70
	0.4	6091	702	733	0.79	0.83
	0.6	5741	764	793	0.86	0.89
	0.8	5160	862	847	0.97	0.95
	1	4674	906	931	1.02	1.05
	1.2	4316	953	985	1.07	1.11
	1.4	3992	999	1027	1.13	1.16
	1.6	3577	1052	1070	1.19	1.21
	1.8	3116	1100	1100	1.24	1.24
	2	2667	1137	1153	1.28	1.30
T2	2.2	2195	1164	1185	1.31	1.34
	0.2	6962	666	697	0.83	0.87
	0.4	6573	729	761	0.91	0.95
	0.6	6187	787	819	0.98	1.02
	0.8	5633	874	881	1.09	1.10
	1	5273	921	936	1.15	1.17
	1.2	4783	976	1004	1.22	1.25
	1.4	4477	1018	1053	1.27	1.32
	1.6	4148	1061	1092	1.33	1.36
	1.8	3728	1115	1134	1.39	1.42
T3	2	3292	1158	1174	1.45	1.47
	2.2	2850	1193	1214	1.49	1.52
	0.2	9902	842	879	1.91	1.99
	0.4	9514	897	897	2.04	2.04
	0.6	9220	940	940	2.13	2.13
	0.8	8949	978	1019	2.22	2.31
	1	8695	1017	1060	2.31	2.41
	1.2	8415	1054	1098	2.39	2.49
	1.4	8158	1091	1136	2.48	2.58
	1.6	7604	1163	1184	2.64	2.69
T4	1.8	7336	1222	1205	2.77	2.73
	2	7034	1247	1244	2.83	2.82
	2.2	6667	1276	1306	2.90	2.96
	0.2	11001	820	859	1.81	1.90
	0.4	10606	873	909	1.93	2.01
	0.6	10247	916	954	2.02	2.11
	0.8	9983	952	994	2.10	2.20
	1	9713	987	1033	2.18	2.28
	1.2	9445	1026	1070	2.27	2.36
	1.4	9169	1062	1108	2.35	2.45
T5	1.6	8892	1095	1143	2.42	2.53
	1.8	8261	1169	1183	2.58	2.61
	2	8010	1222	1207	2.70	2.67
	2.2	7698	1242	1259	2.74	2.78
	0.2	11135	830	872	2.03	2.13
	0.4	10732	888	926	2.17	2.27
	0.6	10412	930	969	2.28	2.37
	0.8	10166	964	1008	2.36	2.47
	1	9895	1000	1046	2.45	2.56
	1.2	9640	1036	1082	2.54	2.65
T6	1.4	9397	1076	1116	2.63	2.73
	1.6	9119	1104	1153	2.70	2.82
	1.8	8865	1138	1188	2.79	2.91
	2	8254	1221	1219	2.99	2.98
	2.2	8010	1262	1250	3.09	3.06
	0.2	9125	822	779	1.74	1.65
	0.4	8832	860	821	1.82	1.74
	0.6	8546	898	852	1.90	1.80
T7	0.8	8348	935	901	1.98	1.91
	1	8158	964	958	2.04	2.03
	1.2	7887	998	1007	2.11	2.13
	1.4	7592	1029	1063	2.18	2.25
	1.6	7272	1072	1109	2.27	2.35
	1.8	-	-	-	-	-
	2	-	-	-	-	-
	2.2	-	-	-	-	-
	0.2	9412	852	805	1.91	1.81
	0.4	9124	888	845	1.99	1.90
T8	0.6	8851	925	874	2.08	1.96
	0.8	8663	960	920	2.15	2.06
	1	8490	987	976	2.22	2.19
	1.2	8232	1020	1024	2.29	2.30
	1.4	7947	1050	1079	2.36	2.42
	1.6	7646	1090	1124	2.45	2.52
	1.8	7366	1129	1155	2.53	2.59
	2	7134	1168	1186	2.62	2.66
	2.2	-	-	-	-	-
	0.2	9695	885	834	2.10	1.98
T9	0.4	9412	919	871	2.19	2.07
	0.6	9153	954	897	2.27	2.13
	0.8	8974	988	942	2.35	2.24
	1	8814	1013	995	2.41	2.37
	1.2	8568	1045	1042	2.48	2.48
	1.4	8293	1073	1095	2.55	2.60
	1.6	8010	1111	1140	2.64	2.71
	1.8	7743	1148	1170	2.73	2.78
	2	7518	1186	1201	2.82	2.86
	2.2	7200	1223	1229	2.91	2.92
T10	0.2	9881	909	854	2.30	2.16
	0.4	9602	941	890	2.38	2.25
	0.6	9353	976	915	2.46	2.31
	0.8	9179	1008	959	2.55	2.42
	1	9025	1032	1009	2.61	2.55
	1.2	8787	1063	1055	2.68	2.66
	1.4	8519	1090	1107	2.75	2.80
	1.6	8248	1127	1151	2.85	2.91
	1.8	7989	1163	1181	2.94	2.98
	2	7770	1199	1211	3.03	3.06
T11	2.2	7460	1237	1239	3.12	3.13
	0.2	10268	963	902	2.58	2.41
	0.4	9996	993	935	2.66	2.50
	0.6	9769	1025	957	2.74	2.56
	0.8	9604	1055	997	2.82	2.67
	1	9456	1077	1042	2.88	2.79
	1.2	9235	1106	1084	2.96	2.90
	1.4	8983	1132	1133	3.03	3.03
	1.6	8736	1164	1175	3.11	3.14
	1.8	8496	1197	1204	3.20	3.22
T12	2	8288	1232	1233	3.29	3.30
	2.2	8001	1267	1259	3.39	3.37

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section on page 15 for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

DIRECT DRIVE - HIGH STATIC

DSC3003W High Static						
Speed Tap	Static	AIR FLOW	RPM 1	RPM 2	BHP 1	BHP 2
T1	0.2	7629	701	674	1.07	1.03
	0.4	7314	746	725	1.14	1.11
	0.6	6969	789	777	1.21	1.19
	0.8	6701	833	829	1.28	1.27
	1.0	6380	882	892	1.35	1.37
	1.2	6049	919	939	1.41	1.44
	1.4	5706	956	994	1.46	1.52
	1.6	5285	1010	1035	1.55	1.58
	1.8	4952	1055	1066	1.62	1.63
	2.0	4673	1094	1098	1.68	1.68
T2	2.2	4339	1128	1134	1.73	1.74
	0.2	7900	719	690	1.17	1.12
	0.4	7588	763	739	1.24	1.20
	0.6	7253	805	787	1.31	1.28
	0.8	6999	848	839	1.38	1.37
	1.0	6706	893	902	1.45	1.47
	1.2	6386	929	949	1.51	1.55
	1.4	6051	966	1005	1.57	1.64
	1.6	5649	1018	1048	1.66	1.71
	1.8	5322	1063	1079	1.73	1.76
T3	2.0	5050	1102	1111	1.79	1.81
	2.2	4712	1137	1146	1.85	1.87
	0.2	9468	859	811	1.95	1.84
	0.4	9181	894	850	2.03	1.93
	0.6	8911	930	878	2.11	1.99
	0.8	8724	966	925	2.19	2.10
	1.0	8554	992	980	2.25	2.22
	1.2	8298	1025	1027	2.33	2.33
	1.4	8015	1054	1082	2.39	2.45
	1.6	7718	1094	1128	2.48	2.56
T4	1.8	7441	1133	1158	2.57	2.63
	2.0	7210	1171	1189	2.66	2.70
	2.2	6884	1209	1218	2.74	2.76
	0.2	12723	972	914	2.75	2.58
	0.4	12364	1007	952	2.84	2.69
	0.6	12043	1044	979	2.95	2.77
	0.8	11819	1078	1026	3.04	2.90
	1.0	11621	1104	1079	3.12	3.05
	1.2	11315	1137	1129	3.21	3.19
	1.4	10969	1166	1184	3.29	3.35
T5	1.6	10620	1206	1231	3.41	3.48
	1.8	10287	1244	1263	3.52	3.57
	2.0	10005	1283	1295	3.62	3.66
	2.2	9606	1323	1325	3.74	3.75
	0.2	12849	1012	948	2.99	2.80
	0.4	12509	1044	983	3.09	2.91
	0.6	12223	1078	1006	3.18	2.98
	0.8	12017	1109	1048	3.28	3.10
	1.0	11831	1131	1095	3.34	3.24
	1.2	11553	1163	1141	3.44	3.37
T6	1.4	11237	1190	1191	3.52	3.52
	1.6	10927	1224	1236	3.62	3.66
	1.8	10626	1258	1266	3.72	3.74
	2.0	10366	1295	1297	3.83	3.84
	2.2	10005	1333	1325	3.94	3.92
T7	0.2	10268	963	902	2.58	2.41
	0.4	9996	993	935	2.66	2.50
	0.6	9769	1025	957	2.74	2.56
	0.8	9604	1055	997	2.82	2.67
	1.0	9456	1077	1042	2.88	2.79
	1.2	9235	1106	1084	2.96	2.90
	1.4	8983	1132	1133	3.03	3.03
	1.6	8736	1164	1175	3.11	3.14
	1.8	8496	1197	1204	3.20	3.22
	2.0	8288	1232	1233	3.29	3.30
T8	2.2	8001	1267	1259	3.39	3.37
	0.2	10626	1022	955	2.95	2.75
	0.4	10361	1049	984	3.03	2.84
	0.6	10156	1080	1004	3.11	2.90
	0.8	9995	1107	1040	3.19	3.00
	1.0	9842	1127	1079	3.25	3.11
	1.2	9638	1155	1117	3.33	3.22
	1.4	9402	1179	1160	3.40	3.35
	1.6	9176	1207	1199	3.48	3.46
	1.8	8958	1236	1227	3.57	3.54
T9	2.0	8760	1269	1255	3.66	3.62
	2.2	8502	1302	1280	3.76	3.69
	0.2	10979	1092	1017	3.41	3.17
	0.4	10723	1116	1042	3.48	3.25
	0.6	10544	1144	1062	3.57	3.31
	0.8	10382	1168	1093	3.65	3.41
	1.0	10209	1190	1123	3.71	3.51
	1.2	10023	1216	1155	3.79	3.60
	1.4	9804	1237	1191	3.86	3.72
	1.6	9598	1261	1225	3.93	3.82
T10	1.8	9406	1285	1252	4.01	3.91
	2.0	9218	1314	1278	4.10	3.99
	2.2	9000	1344	1301	4.19	4.06
	0.2	11348	1185	1101	4.05	3.76
	0.4	11101	1206	1120	4.11	3.82
	0.6	10956	1230	1142	4.20	3.90
	0.8	10785	1250	1165	4.27	3.97
	1.0	10567	1275	1183	4.35	4.04
	1.2	10402	1298	1205	4.43	4.11
	1.4	10203	1317	1230	4.49	4.20
T11	1.6	10015	1335	1257	4.56	4.29
	1.8	9858	1353	1281	4.62	4.37
	2.0	9682	1376	1305	4.70	4.45
	2.2	9524	1400	1326	4.78	4.52
	0.2	11679	1301	1205	4.88	4.52
	0.4	11444	1317	1219	4.94	4.57
	0.6	11337	1338	1246	5.02	4.67
	0.8	11145	1353	1257	5.07	4.71
	1.0	10847	1386	1260	5.20	4.72
	1.2	10703	1405	1267	5.27	4.75
T12	1.4	10526	1421	1277	5.33	4.79
	1.6	10353	1432	1291	5.37	4.84
	1.8	10238	1441	1313	5.40	4.93
	2.0	10074	1457	1333	5.47	5.00
	2.2	10002	1473	1353	5.52	5.07

NOTES:

If high static fan is needed it should be ordered as factory installed.
 Air flow tables represent dry coil with filters installed; SCFM correction factor for wet coil is 4%.
 Refer to the 'Airflow Adjustment' section on page 15 for airflow adjustments.
 Measured at standard conditions of 29.92 mm Hg pressure and 68°F temperature.

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DSC1803D, DSC1804D, DSC1807D
STANDARD STATIC TO 3.5HP (0.2 ~1.2 ESP)

CFM	0.2					0.4					0.6				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
3600	449	462	27	0.36	0.38	554	551	29	0.41	0.41	667	640	31	0.52	0.50
3900	468	480	28	0.36	0.37	568	568	30	0.43	0.43	674	652	32	0.54	0.52
4200	486	499	29	0.37	0.38	583	584	31	0.45	0.46	682	665	33	0.58	0.56
4500	505	518	30	0.39	0.40	598	601	32	0.49	0.50	691	678	34	0.63	0.61
4800	523	537	32	0.42	0.44	613	618	34	0.54	0.55	700	692	36	0.69	0.68
5100	542	556	33	0.47	0.48	628	635	35	0.60	0.61	710	706	38	0.76	0.75
5400	561	575	35	0.52	0.54	644	652	37	0.67	0.68	721	721	40	0.84	0.84
5700	579	595	37	0.59	0.60	660	670	39	0.76	0.77	733	736	42	0.93	0.94
6000	598	614	39	0.67	0.68	676	687	42	0.85	0.86	745	751	44	1.04	1.05
6300	617	634	41	0.76	0.77	693	705	44	0.96	0.97	758	767	47	1.15	1.17
6600	636	653	43	0.86	0.88	709	724	47	1.07	1.09	772	784	50	1.28	1.30
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
3600	758	745	36	0.76	0.75	798	784	34	0.74	0.71	861	855	37	0.90	0.87
3900	756	742	36	0.74	0.73	808	791	36	0.80	0.77	872	861	38	0.98	0.95
4200	756	741	36	0.74	0.72	817	800	37	0.87	0.84	883	868	40	1.06	1.03
4500	758	742	36	0.76	0.74	827	809	39	0.94	0.91	893	876	42	1.15	1.12
4800	761	745	37	0.79	0.77	836	819	41	1.03	1.00	904	884	44	1.25	1.22
5100	765	750	38	0.84	0.82	846	829	43	1.13	1.10	913	892	46	1.36	1.33
5400	772	758	39	0.91	0.89	856	840	45	1.23	1.21	923	902	49	1.48	1.44
5700	779	767	41	0.99	0.98	866	852	48	1.35	1.33	932	912	51	1.60	1.57
6000	789	778	43	1.10	1.09	875	865	50	1.47	1.46	941	922	54	1.73	1.71
6300	800	792	46	1.22	1.22	885	878	53	1.61	1.61	949	934	57	1.87	1.86
6600	812	807	48	1.36	1.36	895	892	56	1.75	1.76	957	946	60	2.02	2.01

MODELS: DSC1803W, DSC1804W, DSC1807W
HIGH STATIC TO 5HP (0.8 ~2.2 ESP)

CFM	0.8					1					1.2					1.4				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4200	689	688	17	1.72	0.41	761	770	20	1.89	0.54	836	838	22	1.77	0.60	994	948	27	2.26	0.81
4500	704	704	18	1.71	0.41	774	782	21	1.87	0.54	846	847	23	1.76	0.61	990	949	28	2.25	0.82
4800	720	719	19	1.70	0.41	787	793	22	1.86	0.55	857	857	24	1.74	0.63	987	951	29	2.23	0.84
5100	736	735	21	1.68	0.44	801	805	23	1.85	0.57	868	867	26	1.73	0.67	985	955	30	2.22	0.87
5400	752	751	22	1.67	0.47	814	818	25	1.83	0.61	879	878	27	1.72	0.72	985	959	31	2.21	0.92
5700	768	767	24	1.66	0.52	829	831	27	1.82	0.66	891	889	29	1.71	0.78	986	965	32	2.19	0.99
6000	785	783	26	1.65	0.58	843	844	28	1.81	0.72	903	901	31	1.70	0.86	989	971	34	2.18	1.07
6300	801	799	28	1.63	0.66	858	858	30	1.79	0.80	916	913	33	1.68	0.96	992	978	36	2.16	1.16
6600	818	816	30	1.62	0.75	873	872	32	1.78	0.90	929	926	35	1.67	1.06	998	986	38	2.15	1.27
CFM	1.6					1.8					2					2.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4200	1025	1009	29	1.82	0.90	1070	1049	30	1.36	0.99	1114	1095	32	1.10	1.13	1164	1140	34	0.77	1.29
4500	1024	1009	30	1.81	0.93	1073	1051	31	1.35	1.04	1119	1098	34	1.10	1.20	1170	1145	36	0.77	1.39
4800	1025	1010	31	1.79	0.97	1076	1054	33	1.34	1.11	1124	1101	35	1.09	1.28	1177	1150	38	0.77	1.49
5100	1027	1013	32	1.78	1.02	1080	1058	34	1.34	1.18	1129	1106	37	1.09	1.37	1183	1155	40	0.77	1.60
5400	1029	1016	33	1.77	1.09	1085	1062	36	1.33	1.27	1135	1111	38	1.09	1.47	1190	1161	41	0.77	1.72
5700	1033	1020	35	1.76	1.17	1090	1067	38	1.32	1.37	1141	1116	40	1.08	1.59	1196	1167	43	0.77	1.85
6000	1037	1025	37	1.75	1.26	1096	1073	40	1.32	1.49	1147	1122	42	1.08	1.71	1203	1173	45	0.77	1.98
6300	1043	1031	39	1.74	1.37	1102	1080	42	1.31	1.61	1153	1129	44	1.07	1.84	1209	1180	48	0.77	2.13
6600	1049	1038	41	1.73	1.50	1109	1088	44	1.30	1.75	1160	1136	47	1.07	1.99	1216	1187	50	0.76	2.29

APPENDIX A BLOWER PERFORMANCE DATA

MODELS: DSC2403D, DSC2404D, DSC2407D
STANDARD STATIC TO 3.5HP (0.2 ~1.2 ESP)

CFM	0.2					0.4					0.6				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4800	525	539	31	0.42	1.18	615	621	33	0.53	1.07	699	693	35	0.66	1.05
5200	550	566	33	0.48	1.17	635	644	35	0.61	1.07	712	712	37	0.75	1.05
5600	576	593	35	0.56	1.16	656	668	38	0.71	1.06	726	731	40	0.86	1.04
6000	601	620	38	0.65	1.15	678	691	40	0.82	1.05	742	752	43	1.00	1.03
6400	627	646	41	0.77	1.14	700	715	44	0.96	1.04	759	773	46	1.15	1.02
6800	652	672	44	0.91	1.13	722	739	47	1.12	1.03	778	794	50	1.32	1.01
7200	677	698	48	1.06	1.12	744	763	51	1.30	1.03	798	817	54	1.52	1.01
7600	702	724	52	1.24	1.11	767	788	55	1.49	1.02	819	840	59	1.73	1.00
8000	727	750	56	1.43	1.11	791	812	60	1.71	1.01	842	865	64	1.97	0.99
8400	752	775	61	1.65	1.10	814	836	65	1.95	1.00	867	890	69	2.22	0.99
8800	777	800	66	1.88	1.09	838	861	70	2.21	0.99	892	915	74	2.50	0.98
CFM	0.8					1					1.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
4800	777	761	37	0.84	0.92	860	820	40	1.05	0.75	908	884	43	1.22	0.71
5200	791	776	40	0.95	0.91	874	834	43	1.18	0.75	920	896	46	1.36	0.71
5600	806	792	43	1.08	0.91	888	849	46	1.32	0.74	932	908	49	1.51	0.70
6000	821	809	46	1.23	0.90	900	866	49	1.48	0.74	944	922	52	1.68	0.70
6400	836	828	50	1.39	0.89	911	883	53	1.65	0.74	954	937	56	1.87	0.70
6800	852	848	53	1.57	0.89	922	902	57	1.84	0.73	964	953	60	2.07	0.70
7200	868	869	58	1.78	0.88	931	921	61	2.04	0.73	973	971	64	2.28	0.69
7600	885	892	62	2.00	0.88	939	942	66	2.26	0.72	981	989	69	2.50	0.69
8000	902	915	67	2.23	0.87	947	964	71	2.49	0.72	989	1009	74	2.74	0.69
8400	919	940	72	2.49	0.87										
8800															

MODELS: DSC2403W, DSC2404W, DSC2407W
HIGH STATIC TO SHP (0.8 ~2.2 ESP)

CFM	0.8					1					1.2					1.4				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
5600	775	789	22	0.86	0.88	842	861	24	0.99	1.04	889	918	27	1.14	1.21	938	985	30	1.31	1.41
6000	789	797	25	0.95	0.97	852	871	27	1.10	1.14	901	931	30	1.26	1.33	953	999	33	1.46	1.55
6400	807	808	28	1.07	1.08	866	884	31	1.23	1.27	916	946	33	1.42	1.48	970	1015	36	1.63	1.72
6800	828	822	32	1.22	1.21	883	900	34	1.39	1.42	936	963	37	1.59	1.64	991	1032	40	1.82	1.90
7200	853	840	36	1.39	1.37	906	918	38	1.57	1.59	959	981	41	1.79	1.83	1015	1050	44	2.04	2.10
7600	882	861	40	1.59	1.56	932	938	42	1.79	1.79	987	1002	45	2.02	2.03	1043	1069	49	2.28	2.31
8000	914	886	44	1.82	1.77	963	961	47	2.03	2.01	1018	1024	50	2.27	2.26	1074	1090	53	2.54	2.54
8400	950	914	49	2.08	2.00	998	986	52	2.30	2.25	1052	1047	55	2.55	2.50	1108	1111	58	2.82	2.79
8800	989	946	54	2.36	2.26	1037	1014	57	2.59	2.51										
CFM	1.6					1.8					2					2.2				
	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2	RPM1	RPM2	DDC%	BHP1	BHP2
5600	1008	1042	33	1.54	1.63	1066	1086	36	1.75	1.82	1116	1129	38	1.94	1.98	1165	1175	41	2.16	2.19
6000	1023	1058	36	1.71	1.79	1081	1101	39	1.93	1.98	1132	1143	41	2.12	2.16	1182	1189	45	2.35	2.38
6400	1040	1074	40	1.89	1.97	1099	1117	43	2.12	2.17	1149	1159	45	2.32	2.35	1199	1203	48	2.56	2.57
6800	1060	1091	44	2.09	2.16	1118	1134	47	2.33	2.36	1168	1175	49	2.54	2.55	1219	1217	52	2.78	2.78
7200	1083	1108	48	2.31	2.36	1139	1150	51	2.56	2.57	1189	1191	53	2.77	2.77	1239	1232	56	3.02	2.99
7600	1109	1127	52	2.56	2.58	1163	1168	55	2.80	2.80	1212	1208	58	3.02	3.00	1261	1247	61	3.28	3.22
8000	1137	1146	57	2.82	2.82	1189	1186	60	3.06	3.03	1237	1225	62	3.29	3.24	1285	1262	65	3.55	3.46
8400																				
8800																				

APPENDIX A ECONOMIZER PRESSURE DROP

Airflow Pressure Drop of Downflow Economizer for 15 to 25 Ton Rooftop Units (100% Return Air)												
SCFM	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500	10000
(In WG)	0.15	0.18	0.22	0.27	0.32	0.37	0.42	0.48	0.55	0.61	0.69	0.76

APPENDIX B ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Power Exhaust	Power Exhaust (Modulating)	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	Type	HP	FLA	Part #	KW*	FLA	FLA	FLA	FLA	MCA	MOP
DSC1803D	208/230/3/60	2	25.0	179	3	0.33	2.0	2	3.5	10.9	-	-	-	-	-	-	84.1/84.1	100/100
											-	-	-	-	4.8	-	88.9/88.9	110/110
											-	-	-	-	-	13.9	98.0/98.0	110/110
											-	-	-	9.6/8.7	-	-	93.7/92.8	110/110
											-	-	-	9.6/8.7	4.8	-	98.5/97.6	110/110
											-	-	-	9.6/8.7	-	13.9	108/107	125/125
											EH**-3L30	21.6/28.8	60.0/69.3	-	-	-	102/114	110/125
														-	4.8	-	108/120	110/125
														-	-	13.9	120/131	125/150
														9.6/8.7	-	-	114/125	125/125
														9.6/8.7	4.8	-	120/131	125/150
														9.6/8.7	-	13.9	132/142	150/150
											EH**-3L45	32.4/43.2	90.1/104	-	-	-	140/157	150/175
														-	4.8	-	146/163	150/175
														-	-	13.9	157/175	175/175
														9.6/8.7	-	-	152/168	175/175
														9.6/8.7	4.8	-	158/174	175/175
														9.6/8.7	-	13.9	169/185	175/200
											EH**-3L60	43.3/57.6	120/139	-	-	-	177/166	200/175
														-	4.8	-	183/172	200/175
														-	-	13.9	195/183	200/200
														9.6/8.7	-	-	189/177	200/200
														9.6/8.7	4.8	-	195/183	200/200
														9.6/8.7	-	13.9	207/194	225/200
DSC1803W	208/230/3/60	2	25.0	179	3	0.33	2.0	2	5.0	14.5	-	-	-	-	-	-	91.3/91.3	110/110
											-	-	-	-	4.8	-	96.1/96.1	110/110
											-	-	-	-	-	13.9	105/105	125/125
											-	-	-	9.6/8.7	-	-	101/100	125/125
											-	-	-	9.6/8.7	4.8	-	106/105	125/125
											-	-	-	9.6/8.7	-	13.9	115/114	125/125
											EH**-3L30	21.6/28.8	60.0/69.3	-	-	-	111/123	125/125
														-	4.8	-	117/129	125/150
														-	-	13.9	129/140	150/150
														9.6/8.7	-	-	123/134	125/150
														9.6/8.7	4.8	-	129/140	150/150
														9.6/8.7	-	13.9	141/151	150/175
											EH**-3L45	32.4/43.2	90.1/104	-	-	-	149/166	150/175
														-	4.8	-	155/172	175/175
														-	-	13.9	166/184	175/200
														9.6/8.7	-	-	161/177	175/200
														9.6/8.7	4.8	-	167/183	175/200
														9.6/8.7	-	13.9	178/194	200/200
											EH**-3L60	43.3/57.6	120/139	-	-	-	186/175	200/175
														-	4.8	-	192/181	200/200
														-	-	13.9	204/192	225/200
														9.6/8.7	-	-	198/186	200/200
														9.6/8.7	4.8	-	204/192	225/200
														9.6/8.7	-	13.9	216/203	225/225