OWNER MAINTENACE RESPONSIBILITIES
FOR WARRANTY TO BECOME AND REMAIN IN EFFECT

Note: Section 4 in your installation manual will provide you with operation and guidelines for building, chemistry, etc.
Please review your installation binder.

1. General maintenance on any equipment is handled much like your home or office

2. The owner/manager of the property will be responsible for the day to day maintenance, structuring preventive maintenance and service checks every 6 months to maintain the warranty; maintaining the proper balance of pool chemistry at all times and operating the system according to the design conditions, temperature settings for air & water, humidistat settings (50-60%RH), etc. At no time should air temperature below lower than the water temperature and at no time should the relative humidity fall or be set at 50% RH and never higher than 60%RH.

3. Scheduling regular checks/maintenance on your dehumidification system to ensure it is operating properly is required to maintain your warranty. DXair/Northern Geo LLC will ensure your warranty remains intact if you will follow a few simple procedures:

4. If this is a commercial project with thermostat and humidistat located in the pool room, we recommend that these controls be put under a cover and "locked down" so that the temperature and humidistat settings cannot be changed by customers or staff not allocated to do so. Or install the controls in your mechanical space and the sensors located in the pool room. It is imperative that temperatures do not fluctuate for water and air to maintain the design settings for your natatorium.

5. The "Owner" is required to set up a regular preventive/maintenance schedule with the installing contractor and maintenance staff. We recommend full inspections take place every 6 months. There is a one-year total warranty on the complete unit and the installing contractor for your project would be the most likely candidate to handle your first year service/warranty agreement. This should be discussed prior to installation or immediately after installation with your contractor.

6. Ask your contractor to "train" you on the basics – changing filters, checking for leaks, keeping the condensate line/traps/drain pans free of dirt and debris at all times; what valves cannot be touched, how to monitor your fluid cooler for liquid, red lights on the unit, etc.

7. Extended warranties are available and will remain in effect only when the preventive 6 months "checkup" on system and all components is complete.

- OWNER TO **CHECK FILTERS** ON A REGULAR BASIS (MIMIMAL EVERY TWO WEEKS) AND ENSURE FILTERS ARE CLEAN OR REPLACED. If the filters become plugged it cuts down air flow in the space and will also freeze the evaporator coil, causing a system lock out to protect itself from burning out a compressor or other parts.

- OWNER to check condensate drain, lines, traps and ensure they are free of debris AT ALL TIMES. Do this weekly to prevent any water from backing up into the system where it can flood the bottom of the unit. If the unit floods, you may have to replace it.

- Check for negative pressure. The door to the pool room should be slightly difficult to open or take a lighter and slightly crack open the door to the pool room. The flame should be pulled into the pool room, not the other way. If not, then the room is not under negative pressure or your fan is turned off. This is extremely critical in your operation! Ensure your room is under negative pressure at all times.

- **OWNER TO CHECK FOR ANY KIND OF LEAKS** IN PIPING OR PLUMBING, AND IF FOUND, CONTACT MECHANICAL CONTRACTOR, PLUMBER, ETC. TO DETERMINE WHAT IS LEAKING AND TO ENSURE IT IS FIXED AS SOON AS POSSIBLE. (Leaks can cause fluids from system to drain and burn out items if not caught and fixed, please check this on a regular basis as the system "settles" in and after installation).

- **If using a fluid cooler, ensure that the proper water/glycol levels are being maintained in the fluid cooler. If it dries out the unit will shut down for lack of flow.**

- If the system is not dehumidifying, check the following: Humidistat and Thermostat settings and ensure they are in line with the design settings for your system (80-84 pool, 82-86 Air Temperature, 50%-60% RH on humidistat).

- Check to see if the system is running or if there are any RED LIGHTS appearing on the side panel and what they say (i.e. "compressor lockout"). You may think the system is running and you may only hear a fan. You may need to remove a panel and carefully feel if the compressor(s) are warm or cold? If there are red lights on the panel it will generally indicate to the mechanical firm the problem areas to check.

- Did you have a power out recently? If so, shut the system down completely, wait a few moments, and turn it back on. See if that will re-set it.

- If everything is set correctly and the system is still not working, call your mechanical contractor who installed the unit to have him check it. Do not touch anything else.

- **Owner to maintain proper pH and Chlorine/Bromine/Salt Balance** of pool water at all times to prevent corrosion and rust of equipment, electrical wiring, parts, relays, contactors, etc. We cannot stress this enough and it is critical to your warranty remaining intact. If you can smell chlorine in the pool room, the pool is out of balance**. DXAIR will not warranty parts or equipment that have been destroyed or are deteriorated due to any chemicals or salt or chlorine.** If this is a salt water pool, it is imperative that client and staff are trained to balance the pool water properly. Speak with your pool company/chemistry professional to be trained in proper balancing techniques and maintaining your chemistry. Neither the mechanical neither contracting firm nor DXair can nor will be held for responsible for problems arising from water quality issues.

- 1. Chemical levels in the pool water must be maintained within acceptable limits at all times to avoid health hazards and/or possible equipment damage. Chlorine levels in excess of 6 PPM (parts per million) are to be avoided. PH levels below 7.2 and above 7.6 are to be avoided. Salt PPM must be verified with your pool company and should never exceed _____PPM. DXAIR does not specialize in pool chemistry – we highly recommend you speak with chemistry professional to understand balancing your pool properly.

- Proper water quality must be maintained at all times. Balancing records and water quality records must be maintained for each system and may be required by factory for submitting of warranty claims.

- 2. **Automatic chemical feeders should never be installed up stream of the system's heat exchangers.** Super chlorinated water and salt, such as produced by such feeders, can destroy the heat transfer surface within the exchanger. When automatic chemical feeders are installed downstream of the heat exchanger, certain precautions must be taken to prevent heat exchanger damage. A check valve (non-metallic) must be installed in the water piping between the heat exchanger and the chemical feeder. This will prevent the super chlorinated water in the chemical feeder from draining back into the heat exchanger when the pool water pump is shut off.

- Annual maintenance that should be set up with your mechanical firm or mechanical responsible for the pool room: check belts, blowers, refrigerant, any leaks, check coils to see if they need to be cleaned. Failure to do so and maintain proper records may void your warranty.

- See Enclosed Bulletin on Equipment Maintenance

MONTHLY MAINTENANCE

- Air Filters- Check and replace as necessary. If this is a permanent filter it needs to be cleaned regularly. Check filters a minimum of every 2 weeks and cleans or replace if required. Dirty filters restrict air flow considerably.

- Fans and Drives- Check for worn or loose belts; adjust or replace as necessary.
- When it is necessary to replace one belt in a set, the entire set of belts should be replaced.
- When fan belts are replaced, they could be retightened 24 to 48 hours after they are put into service. Check that fan bearing and locking collar set screws are tight, and lubricate bearings using high-quality lithium grease.
- Refrigeration Charge-Check the refrigerant sight glasses. When the refrigerant charge is correct, there should be no bubbles in the sight glass. If no sight glass, check super-heat and sub-cooling.
- Condensate Line-Check that the line is free from obstructions. Always keep the condensate trap and lines free and clear.
- Unit Interior/Exterior- Check for torn insulation and repair if necessary. Check for scratches, nicks, rust, etc., and repaint promptly.
- Long Entries-Check and record in the logbook the following actual operating values and the values read from the computer display:

A 6 MONTHS- ANNUAL MAINTENANCE is required to maintain the warranty. Document all service/maintenance records as they will be required by the factory.

6 Month Complete System Checkup & Annual maintenance should include all items listed under "Monthly Maintenance," in addition to the following.

Compressor and Refrigerant System- The compressor and refrigerant system should be inspected annually by a qualified HVAC service technician. As a minimum, the following items should be done:

- Perform a complete unit operation test, including log entries.
- Inspect fan bearing and belts for excessive wear; replace if necessary.
- Inspect the general refrigeration system for possible leaks, chafing between tubing, and other items detrimental to operation.
- Check system super-heat. (10-12 degrees)
- Check electrical connections for tightness, including the compressor electrical box.
- Clean debris and dirt from drain pan.

NOTE: ALL WARRANTY IS SUBJECT TO CHANGE WITHOUT NOTICE. REV. 07/2016