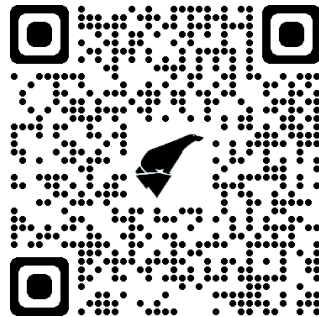




FIRE AND ICE
PORTABLE CHILLER & HEATER

INSTALLATION GUIDE
USER MANUAL



FIRE & ICE MANUAL
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CONTACT INFORMATION & AFTERHOURS SUPPORT

CONTACT INFORMATION

G&D Chillers, Inc.
760 Bailey Hill Rd.
Eugene, Oregon 97402
1.800.555.0973
info@gdchillers.com
Office Hours: 8 AM – 5 PM PST

AFTERHOURS TECHNICAL SUPPORT

G&D Chillers offers 24/7 technical support. For emergency assistance after normal business hours, call the main office at 1.800.555.0973. The voicemail recording will provide contact information for the emergency on-call service technician.

INSTALLATION VIDEO LINKS

Visit the following pages for installation video walk-throughs and FAQs:

gdchillers.com/installation-videos/

gdchillers.com/installation-videos/how-to-install-a-chiller

gdchillers.com/installation-videos/how-to-install-a-portable-fire-ice-chiller/

gdchillers.com/faq

NOTICE: CHILLER WARRANTY REQUIRES ACTIVATION

To activate the chiller parts and labor limited warranty, complete the Warranty Start-Up Checklist and return to G&D Chillers within 30 days.

PACKAGE CHILLER DESCRIPTION

CONDENSER

Air-cooled copper tube aluminum fin condenser coil. Direct drive propeller type fans with DDP motors and built-in overload protection. Design test pressure 150 PSIG low side, 300 high side.

EVAPORATOR

Brazed plate counterflow heat exchanger fed by externally-equalized thermostatic expansion valve.

COMPRESSOR

Hermetically sealed reciprocating Maneurop compressor with oil level sight glass, rotalock service valves, and crankcase heater.

CIRCULATION PUMP

Base mounted end suction centrifugal pump. Impeller trimmed for 35% propylene glycol mixture.

RESERVOIR TANK

Constructed stainless steel. Insulated with ½" closed cell foam insulation

SUPPLY & RETURN PIPING

Constructed of type M copper. Supply and return stainless steel manifold with auxiliary ports. Quick connect fittings provided for up to four connections. Liquid-filled pressure gauge for setting discharge pressure.

DYNAMIC FLUID BYPASS VALVE

Allows for balancing of discharge pressure. Over pressure design allows circuiting back to tank without damage to system or pump. Copper and bronze construction.

REFRIGERANT PIPING

Type L ACR copper. Liquid line-filter drier, sight glass/moisture indicator, solenoid valve and thermal expansion valve with equalizer. Suction line fully insulated and designed for proper oil return with minimum friction loss. Discharge line formed of ACR tubing reformed radius fittings. Crankcase pressure regulating (CPR) valve included to protect compressor during high temperature startup.

All piping leak tested and evacuated. Ships with full operating charge of refrigerant. Refer to data plate for refrigerant type and charge.

FRAME & HOUSING

Fully powder coated steel frame. Durable stainless-steel housing. Louvered access panel for easy service and maintenance. Includes industrial-grade casters for easy portability.

POWER & CONTROLS

All power starting controls and safety/operating controls are mounted in a weatherproof steel NEMA 3R enclosure.

Features include:

- Digital temperature controller
- Compressor contactor and circuit breaker
- Pump contactor and circuit breaker
- Pressure-based mechanical safeties
- Heating element hi-temp limit
- Over-temperature shut down
- Fan cycling switches

FACTORY TESTING

All Fire & Ice units are leak checked and run tested at the factory, and verified to be in perfect working order prior to shipment.

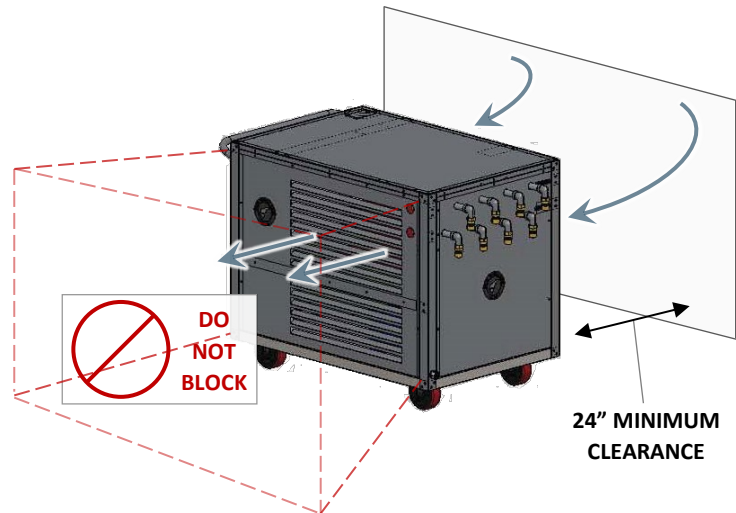
INSTALLATION REQUIREMENTS

LOCATION

The unit should sit on a solid level surface. A concrete pad is recommended. Allow adequate clearance on the intake and discharge sides for airflow. Location should be free of grass and other debris that could plug condenser fins.

Ensure 24" clearance between condenser intake side and any buildings, walls, etc.

No walls, obstructions or low overhangs in front of or above the unit: Louvered access side must be open to free air.



ELECTRICAL

WARNING: OBEY ALL APPLICABLE LOCAL AND NATIONAL ELECTRIC CODES WHEN INSTALLING THIS EQUIPMENT

1. Supply unit with the proper voltage and protect against power spikes. Use only copper wire. Size wire and according to any/all applicable local and national codes. Refer to chart to the right for proper torque values. Refer to spec sticker on control panel for all electrical ratings.
2. A plug that meets the electrical requirements of the system and the environmental requirements of the space where the system will be used. Must be installed by a qualified electrician.
3. Unit must be properly grounded.
4. Use only hubs or fittings that meet the environmental requirements where the system will be used.
5. When turning unit off for an extended length of time, leave power energized. (This will leave the crankcase heater on and keep the crankcase warm for the next start up.)
6. On systems with three-phase pumps the rotation of the pump must be checked; clockwise from back of motor. If needed, correct phasing at the plug. Ensure that all receptacles where the system may be connected are phased the same.

Gauge	lbf-in
1000-500	550
500-4	500
350-6	375
250-6	375
4/0-6	275
2/0-14	120
#2-#3	50
#4-#6	45
#8	40
#10-#14	35

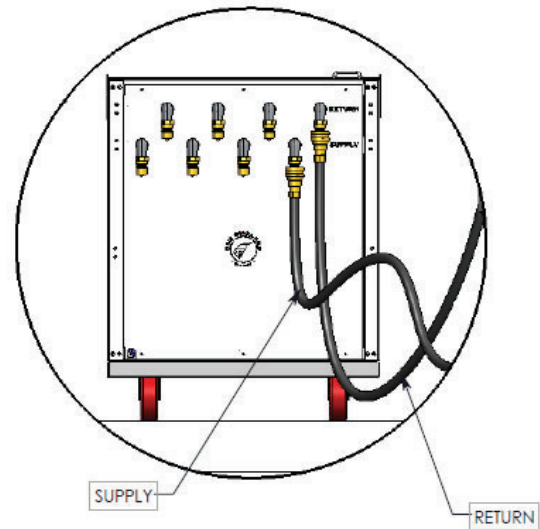
PIPING RECOMMENDATIONS

Fire and Ice units are built with glycol supply and return stainless-steel manifolds fitted with male quick connect fittings. One set of hoses with female quick connect fittings are included. Additional hose sets are available for purchase. Male quick connects will be needed on tanks to connect with hose set.

Confirm **tank jackets** have been flushed of any debris before connecting to them for the first time.

Individual tank **temperature control package** should be installed at each vessel to maintain optimal conditions for each process being heated.

Always connect the **glycol supply** to the bottom fitting on the tank jacket and the return to the top. This allows any air in the jacket to be purged back to the heater reservoir and vented to the atmosphere.



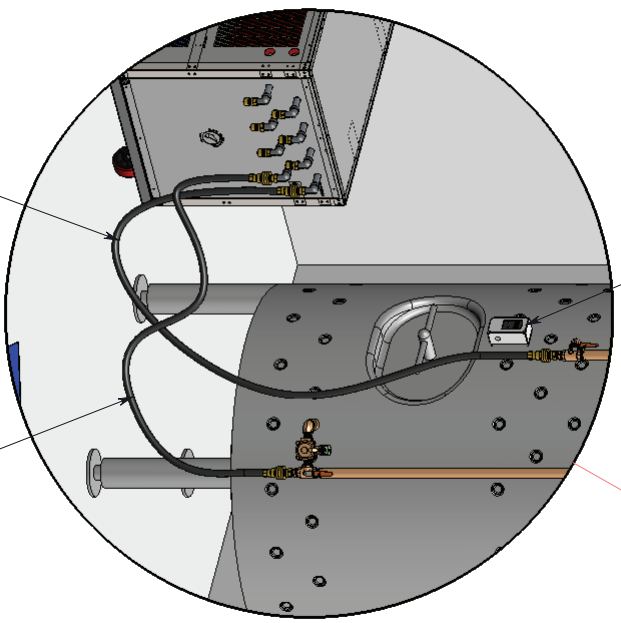
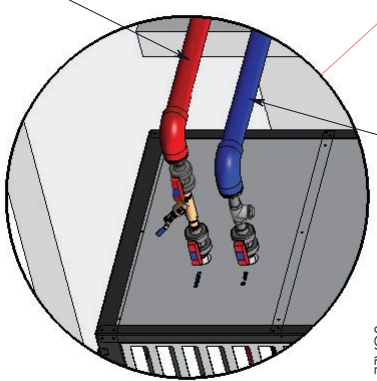
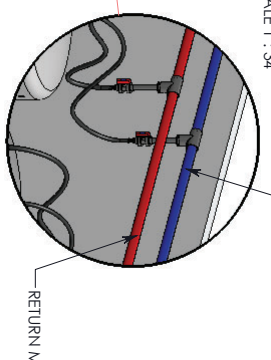
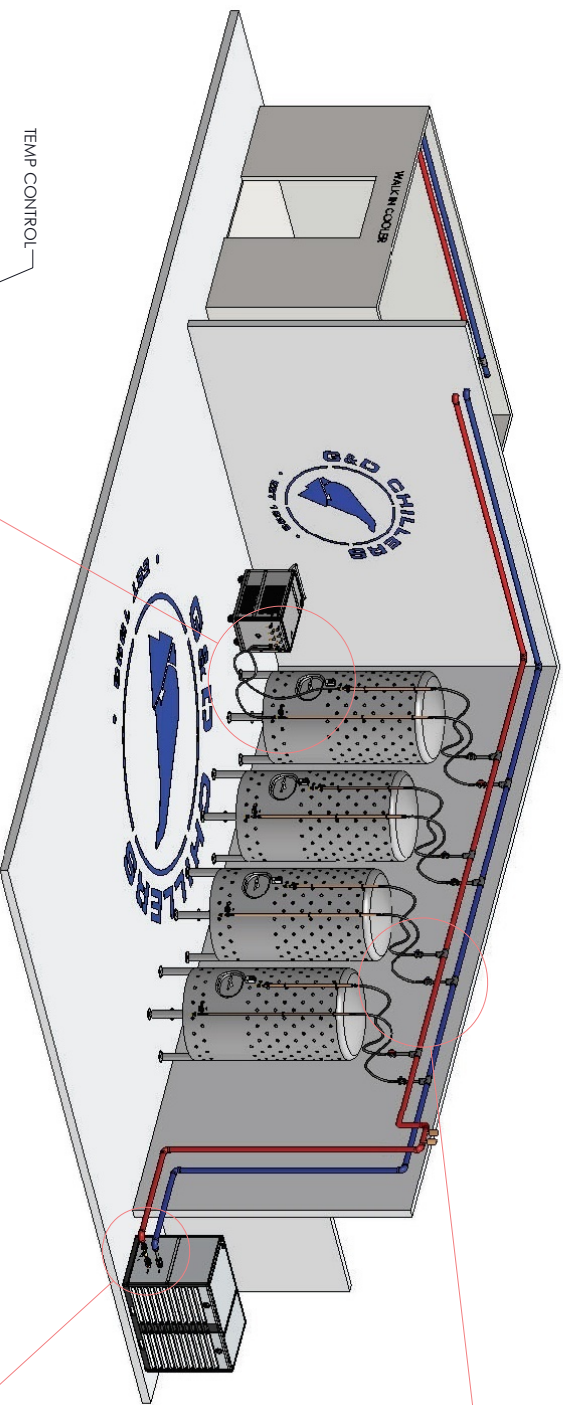
Glycol pressure is adjustable: Verify tank jacket ratings before pressurizing piping (pressure is pre-set at 20 PSI)

- Heater contains dynamic fluid bypass valve and pressure gauge on supply line
 - Bypass valve: Loosen packing nut and turn handwheel to adjust supply pressure
 - Retighten bypass valve packing nut once the pressure is set
- Do not connect hoses until gauge shows pressure within tank jacket ratings

Note: If using the optional auxiliary port connections, it is recommended that a **20 mesh Y-strainer** be included at the return connection.



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED



FIRE AND ICE TO EXISTING GLYCOL SYSTEM PIPING



G&D CHILLERS

COMMITTED TO COLD

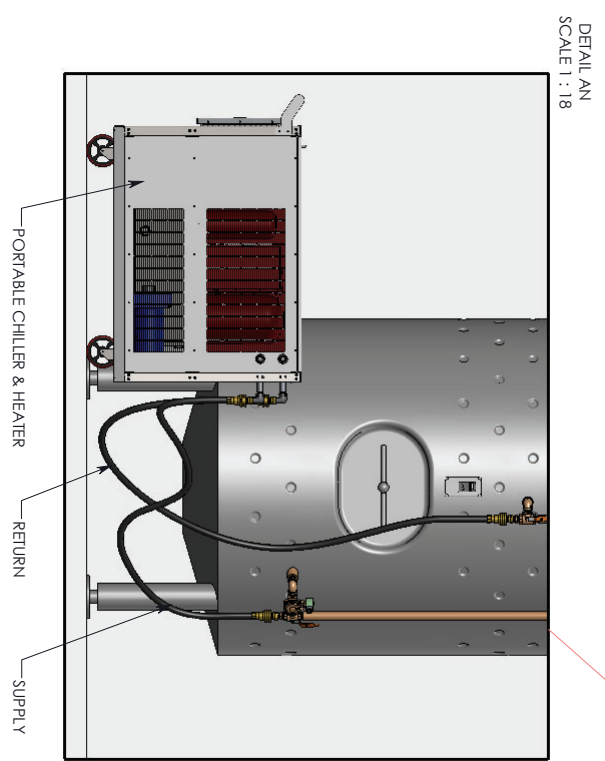
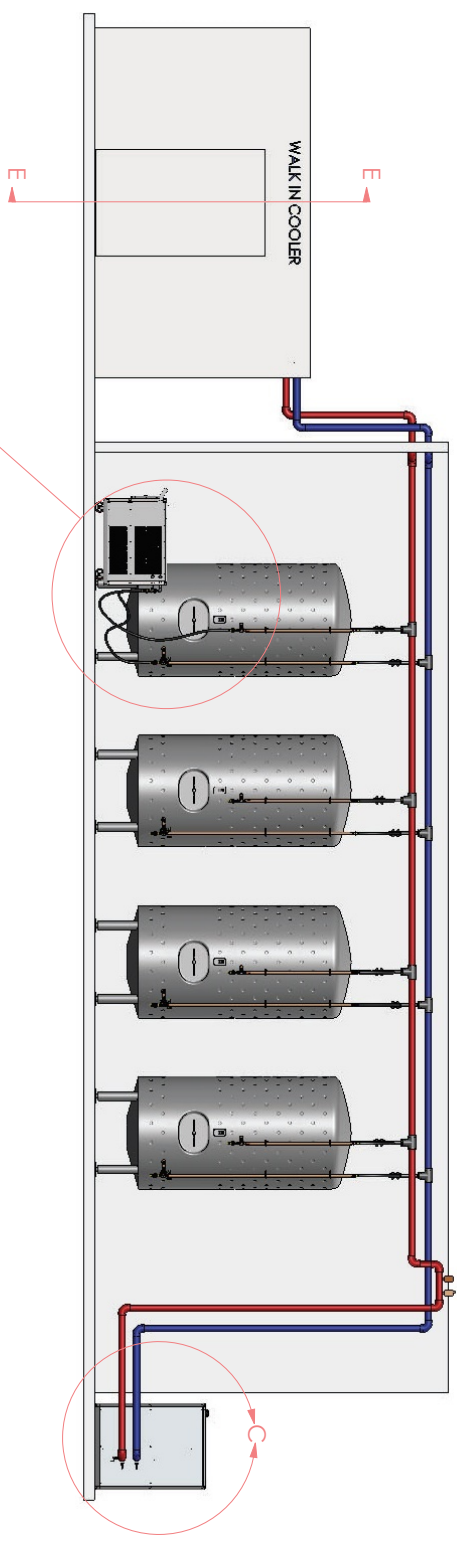
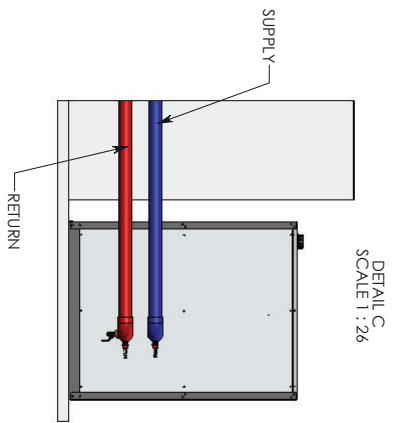
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DETAIL AH
SCALE 1 : 16

DETAIL D
SCALE 1 : 34

DETAIL AA
SCALE 1 : 16



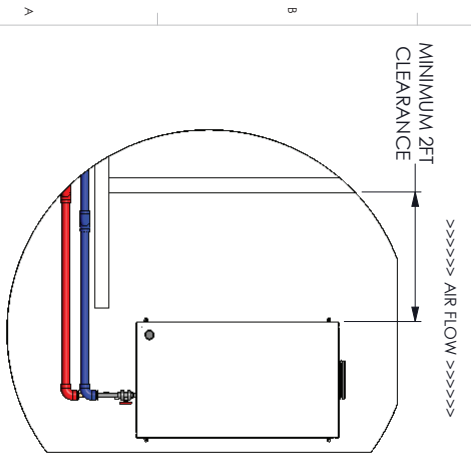
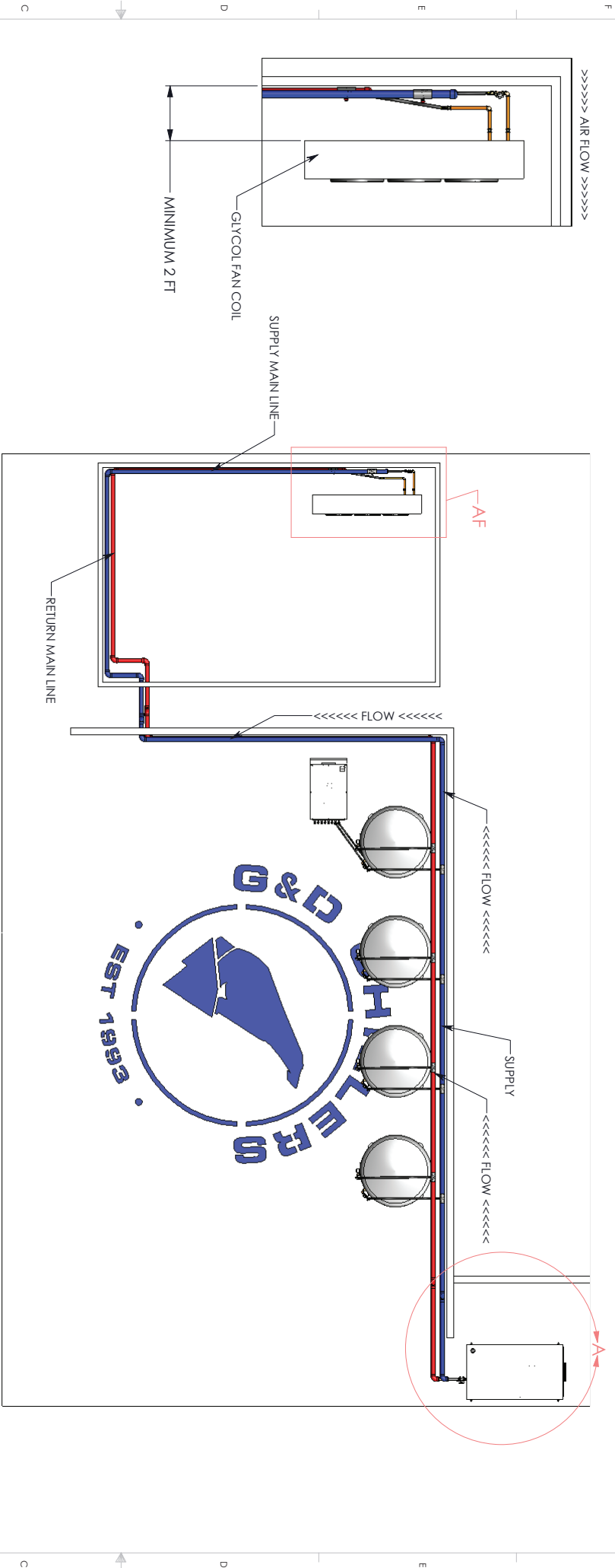
FIRE AND ICE TO EXISTING GLYCOL SYSTEM PIPING



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**FIRE AND ICE TO EXISTING
GLYCOL SYSTEM PIPING**

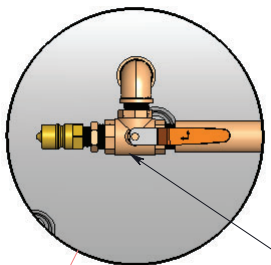


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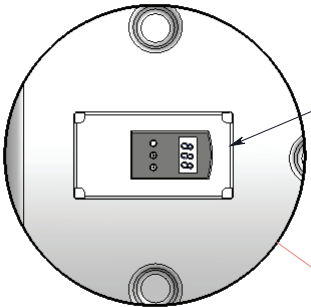
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DETAIL AJ
SCALE 1 : 5

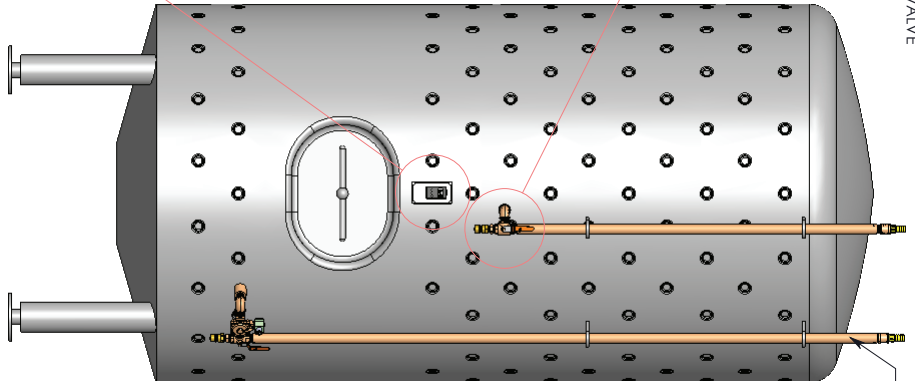


3 WAY BALL VALVE

DETAIL AK
SCALE 1 : 4



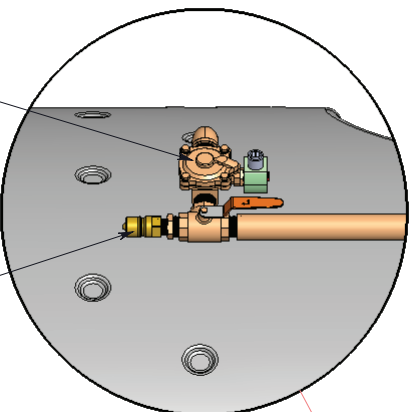
TEMP CONTROL



SUPPLY

RETURN

DETAIL AL
SCALE 1 : 6



110 VOLT SOLENOID

QUICK DISCONNECT

FIRE AND ICE TO EXISTING GLYCOL SYSTEM PIPING



G&D CHILLERS

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START-UP INSTRUCTIONS



7 Easy Steps to Start-up Your New G&D Chiller

Please view install videos online at www.gdchillers.com/installation-videos

Fire & Ice / Chill Only


1. Chiller must be positioned with at least 24 inches of clearance on air intake side (opposite louvered access panels) and open to free air on exhaust side (louvered panel side) with no obstructions.
2. With the door switch in the OFF position, ensure all breakers are in the ON position. **The chiller must then be supplied with power for at least 4 hours. Verify there is a visible oil level in the compressor sight glass before proceeding.**
3. Fill reservoir with a 35% glycol to water mixture.
 - a. Ensure compressor breaker is OFF
 - b. Turn the door switch to RUN and **verify correct pump rotation** before flushing the system
 - c. After flushing and putting glycol in reservoir, temporarily **close the supply valve and confirm glycol pressure is at 20 PSI or under lowest jacket pressure rating; whichever is lowest.**
4. Turn the door switch back OFF and the compressor breaker(s) back ON. **Re-verify oil level in compressor sight glass before proceeding.**
5. **(Does not apply to 3HP compressors)** Open all service valves in chiller marked with tags. To prevent irreversible damage, bottom valve on compressor must be cracked back in ½ to 1 full turn after being fully opened. Contact us for more details as needed: 800-555-0973.
6. Turn door switch to the RUN position.
7. Press down arrow key on thermostat to desired set point.

PLEASE VISIT GDCHILLERS.COM TO VIEW OUR INSTALLATION VIDEOS & FAQs

*G&D Chillers welcomes any and all questions or concerns. We can be reached at **800-555-0973** or **541-345-3903**

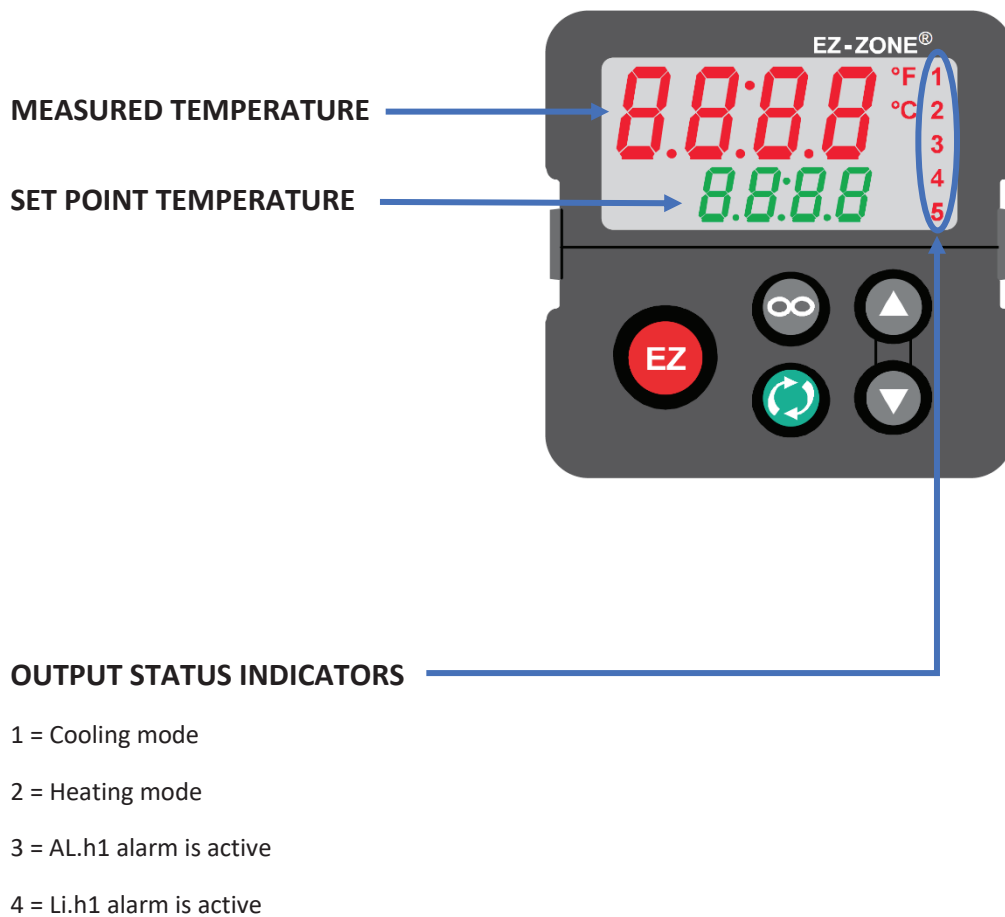
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WARRANTY START-UP CHECKLIST

Jobsite:					Tech Company:
Chiller Model:					Technician:
Chiller Serial #:					Start-Up Date:
FOLLOWING START-UP OF CHILLER, PLEASE SEND A COPY OF COMPELTED FORM TO G&D TECH SUPPORT					
CLEARANCE AROUND CHILLER <small>(Include picture if necessary)</small>	FRONT:	BACK:	LEFT:	RIGHT:	
GLYCOL/DYNALENE MIXTURE %					
GLYCOL/DYNALENE LEVEL (Reservoir % Full)					
PHASE/VOLTAGE					
VOLTAGE TO GROUND <small>(Note: High Leg to L2)</small>	L1:	L2:	L3:		
PUMP ROTATION					
GLYCOL PRESSURE					
	COMPRESSOR A	COMPRESSOR B	COMPRESSOR C	COMPRESSOR D	
CRANK CASE HEATER ENGERGIZED 4 HOURS					
COMPRESSOR OIL LEVEL					
MOTOR AMPS:	L1:	L1:	L1:	L1:	
	L2:	L2:	L2:	L2:	
	L3:	L3:	L3:	L3:	
SUPERHEAT (°F) @ 30°F GLYCOL TEMP					
SUBCOOLING (°F) @ 30°F GLYCOL TEMP					
SUCTION PRESSURE @ 30°F GLYCOL TEMP.					
DISCHARGE PRESSURE @ 30°F GLYCOL TEMP.					
	PUMP #1	PUMP #2	PUMP #3	PUMP #4	
MOTOR AMPS:	L1:	L1:	L1:	L1:	
	L2:	L2:	L2:	L2:	
	L3:	L3:	L3:	L3:	
	FAN MOTOR #1	FAN MOTOR #2	FAN MOTOR #3	FAN MOTOR #4	
MOTOR AMPS:	L1:	L1:	L1:	L1:	
	L2:	L2:	L2:	L2:	
	L3:	L3:	L3:	L3:	
	FAN MOTOR #5	FAN MOTOR #6	FAN MOTOR #7	FAN MOTOR #8	
MOTOR AMPS:	L1:	L1:	L1:	L1:	
	L2:	L2:	L2:	L2:	
	L3:	L3:	L3:	L3:	
AMBIENT TEMP @ STARTUP					

SEQUENCE OF OPERATION

1. Chiller supply and return hoses should always be connected during normal operation.
2. Fluid bypass valve is factory set at 20 PSI valve design to allow minimum flow across heat exchanger when process is not calling for cooling.
3. Pump circulates at all times when panel door switch is in the Run position.
4. Compressor control circuit is energized when pump is running.
5. Digital temperature control energizes refrigerant line solenoid valves based on leaving fluid temperature.
6. Refrigerant pressure will build and close the low pressure control contact.
7. High pressure control will cut power to the compressor contact disabling the compressor if conditions cause high head pressure.
8. Door switch will pump down compressor then turn off pump if switch is shut off during compressor run cycle.
9. Line voltage power should be left on to main terminal block at all times to keep crank case heater energized during extended off cycles.



MAINTENANCE

Please contact **G&D Technical Support** if you have any questions or concerns regarding the performance, operation, or maintenance of your chiller/heater unit: **800-555-0973**

- Refer to the separate G&D Chillers Preventive Maintenance Checklist for a complete list of maintenance tasks.
- Contract a licensed refrigeration technician to evaluate the chiller refrigeration circuit(s) regularly. These checkups should occur annually at a minimum. Every 3-6 months is recommended.

The following maintenance tasks can be performed without the need for specialized equipment or training:

- Check glycol level and glycol/water ratio monthly. Use glycol refractometer to confirm 35% glycol mixture.
- Check compressor oil in sight glass at bottom of compressor monthly. Inspect for any oil leaks.
- Verify pump function quarterly. Confirm glycol supply pressure. Listen for abnormal sounds from the pump.
- Verify thermostat function quarterly. Check displayed temperature against a thermometer measurement.
- Condenser should be cleaned at least every 6 months for proper operation and efficiency. Use a garden hose and spray at an angle downward. Take care not to bend the condenser fins.
- Verify thermostat function quarterly. Check displayed temperature against a thermometer measurement.
- Periodically inspect the power cord and control panel for any sign of failure (scorched or frayed wiring, moisture...). Cords or wiring cracked or worn insulation should be replaced immediately.
- Lubricate fan motors every 12 months.
- See warning below. With the cord unplugged (no power to the chiller), inspect control panel contacts on compressor and pump contactors. Contact an electrician if replacements are needed.

NOTICE: Always verify that the glycol reservoir is at least $\frac{3}{4}$ full prior to use, and that the level does not drop below half full while in operation.

NOTICE: Unit should be left plugged in at all times or plugged in for at least four hours prior to startup. This is to keep the crank case heater energized during extended off cycles.

WARNING: DO NOT ATTEMPT TO SERVICE ELECTRICAL COMPONENTS OR MAKE ADJUSTMENTS IN ELECTRICAL PANEL WITHOUT PROPER TRAINING AND IMPLEMENTATION OF LOCKOUT/TAG-OUT SAFETY PROCEDURES

TROUBLESHOOTING

GENERAL MECHANICAL ISSUES

If you notice any of the following mechanical issues, contact G&D Technical Support as soon as possible:

- Excessive or unusual noise
- Abnormally low pump pressure or noise from pump

CONTROLLER ERRORS

Occasionally you may see an error message displayed on the controller, such as “AL.h1” or “Li.h1”. These are both errors related to overheating. If they appear it is usually because the limit has been set too low, or the compressor breaker or refrigerant head pressure safety has tripped.

AL.h 1 – Fluid high temperature alarm

Li.h 1 – Heating element high temperature alarm

NOTICE: One possible cause for “Li.h1” is a low fluid level in the glycol reservoir. If this happens DO NOT operate the unit until glycol has been added to the system.

CLEARING AN ERROR MESSAGE

If an error message is displayed, always attempt to determine the cause before clearing it. Contact G&D Technical Support for assistance. To clear an error:

- Press the green “Advance” key
- “i9nr” should be displayed in green
- Press the down arrow. “Clr” should appear
- Press the black “Reset” or “Infiniti” key to execute the command
- The error will blink once, then the controller will return to normal operation

Contact G&D Technical Support at 800-555-0973 before clearing controller errors

CHILLER TROUBLESHOOTING GUIDE

A guide for troubleshooting the refrigerant circuit in the chiller portion of the Fire and Ice unit is given on the following three pages. Contact G&D Chillers Technical Support if you have any concerns or need assistance with troubleshooting.

TROUBLESHOOTING

	COMPLAINT	SYMPTOMS	CAUSE	SOLUTION
1	System short of capacity	Lower than expected suction and discharge pressures	Low refrigerant charge	Check for leaks, repair, and recharge. See item 5
		Higher than expected head pressure	Dirty condenser	Clean. See item 2
		Lower than normal suction pressure	Incorrect superheat - too high	Adjust superheat
2	Head pressure too high	Tripping high pressure switch, or compressor trips on internal overload	Dirty condenser	Clean condenser
			Condenser air short circuiting or location too hot	Remove obstructions, causes for air short circuiting
			Defective condenser fan motor or blade	Replace
			Air or non-condensable gases in the system	Purge the system
			Refrigerant over charge	Remove excess refrigerant
3	Head pressure too low	Sight glass with bubbles	Refrigerant leak or system undercharged	Check for leaks, repair and recharge
			Plugged filter drier	Replace filter drier
			Insufficient subcooling	Check condenser subcooling circuit
4	Suction pressure too high	Glycol temperature will not reach set point	Excessive load on the system	Check load and improve conditions
		Incorrect superheat	TEV stuck open due to ice or defect	Check, repair, or replace TEV
			Incorrect superheat setting of the expansion valve	Adjust superheat
5	Suction pressure too low	Sight glass with bubbles	See item 3	See item 3
		Warm suction line, signs of frost on the TEV and low system capacity	Plugged TEV or strainer	Clean TEV and strainer
		Compressor cycling due to low pressure cutout	See item 12	See item 12
6	Noisy compressor	Oil level below midpoint of the compressor sight glass during operation	Lack of oil	Avoid compressor short cycling or run compressor enough to return oil to crankcase, correct low load conditions. Add oil.
		Noticeable knock in compressor	Worn or scored bearings	Replace the compressor
		Frosted suction line and compressor shell	Liquid flood back	Check superheat and TEV operation

TROUBLESHOOTING

	COMPLAINT	SYMPTOMS	CAUSE	SOLUTION
7	Compressor does not pump	Minimal difference in pressure between high side and low side of system, when compressor motor has power	Broken suction valves	Change compressor
			Broken discharge line	Change compressor
			Internal pressure safety valve stuck open	Check item 13 and change compressor if necessary
8	Compressor will not start	Blown fuse or open disconnect	Short circuit or other electrical failure	Check electrical circuit and wiring
		Tripped or damaged overload	Overheating or overcurrent	Wait 2-3 hours for overload to reset and check refrigerant charge or power quality to the compressor
		Open pressure switch	Loss of refrigerant charge	Check for leaks, repair and recharge
		Loose wires	Vibration, bad crimping or under-torque	Check terminals at compressor, contactor and wiring in general
		Motor seized	Low oil level or phase reversal	Check oil level. Restart 3-ph compressor by switching 2 phases; replace if it does not restart
9	Compressor starts but start relay does not drop out	High running current, overload trips	Incorrect wiring of start components	Check wiring
			Incorrect or defective start relay	Confirm operation, model and make
			Incorrect or defective start capacitor	Confirm integrity and specs, check if fitted with discharge resistance
			Incorrect or defective run capacitor	Confirm integrity and specs
			Low voltage	Fix undervoltage protection
10	Compressor runs but cuts out on overload	Internal overload tripping MUST WAIT 2-3 HOURS TO CHECK IF IT WILL RESET	Excessive head pressure due to dirty condenser or lack of condenser air or water flow	See item 2 above
			Low voltage or unbalanced	Fix undervoltage protection
			Faulty electrical connections causing single phasing or high current surges	Remake the connections
			Sticking start relay on single phase machines leaving start cap on circuit	Replace relay and ensure start cap is fitted with a discharge resistance

TROUBLESHOOTING

	COMPLAINT	SYMPTOMS	CAUSE	SOLUTION
11	Compressor starts but cycles on overload	Internal overload tripping MUST WAIT 2-3 HOURS TO CHECK IF IT WILL RESET	Loss of charge causing insufficient motor cooling	Check for leaks, repair, and recharge
			Voltage is low or unbalanced if 3-ph	1-ph fix undervoltage protection, 3-ph correct phase imbalance
			Defective or wrong run cap	Check and replace
			Defective overload	Check current and replace compressor if necessary
12	Compressor runs but cycles on...	...overload	See items 10 and 11	See items 10 and 11
		...thermostat	Thermostat differential set too close	Check and widen differential
		...high pressure switch	See item 2	See item 2
		---low pressure switch	See items 3 and 5	See items 3 and 5
		Leaking liquid line solenoid valve (LLSV)	Replace LLSV	
		Leaking compressor valves	Replace compressor	
		Undercharged system	Check for leaks and recharge	
13	Internal pressure safety valve (IPRV) opens	Refrigerant trapped in compressor	Discharge service valve closed	Open discharge service valve
		Discharge pressure exceeds high pressure setting	High pressure switch malfunction	Reset or replace high pressure switch, see item 2
14	Will not start, trips on overload	Start relay damaged or burned out	Too low or too high line voltage	Correct and replace relay
			Incorrect wiring	Replace relay and rewire per compressor wiring diagram
			Excessive cycling	See item 11
15	Start Capacitor damaged or burned out	Single phase compressor will not start	Incorrect relay	Check w/ manufacturer and replace
			Too high or too low line voltage	Correct and replace
			Excessive short cycling	See item 11
			Incorrect wiring	Replace and rewire per compressor manufacturer wiring diagram
			Wrong start or run capacitor	Correct and replace

PROPYLENE GLYCOL CHART

Percent by volume	Percent by weight	Freezing point °F	Degrees Brix °Bx
32.4	33.0	5.3	24.4
32.8	33.4	4.8	24.8
33.1	33.7	4.4	25.0
33.5	34.0	3.9	25.3
34.0	34.6	3.1	25.8
34.4	35.0	2.4	26.1
35.0	35.6	1.5	26.5
35.5	36.0	0.8	26.9
36.5	37.0	-0.8	27.5
37.5	38.0	-2.4	28.0
38.2	38.7	-3.7	28.4
38.5	39.0	-4.2	28.5

For most applications, G&D Chillers recommends no less than and no more than 35% propylene mixture.

The volume percentages in this table apply for pure propylene glycol; however, inhibited propylene glycol solutions will require higher volume percentages. For example, a solution of 36.6%vol DOWFROST contains 35%vol pure propylene glycol. Use the refractometer included with the chiller to verify proper glycol concentration.

****TO ACTIVATE WARRANTY, FILL OUT STARTUP CHECKLIST AND RETURN WITHIN 30 DAYS****

WARRANTY STATEMENT

TWO-YEAR LIMITED WARRANTY ON PARTS, ONE-YEAR LIMITED WARRANTY ON LABOR

G&D CHILLERS, INC. provides a limited warranty to the original purchaser of new products against defects in materials and workmanship for a period of one (1) year of normal commercial usage. For the subsequent period of one (1) year of normal commercial usage immediately following the first, this warranty is extended to cover parts only. This warranty is not transferable. If a product covered by this warranty is determined to be defective within the applicable warranty periods, G&D CHILLERS, INC. will, unless otherwise required by applicable law, either repair or exchange the product at its sole option and discretion.

EXCHANGE

Should G&D CHILLERS, INC. elect to exchange a product due to a covered defect during the warranty period, the replacement unit may, at G&D CHILLERS, INC.'s sole option and discretion, be new or one which has been recertified, reconditioned, refurbished or otherwise remanufactured from new or used parts and is functionally equivalent to the original product.

REPAIR: PARTS AND LABOR

There will be no charge for parts or labor to repair a product for a covered defect during the applicable warranty periods. Replacement parts may, at G&D CHILLERS, INC.'s sole option and discretion, be new, used, reconditioned, refurbished or otherwise remanufactured or recertified as functionally equivalent replacement parts.

REMAINING WARRANTY

Repaired or exchanged products are warranted for the remaining portion of the product's original warranty or for ninety (90) days from warranty service or exchange, whichever is longer. Any upgrade to the original product will be covered only for the duration of the original warranty period.

EXCLUSIONS

This warranty does not cover, for example: abuse, accident, acts of God, consumable parts such as batteries, cosmetic damage (e.g. scratches, dents, cracks), damage caused by use with non-G&D CHILLERS, INC. products (e.g. accessories, housing, parts, etc.), damages from shipping, improper installation or operation, improper voltage supply or power surges, lack of reasonable use, misuse, modifications or alterations, normal wear and tear or aging, as well as installation and set-up issues or any tampering or repairs attempted by anyone other than by a G&D CHILLERS, INC. authorized repair technician. This limited warranty does not cover products sold "AS IS", "FACTORY RECERTIFIED", or by a non-authorized reseller.

ASSIGNMENT OF WARRANTIES

G&D CHILLERS, INC. assigns to product purchasers any and all warranties of manufacturers and suppliers of component parts that are assignable, but G&D CHILLERS, INC. makes no representations as to the effectiveness or extent of such warranties and assumes no liability or responsibility for any third-party manufacturer or supplier's products or component parts that are sold by G&D CHILLERS, INC.

DISCLAIMER OF WARRANTY

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE LISTED OR DESCRIBED ABOVE. EXCEPT AS SPECIFIED IN THIS WARRANTY SECTION, ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS, AND WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, LAW, USAGE, OR TRADE PRACTICE, ARE HEREBY EXCLUDED TO THE EXTENT ALLOWED BY APPLICABLE LAW AND ARE EXPRESSLY DISCLAIMED BY G&D CHILLERS, INC.

TO THE EXTENT THAT ANY OF THE SAME CANNOT BE EXCLUDED, SUCH IMPLIED CONDITION, REPRESENTATION AND/OR WARRANTY IS LIMITED IN DURATION TO THE EXPRESS WARRANTY PERIOD REFERRED TO IN THE "LIMITED WARRANTY" SECTION ABOVE. BECAUSE SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, THE ABOVE LIMITATION MAY NOT APPLY IN SUCH STATES. THIS WARRANTY GIVES THE CUSTOMER SPECIFIC LEGAL RIGHTS, AND THE CUSTOMER MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION.

DISCLAIMER OF LIABILITY

G&D CHILLERS, INC.'S TOTAL LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER INCLUDING G&D CHILLERS, INC.'S NEGLIGENCE, ALLEGED DAMAGE, OR DEFECTIVE GOODS, WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCT. G&D CHILLERS, INC. SHALL NOT BE RESPONSIBLE FOR LOSS OF USE, WORK STOPPAGE, FAILURE OF OTHER EQUIPMENT TO WHICH THE PRODUCT IS CONNECTED, COMMERCIAL LOSS, LOST REVENUE OR LOST PROFITS, LOSS OF GOODWILL, LOSS OF REPUTATION, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. NO ORAL OR WRITTEN REPRESENTATIONS MADE BY G&D CHILLERS, INC. SHALL CREATE ANY ADDITIONAL WARRANTY OBLIGATIONS, INCREASE THE SCOPE, OR OTHERWISE MODIFY IN ANY MANNER THE TERMS OF THIS LIMITED WARRANTY. TO THE EXTENT PERMITTED BY APPLICABLE LAW, G&D CHILLERS, INC. DOES NOT WARRANT THAT THE OPERATION OF ANY PRODUCTS COVERED UNDER THIS LIMITED WARRANTY WILL MEET YOUR REQUIREMENTS, OR THIRD PARTY SERVICES, BE UNINTERRUPTED, ERROR-FREE, OR THAT DEFECTS IN THE PRODUCTS WILL BE CORRECTED. SOME STATES DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE. THIS LIMITED WARRANTY IS SUBJECT TO CHANGE WITHOUT NOTICE. CHECK www.gdchillers.com FOR THE MOST CURRENT VERSION OF THIS WARRANTY.

SEVERABILITY

In the event that any term or provision contained in this limited warranty is found to be invalid, illegal or unenforceable by a court of competent jurisdiction, then such provision shall be deemed modified to the extent necessary to make such provision enforceable by such court, taking into account the intent of the parties. The invalidity in whole or in part of any portion of this limited warranty shall not impair or affect the validity or enforceability of the remaining provisions of this limited warranty.

HOW TO OBTAIN WARRANTY SERVICE (PRE-AUTHORIZATION REQUIRED)

To obtain warranty service, contact G&D CHILLERS, INC.:

1. Email: info@gdchillers.com
2. Phone: (800) 555-0973 from 9:00AM to 5:00PM Monday through Friday Pacific Time.
3. By mail: G&D Chillers, Inc.
760 Bailey Hill Rd
Eugene, OR 97402



G&D Chillers welcomes any and all questions or concerns
We can be reached at 800-555-0973 or 541-345-3903