



## G-0400 REFRIGERANT FIELD CONVERSION PROCEDURE R-502 to R-402B

### FOR MODELS

GR-0400A GR-0401W GR-0490N  
GD-0402A GD-0403W GD-0492N  
GY-0404A GD-0405W GY-0494N

**WARNING!**  
Use only **R-402B** as  
retrofit refrigerant. Other  
replacement refrigerants  
may cause poor performance  
and/or component failure.

### EQUIPMENT MODIFICATION REQUIREMENTS

<u>Component</u>	<u>Change Required</u>
Compressor	None (replacement compressor is precharged with POE oil)
Expansion Valve (TXV)	None
High Pressure Cut-out	None
Low Pressure Cut-out (Remotes)	None
Fan Cycling Control (Air-cooled)	None
All Solenoid Valves	None
Water Regulating Valve (Water-cooled)	None
Heat Exchanger	None
Electrical Wiring	None
Branch Circuit Fuse Size	None
Air-cooled Condenser	None
Water-cooled Condenser	None
Evaporator	None

### SYSTEM PERFORMANCE AFTER CONVERSION

<u>Daily Ice Production</u>	<u>Energy Efficiency</u>
G-0400 8% increase	5% increase

- **Operating discharge (high) pressure:** air-cooled models will run 20-30 psig (138-207 kPa gauge) higher than R-502 pressures published in service manuals. Set water-cooled head pressure the same as R-502 settings.
- **Operating suction (low) pressure:** will run 1-3 psig (7-21 kPa gauge) higher than R-502 pressure published in service manuals.

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## **CONVERSION INSTRUCTIONS**

1. Recover R-502 refrigerant from the ice machine in accordance with local and national governing laws.
2. Refer to “Equipment Modification Requirements” checklist on previous page.
3. Remove and replace liquid line filter drier. Use only Manitowoc approved OEM filter drier, P/N 8930233.

**NOTE:** compressor oil does not require changing.

4. Evacuate the ice machine. **IMPORTANT:** remote models require a 4-point hose hookup to evacuate properly (refer to service manual or service bulletin, SB-18-84, for proper evacuation procedure).
5. Charge ice machine with R-402B refrigerant. System charge is identical to R-502 charge listed on model/serial number tag. **NOTE:** charge with **liquid** only into the high side of the ice machine using weigh-in method or “Dial-A-Charge” (refer to service manual or service bulletin, SB-18-84, for proper charging procedure).
6. Remove purple R-502 label near service valves. Do not remove model and serial number tags!
7. Attach an R-402B conversion label, P/N 8134423, to each of the two locations:
  - A. Next to the serial number plate.
  - B. Next to the service valves.

**IMPORTANT:** write service company name and conversion date on each label.

8. Restart ice machine and verify it operates properly (refer to service manual, if necessary). Water-cooled models maintain head pressure at the same R-502 setting.