



Operating Manual and Safety Instructions for Model 3654 and Model 4854

ThawDawg is covered by US patent #6,408,843 and Canadian patent #2330214

GROUND
INCORPORATED
SPECIALTIES

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GENERAL HAZARD WARNING:

FAILURE TO COMPLY WITH THE PRECAUTIONS AND INSTRUCTIONS PROVIDED WITH THIS HEATER, CAN RESULT IN DEATH, SERIOUS BODILY INJURY AND PROPERTY LOSS OR DAMAGE FROM HAZARDS OF FIRE, EXPLOSION, BURN, ASPHYXIATION, CARBON MONOXIDE POISONING, AND /OR ELECTRICAL SHOCK.

ONLY PERSONS WHO CAN UNDERSTAND AND FOLLOW THE INSTRUCTIONS SHOULD USE OR SERVICE THIS HEATER.

IF YOU NEED ASSISTANCE OR HEATER INFORMATION SUCH AS AN INSTRUCTIONS MANUAL, LABEL, ETC. CONTACT THE MANUFACTURER.



WARNING: FIRE, BURN, INHALATION, AND EXPLOSION HAZARD. KEEP SOLID COMBUSTIBLES, SUCH AS BUILDING MATERIALS, PAPER, OR CARDBOARD, A SAFE DISTANCE AWAY FROM THE HEATER AS RECOMMENDED BY THE INSTRUCTIONS. NEVER USE THE HEATER IN SPACES WHICH DO OR MAY CONTAIN VOLATILE OR AIRBORNE COMBUSTIBLES, OR PRODUCTS SUCH AS GASOLINE, SOLVENTS, PAINT THINNER, DUST PARTICLES OR UNKNOWN CHEMICALS.



WARNING: NOT FOR HOME OR RECREATIONAL VEHICLE USE.



SAFETY WARNINGS

Please Read Carefully

- **This ground-thawing unit operates on propane - a volatile gas. Common sense and safety must be practiced at all times.**
- **Only Twenty pound (20#) propane tanks are recommended for use with this unit - larger tanks may be used with a history of shorter heater life and will void any warranties.**
- **Position heater properly before use.**
- **During thawing position the ThawDawg™ so the sides and rear are at least 3 inches from any building or combustible material. The front (infrared heater end) and the top should be at least 2 feet from any build or combustible material. The propane tank should be at least 2 feet from the ThawDawg™.**
- **The hose assembly shall be protected from traffic, building materials and contact with hot surfaces both during use and while in storage.**
- **We recommend that you position the propane tank on a stand so that it is stable and cannot be turned over.**
- **Do not remove operation or safety decals or defeat the safety devices installed in this unit... They are there for your protection.**
- **This unit is intended for ground thawing purposes only, any other use is considered as improper use of this product. The intended use of the unit is for the temporary thawing of frozen ground to facilitate construction or repairs.**
- **Do not use this unit if damaged in any way.**
- **Never move this unit while it is hot or ignited.**
- **Do not lift this unit to ignite the heater or lift the heater while it is operating.**
- **Use only LP gas cylinders constructed for use with propane only (HD-5) and marked in accordance with the specifications for LP gas cylinders of the U.S. Department of Transportation (DOT).**



SAFETY WARNINGS

(Cont.) Please Read Carefully

- **Do not use in confined spaces or buildings -- this unit is intended for outdoor use only.**
- **Inspect the hose assembly prior to each use of the heater. If it is evident there is excessive abrasion or wear, or the hose is cut, it must be replaced prior the heater being put into operations. All O-rings and hoses should be replaced at least once every 3 years. Use only genuine ThawDawg™ supplied parts.**
- **NEVER LEAVE THE UNIT UNATTENDED.**
- **The heater should be inspected before each use, and at least annually by a qualified service person.**
- **The minimum inlet gas supply pressure for the purpose of input adjustment is 8 PSI. The maximum inlet gas supply pressure is 12 PSI.**
- **The installation of the ThawDawg™ must conform with local codes or, in the absence of local codes, with the *Standard for the Storage and Handling of Liquefied Petroleum Gases, ANSI/NFPA 58* and the *Natural Gas and Propane Installations Code, CSA B149.1*.**
- **The heater shall not be directed toward any propane-gas container within 20 feet (6 m).**
- **The cylinder supply system must be arranged to provide for vapor withdrawal from the operating cylinder.**
- **The gas must be turned off at the propane supply cylinder when the ThawDawg™ is not in use.**
- **When storing the ThawDawg™ indoors, the connection between the propane supply cylinder and the heater must be disconnected and the cylinder removed from the heater and stored in accordance with the *Standard for the Storage and Handling of Liquefied Petroleum Gases, ANSI/NFPA 58* and *CSA B149.1, Natural Gas and Propane Installation Code*.**
- **Always check for gas leaks every time you disconnect and reconnect the regulator to the LP cylinder. Leaks can be detected by dabbing or immersing the connections with a solution of soapy water. If bubbles occur, there is a leak and it must be repaired before the Thawdawg™ is used. Never use a flame to check for leaks.**

Off Season Maintenance

- **Remove all rust using a wire brush**
- **Prime bare metal with RUST-OLEUM™ type of spray paint**
- **Cover the end of the POL (Fig 1.) valve to keep dirt and moisture from entering**
- **Replace any missing screws**
- **Make sure safety cage over heater is on securely - check for dents that may have damaged the heater unit - replace or repair either if necessary**
- **Soap test or use a commercially available leak detection unit on hose assembly and all fittings**
- **Replace all “O” Rings and hose assemblies at least once every 3 years**
- **Check thermo-coupling adjustment at the face of the infrared heater unit. Probe should have a clearance of 1/4” to 1/2” to function correctly**

Operation of Model 3654 & Model 4854

**Before proceeding with the following instructions, read the Safety Warning Instructions
NEVER lift heater to light! NEVER move a lighted heater!**

Remove as much snow as possible from the thaw site area. Every one inch (1") of snow increases thaw time by approximately one (1) hour.

Place unit on ground over the area to be thawed. **When placing the ground thaw unit on an incline, place the unit so that the heater unit is on the low end of the incline.** This will provide a more uniform thaw.

Place sand or fiberglass insulation around bottom of thaw unit to seal any openings underneath. **Do not seal too tightly** as the unit needs "breathing" air or the heater will go out unexpectedly. Leave a small air opening (1/2" high and about 1" long) between the ground and the unit somewhere on the opposing end of the infra-red heater. This will allow a proper air exchange and will not affect the thawing performance.

1. Remove the dust cover from the POL connection.
2. Connect 20# gas cylinder to ThawDawg™ by screwing POL connection counterclockwise into the fitting on top of the gas cylinder
3. Ensure that the gas cylinder is placed a minimum of 2 feet from the thawing unit and that the cylinder is in a stable position
4. Open the valve on top of the propane tank **slowly**.

Always check for gas leaks every time you disconnect and reconnect the regulator to the LP cylinder. Leaks can be detected by dabbing or immersing the connections with a solution of soapy water. If bubbles occur, there is a leak and it must be repaired before the Thawdawg is used. Never use a flame to check for leaks.

5. Using a propane lighter with an extended nozzle of 4" – 6" ignite the lighter.
6. Insert lighter into the 1/2" diameter access hole used specifically to light the burner.
7. Simultaneously, depress safety shut off valve plunger (Fig. 2).
8. Heater should light within 5 seconds. (If the heater does not light, wait a minimum of 15 minutes before attempting to re-light)

9. When heater does light continue to depress the plunger for 30 seconds. Premature release of the button will cause the burner unit to go out due to the gas supply being shut-off by the automated safety valve.

This unit thaws approximately 1" per hour of use. The first 24" will normally thaw at a slightly faster rate with the succeeding 24" slightly slower for an overall average of approximately 1" per hour.

This unit is designed to run on a 20# propane tank. One full 20# propane tank will burn approximately 24-26 hours on "Hi", 26-28 hours on "Med", and 28-30 hours on "Low". Maximum thawing rate is obtained on "Hi".

Shutting Down the ThawDawg™



SAFETY WARNINGS

Please Read Carefully

**ALLOW UNIT TO COOL AT LEAST 15 MINUTES BEFORE HANDLING
DETACH UNIT FROM PROPANE TANK BEFORE HANDLING AND STORING**
Always cover the open end of the POL valve when not in use to keep dirt and moisture from entering the valve and hose. Debris entering the valve and hose can cause unexpected outages. Each unit is shipped with a small cap --- **KEEP IT CLEAN and USE IT!**

To turn off the unit:

1. Turn valve on top of the tank counterclockwise to off position
 2. Turn heater knob to the off position
 3. Disconnect the ThawDawg™ from the 20# gas cylinder by unscrewing the connection clockwise
 4. Replace dust cover on POL connection
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Replacement Parts information:
Replacement parts can be ordered by contacting:
Ground Specialties, Inc.
(320) 983-5557
(866) 983-5557 (Toll Free)

Please visit our website at www.groundspecialties.com for FAQ's and other valuable information about our products.

PHOTO ADDENDUM

Ground Specialties, Inc.
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POL Valve on LP Tank



POL Valve on LP Tank



Thermocouple Face



Heater Assembly



Safety Shut Off Thermocouple Plunger



Wind Guard & Control



Off Low Med High



O Ring on POL