



# ICE-CONTROL EQUIPMENT

**For Ground Anti-icing  
& Deicing Fluid Application**

## PRODUCT SPECIFICATIONS

April 1, 2016  
LIB-201 Rev09



**800-348-2686**  
**[deicing.tft.com](http://deicing.tft.com)**

Effective immediately, the following Task Force Tips model numbers have changed. The nozzle performance criteria has not changed, only the model numbers. The changes have been made to standardize the model numbers to more closely designate their basic physical description. Also, the reference of "TYPE2" has been removed from those respective model numbers, as Type II fluid is rarely used any more. All model numbers carry the "HT" designation for High Temperature fluid compatibility. For more information visit our web site <http://deicing.tft.com>

OLD NUMBER	NEW NUMBER
BGH-T2-75PD	<a href="#">BGH-HT75-PD</a>
BH-T2-75	<a href="#">BH-HT75</a>
BGH-TYPE2	<a href="#">BGH-HT50</a>
BH-TYPE2	<a href="#">BH-HT50</a>
BGH-TYPE2-DS	<a href="#">BGH-HT50-DS</a>
BGH-TYPE2-PD	<a href="#">BGH-HT50-PD</a>
BH-TYPE2-IPT	<a href="#">BH-HT50-IF</a>
BGH-HT-100	<a href="#">BGH-HT100-PD</a>
BH-HT-100	<a href="#">BH-HT100-PD</a>
BGH-HT-150	<a href="#">BGH-HT150-PD</a>
BH-HT-150	<a href="#">BH-HT150-PD</a>
BGH-HT-120	<a href="#">BGH-HT120-PD</a>
BGH-HT1502	<a href="#">BGH-HT1502PD</a>
BH-HT-120	<a href="#">BH-HT120-PD</a>
BH-HT120IPT	<a href="#">BH-HT120-IF</a>

All other model numbers did not change.

Part numbers with no letter at the end are 1.5" NH thread coupling.

Part numbers with letters at the end designate the thread coupling.

IF = 1.5" NPSH

PD = 1" NPT

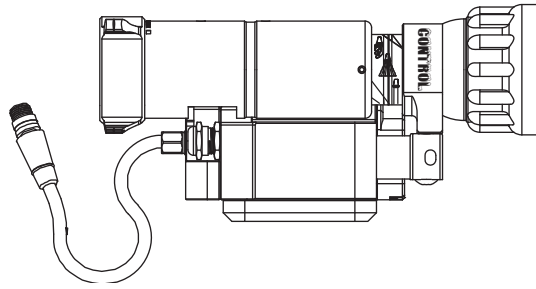
DS = 1.312" SAE

**Remote nozzle numbers (BER series) have changed. The "HV" suffix on the BER part numbers is no longer required. BER series nozzles will detect proper nominal operating voltage of 12 or 24 VDC.**

**Note:** These nozzles, while regularly used for ice control, have been modified to meet the needs of the individual aviation customers by their specifications and requirements. As modified firefighting nozzles, Task Force Tips relies on these specifications presented by the users, and does not independently test, confirm, or warrant, the suitability of any particular nozzle for an application. It is the responsibility of the end user to specify the flows, pressures, and configurations to meet their requirement and application.

**FIGURE 1**

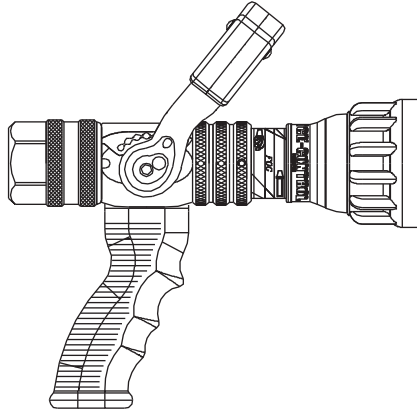
BER Series  
6.5 lb (2.9 kg)  
10.5" (25.7 cm)



Electrically operated pattern control, for use on remotely controlled applications features flush without shutting down and molded rubber bumper. The rugged aluminum drive is totally enclosed and waterproof. The drive unit develops over 400 pounds of force and there is a manual override if the electrical power fails. Nozzle and actuator are hardcoat anodized aluminum for maximum resistance to corrosion and wear. Inlet coupling swivels for ease of installation. Tightening the coupling fixes the position of the actuator at any desired orientation.

**FIGURE 2**

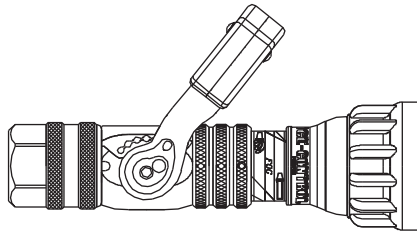
BGH-HT-PD Series  
2.8 lb (1.3 kg)  
9.3" (23.6 cm)



Features pistol grip, flush without shutting down, six position detent flow control, slide valve and molded rubber bumper. Lightweight hardcoat anodized aluminum for maximum resistance to corrosion and wear. Color coded pistol grips are available in black (standard), green, red, blue, orange, yellow, pink, purple, tan, gray and white.

**FIGURE 3**

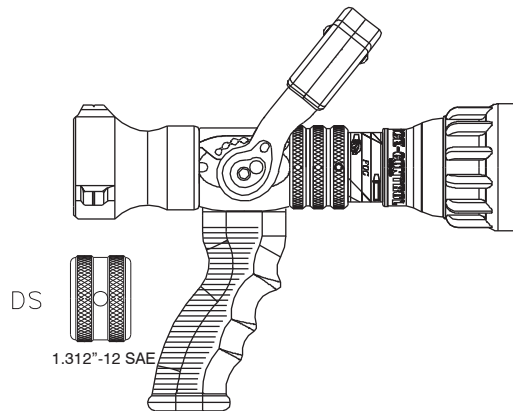
BH-HT-PD Series  
2.6 lb (1.2 kg)  
9.3" (23.6 cm)



Features flush without shutting down, six position detent flow control, slide valve, and molded rubber bumper. Lightweight hardcoat anodized aluminum for maximum resistance to corrosion and wear. Ideal for manual turret mounting.

**FIGURE 4**

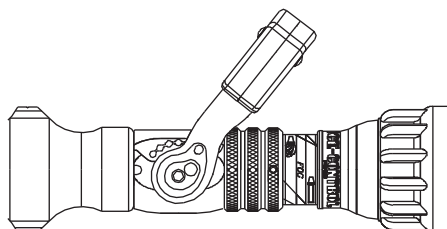
BGH-HT Series  
2.8 lb (1.3 kg)  
10.5" (26.7 cm)



Features pistol grip, flush without shutting down, six position detent flow control, slide valve and molded rubber bumper. Lightweight hardcoat anodized aluminum for maximum resistance to corrosion and wear. Color coded pistol grips are available in black (standard), green, red, blue, orange, yellow, pink, purple, tan, gray and white.

**FIGURE 5**

BH-HT Series  
2.6 lb (1.2 kg)  
10.5" (26.7 cm)



Features flush without shutting down, six position detent flow control, slide valve, and molded rubber bumper. Lightweight hardcoat anodized aluminum for maximum resistance to corrosion and wear.

## DEICING NOZZLES FOR USE WITH GLYCOL FLUIDS

High temperature aircraft ice-control nozzles from Task Force Tips have been specifically designed to apply deicing fluids at elevated temperatures up to 210° F (99 C). There are two deicing pressures available. First is a 100 PSI nozzle (7 bar, 700 KPA) designed for standard wing and fuselage deicing operations from an elevated basket, or at ground level for under the wing, engine, and landing gear applications. This model comes with either a pistol grip, which helps to protect the operator's hands from very low or high temperatures, or without a pistol grip for swivel gun mounting. The second model is a 150 PSI (10.3 bar, 1030 KPA) nozzle designed for longer reach and higher impact to flake off heavy ice and snow quickly and safely. This model is available with a pistol grip or without a pistol grip for swivel gun mounting or with electric remote pattern adjustment for boom mounting.

### DEICING NOZZLES

MODEL	FLOW RANGE (4)	NOMINAL (5) PRESSURE	STANDARD COUPLING	VALVED	PATTERN CONTROL	FIGURE
BER-HT150	10-60 gpm 38-227 lpm	150 psi 10 bar	1.5"-9 NH	NO	ELECTRIC (12-24VDC)	1
BERP-HT150*	10-60 gpm 38-227 lpm	150 psi 10 bar	1.5"-9 NH	NO	ELECTRIC (12-24VDC) 6 PIN CABLE CONNECTION	1
BER-HT1503	20-25 gpm	150 psi	1.5"-9 NH	NO	ELECTRIC (12-24VDC)	1
	76-95 lpm	10 par				
BGH-HT100-PD	10-60 gpm 38-227 lpm	100 psi 7 bar	1.0"-11.5 NPT	YES	MANUAL TWIST	2
BH-HT100-PD	10-60 gpm 38-227 lpm	100 psi 7 bar	1.0"-11.5 NPT	YES	MANUAL TWIST	3
BH-HT100-IF	10-60 gpm 38-227 lpm	100 psi 7 bar	1.5"-11.5 NPSH	YES	MANUAL TWIST	5
BGH-HT150-PD	10-60 gpm 38-227 lpm	150 psi 10 bar	1.0"-11.5 NPT	YES	MANUAL TWIST	2
BH-HT150-PD	10-60 gpm 38-227 lpm	150 psi 10 bar	1.0"-11.5 NPT	YES	MANUAL TWIST	3
BGH-HT1503PD	20-25 gpm	150 psi	1.0"-11.5 NPT	YES	MANUAL TWIST	2
	76-95 lpm	10 bar				

**\*NOTE: BERP-HT150 includes electrical plug connection for Task Force Tips, Tornado monitors only.**

## ANTI-ICING NOZZLES FOR USE WITH GLYCOL BASED ANTI-ICING FLUIDS

For the application of anti-icing Glycol based fluids, Task Force Tips produces anti-icing nozzles that operate at lower pressures and flows than deicing nozzles. The design of these types of nozzles is based on testing and at the request of major airlines. The proper use of these fluids aids ground support professionals in their efforts to prevent ice and snow from forming on the wings of aircraft. This may extend the holdover times. The anti-icing nozzles are available with either a pistol grip, which helps to protect the operator's hands from very low or high temperatures, or without a pistol grip for use on swivel guns or with electric remote pattern adjustment for boom mounting. The anti-icing nozzles operate at the industry standard of 50 PSI at 20-30 GPM (3.5 bar at 76-114 LPM), and a higher pressure 75 PSI (5 bar) nozzle is available where longer reach is needed.

### ANTI-ICING NOZZLES

MODEL	FLOW RANGE (4)	NOMINAL (5) PRESSURE	STANDARD COUPLING	VALVED	PATTERN CONTROL	FIGURE
BER-HT75	10-60 gpm*** 38-227 lpm***	75 psi 5 bar	1.5"-9 NH	NO	ELECTRIC (12-24VDC)	1
BGH-HT75-PD	10-60 gpm*** 38-227 lpm***	75 psi 5 bar	1.0"-11.5 NPT	YES	MANUAL TWIST	2
BH-HT75	10-60 gpm*** 38-227 lpm***	75 psi 5 bar	1.5"-9 NH	YES	MANUAL TWIST	5
BGH-HT50	10-60 gpm*** 38-227 lpm***	50 psi 3 bar	1.5"-9 NH	YES	MANUAL TWIST	4
BH-HT50	10-60 gpm*** 38-227 lpm***	50psi 3 bar	1.5"-9 NH	YES	MANUAL TWIST	5
BH-HT50-IF	10-60 gpm*** 38-227 lpm***	50psi 3 bar	1.5"-11.5 NPSH	YES	MANUAL TWIST	5
BGH-HT50-DS	10-60 gpm*** 38-227 lpm***	50 psi 3 bar	1.312"-12 SAE	YES	MANUAL TWIST	4
BGH-HT50-PD	10-60 gpm*** 38-227 lpm***	50 psi 3 bar	1.0"-11.5 NPT	YES	MANUAL TWIST	2

\*\*\* CAN BE USED FOR ANTI-ICING FLUIDS WHEN OPERATED BETWEEN 20-30 gpm - (4) CONVERSION - 1 gpm = 3.785 lpm - (5) CONVERSION - 1 psi = 0.067 bar

### COMBINATION NOZZLES WITH LOW FLOW, FIXED GALLONAGE SETTING FOR ANTI-ICING FLUIDS AND HIGH FLOW AUTOMATIC PRESSURE CONTROL SETTING FOR DEICING FLUIDS.

These nozzles from Task Force Tips combine features of the nozzles designed for deicing and anti-icing. A single nozzle can be used in two steps to deice as well as anti-ice the aircraft. The operator simply selects the desired fluid delivery system pressure, and the nozzle responds automatically. At higher flows they operate in the constant pressure automatic mode for deicing fluids. At lower flows they operate as a fixed pressure, fixed gallonage nozzle at the lower pressure setting for anti-icing fluid application.

### COMBINATION NOZZLES

MODEL	ANTI-ICING SETTING (4,5)	DEICING SETTING (4,5)	STANDARD COUPLING	VALVED	PATTERN CONTROL	FIGURE
BER-HT120	20 gpm @ 50psi 76 lpm @ 3 bar	80 gpm @120 psi 303 lpm @ 8 bar	1.5"-9 NH	NO	ELECTRIC (12-24VDC)	1
BER-HT1501	20 gpm @ 50psi 76 lpm @ 3 bar	80 gpm @150 psi 303 lpm @ 10 bar	1.5"-9 NH	NO	ELECTRIC (12-24VDC)	1
BER-HT1502	20 gpm @ 50psi 76 lpm @ 3 bar	40 gpm @ 150 psi 151 lpm @ 10 bar	1.5"-9 NH	NO	ELECTRIC (12-24VDC)	1
BGH-HT120-PD	20 gpm @ 50psi 76 lpm @ 3 bar	80 gpm @120 psi 303 lpm @ 8 bar	1.0"-11.5 NPT	YES	MANUAL TWIST	2
BGH-HT120-IF	20 gpm @ 50psi 76 lpm @ 3 bar	80 gpm @120 psi 303 lpm @ 8 bar	1.5"-11.5 NPSH	YES	MANUAL TWIST	4
BGH-HT1502PD	20 gpm @ 50psi 76 lpm @ 3 bar	40 gpm @ 150 psi 151 lpm @ 10 bar	1.0"-11.5 NPT	YES	MANUAL TWIST	2
BH-HT-120	20 gpm @ 50psi 76 lpm @ 3 bar	80 gpm @120 psi 303 lpm @ 8 bar	1.5"-9 NH	YES	MANUAL TWIST	5
BH-HT120-IF	20 gpm @ 50psi 76 lpm @ 3 bar	80 gpm @120 psi 303 lpm @ 8 bar	1.5"-11.5 NPSH	YES	MANUAL TWIST	5
BH-HT120-PD	20 gpm @ 50psi 76 lpm @ 3 bar	80 gpm @120 psi 303 lpm @ 8 bar	1.0"-11.5 NPT	YES	MANUAL TWIST	3

**VALVED NOZZLES**

Valved ice-control nozzles from Task Force Tips have a six position detent valve handle which operates a slide-type valve. The slide-type valve reduces shear of the fluid through the nozzle, including at intermediate valve settings and the operator can control the fluid flow as conditions warrant. Valved models have a twist-type stream shape control which can be moved to a flush position while flowing to clear the nozzle of trapped debris.

**ELECTRIC REMOTE NOZZLES**

Electric remote ice-control nozzles from Task Force Tips are designed for remote mounting and as such do not have an integral valve. The electric remote actuator extends and retracts the stream shaper to make the stream narrow or wide. Continued movement backward will put the nozzle into flush mode. Compatible with 12 and 24 VDC systems with equal operating speed for either voltage detected. All electric remote models have a manual override feature which is operable at the nozzle by turning a knob. All moving parts are enclosed in a rugged, sealed, waterproof housing for protection from corrosion and damage. The actuator detects the motor current rise at each end of its stroke, thus making limit switches unnecessary. Task Force Tips does not supply the control circuitry for these nozzles.

Both the electric remote models and the valved models have a molded rubber bumper on the stream shaper to protect the nozzle in the event of rough handling. The bumper has a smooth inner surface to reduce turbulence as the stream exits the nozzle.

**COLOR CODING**

The Society of Automotive Engineers (SAE) Committee G-12E, Subcommittee Aircraft Ground Equipment, has accepted the following color-coding for deicing and anti-icing fluids.

*Deicing Fluids - Red with Yellow Stripe*

*Anti-icing Fluids - Green with Yellow Stripe*

**Deicing Nozzle** models with pistol grips are shipped with a Red with Yellow Stripe pistol grip installed.

**Anti-icing Nozzle** models with pistol grips are shipped with a Green with Yellow Stripe pistol grip installed.

**Combination De/Anti-icing Nozzle** models with pistol grip are shipped with a black pistol grip installed and two pistol grips with the above color coding are included with each nozzle. It is the responsibility of the end user agency to install the correct color coded pistol grip for the application where the nozzle is utilized.

**SERVICE AND OPERATION**

All Task Force Tips ice-control nozzles require a minimum of maintenance. However, should service be required, Task Force Tips provides 24-hour turnaround factory service and a 24-hour technical hot-line. Service kits are available upon request. Each Task Force Tips ice-control nozzle is shipped with a detailed manual and instruction booklet. Electric remote nozzles are shipped with wiring information.

**ICE CONTROL REPAIR KITS - Manufactured After 1983**

**JAN 1983 - DEC 2005**

<b>Y6201-B-KIT ACTUATOR KIT 12-24V</b>	
QTY	DESCRIPTION
1	12-24 V CAST ACTUATOR ASSEMBLY
1	LOCTITE RED #27105
1	BOX 12X10X6 RSC
2	1/4-20 X 2.25 SOCKET HEAD CAP
1	5/16-18 X 1-7/16 BUTTON HEAD

<b>B950-KIT VALVE HANDLE REPAIR KIT</b>			
QTY	DESCRIPTION	QTY	DESCRIPTION
1	WIDE VALVE HANDLE	2	3/16" DIA TORLON BALL
1	CAM PIN	1	LOCTITE RED #27105
1	SAFETY PIN	2	SPRING #C0180-032-0310-S
		2	5/16-18 X 1/2" BUTTON HEAD

**AFTER JAN 2006**

<b>B955-KIT VALVE HANDLE REPAIR KIT</b>			
QTY	DESCRIPTION	QTY	DESCRIPTION
1	BOOSTER HANDLE	2	3/16" DIA TORLON BALL
1	CAM SCREW	1	LOCTITE RED #27105
1	SAFETY SCREW	2	SPRING #C0180-032-0310-S
		2	5/16-18 X 1/2" BUTTON HEAD



## Task Force Tips Ice Control Nozzles Pistol Grip Color Coding For Deicing And Anti-icing Nozzles

*"The Society of Automotive Engineers (SAE) G-12E subcommittee, Aircraft Ground Deicing Equipment, has accepted the following color-coding for deicing and anti-icing fluids.*

*Deicing Fluids - Red with Yellow Stripe*

*Anti-icing Fluids - Green with Yellow Stripe"*

**In order to comply with this recommendation, Task Force Tips is offering the following solution to color coding your existing ice control nozzles.**

New style grip: (TFT Nozzles Only)

**Note: New style grips will not fit nozzles with old style grip.**

If your nozzle has a pistol grip that looks like this or has a serial number above TFTB-325000, the grip can be replaced with the appropriate grip.

**Deicing RED w/Yellow Stripe**

(TFT Part # HM694RED-KIT)

**Anti-icing GREEN w/Yellow Stripe**

(TFT Part # HM694GRN-KIT)



**HM694RED-KIT**  
RED W/YELLOW STRIPE GRIP



**HM694GRN-KIT**  
GREEN W/YELLOW STRIPE GRIP

Instructions will be included in each kit which will be packaged in a small zip-lock bag. The instructions will explain the new style grips and proper installation.

**HM694RED-KIT:** Red pistol grip w/yellow stripe, small vial of Loctite, instructions.

**HM694GRN-KIT:** Green pistol grip w/yellow stripe, small vial of Loctite, instructions.



## WARRANTY

Task Force Tips, Inc., 3701 Innovation Way, Valparaiso, Indiana 46383-9327 USA ("TFT") warrants to the original purchaser of its Ice Control series nozzles ("equipment"), and to anyone to whom it is transferred, that the equipment shall be free from defects in material and workmanship during the five (5) year period from the date of purchase.

TFT's obligation under this warranty is specifically limited to replacing or repairing the equipment (or its parts) which are shown by TFT's examination to be in a defective condition attributable to TFT. To qualify for this limited warranty, the claimant must return the equipment to TFT, at 3701 Innovation Way, Valparaiso, Indiana 46383-9327 USA, within a reasonable time after discovery of the defect. TFT will examine the equipment. If TFT determines that there is a defect attributable to it, TFT will correct the problem within a reasonable time. If the equipment is covered by this limited warranty, TFT will assume the expenses of repair.

If any defect attributable to TFT under this limited warranty cannot be reasonably cured by repair or replacement, TFT may elect to refund the purchase price of the equipment, less reasonable depreciation, in complete discharge of its obligations under this limited warranty. If TFT makes this election, claimant shall return the equipment to TFT free and clear of any liens and encumbrances.

This is a limited warranty. The original purchaser of the equipment, any person to whom it is transferred, and any person who is an intended or unintended beneficiary of the equipment, shall not be entitled to recover from TFT any consequential or incidental damages for injury to person and/or property resulting from any defective equipment manufactured or assembled by TFT. It is agreed and understood that the price stated for the equipment is in part consideration for limiting TFT's liability. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above may not apply to you.

TFT shall have no obligation under this limited warranty if the equipment is, or has been, misused or neglected (including failure to provide reasonable maintenance) or if there have been accidents to the equipment or if it has been repaired or altered by someone else.

**THIS IS A LIMITED EXPRESS WARRANTY ONLY. TFT EXPRESSLY DISCLAIMS WITH RESPECT TO THE EQUIPMENT ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. THERE IS NO WARRANTY OF ANY NATURE MADE BY TFT BEYOND THAT STATED IN THIS DOCUMENT.**

This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**Visit TFT's Web Site at:  
*deicing.tft.com***

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