

# TAKEX

# BEAM HEATER

## PBH

### Instruction Manual

## 1 PRODUCT DESCRIPTION

PBH Heaters for TAKEX Beams are an optional field modification / accessory for use in Northern Europe. They can be retro-fitted, or installed on sites where a build-up of frost on the beam cover is anticipated.

- 1) PBH Heaters are thermostats; their electrical resistance varies according to ambient temperature. As such, they act as a combined heater/ thermostat.
- 2) PBH heaters are sold in pairs, one unit for the beam transmitter, and one for the receiver.

**Note: A separate range of heaters and thermostats is available for use in TAKEX Beam Towers,**

## 2 SPECIFICATION

Voltage: 12-24VDC, non polarised. Current consumption at ambient temperature:

	20°C	0°C	-10°C	-25°C
12VDC	250mA	300mA	330mA	350mA
24VDC	200mA	220mA	250mA	280mA

## 3 PRECAUTIONS

**Installation Tip / Initial Surge Current:** if first connected to power in sub-zero temperatures, there can be an initial high surge current (800mA) which can overload the power supply until the thermistor reaches working temperature. Keep the thermistor warm with body heat (in a pocket, etc) and / or warm well in the hands until time for connection.

## 4 INSTALLATION

- 1) Ensure the power supply is sufficiently rated to power the beams and thermistor.
- 2) For **TAKEX Twin Beams**
  - a) Apply insulation tape to the rear of the Transmitter optics circuit board to protect the exposed circuitry, and to the aluminium circuit board cover on the rear of the Receiver optics, being careful not to disturb the beam alignment.
  - b) Connect the thermistor leads to the beam unit DC power terminals.
  - c) Locate the thermistor loosely behind the optics and replace the beam cover, taking care not to trap the thermistor leads or disturb the beam alignment.
  - d) Re-align beam according to instruction manual if necessary.
- 3) For **TAKEX Quad Beams**
  - a) Connect the thermistor leads to the beam unit DC power terminals.
  - b) Locate the thermistor loosely behind the lower optics unit and replace the beam cover, taking care not to trap the thermistor leads or disturb the beam alignment.
  - c) Re-align beam according to instruction manual if necessary.

### Limited Warranty :

TAKEX products are warranted to be free from defects in material and workmanship for 12 months from original date of shipment. Our warranty does not cover damage or failure caused by Acts of God (including inductive surge by lightning), abuse, misuse, abnormal usage, faulty installation, improper maintenance or any repairs other than those provided by TAKEX. All implied warranties with respect to TAKEX, including implied warranties for merchantability and implied warranties for fitness, are limited in duration to 12 months from original date of shipment. During the Warranty Period, TAKEX will repair or replace, at its sole option, free of charge, any defective parts returned prepaid. Please provide the model number of the products, original date of shipment and nature of difficulty being experienced. There will be charges rendered for product repairs made after our Warranty period has expired.



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