

# NaviTrack™ Transmitter

Pipe and Cable Line Transmitter

## OPERATOR'S MANUAL

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- Castellano – pág. 21



## ⚠️ WARNING!

Read this Operator's Manual carefully before using this tool. Failure to understand and follow the contents of this manual may result in electrical shock, fire and/or serious personal injury.

Trade Tool is an Authorized Service Center and a  
Ridgid Pro Platinum distributor  
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# RIDGID®

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# NaviTrack™

## Line Transmitter



<b>NaviTrack™ Line Transmitter</b>	
Record Serial Number below and retain product serial number which is located on nameplate.	
Serial No.	

## General Safety Information

**WARNING!** Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.



SAVE THESE INSTRUCTIONS!

### Work Area Safety

- **Keep your work area clean and well lit.** Cluttered benches and dark areas may cause accidents.
- **Do not operate electrical devices or power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or heavy dust.** Tools create sparks which may ignite the dust or fumes.
- **Keep bystanders, children, and visitors away while operating tool.** Distractions can cause you to lose control.

### Electrical Safety

- **Do not attach the leads to a high voltage line.**
- **Do not operate the system with electrical components removed.** Exposure to internal parts increases the risk of injury.
- **Avoid exposure to rain or wet conditions.** Keep battery out of direct contact with water. Water entering electrical devices increases the risk of electric shock.
- **Prevent object and liquid entry.** Never spill liquid of any kind on the product. Liquid increases the risk of electrical shock and damage to the product.

### Battery Precautions

- **Use only the size and type of battery specified. Do not mix cell types (e.g. do not use alkaline with rechargeable).** Do not use partly discharged and fully charged cells together (e.g. do not mix old and new).
- **Recharge batteries with charging units specified by the battery manufacturer.** Using an improper charger can overheat and rupture the battery.
- **Properly dispose of the batteries.** Exposure to high temperatures can cause the battery to explode, so do not dispose of in a fire. Some countries have regulations concerning battery disposal. Please follow all applicable regulations.

### Personal Safety

- **Avoid Traffic. Pay close attention to moving vehicles when using on or near roadways. Wear visible clothing or reflector vests.** Such precautions may prevent serious injury.

- **Stay alert, watch what you are doing and use common sense.** Do not use tool while tired or under the influence of drugs, alcohol, or medications. A moment of inattention while operating tools may result in serious personal injury.
- **Gloves should always be worn for health and safety reasons.** Sewer lines are unsanitary and may contain harmful bacteria and viruses.
- **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
- **Use safety equipment.** Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
- **Use proper accessories.** Do not place this product on any unstable cart or surface. The product may fall causing serious injury to a child or adult or serious damage to the product.

### Service

- **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified repair personnel could result in injury.
- **When servicing a tool, use only identical replacement parts.** Follow instructions in the Maintenance Section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electrical shock or injury.
- **Follow instructions for changing accessories.** Accidents are caused by poorly maintained tools.
- **Provide proper cleaning.** Remove battery before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- **Conduct a safety check.** Upon completion of any service or repair of this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
- **Damage to the product that requires service.** Remove the batteries and refer servicing to qualified service personnel under any of the following conditions:
  - If liquid has been spilled or objects have fallen into product;
  - If product does not operate normally by following the operating instructions;
  - If the product has been dropped or damaged in any way;
  - When the product exhibits a distinct change in performance.

If you have any questions regarding the service or repair of this machine, call or write to:

Ridge Tool Company  
 Technical Service Department  
 400 Clark Street  
 Elyria, Ohio 44035-6001  
 Tel: (800) 519-3456  
 E-mail: TechServices@ridgid.com  
 On the Web: www.ridgid.com or  
 www.seesnake.com

In any correspondence, please give all the information shown on the nameplate of your tool including model number and serial number.

## Specific Safety Information

### ▲ WARNING

Read this operator's manual carefully before using the NaviTrack Transmitter. Failure to understand and follow the contents of this manual may result in electrical shock, fire and/or severe personal injury.

Call the Ridge Tool Company, Technical Service Department at (800) 519-3456 if you have any questions.

### NaviTrack Safety Information

- **Use equipment only as directed.** Do not operate the NaviTrack unless proper training has been completed and the owners manual read.
- **Always transport the NaviTrack in the hard case provided.** This helps prevent product damage due to shipping.
- **Do not immerse the antennas or case in water.** Store in a dry place. Such measures reduce the risk of electric shock and equipment damage.
- **Store idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **Maintain tools with care.** Properly maintained tools are less likely to cause injury.
- **Check for breakage of parts, and any other conditions that may affect the NaviTrack's operation.** If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
- **Use only accessories that are recommended by the manufacturer for your tool.** Accessories that may be suitable for one tool may become hazardous when used on another tool.
- **Keep handles dry and clean; free from oil and grease.** Allows for better control of the tool.

- **Protect against excessive heat.** The product should be situated away from heat sources such as radiators, heat registers, stoves or other products (including amplifiers) that produce heat.

### Important Notice

The NaviTrack is a diagnostic tool that senses electromagnetic fields emitted by objects underground. It is meant to aide the user in locating these objects by recognizing characteristics of the field lines and displaying them on the screen. As electromagnetic field lines can be distorted and interfered with it is important to verify the location of underground objects before digging.

**Exposing the utility is the only way to verify it's existence, location and depth.**

**Ridge Tool Co., its affiliates and suppliers, will not be liable for any injury or any direct, indirect, incidental or consequential damages sustained or incurred by reason of the use of the NaviTrack.**

### ▲ WARNING Connecting To Energized Conductors

The line transmitter is designed to withstand up to 240 VAC 50/60 Hz excitation between the two clamps. The user is cautioned not to deliberately connect to live power lines. The protection is not intended to be used continuously. If the transmitter indicates the presence of high voltage, use high voltage precautions to carefully disconnect the line transmitter from the high voltage source.

The line transmitter is normally powered by internal batteries, and is designed to protect the user from voltages up to 240 VAC that may be accidentally encountered. Powering the line transmitter by batteries provides the highest level of isolation and safety, and is therefore the recommended power source.

The line transmitter is designed to be optionally powered via an external connector. The user must ensure that the external power source is fully isolated from ground and from the power mains. The user is cautioned to use only external power sources recommended by the manufacturer.

If a line transmitter is powered by an external source that is not isolated from ground and from the power mains, the line transmitter is not protected from connection to live power lines! The line transmitter may be destroyed and may present a safety hazard. **DO NOT USE NON-ISOLATED POWER SUPPLIES WITH THE LINE TRANSMITTER**

Additionally, if the line transmitter is powered by a vehicle 12 VDC cigarette lighter connection, and the line transmitter is connected to a power line, the vehicle is now connected to that power line! The vehicle is now at a potentially lethal voltage. If the vehicle is grounded, the line transmitter may be destroyed.

## Specifications

Weight .....	4.75 w/o batteries, 7.5 w/batteries
Dimensions:	
Depth.....	7.0"
Width .....	15"
Height.....	6.5"
Power Source.....	8 Alkaline or rechargeable batteries.(D-Cells)
Output Power .....	3 watts watts maximum if under 45kHz, 1 watt maxi- mum if frequency is above 45kHz.

## Standard Equipment

### NaviTrack Transmitter Includes

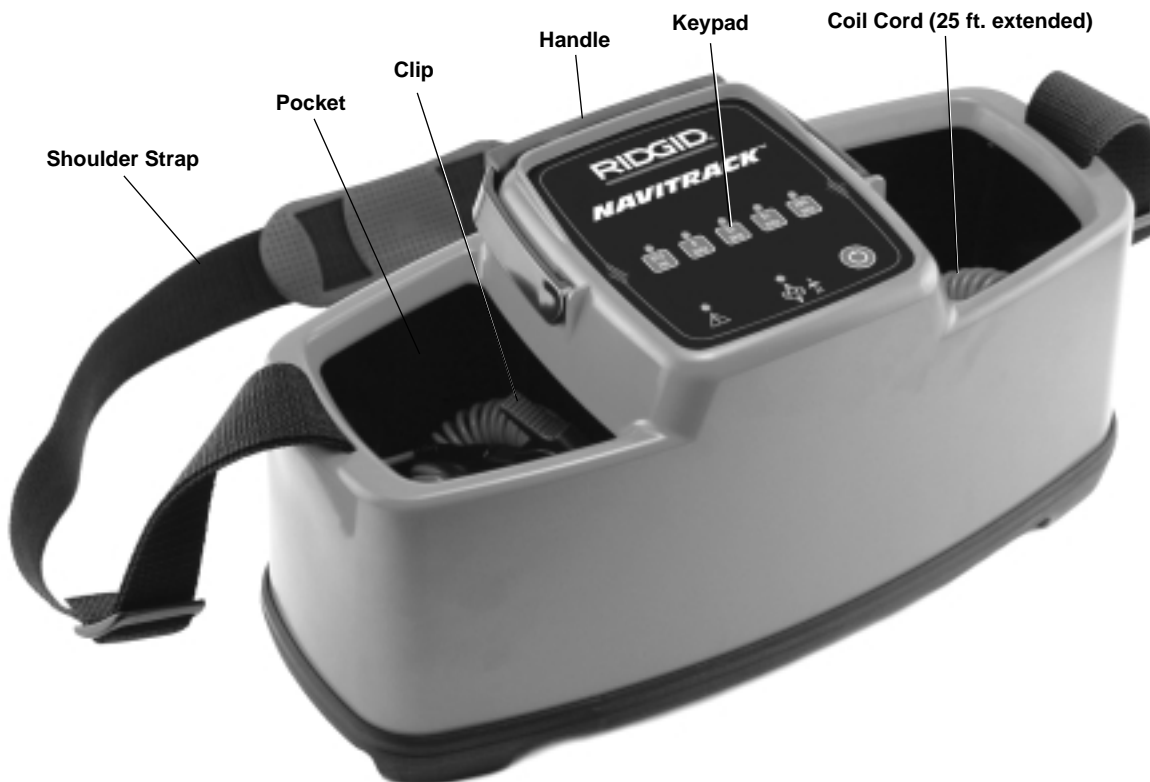
- NaviTrack line transmitter
- Operator's Manual
- 8 D-Cell batteries (Alkaline)

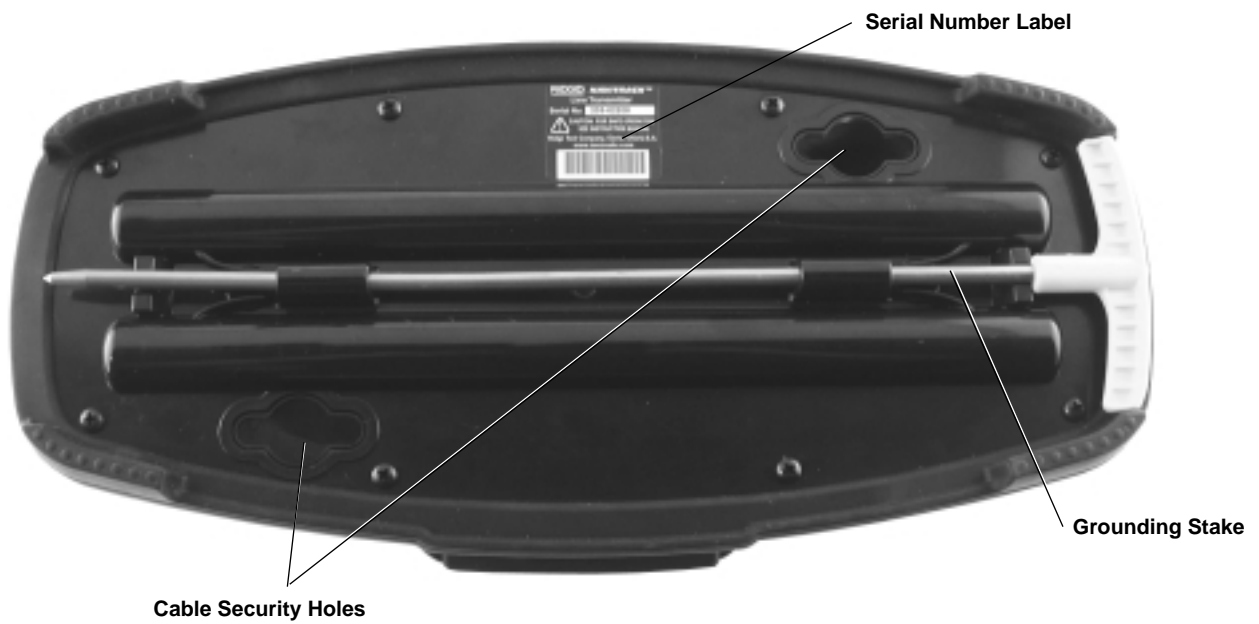
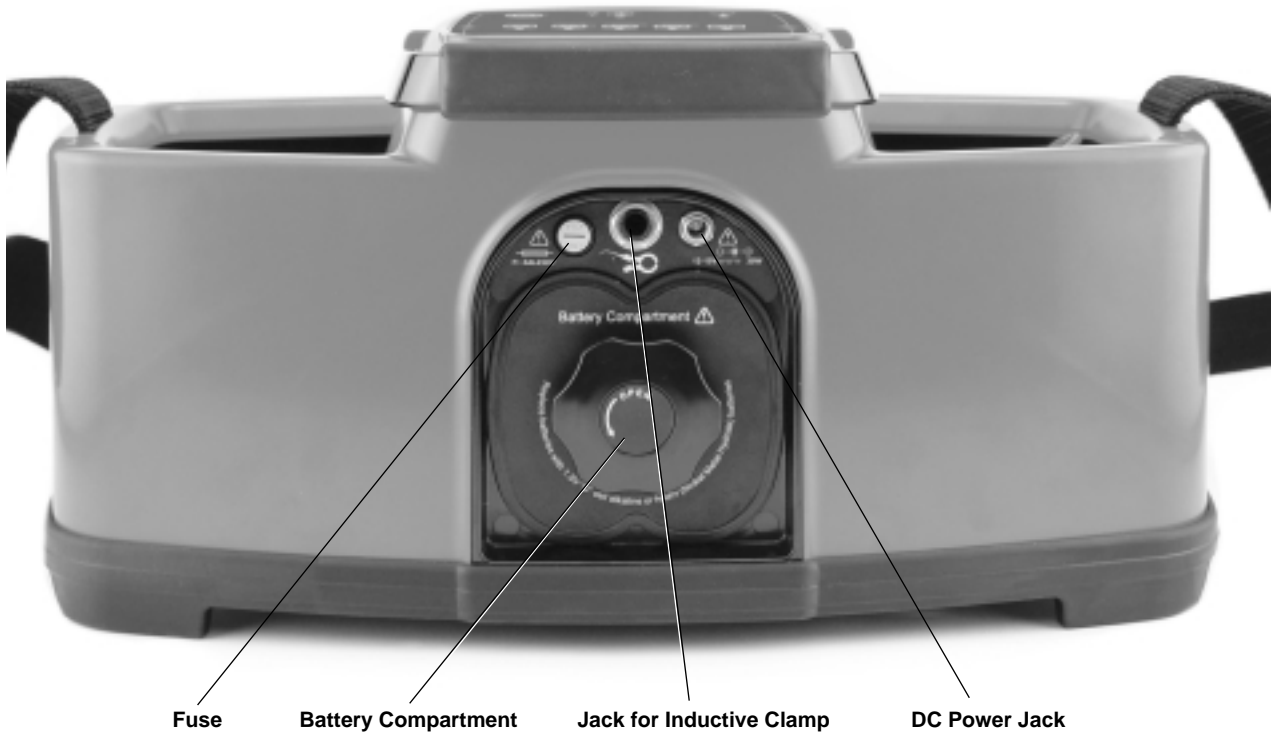
## FCC Limits

47 CFR 15.213 says that from 9kHz up to (but not including) 45kHz, peak output power shall not exceed 10 W. From 45kHz to 490kHz, it must not exceed 1W.

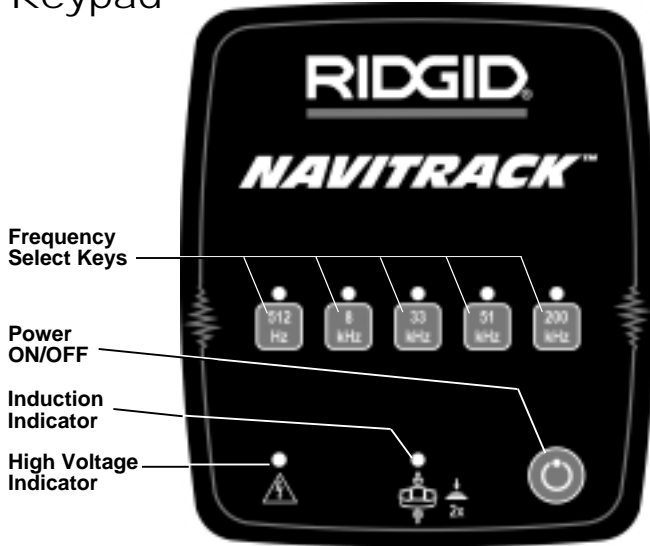
## Using the NaviTrack Line Transmitter

### Transmitter Components





## Keypad



Frequency Select Keys

Power ON/OFF

Induction Indicator

High Voltage Indicator

## Getting Started

### Installing/Changing Batteries

To install batteries into the NaviTrack line transmitter turn the knob on the battery cover counter clockwise. The compartment door will pull out slightly. Slide the battery holder straight back. Insert the batteries as shown on the inside decal.

Fit the door into the case and turn the knob clockwise while lightly pushing in to close.



**CAUTION** When replacing batteries use 8 D cells that are the same type. Do not mix Alkaline with NiCd for example. Be sure to replace with batteries where all of the cells have the same amount of charge. Do not use half used cells with brand new.


### Operation Time

Typical operation time for the NaviTrack line transmitter, when using alkaline cells, is about 12.5 hours depending on factors such as load and current transmitted. Other factors that affect the operation time will include chemistry


of the battery (many of the new high performance batteries, such as the “Duracell® ULTRA” do last 10%-20% longer than conventional alkaline cells under high demand applications). Operation at low temperatures will also reduce battery life.

Batteries often recover after being subjected to high loads. If time is allowed, batteries may recover enough to offer many additional hours of operation.

### Powering Up

Turn the power on by depressing the Power  key on the keypad.

### Powering Down

Turn the unit off by depressing and releasing the Power  key on the keypad.

### Sounds of the NaviTrack Transmitter

Event sounds are associated with some specific occurrence.

They include:

Dings - Dings upon connection -

**The sounds will help the user recognize how much current is added to the line. The unit will ding, then pause to tell how much current is being induced on the cable or pipe. The more dings before the pause indicates more current.**

Beeps - Turn ON/OFF

## Using the NaviTrack Line Transmitter

The NaviTrack line transmitter is part of the NaviTrack cable and pipe locating system. It can be used to energize a pipe or line, so that the magnetic field lines emitted from the underground line, may be traced. This aides in allowing the ground above the line to be marked so that it can be avoided during a dig, or so it can be exposed for repair or replacement. Underground lines can be energized with the NaviTrack line transmitter. This active signal is then traced using the NaviTrack receiver.

### 1. Attach the NaviTrack line transmitter to the line.

Remove the ground spike from the bottom of the unit and insert it into the ground. Connect the first clamp lead to the grounding spike.



Direct connect the other clamp lead to the line.



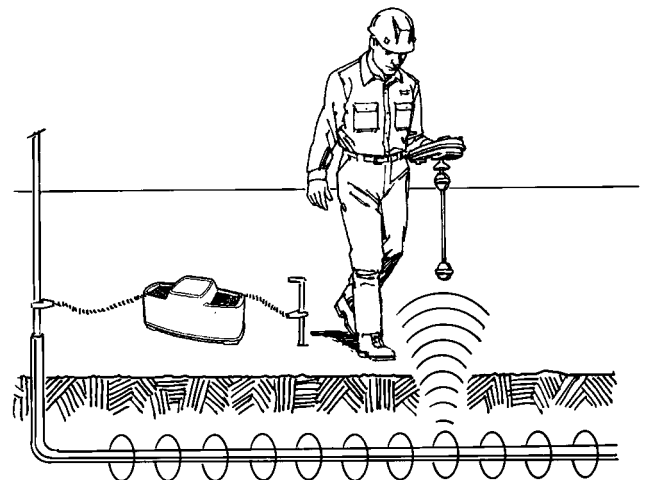
**⚠ WARNING** To increase safety it is recommended that the ground lead be attached first. If there was any high voltage running through the target line then providing a ground would allow a means of redirecting this current away from the transmitter and operator. These are universal leads so either may be used for the ground.

2. Select a frequency on the line transmitter by pressing the appropriate frequency key.

There are 5 frequencies to choose from.

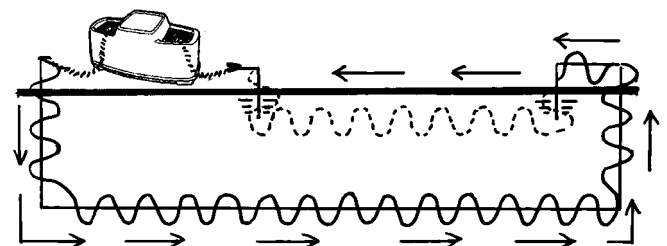
- 512Hz
- 8 kHz
- 33kHz
- 51kHz
- 200 kHz

3. To start tracing, match the NaviTrack receiver's frequency with those on the line transmitter. (See the NaviTrack receiver frequency menu.)



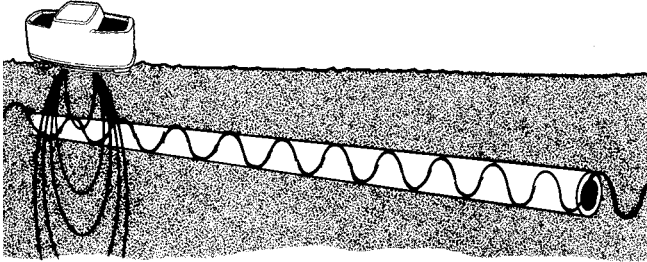
Useful Operating Points

- Make sure that the connection to the line is good. Scrape away paint and corrosion before connecting.
- Moist ground is a better conductor than dry soil so wet the area if necessary.
- To improve the circuit, try changing the ground or the connection to the line. A good circuit is one that allows enough current to flow so that the locator gets a solid signal.



Features

Inductive Mode



1. Be sure that the transmitter is positioned correctly over the line.



2. To use a frequency in the inductive mode select the frequency and then push that same frequency a second time. The inductive red LED will light up in addition to the selected frequency to let the user know that the line transmitter is transmitting inductively on that frequency.



Lower frequencies couple poorly, therefore the internal coil has been optimized for higher frequencies. **512Hz cannot be used inductively.** (The transmitter will default to 33 kHz if an inductive clamp is used.)

25' Coil Cords (when extended)

Specially designed, hybrid copper and stainless steel aircraft grade coiled cables allow the leads to be stretched out to offer more freedom in choosing grounding points and connections to the line.

To avoid tangled cords, “feed” the cords back into the pockets, clip going last, when storing.

Like This:



Not like this



### High Voltage Indicator

Whenever the line transmitter encounters voltage higher than 30V (RMS) it will flash a red LED at the bottom left of the keypad.



### Chart 1 Troubleshooting

PROBLEM	PROBABLE FAULT LOCATION
<p><b>Receiver will not pick up the line transmitter's signal.</b></p>	<p>Check that the correct frequency is selected.</p> <p>Make sure that the leads to line and to the ground are attached securely.</p> <p>Circuit connection has too much resistance impeding current flow.</p>
<p><b>Unit will not turn on.</b></p>	<p>Check orientation of batteries.</p> <p>Check that the batteries are charged.</p> <p>Check to see that the battery contacts are OK.</p> <p>Unit may have blown a fuse.</p>