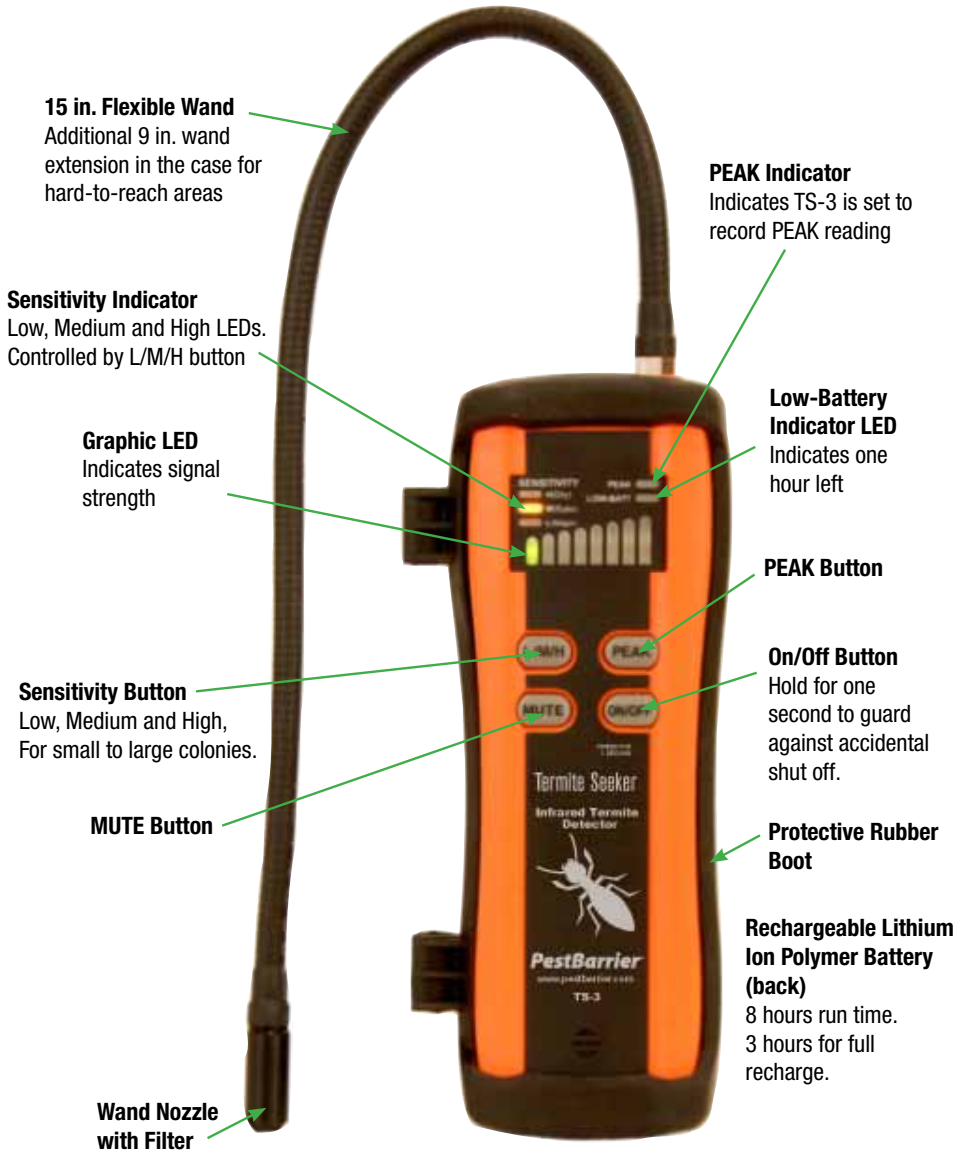




PestBarrier® Termite Seeker Operator's Manual



15 in. Flexible Wand

Additional 9 in. wand extension in the case for hard-to-reach areas

Sensitivity Indicator

Low, Medium and High LEDs. Controlled by L/M/H button

Graphic LED

Indicates signal strength

Sensitivity Button

Low, Medium and High, For small to large colonies.

MUTE Button

PEAK Indicator

Indicates TS-3 is set to record PEAK reading

Low-Battery Indicator LED

Indicates one hour left

PEAK Button

On/Off Button

Hold for one second to guard against accidental shut off.

Protective Rubber Boot

Rechargeable Lithium Ion Polymer Battery (back)

8 hours run time.
3 hours for full recharge.

Wand Nozzle with Filter

Instructional videos available at www.pestbarrier.com



This Kit Contains:

- TS-3 TermiteSeeker Infrared Termite Detector
- 15” and 9” Flexible Extension Wands and 5” Needle Probe
- A/C Wall Charger & 12V Car Charger
- Disposable Replacement Filters and “O” Rings
- Operator’s Manual

Operation videos available at pestbarrier.com

DESCRIPTION

The TS-3 Termite Detector uses infrared optics with a lifetime sensor to create a portable system that will detect the extremely small amounts of gases put off by termites. Its superior combination of sensitivity, speed, flexibility and portability provides a detection capability for both drywood and subterranean termites surpassed by none.

Detection and isolation of as few as 2 or 3 termites to full colonies is achieved. The TS-3 operates on a rechargeable lithium ion polymer battery that gives the user over 8 hours of use before recharging. When charging is needed both an AC wall charger and a DC vehicle charger is provided for user's convenience.

Three levels of sensitivity are provided to aid the user in isolation of small and large concentrations of termites. Since the TS-3 is self calibrating, no special set up is required. The detector is ready for use within 30 seconds after being turned on. A standard 15-inch wand is used to test into suspected areas, but a needle probe extension tip and a 9-inch flexible wand extension are provided to assist testing in suspected areas that are difficult to reach.



Specially designed disposable filters are used in the wand or probe to keep out foreign material and water. Additional features provided to the user are a convenient audio MUTE button to minimize noises in testing area when desired, and a PEAK button to capture the high point of a signal upon detection to provide the user an indication of strength of the detected signal.

ON/OFF Protection

To turn the TS-3 on or off, press and hold the ON/OFF button for one second. This slight delay protects against inadvertently triggering. If you forget to turn it off, the TS-3 will automatically turn itself off after 10 minutes of no activity to conserve battery charge life.

LED Bar Graph Display

The eight segment LED display indicates the degree of detection. As the concentration of termite off gases detected increase so will the number of lit bars on the display.

L/M/H Buttons (Sensitivity)

Set the sensitivity level by pressing the L/M/H button. The desired sensitivity level will be indicated by its respective LED. The TS-3 starts in medium (M) level, which is a sufficient sensitivity for normal colonies of termites commonly found in the subterranean species. The high sensitivity (H) is reserved for more difficult detections of small swarms such as drywood termites. The low (L) sensitivity is used when large concentrations are present and the user is trying to isolate to specific areas of a concentration.

MUTE Button

Pressing the MUTE button toggles the audio of the TS-3 off and on.

PEAK Button

The PEAK button holds the highest LED lit during a detection event. Press PEAK again to toggle this function on and off. Turning the PEAK function off will clear the peak bar graph LED that is lit. The PEAK LED will light when this function is on.

Instructional videos available at www.pestbarrier.com

The LOW-BATT LED will become lit when there is approximately one hour left on the current battery charge. During the charging process, this LED will blink off and on until the battery is fully charged; at that time the LED will turn off and it will signal a fully charged unit.

(NOTE: If desired the TS-3 will fully operate when the battery is being charged)

TERMITE DETECTION PROCEDURE

The TS-3 electronics warm-up and self calibration takes 30 seconds. Completion of this start up process is signaled by a rapid flashing of the bar graph LEDs followed by a continuous 1 second beep. The unit will default to medium (M) sensitivity at start up. The user may chose to change the sensitivity, MUTE or PEAK functions at this time or at any time during operation and the change will take place instantaneously.

The TS-3 will equalize to its current background (or ambient) condition. So even with an elevation of termites' gases in the surrounding air it will only detect on areas that exceed this current background. This will enable the user to detect the location of large concentrations and not trigger on false signals.

Detection Of Termites In Closed Spaces

Often large concentrations of termites can be found in wall spaces. Here the gases they produce will be largely trapped and creating a different atmosphere than the surrounding area. This is the easiest type of termite infestation to detect. Since the gases given off are heavier than air they will tend to sink to the bottom of the enclosed area. If this area is a wall space detection may be triggered by checking along base boards or in electrical outlet boxes. Move the TS-3 probe tip slowly along a suspected area (2-3 inches per second). If a signal occurs go back to the area and check closer. Subsequent positive signals at suspected area strongly suggests the presence of termites.

Instructional videos available at www.pestbarrier.com

If closer inspection of the area is warranted, a small 1/8 - 5/32 inch hole can be drilled into the wall space for inspection. Using the needle nose probe insert it in the hole for inspection of any termite gases. If termites are detected an audio signal will sound and the graph bar LEDs will be lit up. The higher the concentration the more LEDs lit and the longer the duration of the audio signal and lights.

Detection Of Termites In Open Areas

Termites are often found in small concentrations in attic rafters, door or door frames, and wood furniture. Telltale signs are seen by suspicious holes or droppings. Location of the presence of termites in these areas can be done with the TS-3. Use the TS-3 termite detector to probe these suspicious areas with the needle probe. Termites off gases will escape from there active channels and will be detectable. In a suspected area a small hole 1/8 - 5/32 inch may be drilled to attempt to bisect an active chamber. Follow this by inserting the needle probe to look for a signal. If present both an audio signal and graph bar LEDs will light.

POST TREATMENT USE

The TS-3 is an excellent tool to aid the user in verification of a successful treatment of an infected area. After the prescribed timeframe for a successful eradication of the termites the TS-3 can be used for detection of any live termite presence. Although there may still be the tell tale signs of termite droppings, if no live termites are present there will be no detection signal. If the TS-3 was used for the initial detection, its use for post inspection provides an additional validation to the user that the infestation is gone.

TS-3 USE AND CARE

- Although the TS-3 is stable it can be set off by excess turbulent air currents around its nozzle. Due to this, use of the TS-3 outside may lead to mixed results and can result in false signals on the most sensitive levels.

- The TS-3 is a very sensitive instrument that can detect extremely small concentrations of termites. User must take care in trying to minimize a stable atmosphere around the area of testing to avoid false signals.
- The TS-3 has several safeguards built in to protect it from infusion of debris and water, but it is extremely important that the termite detector never be run without an approved filter installed in the nozzle or needle probe or it could damage the unit. Ten (10) filters are provided with the TS-3 and additional may be purchased.

Filter Maintenance And Replacement

The filter found in the nozzle is a throw-away filter that traps debris and water from getting into the TS-3 instrument. Replacement of the filter should be done after extensive use. A dirty filter will decrease the sensitivity and responsiveness of the TS-3.

Needle Probe Maintenance

The needle probe has been designed to be easily cleaned and also ease of filter replacement. The needle stem can be unscrewed from its base. By use of a wire (like a paper clip), any debris can be dislodged from the stem. If the filter is desired to be replaced, the same wire may be used to push out the old filter. A new filter must replace the old one. Running the unit without an approved filter may damage the unit.

Battery Charging

The battery supplied with the TS-3 is a rechargeable lithium ion polymer battery that will run continuously for 8 eight hours before a charge is needed. Recharging to a full state requires about 3 hours. Dispose of old batteries properly and never in a fire.

Instructional videos available at www.pestbarrier.com

SPECIFICATIONS

Sensing element: Enhanced infrared photo optics-sensor never needs replacing and is good for the life of the TS-3.

Sensitivity:

- HIGH (dry) - small concentrations of drywood or subterranean termites.
- MED (subs) - small concentrations of subterranean or medium to large concentrations of drywood termites.
- LOW (major) - large concentrations of either subterranean or drywood termites.

Warm up time: 30 seconds

Response time: less than 1 second

Battery charge life: 8 hours continuous

Auto off: 10 minutes of inactivity

Battery: 3.7V, 1800 mAh rechargeable Li-ion polymer (Compatible models include - Fujifim NP120, Pentax DLi7, or Richoh DB43)

Re-charge time: approximately 3 hours to full charge

Operating environment: 32⁰F (0⁰C) to 122⁰F (40⁰C) at 75 %RH

Storage environment: <80% RH for detector and battery; storage temperatures are recommended to be the same as operating temperatures to maximize battery life.

Weight: 14.4 oz (.9 lb)

REPLACEMENT PARTS AND ACCESSORIES

<u>Part Number</u>	<u>Product/Description</u>
600-001	TS-3 Wand Extension
600-002	TS-3 Needle Probe
600-003	TS-3 Vehicle Charger
600-004	TS-3 Wall Charger
600-005	TS-3 Filters & O-Ring Gaskets (Pkg of 10 each)
600-007	TS-3 3.7V 1800 mAh Li-ion Battery
600-010	TS-3 Nozzle Tip

PROBLEM	CAUSE	SOLUTION
<p>1. Detector will not detect termites</p>	<ul style="list-style-type: none"> • Detector not through startup cycle • Termites not present in area being inspected • Nozzle filter has become clogged 	<ul style="list-style-type: none"> • Wait until start up complete • Try other suspected areas • Move wand closer and slower to suspected area • Replace filter and/or clean probe
<p>2. TS-3 will not turn on</p>	<ul style="list-style-type: none"> • ON/OFF button not held for 1 second to turn on • Battery is discharged or dead 	<ul style="list-style-type: none"> • Hold ON/OFF button down for 1 second • Recharge battery. If it will not hold charge replace battery
<p>3. The TS-3 will trigger inadvertently</p>	<ul style="list-style-type: none"> • Turbulent surrounding air can cause detector to trigger • Large concentrations of termites can cause the unit to trigger close to inspection area 	<ul style="list-style-type: none"> • Attempt to avoid areas and activity around the test area that would cause air flow • Run detector at a less sensitive setting

PROBLEM	CAUSE	SOLUTION
4. The TS-3 does not detect again at the same spot	<ul style="list-style-type: none"> On strong detected signals the TS-3 needs about 3 -5 seconds to settle down 	<ul style="list-style-type: none"> Pull TS-3 away from the detected area for 3 -5 seconds before repeating to that location again
5. The TS-3 appears to be taking longer to detect than previously	<ul style="list-style-type: none"> The wand tip or needle probe filter has become constricted due to moisture or dirt 	<ul style="list-style-type: none"> Replace the filter with a new one and discard the old one. Check and clean needle probe
6. The TS-3 appears to have lost some of its sensitivity	<ul style="list-style-type: none"> The wand tip or needle probe filter has become constricted due to moisture or dirt 	<ul style="list-style-type: none"> Replace the filter with a new one and discard the old one. Check and clean needle probe

For a more detailed and up to date list of questions and answers as to the proper use of the TS-3 Termite Seeker visit our site at www.pestbarrier.com.



Instructional videos available at www.pestbarrier.com

WARRANTY AND SERVICE

The TS-3 Termite Seeker is warranted to the original purchaser against defects in material or workmanship for a period of one (1) year from the date of purchase by Twin Rivers Engineering, Inc (TRE).

During this warranty period, TRE will at its option, replace or repair the defective unit. The warranty does not apply to defect resulting from abuse, neglect, accident, unauthorized repair, alternation, or unreasonable use of the instrument.

Any implied warranty arising out of the sale of this product, including but not limited to implied warranties of merchantability and fitness for purpose are limited to the above. TRE shall not be liable for incidental or consequential damages.

Any defective TS-3 should be returned to TRE for warranty service along with original proof of purchase and return material authorization (RMA) number. An RMA may be obtained by contacting TRE at the number below. Repair or replacement of the unit is at the sole discretion of TRE.

For out of warranty service, obtain an RMA number and send unit to the following address:



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