

GEN-TECH™

24" DIGITAL LEVEL WITH LASER

Model 93884

ASSEMBLY AND OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011
Visit our Web site at <http://www.harborfreight.com>

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For technical questions and replacement parts, please call 1-800-444-3353



LASER RADIATION
AVOID DIRECT EYE EXPOSURE
 Power Output: $\leq 5\text{mW}$,
 Wavelength: 650 nm
 CLASS IIIa LASER PRODUCT

This product complies with
 21 CFR 1040.10 and 1040.11
 CEN-TECH
 3491 Mission Oaks Blvd.,
 Camarillo, CA, USA, 93011
 Manufacture Date: _____

Specifications

Laser Dot Accuracy	Up to 98 Feet
Laser Line Accuracy	Up to 33 Feet
Vial Accuracy	+/- .3 Degrees
Power Source	"AAA" Batteries (Qty. 2), 9V Battery (Qty. 1)



Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

Safety Warnings and Precautions

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

Read all instructions before using this tool!

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Don't expose to rain. Keep work area well lit.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle the Laser Level.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Use the right tool for the job.** There are certain applications for which this tool was designed. Do not modify and do not use this tool for a purpose for which it was not intended.
6. **Never direct the laser beam into the eyes of any person or animal. THIS MAY CAUSE SEVERE INJURY TO THE EYE.** Do not look into the beam during operation. Make certain to switch the Laser Level to "OFF" when making adjustments or changing the batteries. Laser light, when reflected off a mirror like surface can cause serious eye damage.
7. **Only use the type of battery recommended in this manual. Use only "AAA" batteries for the Laser, and a 9V battery for the digital display.** Do not mix old and new batteries.
8. **Maintain tools with care.** Keep tools clean for better and safer performance.

9. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
10. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not turn On and Off properly.
11. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty.
12. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
13. **Maintenance.** For your safety, service and maintenance should be performed regularly by a qualified technician.
14. Use fresh batteries. Weak batteries could affect the accuracy of this tool.

Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Unpacking

When unpacking, check to make sure that the product is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.

Operation

Refer to the Assembly Drawing on Page 6.

Using the Horizontal and Vertical Vials (9 and 10).

The vials on the level can be read by observing the bubble within. If the bubble is centered in between the lines, then the Vial is level.

Using the level with the Laser.

1. Before each use, press the Calibration Button (7) and hold it for a few seconds until the display reads Zero. You may use a known level surface or another level to assist you with Zero calibration.

Each Button on the unit functions as listed below:

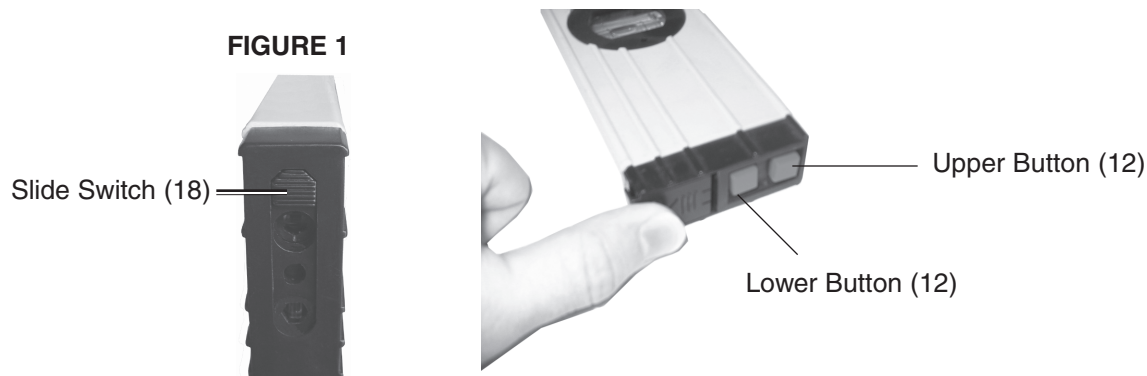
On/Off Button (4) - This button turns on and off the LCD (3).

Preset Angle Button (5) - Pressing and holding down this button will lock the digital reading in the display, making it easy to move the level to get a closer look at the reading.

Gradient Button (6) - This button translates degree reading into a percentage from Zero to 100 percent. When the degree is within 0 to 45, the percentage will be the degree measured, divided by 45. When the degree is within the range between 45 and 90, then the percentage will be 90 minus the degree measured, divided by 45.

Hold/Display Button (8) - This button has two features. First, if you push the button for one second, it allows the Level to emit an audible beep when the level is either at zero or ninety degrees. Secondly, if you hold the button down for five seconds, it will light up the display.

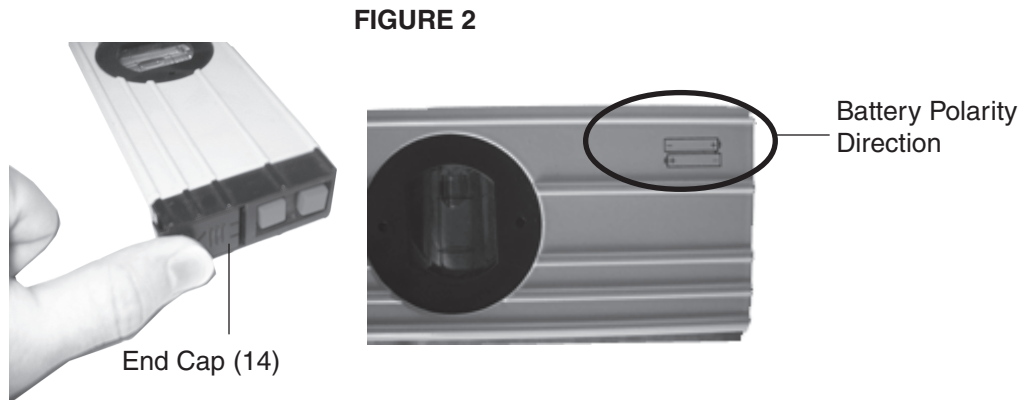
Laser On/Off Button (12) - The operation is determined by the setting of the Slide Switch (18). If the Slide Switch (18) is in the **upper position**, the upper button will project a vertical line and the lower button will project a horizontal line. When the Slide Switch (18) is in the **lower position**, the upper button will not project a laser beam, and the lower button will project a simple dot beam. See **FIGURE 1** below.



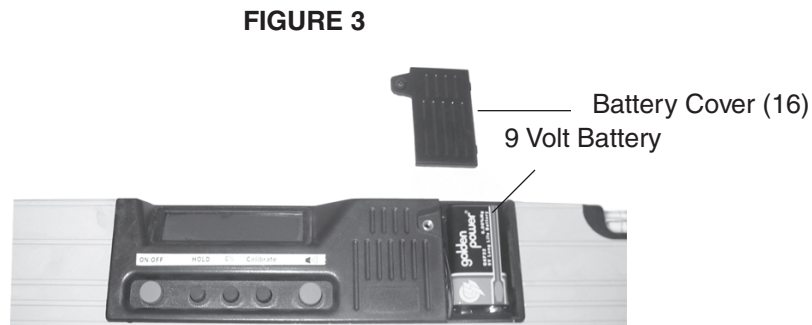
Maintenance

Changing or Installing Batteries

1. To change the “AAA” batteries that power the Laser, remove the End Cap (14) and set it aside. See **FIGURE 2**, below.
2. Remove the old batteries and replace them with two fresh batteries. Make sure that you match up the positive (+) and negative (-) ends to the diagram on the side of the level. See **FIGURE 2**, below. Replace the End Cap (14).



3. To change the 9 Volt battery that powers the LCD (3), remove the Battery Cover (16) by first removing the Screw (15).
4. Install a fresh battery making sure you match up the positive (+) and negative (-) terminals as shown inside the battery compartment. Replace the Battery Cover (16) and the Screw (15). See **FIGURE 3** below.



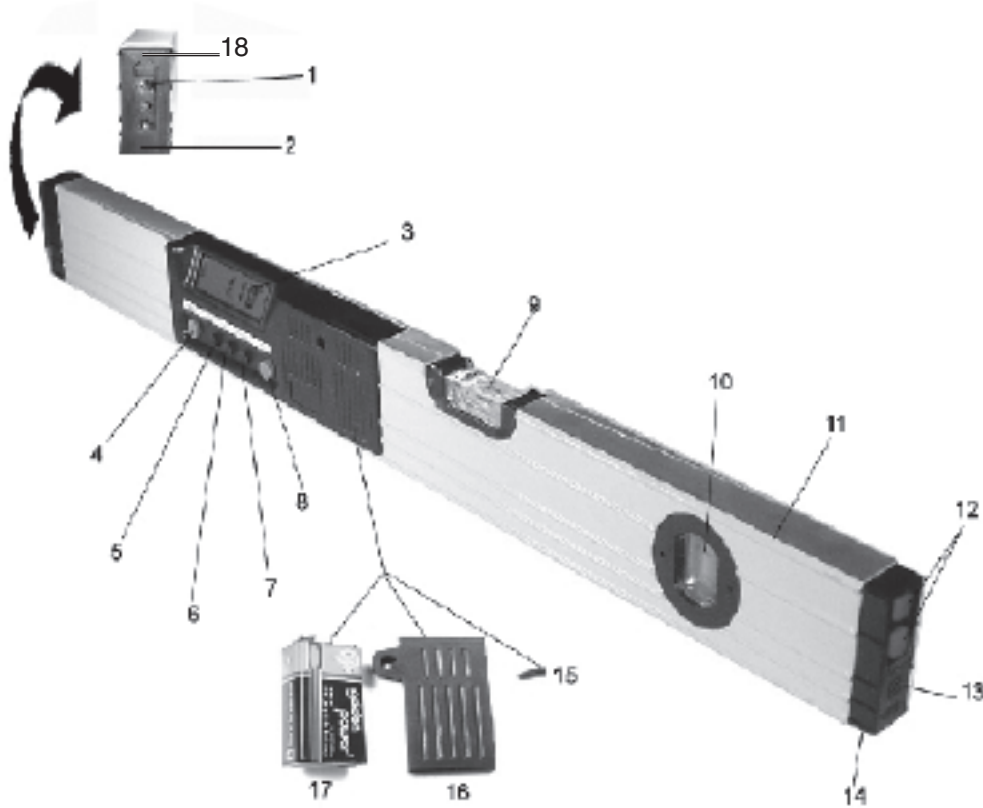
General Maintenance

1. Wipe the Level clean with a lint free cloth when needed.
2. Store the Level in a dry location where it will not freeze or overheat.
3. Before each use, inspect the Level to make sure nothing is cracked or broken. Do not use the Level if anything is cracked or broken. Have it repaired by an authorized service technician.

Parts List

Part No.	Description	Part No.	Description	Part No.	Description
1	Laser Diode	7	Calibration Button	13	"AAA" Battery (Qty. 2)
2	End Cap 1	8	Hold/Display Button	14	End Cap 2
3	LCD	9	Horizontal Dial	15	Screw
4	On/Off Button	10	Vertical Vial	16	Battery Cover
5	Preset Angle Button	11	Body	17	9 Volt Battery
6	Gradient Button	12	Laser On/Off Button	18	Slide Switch

Assembly Drawing



PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.