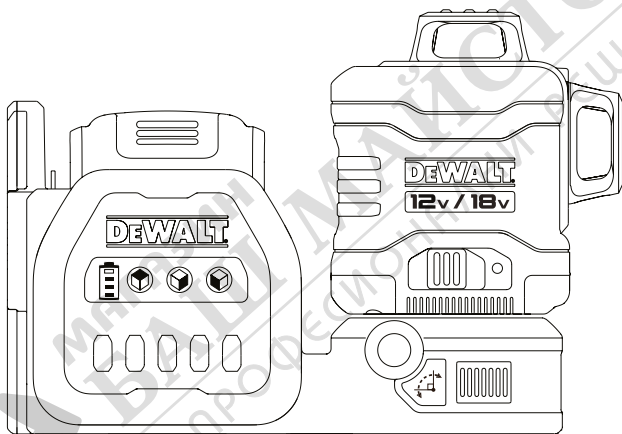




DCE089G18 3 x 360° 12V/18V Line Laser



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[www.2helpU.com](http://www.2helpU.com)

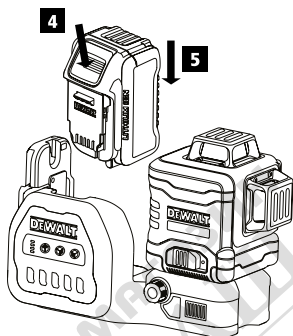
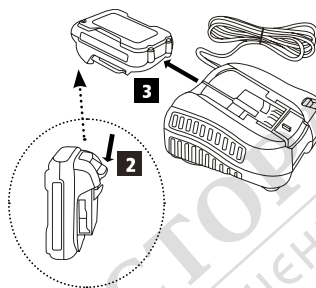
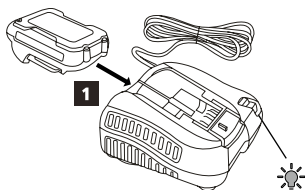


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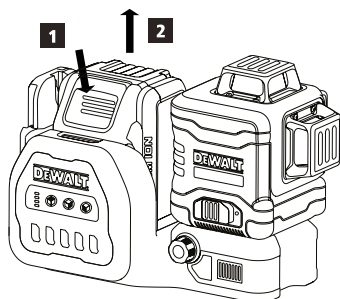


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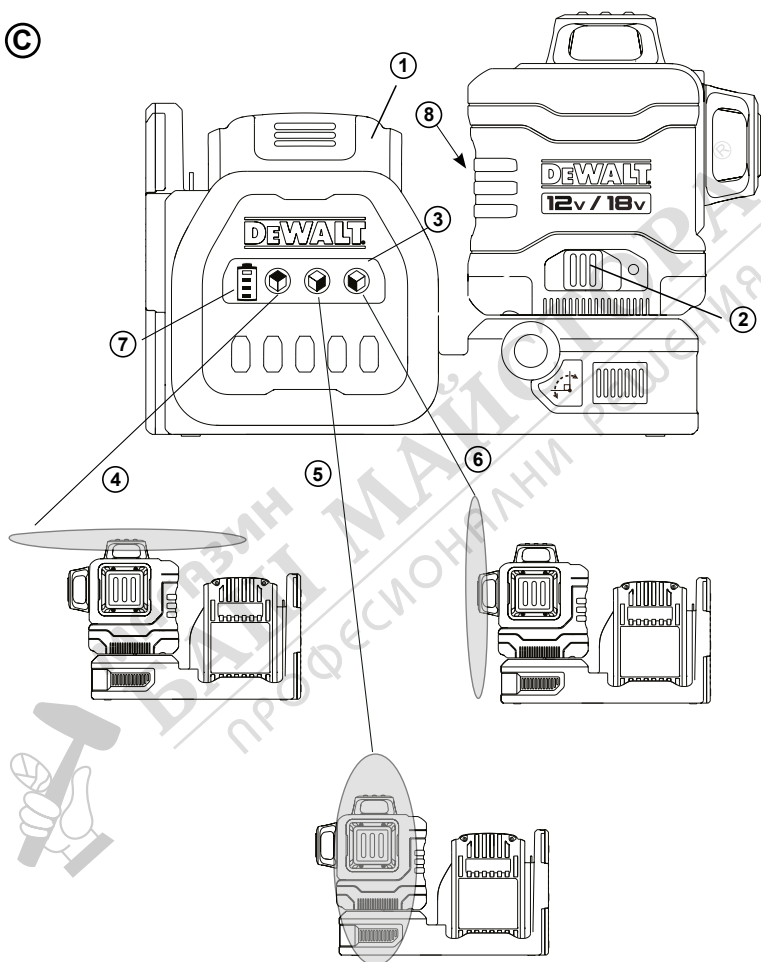
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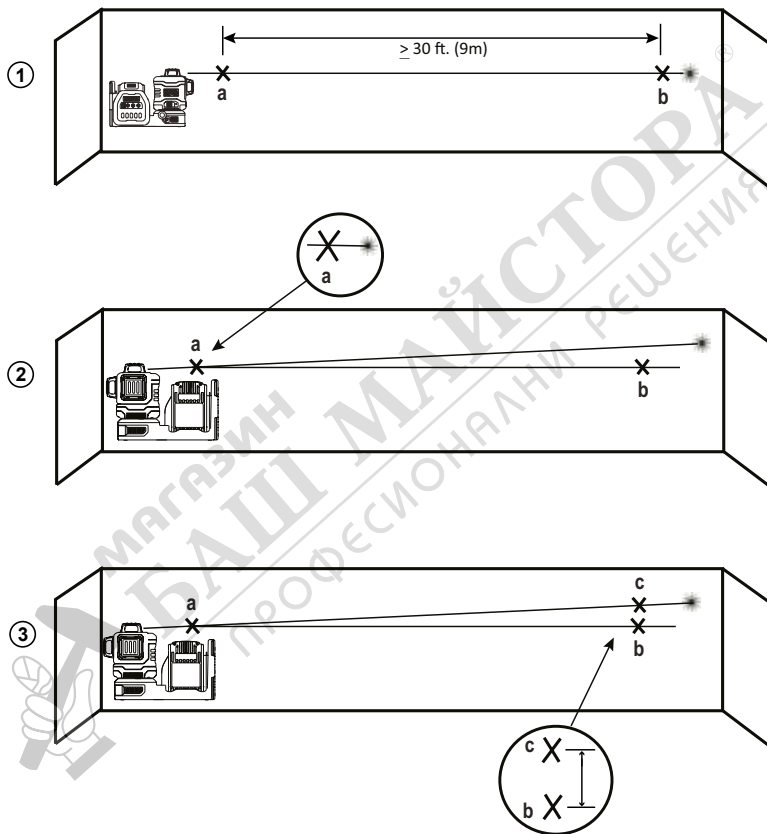


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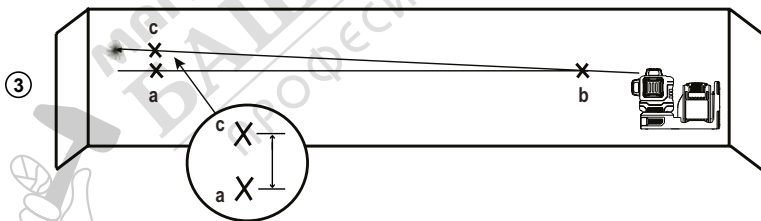
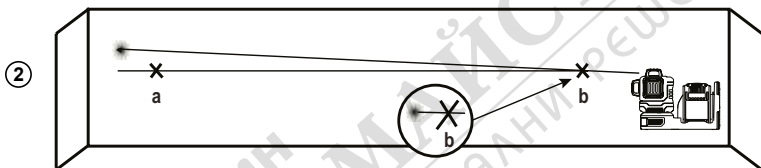
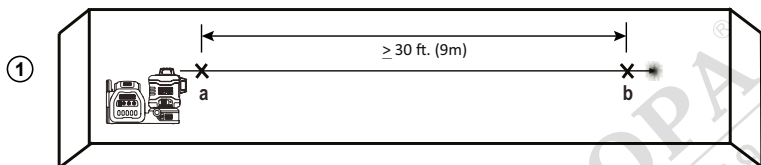


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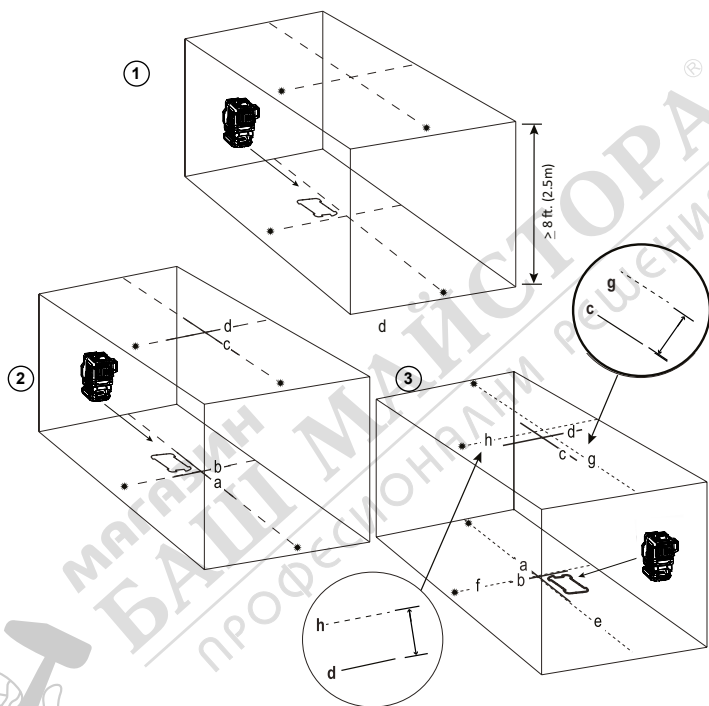


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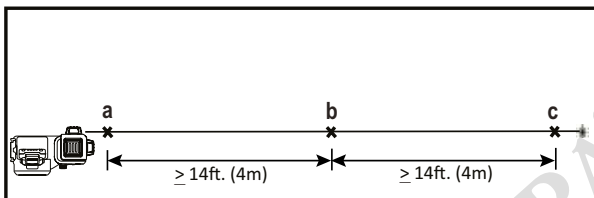
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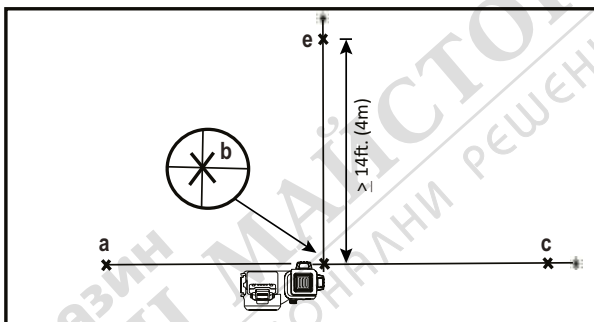


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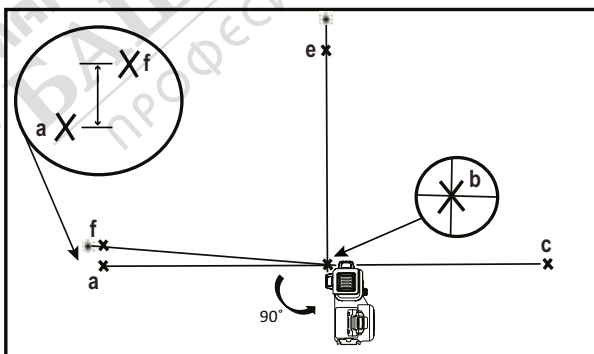
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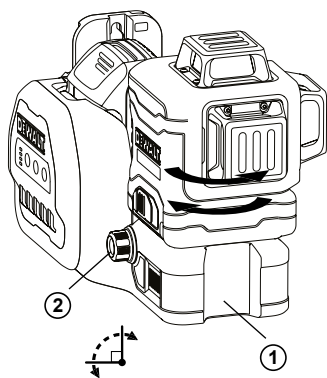


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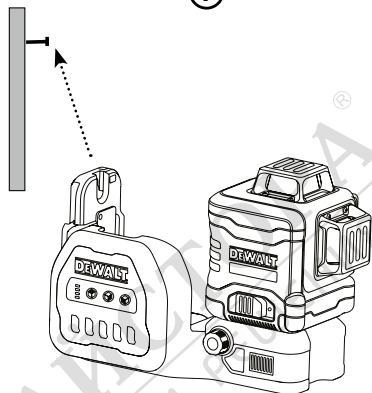


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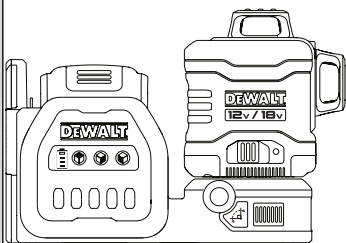
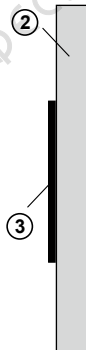
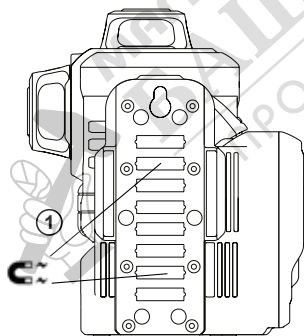
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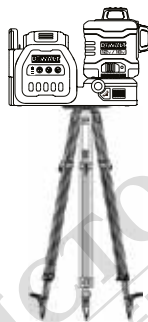
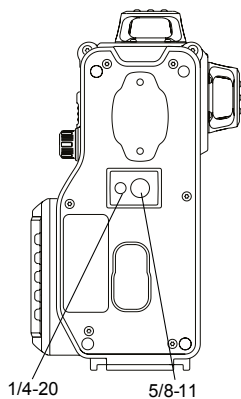


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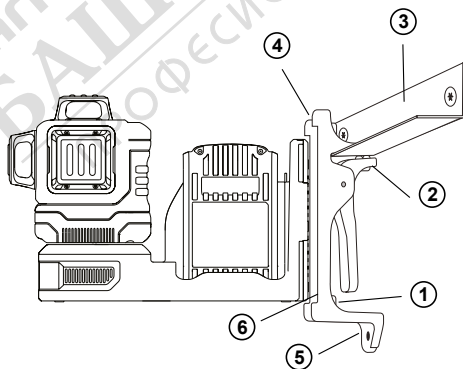




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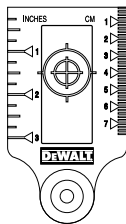


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МАГАЗИН  
БАШ МАЙСТОРА  
ПРОФЕССИОНАЛНИ РЕШЕНИЯ

# Contents

- Laser Information
- User Safety
- Battery Safety
- Powering the Laser
- Operating Tips
- Turning the Laser ON
- Checking Laser Accuracy
- Using the Laser
- Troubleshooting
- Accessories
- Service and Repairs
- Warranty
- Specifications


## Laser Information


The DCE089G18 3-Beam 360° Line Laser is a Class 2 laser product. It is a self-leveling laser tool that can be used for horizontal (level) and vertical (plumb) alignment projects.


## User Safety

### Safety Guidelines

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.

 **DANGER:** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**NOTICE:** Indicates a practice not related to personal injury which, if not avoided, may result in property damage.

If you have any questions or comments about this or any DeWALT tool, go to [www.2helpU.com](http://www.2helpU.com).

GB



#### **WARNING:**

*Never modify the tool or any part of it. Damage to the laser or personal injury could result.*



#### **WARNING:**

**Read and understand all instructions.**

*Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.*

### **SAVE THESE INSTRUCTIONS**



#### **WARNING:**

**Laser Radiation Exposure. Do not**

**disassemble or modify the laser level.**

**There are no user serviceable parts inside.**

**Serious eye injury could result.**



#### **WARNING:**

**Hazardous Radiation.** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.




**CAUTION:** Keep fingers clear of the back plate and stud when mounting with magnets. Fingers may become pinched.



**CAUTION:** Do not stand underneath the laser when it is mounted with the magnet bracket. Serious personal injury or damage to the laser may result if the laser falls.

The label on your laser may include the following symbols.

Symbol	Meaning
V	Volts
mW	Milliwatts
	Laser Warning
nm	Wavelength in nanometers
2	Class 2 Laser

## GB Warning Labels

For your convenience and safety, the following labels are on your laser (Fig. © 8).



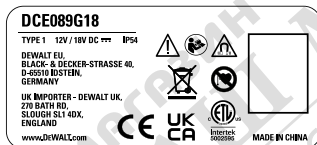
**WARNING:** To reduce the risk of injury, user must read instruction manual.



**WARNING: LASER RADIATION. DO NOT STARE INTO BEAM. Class 2 Laser Product.**



**WARNING:** Keep clear of magnet. Magnet hazard can disturb pacemaker operation and result in serious injury or death.



- **If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.**
- **Do not operate the laser in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** This tool may create sparks which may ignite the dust or fumes.
- **Store an idle laser out of reach of children and other untrained persons.** Lasers are dangerous in the hands of untrained users.
- **Tool service MUST be performed by qualified repair personnel.** Service or maintenance performed by unqualified personnel may result

in injury. To locate your nearest DEWALT service center go to [www.2helpU.com](http://www.2helpU.com).

- **Do not use optical tools such as a telescope or transit to view the laser beam.** Serious eye injury could result.
- **Do not place the laser in a position which may cause anyone to intentionally or unintentionally stare into the laser beam.** Serious eye injury could result.
- **Do not position the laser near a reflective surface which may reflect the laser beam toward anyone's eyes.** Serious eye injury could result.
- **Turn the laser off when it is not in use.** Leaving the laser on increases the risk of staring into the laser beam.
- **Do not modify the laser in any way.** Modifying the tool may result in hazardous laser radiation exposure.
- **Do not operate the laser around children or allow children to operate the laser.** Serious eye injury may result.
- **Do not remove or deface warning labels.** If labels are removed, the user or others may inadvertently expose themselves to radiation.
- **Position the laser securely on a level surface.** If the laser falls, damage to the laser or serious injury could result.

## Personal Safety

- Stay alert, watch what you are doing, and use common sense when operating the laser. Do not use the laser when you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the laser may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Depending on the work conditions, wearing protective equipment such as a dust mask, non-skid safety shoes, hard hat, and hearing protection will reduce personal injury.

## Tool Use and Care

- Do not use the laser if the **Power/Transport Lock** switch does not turn the laser on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- Follow instructions in the **Maintenance** section of this manual. Use of unauthorized parts or failure to follow **Maintenance** instructions may create a risk of electric shock or injury.

## Battery Safety



### WARNING:

**Batteries can explode, or leak, and can cause injury or fire. To reduce this risk:**

- Carefully follow all instructions and warnings on the battery label and package, and the accompanying Battery Safety manual.
- Do not dispose of batteries in fire.
- Keep batteries out of reach of children.
- Remove batteries when the device is not in use.
- Use only the charger specified for your rechargeable battery pack.
- Disconnect the battery pack from the laser before making any adjustments, changing accessories, or storing the laser. Such preventative safety measures reduce the risk of starting the laser accidentally.
- Use the laser only with specifically designated battery packs. Use of other battery packs may create a risk of injury and fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Do not use a battery pack or laser that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion, or risk of injury.

- Do not expose a battery pack or laser to fire or excessive temperature. Exposure to fire or temperature above 265° F (130° C) may cause an explosion.
- Follow all the charging instructions and do not charge the battery pack outside of the temperature range specified in the instructions. Charging improperly or at temperatures outside of the specified range may damage the battery and increase the risk of fire.
- Do not store or use the tool and battery pack in locations where the temperature may fall below 4 °C (39.2 °F) (such as outside sheds or metal buildings in winter), or reach or exceed 40 °C (104 °F) (such as outside sheds or metal buildings in summer).

## Powering the Laser

This laser can be powered by either a DEWALT 12 V or 18V Li-ion Battery Pack.

Battery Type	Battery Pack
12V	DCB120, DCB121, DCB122, DCB124, DCB127, DCB123, DCB125, DCB126
18V	DCB181, DCB182, DCB183, DCB183B, DCB183G, DCB184, DCB184B, DCB184G, DCB185, DCB187, DCB189, DCBP034, DCBP518

**Use of any other batteries may create a risk of fire.**

## Charging the Li-ion Battery

- If the DEWALT 12V/18V Li-ion battery pack is attached to the laser, remove it.
  - While pressing down on the release button on the battery pack (Fig. ⑥ ①), pull the battery pack up to unlock it from the laser.
  - Pull the battery pack the rest of the way up and out of the laser (Fig. ⑥ ②).

2. Plug the charger cord into an electrical outlet.
3. Slide the battery pack into the charger until it snaps in place (Fig. A ①). On the charger, the left indicator light will flash to let you know the battery is being charged.
4. After the battery is fully-charged (the indicator light on the charger no longer flashes), press and hold the release button on the battery pack (Fig. A ②) and slide the pack out of the charger (Fig. A ③).
5. Slide the battery pack down in the laser until it snaps in place (Fig. A ④).

## Viewing the Battery Meter

When the laser is ON, the battery meter on the keypad (Fig. C ⑦) indicates how much power remains.

- The bottom LED will illuminate and flash when the battery level is low (10%). The laser may continue to operate for a short time while the battery power continues to drain, but the beam(s) will quickly dim.
- After the 12V/18V Li-ion battery is charged, and the laser is turned ON again, the laser beam(s) will return to full brightness and the battery indicator level will indicate full capacity.
- If all 4 LEDs on the battery meter remain ON, this indicates that the laser is not fully powered OFF. When the laser is not in use, make sure the Power/Transport Lock switch is placed to the LEFT to the Locked/OFF position (Fig. C ②).

## Operating Tips

- To extend battery life per charge, turn the laser off when it is not in use.
- To ensure the accuracy of your work, check the laser calibration often. Refer to **Checking Laser Accuracy**.
- Before attempting to use the laser, make sure it is positioned securely, on a smooth, flat stable surface that is level in both directions.
- To increase beam visibility, use a Laser Target Card (Fig. M) and/or wear Laser Enhancement Glasses (Fig. N) to help find the beam.



### CAUTION:

To reduce the risk of serious injury, never stare directly into the laser beam with or without these glasses. Refer to **Accessories** for important information.

- Always mark the center of the beam created by the laser.
- Extreme temperature changes can cause movement or shifting of building structures, metal tripods, equipment, etc., which can effect accuracy. Check your accuracy often while working.
- If the laser has been dropped, check to make sure your laser is still calibrated. Refer to **Checking Laser Accuracy**.

## Turning the Laser On

Place the laser on a flat level surface. Slide the Power/Transport Lock switch C ② to the right to unlock/turn ON the laser.

Each laser line is powered on by pressing its button on the keypad (Fig. C ③). Pressing the button again turns the laser line off. The laser lines can be powered one at a time or all at the same time.

Button	Displays
	Horizontal laser line (Fig. C ④)
	Side vertical laser line (Fig. C ⑤)
	Front vertical laser line (Fig. C ⑥)

When the laser is not in use, slide the Power/Transport Lock switch to the left in the OFF/Locked position. If the Power/Transport Lock switch is not placed in the lock position, all 4 LEDs will continuously flash on the Battery Meter.











## Checking Laser Accuracy

The laser tools are sealed and calibrated at the factory. It is recommended that you perform an accuracy check **prior to using the laser for the first time** (in case the laser was exposed to extreme temperatures) and then regularly to ensure the accuracy of your work. When performing any of the accuracy checks listed in this manual, follow these guidelines:




- Use the largest area/distance possible, closest to the operating distance. The greater the area/distance, the easier to measure the accuracy of the laser.
- Place the laser on a smooth, flat, stable surface that is level in both directions.
- Mark the center of the laser beam.

### Horizontal Beam - Scan Direction

Checking the horizontal scan calibration of the laser requires two walls 30' (9m) apart. It is important to conduct a calibration check using a distance no shorter than the distance of the applications for which the tool will be used.











1. Place the laser against the end of the wall on a smooth, flat, stable surface that is level in both directions (Fig. D ①).
2. Move the Power/Transport Lock switch to the right to turn the laser ON.
3. Press  to turn on the horizontal beam.
4. At least 30' (9m) apart along the laser beam, mark  and .
5. Turn the laser 180°.
6. Adjust the height of the laser so the center of the beam is aligned with  (Fig. D ②).
7. Directly above or below , mark  along the laser beam (Fig. D ③).
8. Measure the vertical distance between  and .
9. If your measurement is greater than the **Allowable Distance Between  and ** for the

corresponding **Distance Between Walls** in the following table, the laser must be serviced at an authorized service center.

Distance Between Walls	Allowable Distance Between  and 
10.0 m	6.0 mm 
12.0 m	7.2 mm
15.0 m	9.0 mm

### Horizontal Beam - Pitch Direction

Checking the horizontal pitch calibration of the laser requires a single wall at least 30' (9m) long. It is important to conduct a calibration check using a distance no shorter than the distance of the applications for which the tool will be used.

1. Place the laser against the end of the wall on a smooth, flat, stable surface that is level in both directions (Fig. E ①).
2. Move the Power/Transport Lock switch to the right to turn the laser ON.
3. Press  to turn on the horizontal beam.
4. At least 30' (9m) apart along the laser beam, mark  and .
5. Move the laser to the opposite end of the wall (Fig. E ②).
6. Position the laser toward the first end of the same wall and parallel to the adjacent wall.
7. Adjust the height of the laser so the center of the beam is aligned with .
8. Directly above or below , mark  along the laser beam (Fig. E ③).
9. Measure the distance between  and .
10. If your measurement is greater than the **Allowable Distance Between  and ** for the corresponding **Distance Between Walls** in the following table, the laser must be serviced at an authorized service center.

Distance Between Walls	Allowable Distance Between (a) and (c)
10.0 m	6.0 mm
12.0 m	7.2 mm
15.0 m	9.0 mm

## Vertical Beam

Checking the vertical (plumb) calibration of the laser can be most accurately done when there is a substantial amount of vertical height available, ideally 30' (9m), with one person on the floor positioning the laser and another person near a ceiling to mark the position of the beam. It is important to conduct a calibration check using a distance no shorter than the distance of the applications for which the tool will be used.

1. Place the laser on a smooth, flat, stable surface that is level in both directions (Fig. (F) ①).
2. Move the Power/Transport Lock switch to the right to turn the laser ON.
3. Press (F) and (C) to turn on both vertical beams.
4. Mark two short lines where the beams cross (a), (b) and also on the ceiling (c), (d). Always mark the center of the beam's thickness (Fig. (F) ②).
5. Pick up and rotate the laser 180°, and position it so the beams line up with the marked lines on the level surface (e), (f) (Fig. (F) ③).
6. Mark two short lines where the beams cross on the ceiling (g), (h).
7. Measure the distance between each set of marked lines on the ceiling (c), (g) and (d), (h). If the measurement is greater than the values shown below, the laser must be serviced at an authorized service center.

Ceiling Height	Allowable Distance Between Marks
2.5 m	1.7 mm
3.0 m	2.1 mm
4.0 m	2.8 mm
6.0 m	4.1 mm (F) ④
9.0 m	6.2 mm

## 90° Accuracy Between Vertical Beams

Checking 90° accuracy requires an open floor area at least 33' x 18' (10m x 5m). Refer to Fig. e A for the position of the laser at each step and for the location of the marks made at each step. Always mark the center of the beam's thickness.

1. Place the laser on a smooth, flat, stable surface that is level in both directions.
2. Move the Power/Transport Lock switch to the right to turn the laser ON.
3. Press (F) to turn on the side vertical beam.
4. Mark the center of the beam at three locations (a), (b), (c) on the floor along the side laser line. Mark (b) should be at the midpoint of the laser line (Fig. (G) ①).
5. Pick up and move the laser to (d).
6. Press (C) to turn on the front vertical beam too (Fig. (G) ②).
7. Position the front vertical beam so it crosses precisely at (b), with the side beam aligned with (c) (Fig. (G) ②).
8. Mark a location (e) along the front vertical beam at least 14' (4m) away from the unit (Fig. (G) ②).
9. Rotate the laser 90° so the side vertical beam now passes through (b) and (e) (Fig. (G) ③).
10. Directly above or below (a), mark (f) along the front vertical beam.



- 11.** Measure the distance between **(a)** and **(f)**. If the measurement is greater than the values shown below, the laser must be serviced at an authorized service center.

Distance from <b>(a)</b> to <b>(b)</b>	Allowable Distance Between <b>(a)</b> and <b>(f)</b>
4.0 m	3.5 mm
5.0 m	4.4 mm
6.0 m	5.3 mm
7.0 m	6.2 mm

## Using the Laser

### Leveling the Laser

As long as the laser is properly calibrated, the laser is self-leveling. Each laser is calibrated at the factory to find level as long as it is positioned on a flat surface within average  $\pm 4^\circ$  of level. No manual adjustments are required.

If the laser has been tilted so much that it cannot self-level ( $> 4^\circ$ ), the laser beam will flash. There are two flashing sequences associated with the out of level condition.

- Between  $4^\circ$  and  $10^\circ$  the beams flash with a constant blink cycle
- At angles greater than  $10^\circ$  the beams flash with a three blink cycle.

When the beams flash THE LASER IS NOT LEVEL (OR PLUMB) AND SHOULD NOT BE USED FOR DETERMINING OR MARKING LEVEL OR PLUMB. Try repositioning the laser on a more level surface.

### Using the Pivot Bracket

The laser has a magnetic pivot bracket (Fig. **(H)** **(1)**) permanently attached to the unit.



#### **WARNING:**

*Position the laser and/or wall mount on a stable surface. Serious personal injury or*

*damage to the laser may result if the laser falls.*

- The bracket has a fine adjustment knob (Fig. **(H)** **(2)**) to help you line up the laser beams. Place the unit on a flat level surface and turn the knob to the right to move the beams to the right, or turn the knob to the left to move the beams to the left.
- The bracket has a keyhole slot (Fig. **(1)**) so it can be hung from a nail or screw on any kind of surface.
- The bracket has magnets (Fig. **(J)** **(1)**) which allow the unit to be mounted to most upright surfaces made of steel or iron. Common examples of suitable surfaces include steel framing studs, steel door frames, and structural steel beams. Before attaching the pivot bracket against a stud (Fig. **(1)** **(2)**), place the Metal Enhancement Plate (Fig. **(J)** **(3)**) on the opposite side of the stud.

## Maintenance

- To maintain the accuracy of your work, check the laser often to make sure it is properly calibrated. See Field Calibration Check.
- Calibration checks and other maintenance repairs may be performed by DeWALT service centers.
- When not in use, store the laser in the kit box provided. Do not store your laser at temperatures below  $-5^\circ\text{F}$  ( $-20^\circ\text{C}$ ) or above  $140^\circ\text{F}$  ( $60^\circ\text{C}$ ).
- Do not store your laser in the kit box if the laser is wet. The laser should be dried first with a soft dry cloth prior to storage.

## Cleaning

Exterior plastic parts may be cleaned with a damp cloth. Although these parts are solvent resistant, NEVER use solvents. Use a soft, dry cloth to remove moisture from the tool before storage.

## GB Troubleshooting

### The Laser Does Not Turn On

- Fully-charge the battery pack and then reinstall it in the laser unit.
- If the laser unit is heated above 120°F (50°C), the unit will not turn on. If the laser has been stored in extremely hot temperatures, allow it to cool. The laser level will not be damaged by pressing the on/off button before cooling to its proper operating temperature.

### The Laser Beams Flash

The lasers are designed to self-level up to an average of 4° in all directions. If the laser is tilted so much that the internal mechanism cannot level itself, the laser beams will flash indicating that the tilt range has been exceeded. THE FLASHING BEAMS CREATED BY THE LASER ARE NOT LEVEL OR PLUMB AND SHOULD NOT BE USED FOR DETERMINING OR MARKING LEVEL OR PLUMB. Try repositioning the laser on a more level surface.

### The Laser Beams Will Not Stop Moving

The laser is a precision instrument. Therefore, if it is not positioned on a stable (and motionless) surface, the laser will continue to try to find level. If the beam will not stop moving, try placing the laser on a more stable surface. Also, try to make sure that the surface is relatively flat, so that the laser is stable.

### The Battery Meter LEDs Flash

When all 4 LEDs continuously flash on the Battery Meter this indicates that the unit has not been fully powered off using the Power/Transport Lock switch (Fig. © ②). The Power/Transport Lock switch should always be placed in the LOCKED/OFF position when the laser is not in use.

## Accessories

The laser is equipped with both 1/4 - 20 and 5/8 - 11 female threads on the bottom of the unit (Fig. Ⓚ). This thread is to accommodate current or future DeWalt accessories. Only use DeWalt accessories specified for use with this product. Follow the directions included with the accessory.



#### **WARNING:**

*Since accessories, other than those offered by DeWalt, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only DeWalt recommended accessories should be used with this product.*

If you need any assistance in locating any accessory, please contact your nearest DeWALT service center or go to [www.2helpU.com](http://www.2helpU.com).

### Target Card

Some laser kits include a Laser Target Card (Fig. Ⓜ) to aid in locating and marking the laser beam. The target card enhances the visibility of the laser beam as the beam crosses over the card. The card is marked with standard and metric scales. The laser beam passes through the red plastic and reflects off of the reflective tape on the reverse side. The magnet at the top of the card is designed to hold the target card to ceiling track or steel studs to determine plumb and level positions. For best performance when using the Target Card, the DeWALT logo should be facing you.

### Laser Enhancement Glasses

Some laser kits include Laser Enhancement Glasses (Fig. Ⓝ). These glasses improve the visibility of the laser beam under bright light conditions or over long distances when the laser is used for interior applications. These glasses are not required to operate the laser.

**CAUTION:**

*These glasses are not ANSI approved safety glasses and should not be used while operating other tools. These glasses do not keep the laser beam from entering your eyes.*

**CAUTION:**

*To reduce the risk of serious injury, never stare directly into the laser beam with or without these glasses.*

## Ceiling Mount

The laser ceiling mount (Fig. ① ①), if included, offers more mounting options for the laser. The ceiling mount has a clamp (Fig. ① ②) at one end which can be fixed to a wall angle for acoustic ceiling installation (Fig. ① ③). At each end of the ceiling mount is a screw hole (Fig. ① ④ and ① ⑤), allowing the ceiling mount to be attached to any surface with a nail or screw.

Once the ceiling mount is secured, its steel plate provides a surface to which the magnetic pivot bracket (Fig. ① ⑥) can be attached. The position of the laser can then be fine-tuned by sliding the magnetic pivot bracket up or down on the wall mount.

## Service and Repairs

**NOTE:** Disassembling the laser level(s) will void all warranties on the product.

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by authorized service centers. Service or maintenance performed by unqualified personnel may result in a risk of injury. To locate your nearest DeWalt service center go to [www.2helpU.com](http://www.2helpU.com).

## Warranty

Go to [www.2helpU.com](http://www.2helpU.com) for the latest warranty information.

## GB Specifications

	<b>DCE089G18</b>
Light Source	Laser diodes
Laser Wavelength	510–530nm visible
Laser Power	≤1.50mW (each beam) CLASS 2 LASER PRODUCT
Working Range	70 m (230') 100 m (330') with detector (sold separately)
Accuracy (Plumb)	±3.1mm @ 9m
Accuracy (Level)	±3mm per 10m
Battery Low	1 LED Flashing on Battery meter
Unit Not Powered Off With Pendulum Lock Switch	4 LEDs Flashing on Battery meter
Flashing Laser Beams	Tilt range exceeded/unit is not level
Power Source	DeWALT 12V or 18V Battery Pack
Operating Temperature	4 °C–40 °C (39.2 °F–104 °F)
Storage Temperature	4 °C–40 °C (39.2 °F–104 °F)
Humidity	Maximum relative humidity 80% for temperatures up to 31 °C (88 °F), decreasing linearly to 50% relative humidity at 40 °C (104 °F)
Environmental	Water & Dust Resistant to IP54