LL300S Hands-On Training
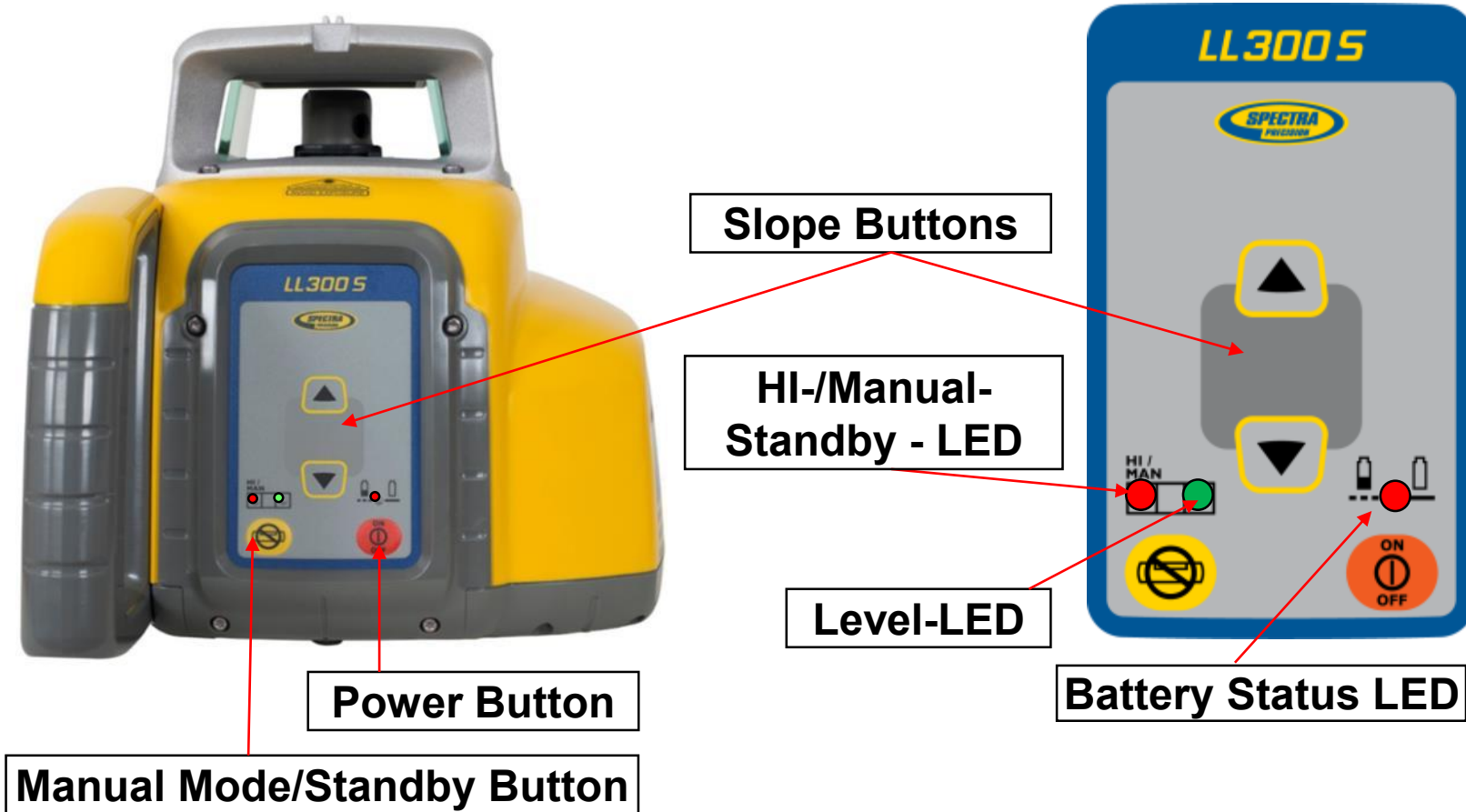
LL300S Controls

Slope Buttons

HI-/Manual-
Standby - LED

Level-LED

Power Button

Battery Status LED

Manual Mode/Standby Button

RC402N Radio Remote Control

LCD - Display

Enter button

Up & Down Buttons

Menu button

Left & Right Buttons

RC402N-Battery status LED

Manual Mode/Standby Button

On/Off Button

Hand loop

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LL300S Peripherals

Metal Sunshade

Sighting Guides

Beam Exit

Serial Number

5/8" x 11

Rubber Feet

LL300 S

LL300S Peripherals

Rubber Foot

Laser Safety Labels

5/8" x 11

Plastic Feet
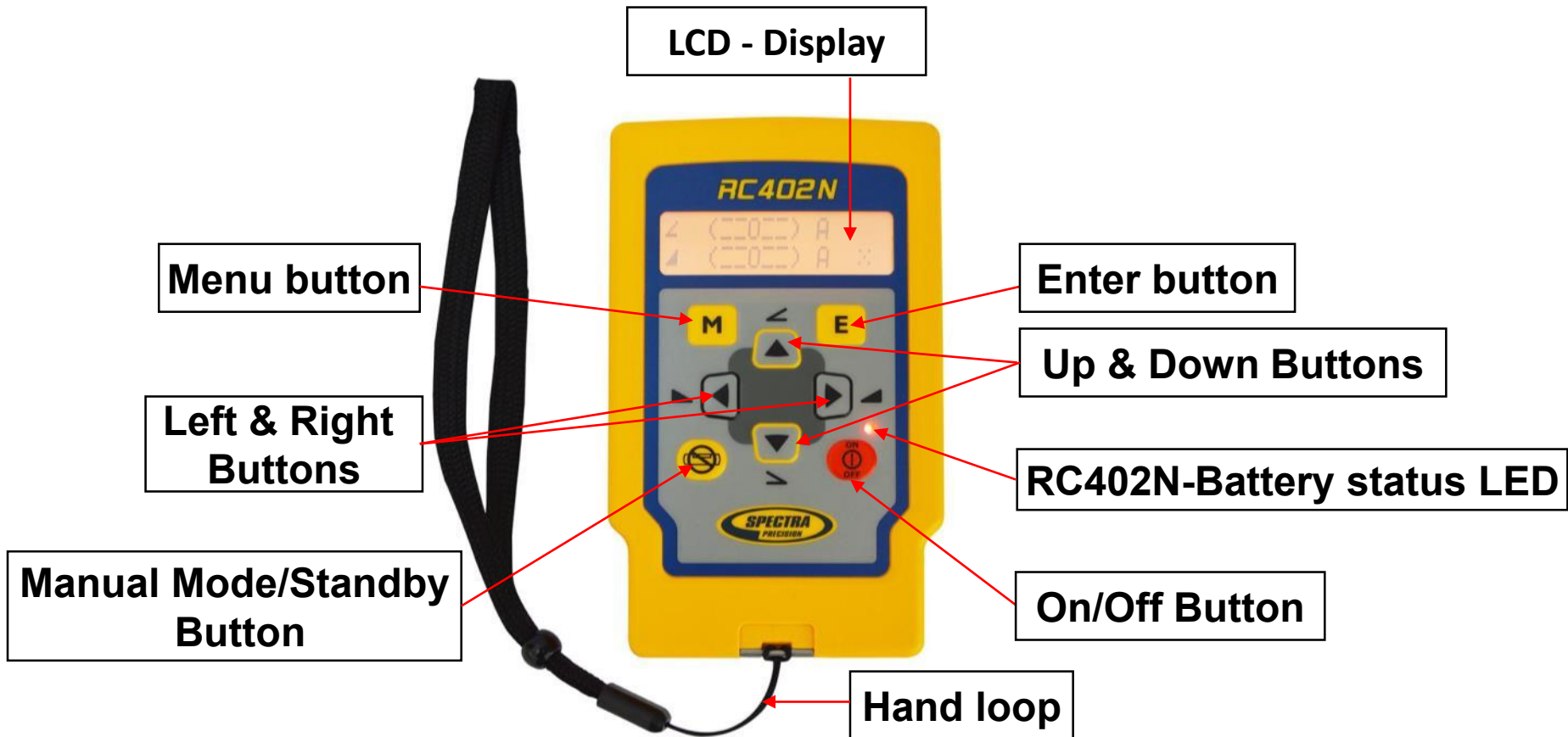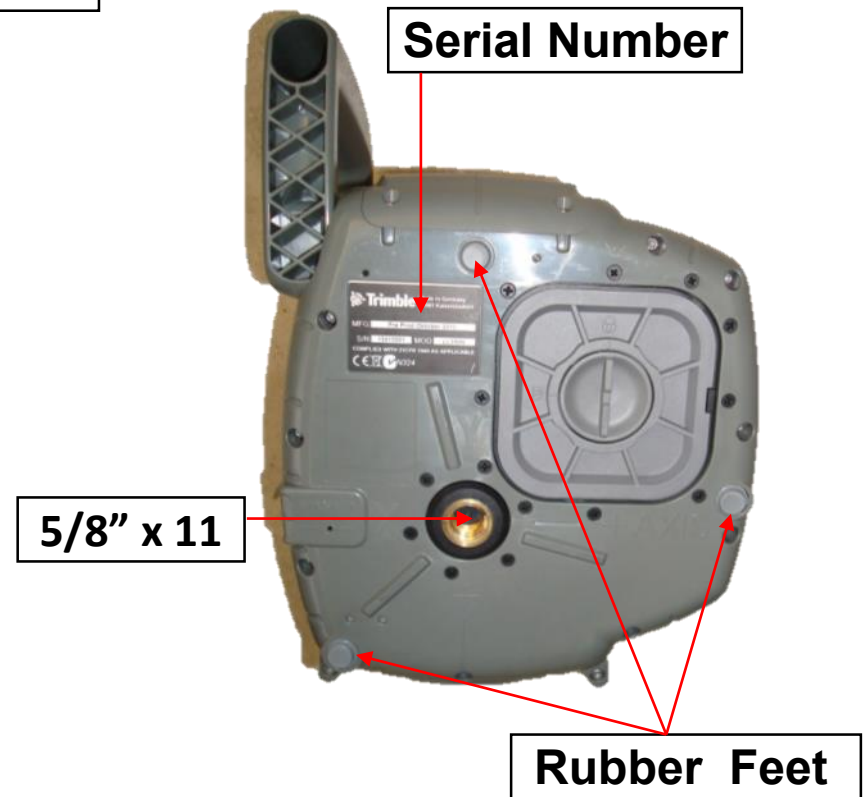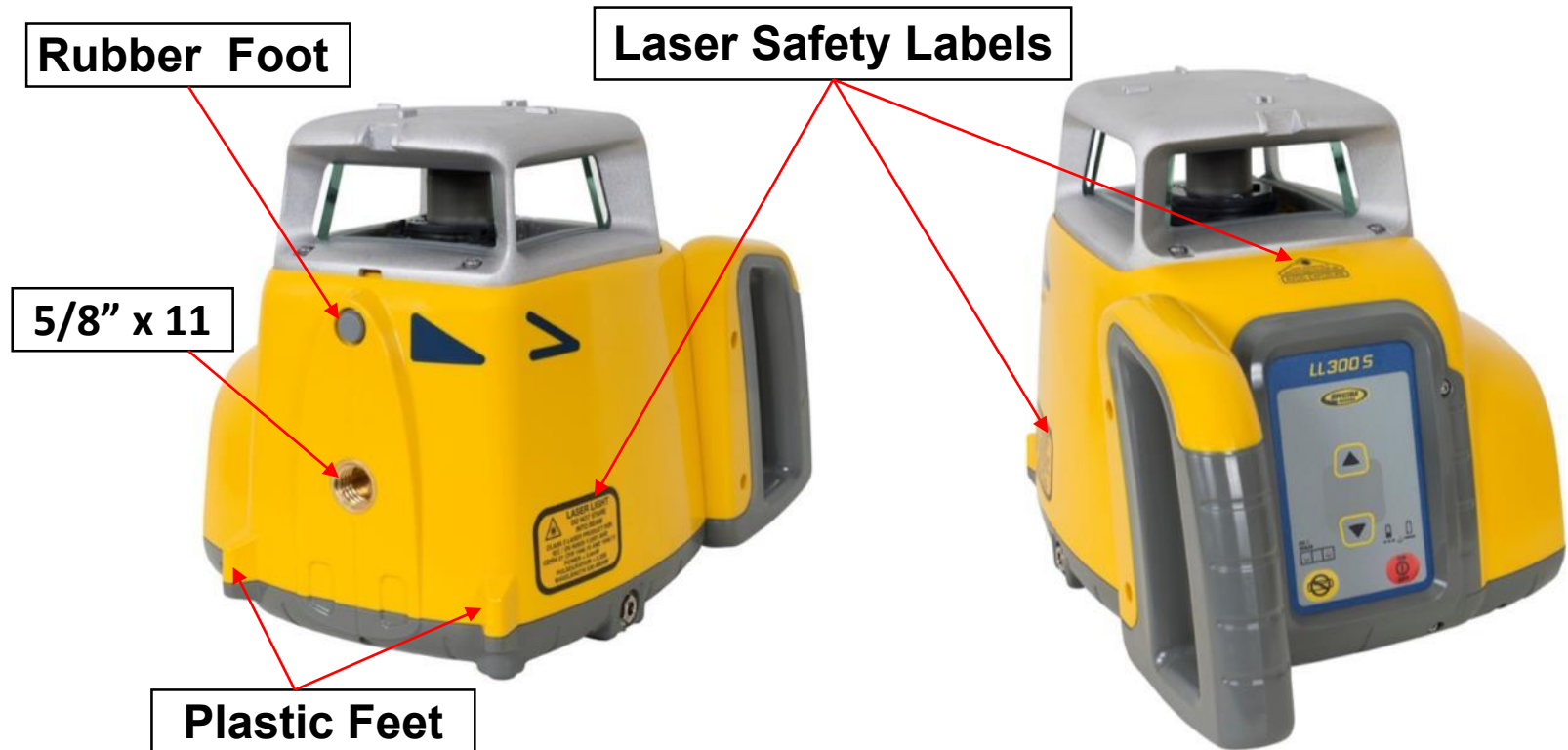
Installing The Batteries

- **Enter the battery housing, by turning the battery-door knob counterclockwise**

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Installing The Batteries

- **Install/remove the rechargeable battery Pack. It is keyed to prevent mis-insertion. The cage prevents accidental charging of Alkaline batteries**

- **Do not try to open the cage for exchanging the rechargeable batteries**

- **Worldwide charger has plugs for US, EU, AU and GB**

- **Recharge time is about 10 hours**

Installing The Batteries

- **If using 4 x D-cell Alkaline's, note the plus (+) and minus(-) diagram on the battery door. Do NOT try to install Alkaline batteries in the rechargeable battery Pack!**

  New warning label at the battery cage

Never put alkaline batteries into the cage!

- **Special screws are used to ensure only autorized service centers can replace the batteries. Trying to open the cage will destroy the cage lid holders.**

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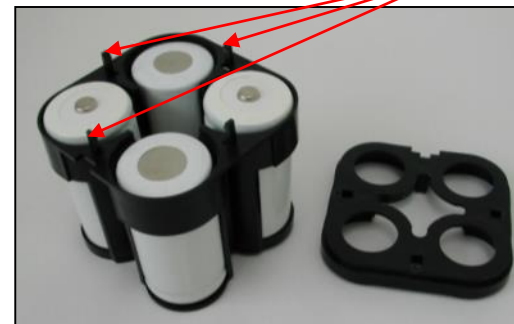
Turning On/Off

- **To turn the unit on, press and release the power button**
  - **The unit always powers up in automatic self-leveling mode**

  - **All LEDs are turned on for 3 seconds (diagnostic mode).**

  - **Green LED flashes during self-leveling**

  - **When leveled, the green LED lights solid for the first five minutes, then flashes every 4 seconds indicating the laser remains level and the HI-alert has been activated**

**To turn the unit off, press and hold the power button for 2 seconds!**

Standby mode helps to increase the battery life and controls the laser setup during breaks. The self-leveling and rotation will be stopped and the beam will be turned off while the HI alert is still active.
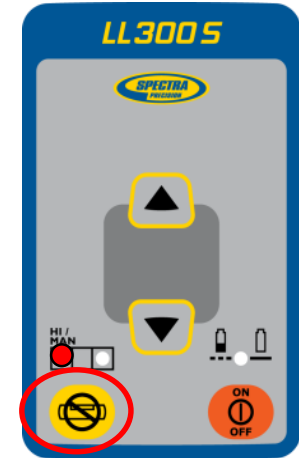
- **Press and hold the Manual button at the laser or remote control for 3 seconds activates the Standby mode.**
  - The HI/MAN LED at the laser flashes red every 5 seconds while the RC402N display shows Standby.

To deactivate Standby mode and restore full operation of the laser, press and hold the

Manual button at the laser or remote control again for 3 seconds.
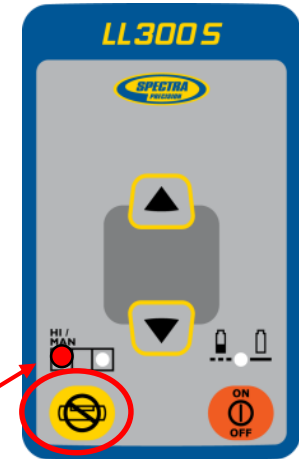
Activating/Deactivating Manual Mode

- **"Manual" bypasses the laser's automatic leveling, to use the laser in slope or vertical mode**

- **Press and release the manual-mode button at the transmitter or remote control**
  - **Manual LED will flash red**

- **Change the slope using the arrow buttons at the laser (Y-axis) or remote control (both axes).**

- **The remote's left/right buttons can be used for vertical fine line adjustments.**

- **To resume automatic self-leveling mode, press manual button twice**
  Note: When set up vertically, the unit switches always automatically into manual mode.

Single Y-Axis Slope Mode

- **To activate the single Y-axis slope mode, press the manual mode button at the laser or remote twice.**

  - **The red and green LED's will flash simultaneously once a second**

- **To resume automatic self-leveling mode, press the manual mode button (transmitter or remote) again.**

- **When in Slope Mode, the X-axis will self level to maintain a consistent elevation of the sloped reference plane.**
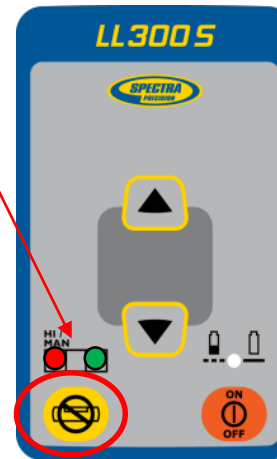
Grade Matching using Single Slope Mode

1. **Set up the laser at the first elevation point and align it to the second desired slope/elevation hub using the sighting guides on the sunshade.**

2. **Check the laser beam elevation close to the laser.**

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Grade Matching using Single Slope Mode

3. **To activate the Y-axis single slope mode, press the manual mode button twice.**

   The red and green LED flash simultaneously (once a second).

   HI / MAN 🔴 🟢

   1 Hz

4. **Set the grade rod with the receiver attached to it on the second desired slope/elevation hub.**

   NOTE: DO NOT change the receiver position at the rod

   In order to keep it as a single person operation when working without a remote control, it's recommended to use a bipod

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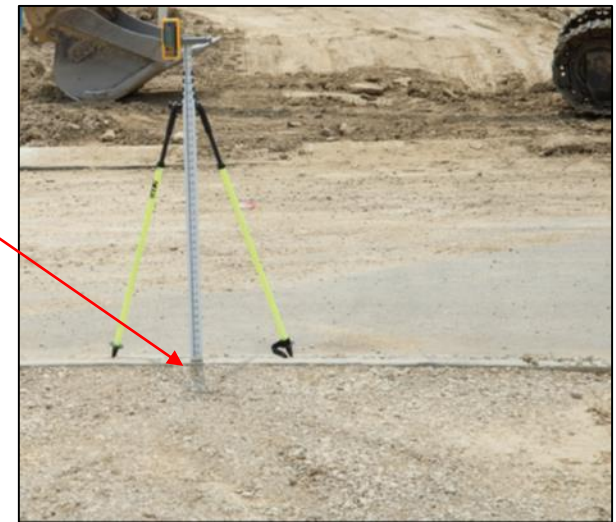
Grade Matching using Single Slope Mode

5. **Press the up and down arrow buttons at the laser or at the remote control until you get an on-grade reading on the receiver.**

6. **Check the elevations along the direction of the slope.**

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Mask Mode using the standard method

Mask Mode – allows you to electronically turn off the laser beam (electronic shutters) in up to 3 lighthouse windows to prevent interference with other receivers on the jobsite.

- **To activate the mask mode on the + or -Y-axis, press the Up or Down arrow button at the laser or remote control, then within <1 second press and release the Manual button.**

- **The Mask mode for the + or – X axis can <u>only</u> be activated/deactivated by pressing the Right or Left arrow button in sequence with the Manual button at the optional remote control.**
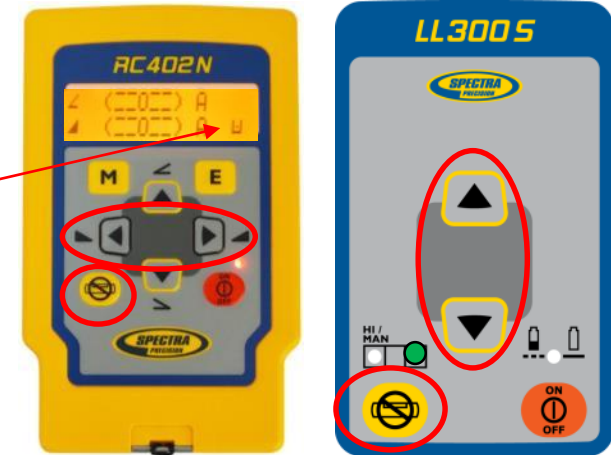
Note: The unit always powers up with the mask mode deactivated (default).

Special Features using the optional RC402N

The remote control mirrors the basic functionality of the LL300S keypad and offers additional features.

M-Button : Quickly press and release **starts the MENU entry** and can be used to return to the previous menu position

E-Button: Quickly press and release starts the selected mode

Manual Button: Quickly press and release activates/deactivates the manual mode/ single slope mode; press and hold for 3 seconds activates/deactivates the Standby mode

Up/Down Arrow Buttons

Left/Right Arrow Buttons

ON/OFF button - press for 1 second to turn on the unit; press and hold for 2 seconds to turn off the unit

RC402N Battery- Status-LED (red)

Battery status laser
Mask mode indication
HI-Alert activated

RC402N

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Powering the RC402N

1. **Open the battery door using a coin or similar pry device to release the battery door tab on the RC402N.**
2. **Insert two AA batteries noting the plus (+) and minus (-) diagrams inside the battery housing.**
3. **Close the battery door. Push down until it "clicks" into the locked position.**

Turning On/Off the Radio Remote Control
Press the power button to turn on the radio remote control.

Display at RC402N
LL300S – horizontal setup

Display at RC402N
LL300S - vertical setup

To turn off the radio remote control, press and hold the power button for 2 seconds.
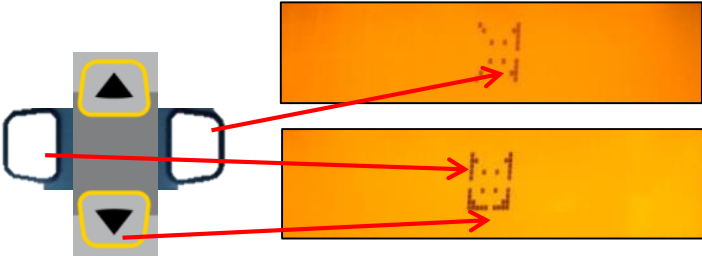
# Pairing the remote control with the transmitter

- **First, make sure the transmitter and the remote control are turned off. Then press and hold the Manual button and turn on the transmitter.**
  - **The battery LED flashes fast.**
- **During the next 6 seconds repeat the same steps on the remote control.**

- **The Laser's red battery LED flashes fast and the remote's display shows Pairing OK for one second and then the same function as the laser is actually working to indicate the transmitter has been matched with the remote control.**
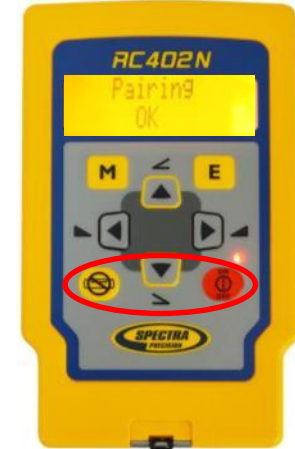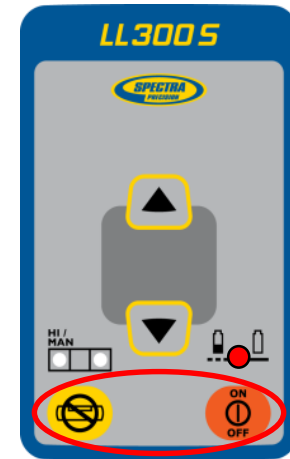
Mask Mode using the Remote Control's menu

- **Press and release the** [M] **button at the Standard Display and select >>Mask Mode<< by pressing the down** [▼] **arrow button once.**

- **Press and release the** [E] **button, the mask symbol occurs.**

- **For selecting the side, press and release one of the arrow buttons.**

- **When all areas have been set, press button** [E] **to store the mask sector selection.**
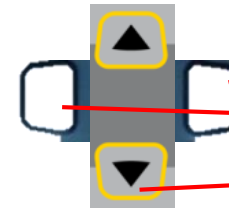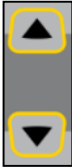
The RC402N display indicates which side of the laser the beam has been electronically turned off.

HI-Alert Selection

- **Press and release the** [M] **button at the Standard Display and go to >>Settings<< by pressing the down** [▼] **arrow button twice.**

- **Press and release the** [E] **button, HI-Alert** `»HI Alert«` `Sensitivity    ↓` **will be marked in arrow brackets; then press the** [E] **button again.**

- **The desired HI-alert:** <u>5 min.</u>**(Default),** <u>30 seconds</u> **and** <u>HI-Off</u>**) can be selected using the Up/Down buttons.** [▲] [▼]

  `»HI 5 min«`   `HI 5 min`   `HI 30 sec      ↑`
  `HI 30 sec   ↓`   `»HI 30 sec«   ↓`   `»HI off«`

- **Press and release button** [E] **to confirm the selected HI-Alert.**

Sensitivity selection at the RC402N Remote Control

Sensitivity Selection

- **Press and release the** [M] **button at the Standard Display and go to >>Settings<< by pressing the down** [▼] **arrow button twice.**

- **Press and release the** [E] **button, then press the** [▼] **button once. Sensitivity** `HI Alert` `»Sensitivity« ↓` **will be marked in arrow brackets.**

- **Press and release the** [E] **button to open the Sensitivity submenu**

- **The desired Sensitivity:** <u>Low</u>, <u>Middle</u> **(Default) and** <u>High</u>**) can be selected using the Up/Down buttons.**

`»Low«` `Middle ↓`   `Low` `»Middle« ↓`   `Middle ↑` `»High«`

- **Press and release button** [E] **to confirm the selected Sensitivity.**

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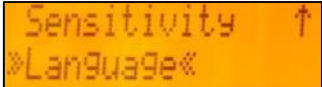
Language selection at the RC402N Remote Control

Language Selection

- Press and release the [M] button at the Standard Display and go to >>Settings<< by pressing the down [▼] arrow button twice.

- Press and release the [E] button, then press the [▼] button twice. Language `Sensitivity ↑ »Language«` will be marked in arrow brackets.

- Press and release the [E] button to open the Language submenu

- Use Up/Down buttons to select the required local language (EN, DE, IT, FR, ES, PT, NL, DA, NO, SV, FI, PL, TR, CZ).

- Press and release button [E] to confirm the selected Language.