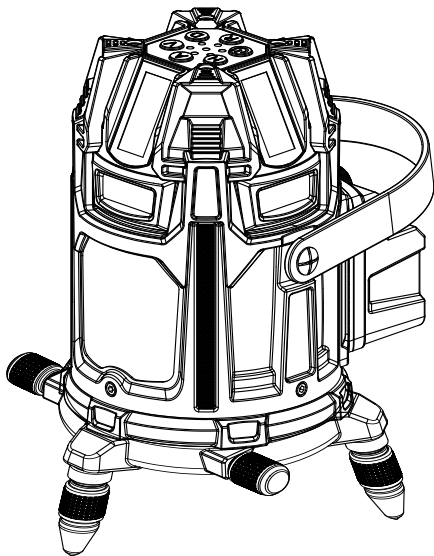


USER MANUAL

044.80G PROCROSS 8.0 DS



EN ENGLISH

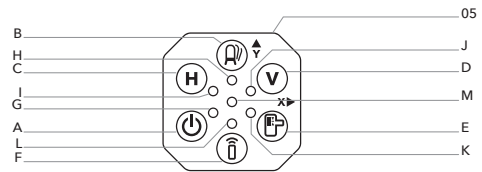
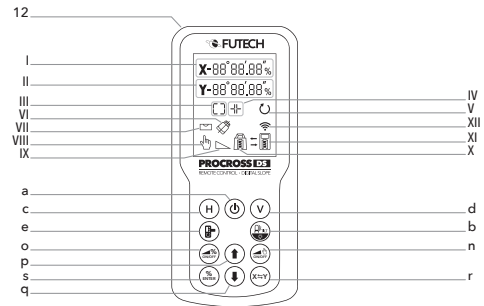
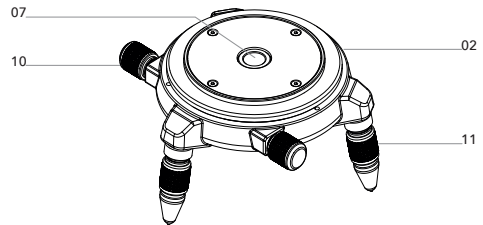
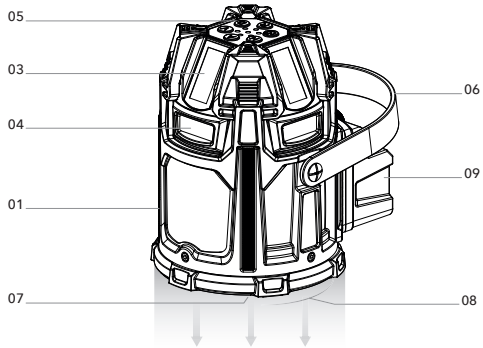
Manual
in your language?

Check the back cover



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OVERVIEW



HOUSING

- 01 Laser head
- 02 Laser base
- 03 Horizontal laser line
- 04 Vertical laser line
- 05 Keypad
- 06 Belt
- 07 5/8" Tripod thread
- 08 Magnetic circle
- 09 Li-ion battery
- 10 Fine adjustment
- 11 Adjustable foot
- 12 Remote control

KEYPAD

- A Power button
- B Tilt security button
- C H-button for horizontal lines
- D V-button for vertical lines
- E Receiver buttons
- F Remote control button
- G Power indicator
- H Tilt security indicator
- I Horizontal lines indicator
- J Vertical lines indicator
- K Receiver mode indicator
- L Remote control indicator
- M Status indicator

REMOTE CONTROL

- a Power button
- b Tilt / backlight button
- c H-button for horizontal lines
- d V-button for vertical lines
- e Receiver mode button
- n Manual slope button
- o Digital slope button
- p Arrow up button
- q Arrow down button
- r X/Y button
- s Enter button

- I Slope percentage X-axis
- II Slope percentage Y-axis
- III Horizontal lines indicator
- IV Vertical lines indicator
- V Receiver mode indicator
- VI Tilt security indicator
- VII Levelling indicator
- VIII Manual slope indicator
- IX Slope indicator
- X Connection symbol + Battery indication laser
- XI Symbol + battery indication remote control
- XII Send commando symbol



QUICK START GUIDE

KEYPAD	REMOTE CONTROL	NAME	FUNCTION	
A	-	Power button	Press	Switch the device ON/OFF
	a	Power button	Press	- Switch the remote control ON/OFF - (de)activate SLEEP mode of device when connected
B	b	Tilt security button	Press	(De-)activate tilt security
C	c	H-button	Press	(AUTO LEVELLING MODE) (De)activate extra horizontal laser lines (MANUAL SLOPE MODE, DEVICE ONLY) Change to X-axis
			Hold	(MANUAL SLOPE MODE, DEVICE ONLY) X-axis descends on the side pointed by the arrow of the x-axis.
D	d	V-button	Press	(De)activate extra vertical laser lines
			Hold	(MANUAL SLOPE MODE, DEVICE ONLY) X- or Y-axis rises on the side pointed by the arrow of the x- or y-axis. (depends on the activated axis, see LED indicators I, J and K)
E	e	Receiver button	Press (1st time)	Activate the receiver mode (Pulse) - 35% power safe
			Press (2nd time)	Activate the receiver mode (Pulse) - 65% power safe
			Press (3rd time)	Deactivate the receiver mode.
			Press	(MANUAL SLOPE MODE, DEVICE ONLY) Change to Y-axis
			Hold	(MANUAL SLOPE MODE, DEVICE ONLY) Y-axis descends on the side pointed by the arrow of the y-axis.
F	-	Remote control button	Press	(De)activate the remote control function of the device
G	-	Power indicator	Red, continuous	The laser is ON
			Red, flashing	The laser is ON, power of the battery is LOW.



KEYPAD	REMOTE CONTROL	NAME	FUNCTION	
H	-	Tilt security indicator	No	Tilt security mode OFF
			Red, flashing, slow	Prepare tilt security (duration: 50 sec. after last manipulation)
			Red, flashing, fast	Tilt security active
			Red, continuous	Tilt alarm
I	-	Horizontal indicator	No	(AUTO LEVELLING MODE) All horizontal laser lines OFF (MANUAL SLOPE MODE, DEVICE ONLY) X-axis is not selected to set slope
			Green, continuous	(AUTO LEVELLING MODE) At least one horizontal line is ON (MANUAL SLOPE MODE, DEVICE ONLY) X-axis is selected to set slope
J	-	Vertical indicator	No	(AUTO LEVELLING MODE) All vertical laser lines OFF (MANUAL SLOPE MODE, DEVICE ONLY) Y-axis is not selected to set slope
			Green, continuous	(AUTO LEVELLING MODE) At least one vertical line is ON (MANUAL SLOPE MODE, DEVICE ONLY) Indicates together with horizontal indicator [I] or receiver mode indicator [K] which axis can be set.
K	-	Receiver indicator	No	(AUTO LEVELLING MODE) Receiver mode OFF (MANUAL SLOPE MODE, DEVICE ONLY) Y-axis is not selected to set slope

KEYPAD	REMOTE CONTROL	NAME	FUNCTION	
K	-	Receiver indicator	Green, continuous	(IN AUTO LEVELLING MODE) Receiver mode ON, 35% power save (IN MANUAL SLOPE MODE, DEVICE ONLY) Y-axis is selected to set slope
			Green, flashing	Receiver mode ON, 65% power save
L	-	Remote control indicator	No	Remote control mode OFF.
			Blue	Remote control mode ON. Laser can be used with remote control.
M	-	Status indicator	Green, flashing	Auto levelling busy
			Green, continuous	Laser is levelled
			Red, flashing	Setting slope
			Red, continuous	Slope set (LASER IS NOT LEVELLED!)
-	n	Manual slope button	Push	(De)activate manual (and electronic) slope mode
-	o	Digital slope button	Push	(De)activate digital slope mode
-	p	Arrow up button	Push	Let the slope or slope percentage increase along the x or y axis (depending on which axis is selected)
-	q	Arrow down button	Push	Lower the slope or slope percentage along the x or y axis (depending on which axis is selected)
-	r	X/Y button	Push	Switch between X and Y axis to set slope
-	s	Enter button	Push	Sends the selected digital slope on the remote control to the laser



SAFETY

Please read the safety instructions is provided in the separate booklet provided with the device.

LASER RADIATION – Class 2 Laser product. – Do not stare into beam

FIRST TIME USAGE

Remove all protection foils.

Place the provided LI-ION battery in the device by opening the battery cover [06]. Make sure the batteries are fully charged. The four LEDs of the battery indicator light up green.

Place 4x AA Alkaline batteries in the remote control.

BATTERY AND CHARGER

LASER:

The supplied li-ion battery (14.8V, 3400 mAh - art. no.: H60031) should be screwed on the designated place of the device.

To check the battery level, press the small power button on the battery to see the power indicators (4 LEDS).

- 4 LEDS lights: > 75% power
- 3 LEDS lights: > 50% power
- 2 LEDS lights: > 25% power
- 1 LED lights: < 25% power

When the battery runs out of power, the projected laser lines starts to flash slowly. The power indicator [G] will start flashing red.

To charge this battery, you can use the provided 16V - 2.6A charger for charging (art.nr: H60032).

In order to avoid all risks, only use the charger and battery provided with the laser instrument. You can charge the battery during the usage of the instrument.

DO NOT LEAVE A CHARGING BATTERY UNATTENDED.

REMOTE CONTROL:

The remote control works with 4x 1.5V AA Alkaline batteries.

FUNCTIONS

■ AUTO-LEVELLING

The Procross 8.0 DS first automatically levels itself after turning on the device. The laser can level itself within an operating angle of approx. 3,5°. The auto-levelling system performs the necessary fine adjustments, with the help of electronic measuring sensors, one for each axis.

■ TILT SECURITY

The tilt-security avoids measuring errors. By default, the laser will be active with the tilt-security activated. After turning on the laser or after activating the tilt-security, the tilt-security is being prepared during 50 seconds. During this time you can install the laser in the correct position. 50 seconds after you hit the last button, the tilt-security is active.

When the tilt-security sensors detect a small shock (e.g. a vibration, a gust of wind, ...) the tilt alarm is activated. This gives you the opportunity to check if the laser is still in the correct position after the shock. You must exit the tilt function, place the laser in the correct position and restart the tilt function to continue. A new preparation process of 50 seconds will start before the Tilt-security becomes active.

Tilt-security is the best choice if accuracy is crucial.

■ DIGITAL SLOPE

There are 3 different manners of using the slope function of the Procross 8.0 DS: manual, electronic and digital. This last one is the most advanced way to use the slope function.

Digital slope allows you to enter a known slope percentage on the laser's remote control, for both the X and Y axes. Once confirmed, the laser will automatically set itself to the correct slope.

■ IP66

The Procross 8.0 DS has an IP value of 66, which means the laser has a complete protection against dust and water projected against the housing. This allows the Procross 8.0 DS to be used indoors and outdoors.

USE

Press the power button **[A]** to turn on the device. Self levelling and tilt-security countdown will start. (see further).

- To use the remote control, activate the remote function by pressing the remote control button **[F]** (remote control indicator **[L]** becomes blue).



- Press the power button [a] of the remote control to turn on the remote control.

NOTE

The screen of the remote control has backlighting. You can turn this functionality on by holding the tilt/backlight button [b] for 3 seconds.

When not used for 3 minutes, the remote control will automatically switch off to save battery power.

When the laser device and remote control communicate with each other, the connection symbol [X] and symbol remote control [XI] (including their battery indication) will be visible in the lower right corner of the display of the remote control [12]. When there is no connection between laser and remote control, only the symbol + battery indication remote control [XI] is visible.

WHAT IF MY (NEW) REMOTE CONTROL DOES NOT COMMUNICATE WITH MY DEVICE?

In normal circumstances, the supplied remote control is paired with the device. In the exceptional cases this link is missing, or when you need to replace the remote control, you can pair it as follows:

1. Shut down the laser and the remote control
2. Hold the H-button [c] and V-button [d] of the remote control simultaneously.
3. While holding these buttons, press the power button [a] of the remote control. Both connection symbols of laser [X] and remote control [XI] will flash slowly on the display.
4. Switch on the laser device by pressing the power button [A].
5. When successfully paired, additional symbols appears on the screen and the remote control indicator [L] lights blue.

NOTE

The choice of the tripod determines the user-friendliness of the device.

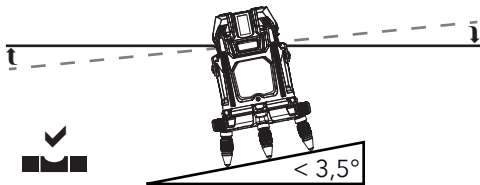
If the workplace has a high brightness, for example when working outside in a sunny area, you will need a laser receiver to detect the laser beam. (see further)

■ AUTO-LEVELLING

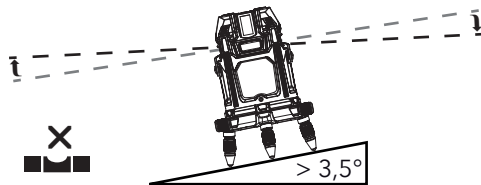
After turning on the device or when you turn off the slope mode, self levelling will automatically place the laserlines 100% levelled.

While levelling, the status indicator [M] flashes green and the levelling indicator [VII] on the remote control's display will flash as well.

When levelling is finished, and the laser lines are 100% levelled, the status indicator [M] will be green and the levelling indicator [VII] on the remote control's display will be visible.

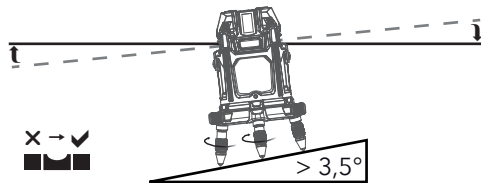


The laser can level itself in a range of approx. $3,5^\circ$ in every direction. This means the laser can show 100% horizontal or vertical lines when placed on a sloped surface of approx. $3,5^\circ$ maximum.



In case the laser is placed on a surface that exceeds the $3,5^\circ$, a levelled horizontal or vertical laser line will no longer be possible.

The status indicator [M] will flash red rapidly, the laser lines will flash rapidly and a fast beeping sound will be heard. On the remote control the levelling indicator [VII] will continue to flash.



Place the laser device on a flatter surface, within the levelling range of $3,5^\circ$ or turn the adjustable feet [11] of the laser base [02] to bring the device within the $3,5^\circ$ levelling range if possible. The laser will self level automatically when placed



within its levelling range.

NOTE

When a tripod is used, the adjustable feet will have no effect.

■ SWITCHING ON/OFF LASER LINES

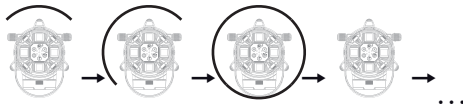
When switching on the device, the last used laser lines will be activated.

NOTE

Depending on the active laser lines when the device is turned on, the steps described below may start at a different position. However, the order for each will remain the same.

— HORIZONTAL LASER LINES

To change the projected horizontal laser lines, press the H-button for horizontal lines [C, c]. The horizontal lines indicator [III] on the display of the remote control [12] will show which lines are activated.

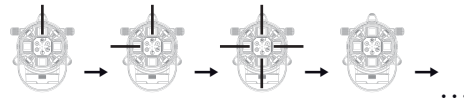


- Press the H-button [C, c] a first time to switch the front horizontal laser line.

- Press the H-button [C, C] a second time to switch on an additional horizontal laser line (right).
- Press the H-button [C, c] a third time to switch on all horizontal lines.
- Press the H-button [C, c] a fourth time to switch off all horizontal lines.
- ... (these four previous steps will repeat)

— VERTICAL LASER LINES

To change the projected vertical laser lines, press the V-button for vertical lines [D, d]. The vertical lines indicator [IV] on the display of the remote control [12] will show which lines are activated.



- Press the V-button [D, d] a first time to switch on the front vertical laser line.
- Press the V-button [D, d] a second time to switch on an additional vertical laser line (right).
- Press the V-button [D, d] a third time to switch on all vertical lines.
- Press the V-button [D, d] a fourth time to switch off all vertical lines.

- ... (these four previous steps will repeat)

NOTE

When at least two vertical lines are switched on, you can measure an exact angle of 90° or show a plumb line (imaginary line between the cross on the floor and the cross on the ceiling)

■ USING A LASER RECEIVER

When you work over long distances or the workplace has a high brightness, laser lines will be less visible for the human eye. In this case, you can use a laser receiver to detect the laser lines.

- Press the receiver button [E, e] to activate the receiver mode. The receiver indicator [K] on the device will light green and the display of the remote control [12] shows the receiver mode indicator [V].

When the receiver mode is switched on, the laser line will pulsing extremely fast and the device will save 35% power. It appears to the human eye that the intensity of the laser line(s) will decrease slightly.

When switched on, you can locate the laser lines with a receiver.

Press the receiver button [E, e] a second time it activates a 65% power saving receiver mode. The receiver indicator [K] on the device will flash green and the display of the remote control [12] shows the receiver mode indicator [V]. It appears to the human eye that the intensity of the laser line(s) decreases slightly again.

- Press the receiver button [E, e] a third time to deactivate the receiver mode. It looks the laser lines will become brighter again (stops pulsing). Detection by a laser receiver is no longer possible.

NOTE

The Procross 8.0 DS will pulse with a frequency of 10KHz. That means your laser receiver must support a frequency of 10KHz. Please refer to your laser receiver manual for further support.

■ SLOPE FUNCTION

When switching on the device, the self levelling mode is automatically activated. In case you need to project sloped lines, you can switch off the automatic levelling by activating the slope mode.

The Procross 8.0 DS offers 3 ways to use slope, manual, electronic or digital.

- Depending on which slope you would like to use, activate the slope with the manual slope



button [n] or the digital slope button [o], both can be found exclusively on the remote control.

- Change back to automatic levelling (turn off slope mode) by pressing the slope button [e] again.

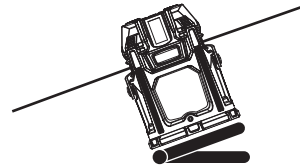
— MANUAL SLOPE

When using manual slope mode you can use the adjustable feet [11] of the laser base [02] to gently position the device at the desired slope. You can also physically position the device at the desired slope by using an inclined surface or a slope adapter (optional accessory).

NOTE

Manual slope is the only way to set sloped lines that exceed the levelling range of the device.

Using manual slope, the laser keypad buttons [05] will change function or become temporarily unusable.



> 3,5°



- Activate the manual slope mode by pressing the manual slope button [n] on the remote control. You can also activate the slope mode by holding down the power button [A] of the device for approx. 2 sec. until a small beep sounds. By releasing the power button [A] the slope mode becomes active.

When the manual slope mode is active, the status indicator [M] becomes red. On the remote control, the slope indicator [IX] and the manual slope indicator [VIII] will be visible.

- Bring the laser in the desired slope using the adjustable feet [11], a slope adapter (optional accessory) or by place the laser on a sloping surface.
- To deactivate the manual slope mode, press the manual slope button [n] a second time or hold down the power button [A] again for approx. 2 sec. until a small beep sounds.



Slope mode is now no longer active and your device will start levelling (status indicator [M] flashes green).

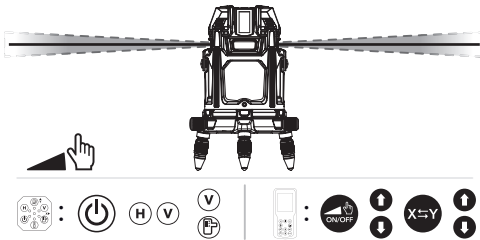
— ELECTRONIC SLOPE

Electronic levelling works very similarly to manual levelling. However, setting the slope is done by the levelling motors within the levelling range of 3,5°.

NOTE

Using electronic slope, the laser keypad buttons [05] will change function or become temporarily unusable.

We recommend the use of a laser receiver in combination with a rod to set slopes. This will make it easier to find the desired heights on each corner of the sloped surface.



- Activate the manual slope mode by pressing the manual slope button [n] on the remote control. You can also activate the slope mode by holding down the power button [A] of the device for approx. 2 sec. until a small beep sounds. By releasing the power button [A] the slope mode becomes active.

When the manual slope mode is activated, the status indicator [M] becomes red. On the remote control the slope indicator [IX] and the manual slope indicator [VIII] will be visible. The slope on the X-axis can now be set.

ON THE DEVICE

The horizontal indicator [I] and the vertical indicator [J] will both light up green. This shows the device is ready to set the slope in parallel with the x-axis.

- Press or hold the V-button [D] to make the laser line rise on the side pointed by the arrow of the X-axis.
- Press or hold the H-button [C] to make the laser line descend on the side pointed by the arrow of the X-axis.
- To change to the Y-axis, press the receiver button.



The horizontal indicator [I] will no longer light up. The receiver indicator [K] and the vertical indicator [J] will now both light up green. This shows the device is ready to be set the slope in parallel with the y-axis.

- Press or hold the V-button [D] to make the laser line rises on the side pointed by the arrow of the Y-axis.
- Press or hold the receiver button [E] to make the laser line descend on the side pointed by the arrow of the Y-axis.

The slope is now set on the X- and Y-axes.

If you like, you can go back to adapt the X-axis by pressing the H-button [C]. The receiver indicator [K] will no longer light up. The horizontal indicator [I] and the vertical indicator [J] will now both light up green. This shows the X-axis is ready to set.

You can repeat this steps as much you like.

- Turn off the electronic slope mode by holding down the power button [A] for approx. 2 sec. until a small beep sounds.

The laser is going to auto-level itself again.

WITH REMOTE CONTROL

The X is blinking on the display of the remote control [12]. This means the slope can be set on

the X-axis.

- Press or hold the arrow up button [p] to make the laser line rise on the side pointed by the arrow of the X-axis.
- Press or hold the arrow down button [q] to make the laser line descends on the side pointed by the arrow of the X-axis.
- Press the X/Y button [r] to change to the Y-axis

The Y is blinking on the display of the remote control [12]. This means the slope can now be set on the Y-axis.

- Press or hold the arrow up button [p] to make the laser line rise on the side pointed by the arrow of the Y-axis.
- Press or hold the arrow down button [q] will make the laser line descend on the side pointed by the arrow of the Y-axis.

The slope is now set on the X- and Y-axes.

If you like, you can go back to adapt the X-axis by press the X/Y-button [r]. The X will start blinking again. This shows the X-axis is ready to set. You can repeat this steps as much you like.

- Turn off the electronic slope mode by press the manual slope button [n].

The laser is going to auto-level itself again.



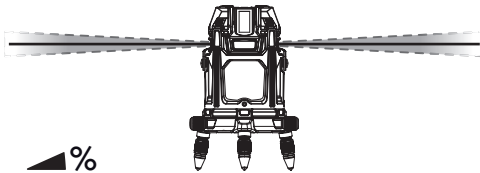
__ DIGITAL SLOPE

Digital slope is the most advanced way to set slopes with the Procross 8.0 DS. This will be done by setting a percentage on the remote control and send this percentage to the device. The levelling motors will bring the laser in the selected slope.

NOTE

Digital slope can only be set by use of the remote control.

As long as the percentages are not send to the device, self levelling will continue.



- Activate the digital slope by pressing the digital slope button [o].

The slope percentage X-axis [I] will start to blink.

- Use the arrow up button [p] to increase the

percentage of the slope on the X-axis

- Use the arrow down button [q] to decrease the percentage of the slope on the X-axis.

NOTE

A positive percentage on the X-axis will make the laser line rise on the side pointed by the arrow of the X-axis.

A negative percentage on the X-axis will make the laser line descend on the side pointed by the arrow of the X-axis

- Press the X/Y button [r] to change from X- to Y-axis to set a slope for the Y-axis.

The slope percentage X-axis [I] will no longer blink, the slope percentage Y-axis [II] will start to blink.

- Use the arrow up button [p] to increase the percentage of slope on the Y-axis
- Use the arrow down button [q] to decrease the percentage of the slope on the Y-axis.

NOTE

A positive percentage on the Y-axis will make the laser line rise on the side pointed by the arrow of the Y-axis.

A negative percentage on the Y-axis will make the laser line descend on the side pointed by



the arrow of the Y-axis.

Now the percentages are set for X- and Y-axes on the remote control. They are not send to the device yet (the laser is still in self levelling mode).

If you like, you can go back to adapt the X-axis by pressing the X/Y-button [r]. The slope percentage Y-axis [II] will no longer blink, the slope percentage X-axis [I] will start to blink. You can repeat this as much as you like.

- When the desired slope percentage are selected on the remote control, you send them to the device by pressing the Enter button [s].

The laser will now go first to his point zero (100% levelled). After this, the choosen slope percentages will set automatically for X- and Y-axes.

The status indicator [M] will flash red and both X and Y will blink on the screen while the laser sets the selected slope. When set, the status indicator [M] is continuously red and the X and Y on the display of the remote stops blinking.

If you want to change the entered values of the slope when the laser is in slope mode.

- Press the X/Y button [r]

The slope percentage X-axis [I] or slope percentage Y-axis [II] (depends on the last changed value) starts flashing on the screen.

- Change the percentages of slope for the X- and/or Y-axis as described above and send them to the laser using the enter button [s].

NOTE

Before the laser sets the new selected slope, it will first re-level itself and then move to the newly selected slope from levelled position.

To stop using the digital slope mode, press the digital slope button [o] to deactivate. The status indicator [M] starts flashing green and the laser will level itself. When levelled, the status indicator [M] stops flashing and will light green.

■ TILT SECURITY

The tilt security avoids measuring errors.

By default, the tilt security will be prepared after switching on the device. The tilt indicator [H] flashes red slowly. After 50 sec. of preparation, the tilt security is active and the tilt indicator [H] flashes red fast.



On the remote control: When tilt mode is active (including preparation time) the tilt security indicator [VI] is visible on the screen of the remote control {12}.

NOTE

The 50 seconds countdown of the tilt security will be reset each time a button is pressed.

When the tilt security is active and the sensors detect a small shock (e.g., a vibration, a gust of wind, ...) the tilt alarm activates.

The tilt security indicator [H] is continuously red and a beeping sound can be heard, the laser lines will go out and on the screen of the remote control the tilt security indicator [VII] and the levelling indicator [VII] will start to blink.

When this happens, you manually need to check if the laser is still in its correct position.

- Exit the tilt function by pressing the tilt security button [B] of the laser.
- Check if the laser is still in its correct position. If not, put the laser back in the correct position.
- Reactivate the tilt security by press the tilt security button [B, b] A new preparation process of 50 seconds will start before the tilt security is active.

In some cases, you do not want tilt security to be active. In this case, you can simply turn off the tilt security by pressing the tilt security button [B, b]. The tilt security indicator [H] will switch off and the tilt security indicator [VI] will disappear from the display.


Press the tilt button [B, b] again to reactivate the tilt security.

NOTE

Keep in mind: turning off the tilt security can lead to measuring errors!



SPECIFICATIONS

	044.80G PROCROSS 8.0 DS
Visibility	
Precision	1mm / 10m
Range (with receiver)	up to 2x 200m (with receiver)
Dust- and water proofness	IP66
Battery	14.8V, 3400mAh Li-ion (art.nr.: H60031)
Charger	16.8V, 2.6Ah (art.nr.: H60032)
Levelling	Motor levelling
Self-levelling range	+/- 3,5°
Slope function	Manually + Electronic + Digital
Maximum settable slope	+/- 5.25° (X-axis/Y-axis)
Remote control	Radio frequency (with interactive display)
Built-in screw for tripod	5/8"
Laser frequency (in receiver mode)	10KHz
Laser class	Class 2 - 520nm - <1mW
Operating temperature	-10 to 50°C
Storage temperature	-15 to 55°C
Dimensions (only laser device)	173 x 155 x 235 mm
Weight (only laser device)	2.37 kg



DECLARATION OF CONFORMITY

Futech (Belgium) declares under its own responsibility that this device:

- 044.80G - PROCROSS 8.0 DS GREEN

is in conformity with the standards

EN 61000-6-1: 2019
 EN 61000-6-3: 2007 + A1:2011 + AC:2012
 EN 61326-1: 2013
 EN 61000-3-2: 2019
 EN 61000-3-3: 2013 + A1: 2019
 EN 60825-1: 2014 + A1: 2017

following the provisions of Directive(s)

EC EMC Directive 2014/30/EU
 LVD Directive 2014/35/EU.

Lier, Belgium,
 January 10, 2021
 Patrick Waüters



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