ORIGINAL OPERATING INSTRUCTIONS

PTA 20 calibration tool

It is essential that the operating instructions are read before the tool is operated for the first time.

Always keep these operating instructions together with the tool.

Ensure that the operating instructions are with the tool when it is given to other persons.

These numbers refer to the illustrations. You can find the illustrations at the beginning of the operating instructions. In these operating instructions, the designation “the tool” always refers to the PTA 20 calibration tool.

Component parts

1. Display
2. Fine adjustment screw
3. Mains plug

Operating unit

1. Arrow indicators
2. Deviation of the laser beam in arc seconds
3. Command line

1 General information

1.1 Safety notices and their meaning

DANGER
Draws attention to imminent danger that will lead to serious bodily injury or fatality.

WARNING
Draws attention to a potentially dangerous situation that could lead to serious personal injury or fatality.

CAUTION
Draws attention to a potentially dangerous situation that could lead to slight personal injury or damage to the equipment or other property.

NOTE
Draws attention to an instruction or other useful information.

1.2 Explanation of the pictograms and other information

Warning signs

General warning

Symbols

Read the operating instructions before use.

Disposal of power tools or appliances and batteries together with municipal waste is not permissible.
2 Description

2.1 Use of the product as directed
The PTA 20 is a calibration tool that can be used to calibrate the PT 10 quick check device quickly and easily.

2.2 Features
This calibration tool allows the user to carry out the calibration quickly and easily. The PTA 20 is robustly built and features easy, self-explanatory operation.

2.3 PTA 20 calibration tool in Hilti toolbox - items supplied
1. PTA 20 calibration tool
2. Mains adapter
3. Operating instructions
4. Manufacturer’s certificate

3 Accessories

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains adapter</td>
<td>PTAW 80</td>
</tr>
</tbody>
</table>

4 Technical data

Right of technical changes reserved.

<table>
<thead>
<tr>
<th>Laser class</th>
<th>Visible, 625...645 nm; +25°C &lt;1mW Class 2 in accordance with IEC 60825-1:2007; EN 60825-1:2007 and Class II in accordance with CFR 21 §1040 (FDA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating status indicators</td>
<td>LCD display</td>
</tr>
<tr>
<td>Power supply</td>
<td>Plug-type mains adapter, DC voltage 6V; 0.2A</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>+10...+35°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>+0...+50°C</td>
</tr>
<tr>
<td>Protection against dust and water spray</td>
<td>IP 54 (protection against dust and water spray)</td>
</tr>
<tr>
<td>Tripod thread</td>
<td>BSW: ⁵⁄₈”</td>
</tr>
<tr>
<td>Weight, approx.</td>
<td>1 kg</td>
</tr>
<tr>
<td>Dimensions</td>
<td>160 mm X 90 mm X 70 mm</td>
</tr>
</tbody>
</table>
5 Safety instructions

WARNING! Read all safety instructions and other instructions. Failure to observe the safety precautions and instructions may result in electric shock, fire and/or serious injury. Keep all safety precautions and instructions for future reference.

5.1 General safety rules
a) Check the condition of the tool before use. If the tool is found to be damaged, have it repaired at a Hilti service center.
b) The tool must be checked at a Hilti service center after it has been dropped or subjected to other mechanical stresses.
c) The tool is intended exclusively for indoor use.
d) The manufacturer’s certificate (valid for 6 months) confirms that the PTA 20 calibration tool complies with specifications when new. After this period has expired, the tool must be calibrated at a Hilti service center before further use.
e) The tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.
f) Do not open the casing of the tool.
g) To avoid the risk of injury, use only genuine Hilti accessories and additional equipment.
h) Modification of the tool is not permissible.
i) Observe the information printed in the operating instructions concerning operation, care and maintenance.
j) Do not render safety devices ineffective and do not remove information and warning notices.
k) Keep laser tools out of reach of children.
l) Have the tool repaired or calibrated only at a Hilti service center.
m) Take the influences of the surrounding area into account. Do not use the tool where there is a risk of fire or explosion.

5.2 Laser classification
The tool conforms to Laser Class 2 based on the IEC60825-1 / EN60825-01:2007 standard and Class II based on CFR 21 § 1040 (FDA). The eyelid closure reflex protects the eyes when a person looks into the beam unintentionally for a brief moment. This eyelid closure reflex, however, may be negatively affected by medicines, alcohol or drugs. This tool may be used without need for further protective measures. Nevertheless, as with the sun, one should not look directly into sources of bright light. Do not direct the laser beam toward persons.

5.3 Proper organization of the work area
a) Secure the area in which you are working and take care to avoid directing the beam toward other persons or toward yourself when setting up the tool.
b) Take care to ensure that the tool is set up correctly on the PTA 70 tripod adapter.
c) Use the tool only within its specified limits.

5.4 Electromagnetic compatibility
Although the tool complies with the strict requirements of the applicable directives, Hilti cannot entirely rule out the possibility of the tool being subject to interference caused by powerful electromagnetic radiation, leading to incorrect operation. Check the accuracy of the tool by taking measurements by other means when working under such conditions or if you are unsure. Likewise, Hilti cannot rule out the possibility of interference with other devices (e.g. aircraft navigation equipment).

6 Before use

6.1 Setting up the tool
1. Connect the mains adapter to the PTA 20 calibration tool.

2. Plug the supply cord into the power outlet.
7 Operation

7.1 Calibrating the PT10 quick check device

NOTE
Calibration should be carried out at regular intervals. The
PTA20 calibration tool is available from Hilti for calibration
of the PT 10 quick check device. The calibration tool
should be sent in advance to a Hilti service center for
checking and calibration.

1. Mount the calibration tool on the tripod adapter of
the PT 10 (3).
2. Plug the calibration tool supply cord into the power
outlet.
3. A message appears in the display and the present
deviation is shown. The calibration sequence num-
ber is also shown. The calibration sequence number
increases by one after each successful calibration
of a PT 10 quick check device.
4. Check the bubble level on the optical level again and
correct the level if necessary by turning the optical
level adjusting screws.
5. Switch on the PT 10 quick check device.
6. Use the tip of a pointed object such as a ball-point
pen to press the calibration switch (4) on the panel
at the rear of the device.
The small red LED on the right lights indicating
calibration mode (6).
7. Select filter setting II. The accuracy class does not
have to be selected.
8. Turn the crank to adjust the height of the PTA 20
calibration tool (4) so that the laser beam emitted is
aimed at the center of the crosshairs on the PT 10
quick check device.
The position of the laser beam on the camera lens
is indicated by the LEDs.
9. Turn the fine adjustment screw (5) on the PTA 20
until the display shows “zero”.
NOTE The direction in which the fine adjustment
screw should be turned is indicated by the two ar-
rows in the display. The arrows at the beginning of
the line indicate the direction in which the fine adjust-
ment screw should be turned and the subsequent
digits indicate the present deviation / inclination in
arc seconds and arc minutes.
10. Both yellow LEDs light up as soon as the laser beam
strikes the camera. At the same time, the “Start
measuring” button becomes active and the device
is ready to begin measuring.
11. If neither of the yellow LEDs (7,8) light up or only
one LED lights, turn the fine adjustment screw on
the optical level until the laser beam is found.
12. Press the “Start measuring” button (9). The measur-
ing operation is indicated by the yellow LEDs blink-
ing and continues for a maximum of 50 seconds.
NOTE Do not touch or move the PTA 20 calibration
tool or the PT 10 quick check device while measuring
is in progress. An error message will be displayed in
the event of vibration.
The green LED lights after successful calibration and
the PT 10 returns to normal operating mode. The
small red LED on the right goes out.

7.2 Calibration

NOTE
Monitoring of measuring equipment for users certified in
accordance with ISO 900X: The measuring equipment
monitoring procedure for the PTA 20 calibration tool, as
required within the scope of ISO 900X, cannot be carried
out by the owner. The PTA 20 must be returned to a Hilti
service center for calibration and certification.

8 Care and maintenance

8.1 Cleaning and drying
1. Blow dust off the lenses.
2. Do not touch the glass or the filter with the fingers.
3. Use only a clean, soft cloth for cleaning. If necessary,
moisten the cloth slightly with pure alcohol or a little
water.
NOTE Do not use any other liquids as these may
damage the plastic components.
4. The temperature limits for storage of your equipment
must be observed, especially in winter / summer.

8.2 Storage
Remove the tool from its case if it has become wet.
The tool, its carrying case and accessories should be
cleaned and dried (at maximum 40°C / 104°F). Repack
the equipment only once it is completely dry.

8.3 Transport
Use the Hilti toolbox or packaging of equivalent quality
for transporting or shipping your equipment.
9 Troubleshooting

<table>
<thead>
<tr>
<th>Fault</th>
<th>Possible cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The tool can't be switched on.</td>
<td>The supply cords are not (or not fully) connected.</td>
<td>Check the supply cord and ensure that all cords are connected correctly.</td>
</tr>
<tr>
<td>The display remains blank.</td>
<td>The tool is not connected to the electric supply.</td>
<td>Check the supply cord and ensure that all cords are connected correctly.</td>
</tr>
<tr>
<td>No laser beam.</td>
<td>The laser module is faulty.</td>
<td>Return the PTA 20 to a Hilti service center.</td>
</tr>
</tbody>
</table>

10 Disposal

WARNING
Improper disposal of the equipment may have serious consequences:
The burning of plastic components generates toxic fumes which may present a health hazard.
Batteries may explode if damaged or exposed to very high temperatures, causing poisoning, burns, acid burns or environmental pollution.
Careless disposal may permit unauthorized and improper use of the equipment. This may result in serious personal injury, injury to third parties and pollution of the environment.

Most of the materials from which Hilti tools and appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back old tools and appliances for recycling. Ask Hilti customer service or your Hilti representative for further information.

For EC countries only
Do not dispose of electrical appliances together with household waste.
In observance of the European Directive on waste electrical and electronic equipment and its implementation in accordance with national law, electrical appliances and batteries that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

11 Manufacturer’s warranty - tools
Please contact your local Hilti representative if you have questions about the warranty conditions.

12 FCC statement (applicable in US) / IC statement (applicable in Canada)
This device complies with part 15 of the FCC rules and with CAN ICES-3 (A) / NMB-3 (A). Operation is subject to the following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE
Changes or modifications not expressly approved by Hilti may restrict the user’s authorization to operate the equipment.
13 EC declaration of conformity (original)

<table>
<thead>
<tr>
<th>Designation:</th>
<th>Calibration tool</th>
</tr>
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<tbody>
<tr>
<td>Type:</td>
<td>PTA 20</td>
</tr>
<tr>
<td>Year of design:</td>
<td>2006</td>
</tr>
</tbody>
</table>


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