






Getting started








Turn the RetroSign on by pressing . The display will show some information about the instrument. Repeat  to show the results of the last measurement.

The instrument is calibrated and ready if the  icon is displayed, if not, the instrument must first be calibrated. Press  and follow the instructions to do this.

Start a measurement by pressing the trigger knob . The display shows "WAIT" while measuring then the measured values is shown.















If errors are detected during a measurement or calibration sequence, a message will be displayed and one or more error icons appear.

Keyboard functions:

	<i>On/Clear</i>	<ul style="list-style-type: none"> • Push shortly to activate the instrument. • When switched on it clears all selected operations. • Displays the last measurement result. • Clears the mean calculation when displaying this
	<i>Off</i>	<ul style="list-style-type: none"> • Terminates all activity, saves changed values and powers off.
	<i>Scroll up</i>	<ul style="list-style-type: none"> • Open the menu, scroll through menus • Increment/scroll edit values.
	<i>Scroll down</i>	<ul style="list-style-type: none"> • Open the menu, scroll through menus • Decrement/scroll edit values.
	<i>Calibration</i>	<ul style="list-style-type: none"> • Open Instrument calibration menu, select/change settings.
	<i>Enter</i>	<ul style="list-style-type: none"> • Activate selected function or accept changed settings. • Switch between the different results and status display screens
	<i>Trig</i>	<ul style="list-style-type: none"> • Start R' measurement. • Start quick calibration.

Icons:


The instrument status and operational mode are signalled by the use of icons.

	Instrument is calibrated and ready.		Calib. Monitor Active for normal aperture.
	Menu selected.		Calib. Monitor Disabled for reduced aperture.
	Calibration selected.		Battery fully charged.
	Reference calibration in progress.		Battery getting low.
	Zero calibration in progress.		Battery empty, recharge.
TAG	TAG Reader function enabled. <small>(option)</small>		Display backlight is enabled.
GPS	GPS On. Position FIX OK <small>(option)</small>		GPS On. No FIX <small>(option)</small>
	Calculating mean values		Bluetooth Disconnected/Connected <small>(option)</small>



Calibration:

RetroSign features two levels of calibration: *quick* and *full*.


Quick calibration.

Quick calibration is initiated by first pressing  and then the trigger. Mount the *reference cap* (reflective surface pointing in) before triggering. The instrument will be calibrated to the last used values.






Full calibration.


Full calibration is initiated by pressing  and then . Follow the on-screen instructions.

Zero Measurement.

Mount the *zero cap* (dark surface pointing in). Press  when ready. **WAIT** is displayed during the measurement. The measured zero values and a short status for each geometry are shown, then the display shows that the instrument is ready for the next step in the calibration procedure.

Reference Measurement.

Mount the *reference cap* (reflective surface pointing in). Edit the reference values one by one by using the  and  keys until the values are the same as printed on the calibration unit. Press  when ready. **WAIT** is displayed once more during the calibration process; the display shows the calibration results and then asks the operator for acceptance, press  to accept or  to discard the calibration, the previous values will then be used.


After a successful calibration the icon  is shown.

Menu:

Enter the menu by repeatedly pressing  or  until the desired function displays and then follow the on-screen instructions.

Seq ID:	Name a measurement series	Seq ID count:	Running number for the Seq ID. can be edited
Clear ID:	Delete the Seq ID string	Sound control:	Enable/Disable system sounds
Clear Work Log:	Reset user log ¹	Remove last Measurement:	Delete last measurement from log
Mean calculation.	Enable/Disable Mean calculations ²	Calib. monitor:	Enable/Disable the calibration monitor ³
Remote Box display	Select result for display on remote-box ⁴	LCD backlight:	Enable/Disable LCD backlight
GPS state	Enable/Disable the GPS unit ⁵	DGPS mode:	Select GPS position correction system ⁵
Reader state	Enable/Disable the TAG Reader option ⁵	Off Time:	Set time for auto turn off

¹) All log entries are marked as having been read, the log status will only show entries since this operation.

²) Calculates the mean value of all measurements since the last ON/C action, press  once from the main screen to display the calculated mean values. Press On/C twice to restart the calculation.

³) Instrument require recalibration if changed.

⁴) Always disable the Bluetooth function if using the Extender Box

⁵) NA if option not installed.

Tag Reader (optional)

Connect the Reader unit to the front connector and enable the TAG Reader in the menu. When doing a measurement the instrument requests to read a TAG on the first trigger action and then needs a second trigger to actually do the measurement. This also applies when using the remote trigger.

Battery:

To remove the battery release the retaining spring and pull the battery out of the handle.

Temperatures in excess of 50°C (122°F) can damage the battery.

Do not short circuit and do not dispose together with household waste.

USB PC connection:

Important! Follow the instructions found on the Instrument CD before using the USB connection; drivers must be installed on the PC prior connecting to a PC-USB port.

- * RetroSign GR3 is an optical precision instrument, handle with care.
- * Store it the carrying case in a clean and dry environment.
- * Do not recharge the battery unnecessary as this will reduce battery life.
- * Carefully check and clean the reference cap with a clean, soft and dry cloth before each calibration.