Instruction manual
Manuel d’instruction
Handbuch

S_Head Smart



Bluetooth® IP65

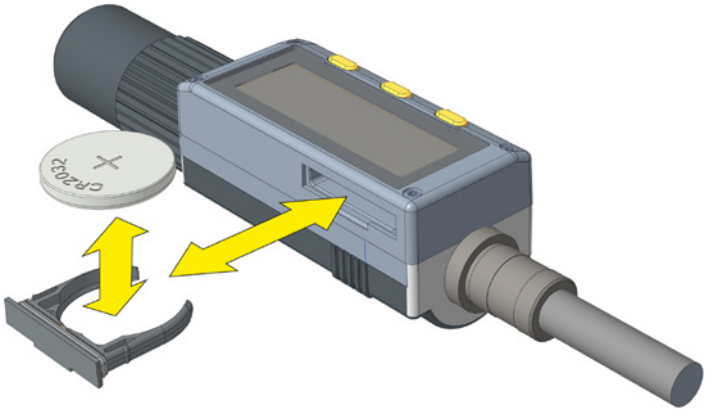
Installing and replacing the battery / Mise en place et remplacement de la batterie / Einbau und Austausch von Batterie

The display of the symbol Battery indicates the end of the battery life. However some working hours will remain.

L'affichage du symbole batterie indique la fin de vie de la batterie. Cependant il reste des heures de travail disponibles.

Die Anzeige des Symbol Batterie zeigt das Ende der Batteriebetriebsdauer an. Es verbleiben einige Arbeitsstunden.

1. Remove the battery cover
   Extraire le bouchon de pile
   Batteriefachdeckel abnehmen
2. Change the Battery (Lithium CR2032 type)
   Changer la pile (Pile lithium type CR2032)
   Batterie wechseln. (Lithium Batterie, Typ CR2032)
3. Reinsert the battery cover
   Ré-insérer le bouchon
   Setzen Sie den Batteriefachdeckel wieder ein



Battery / batterie / Batterie: Lithium 3V, type CR2032

Reference setting / Prise de référence / Referenzpunkt setzen

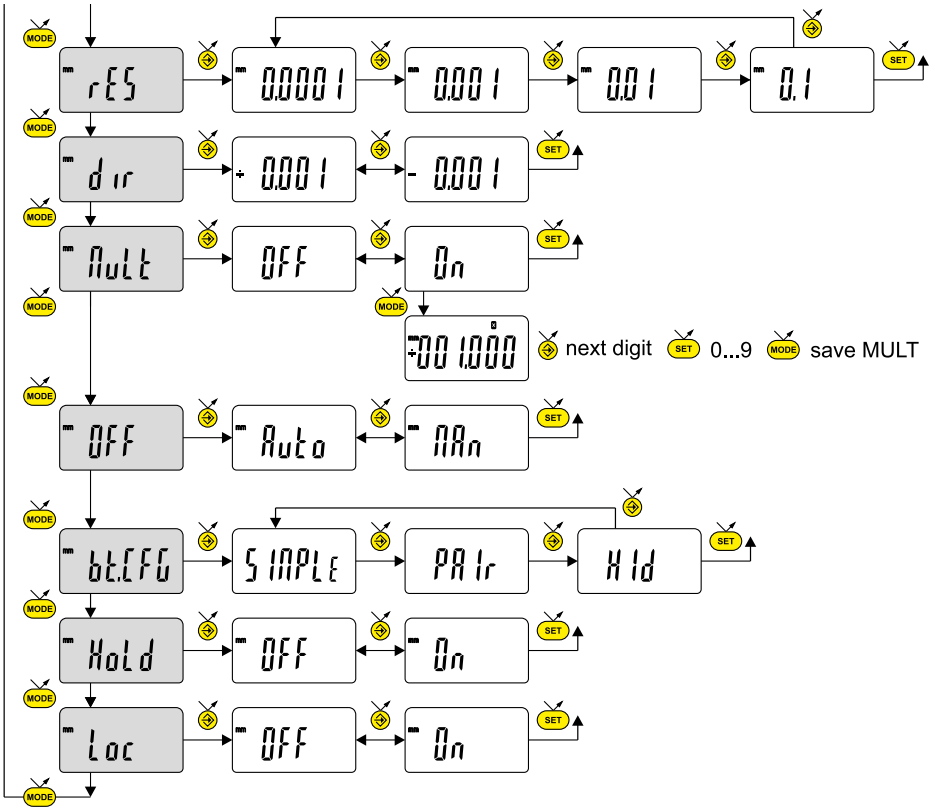
When used for the first time, after a battery change or a complete switch OFF, it is necessary to set the reference (SEt). Move the movable touch switch to the desired reference position (by turning the drum) and then press the SET button (see chapter 5).

Lors de la première utilisation, après un remplacement de batterie, ou après une extinction complète (OFF), l'instrument demande une nouvelle prise de référence (SEt). Amener la touche mobile à la position de référence souhaitée (en tournant le tambour) puis presser le bouton SET (voir chap. 5)

Beim Erstgebrauch, nach einem Batteriewechsel oder nach einem kompletten Ausschalten (OFF) verlangt das Instrument einen neuen Referenzpunkt (SEt). Bewegen Sie den beweglichen Schalter in die gewünschte Referenzposition (durch Drehen der Trommel) und drücken Sie dann die SET-Taste (siehe Kap. 5).







Unit : Units selection (mm or Inch)

SEt : Zero value is assigned to the current position

rES : Choice of resolution 0.0001 / 0.001 / 0.01 / 0.1 mm

dir : Choice of measurement direction (positive or negative direction)

MULt : Multiplication factor, enable or disable multiplication factor (value can be modified if ON is confirm by MODE button)

OFF : Automatic switch-off mode

bt.CFG : *Bluetooth*® profile selection (depending on model, see chap. 13 for details). The + sign indicates the currently active profile.

HOLd : enable / desable Hold fonction, to freeze the measured value (with SET button)

LOC : Keypad lock, Only the favorite key remains actives. (to unlock the keypad, press SET for 5 sec.)

4 Maintenance

Store the micrometer head in a dry environment when not in use for long periods of time to avoid corrosion of the metallic parts.

Do not use aggressive products (alcohol, trichloroethylene or others) to clean the plastic parts. Do not store in areas which are exposed to sun, heat or humidity.

Important : clean and dry the spindle and metallic parts regularly, and protect the spindle with light oil to guarantee a perfect mechanical functioning and to avoid corrosion.

5. Switching ON, initialisation

After pressing any button, the instrument displays «SET» for the initialisation of the reference point. Bring the measuring spindle to the desired position. Then press SET. The instrument is now ready (Check the Preset Value).

6. Standby

The Reduced Consumption Mode works without the loss the reference position. The standby mode is activated automatically after 10 minutes of no use. It can also be activated by pressing the SET key until extinction of display.

The instrument awakes automatically when movement is detected on the thimble, by pressure on a button, or when requesting Data.

7. Full switch OFF

In order to fully switch off the instrument (minimum power consumption), press the SET button until the message «OFF» appears. In this state no data is maintained and therefore the Reference position is lost. The SET message will be displayed again during the next use (see “Switching ON”).

8. Description of the menu system

The MODE key enables the selection of the different menus (each key stroke activates the following menu). The FAV key enables the activation of a function assigned to the corresponding selected menu.

To avoid a wrong action, each menu is active only for 5s. After 5s, the instrument automatically switches back to «Measuring Mode» as long as no action has been performed to the MODE, SET or FAV key.

9. Preset mode

Preset makes it possible to introduce an alternative reference value different from zero.

Menu «PRE» appears after a short press on MODE. Then press the FAV button to activate the function Introduction of Preset. The display shows the last stored value of Preset. The first digit blinks.

Each push of the SET button modifies the value of the blinking digit (±, 0..9). you can also increase or decrease the value by rotating the thimble.

Each push on the FAV button moves the cursor to the right. A short press on the MODE button validates the Preset value and leaves the Preset menu. The instrument automatically returns to «Measuring Mode» when there are no further actions from the buttons MODE or SET or FAV for a period of 15s.

10. Reset, recall of the preset

A push of 2s on the SET button assigns the Preset-value (or zero) to the current position of the measuring spindle.

11. Changing unit (mm/inch)

Press MODE button until the display enters Advanced Menus, then the FAV button to change the unit «MM» or «INCH».

12. Locking of the instrument

Press MODE until the display enters advanced menus, then repeatedly press MODE until the display shows «LOC».
Press FAV button to select ON, and validated with SET button
When the instrument is locked, only the function of Fav button is active (default: Data sending). Pressure of 5s on SET button, unlocks the instrument.

13. Bluetooth® Function

The connection procedure has been designed to be as simple as possible, and is distinguished by the 3 states below:

1. Symbol ᛒ off..... disconnected mode.
2. Symbol ᛒ blink..... discovery mode.
3. Symbol ᛒ on..... connected mode.

The following options can be selected to control the Bluetooth® module:

On : Activate Bluetooth® module (start discovery mode).
OFF : Deactivate Bluetooth® module (terminate active connection).
rESEt :Reset *Bluetooth*® module and clear paring keys
MAC : Display MAC (Media Access Control) address.

Three Bluetooth® profiles are available.
SIMPLE : Unpaired profile (default).
PAIr : Paired and secured profile.
HId : Virtual keyboard mode (compatible with recent equipment without driver installation).

Note:
Bluetooth® Matching information is deleted when the profile is changed.

Connection :
1. Ensure that the Bluetooth® compatible application and hardware are active (PC, measurement unit).
2. Start the instrument. By default, the Bluetooth® module is active and the instrument can be connected (discovery mode).
3. As soon as the instrument is detected, connection is automatic. If the connection was not established while the instrument was in discovery mode, reactivate the Bluetooth® module via the bt / On menu.
4. The instrument is ready to transmit (connected mode)

Only with Matching profile :
The instrument is automatically matched to the Central (PC) on first connection.

To connect an instrument to a new Central (new pairing), the pairing information must be deleted via menu bt / rESEt.

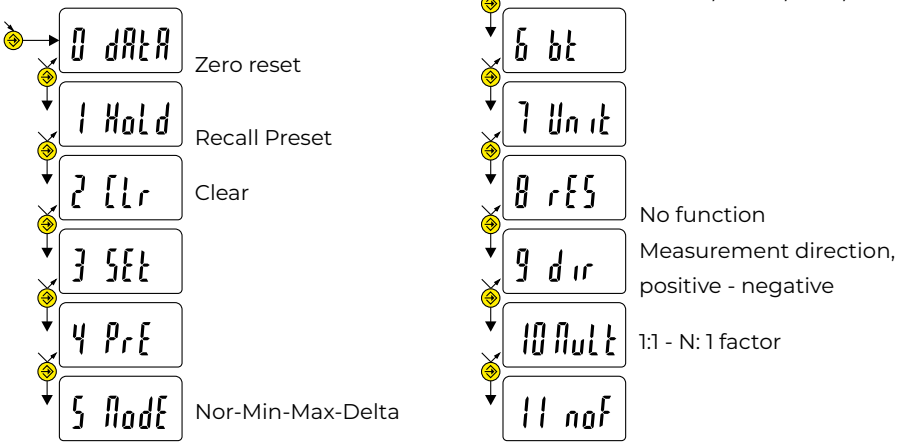
13.1. Bluetooth® specifications :

Core version		Bluetooth® 5	
Frequency band		2.4GHz (2.402 - 2.480GHz)	
Max. output power		Class 3: 1mW (0dBm)	
		Classic range (default)	**Long range** [4]
Range	Continuous [1]	up to 20m up to 6 months	3-10m up to 4 months
Autonomy	Continuous [1]	up to 6 months	up to 80m up to 2 months
	Industrial environment	up to 6 months	
	Saver [2]	up to 8 months	
	Blind/Push [3]		

[1] Continuous: Always connected with 4 values / sec.
[2] Saver: Instrument sends value when position changes.
[3] Blind/Push: The value is sent from the instrument (button) or requested by computer.
[4] Long range: to be enabled by software.

14. Favourite key

The FAV key gives direct access to a predefined function, and can be configured according to the needs of the user. In order to assign a function to the FAV key, give a prolonged press on the Favourite key, and then select the required function :



Confirm selection :
Validation of selection: By a prolonged press on FAV Key or a short press on SET or MODE.

Note:
- A function can also be assigned via RS232 using the command <FCT + Function No.> (FCT 0..9 A..F)
example : Toggle unit = <FCT7>, Zero reset = <FCT3>.

15. Formatting transmitted values (SLT command)

The SLT xyz command configures the format of transmitted values. SLT? returns the current configuration.

x = [0|1] positive sign (+)
y = [0|1] zeros before the decimal point
z = [0|1] zeros following the decimal point
0 suppresses transmission, 1 enables it.

The default value is SLT = 111. This means that the sign is always transmitted (+ or -) and the value contains a constant number of characters. If necessary, zeros are added before and after the decimal separator. The SLT configuration is retained on user parameter reset (RST).

Examples	Transmission	Notes
SLT = 111	+012.030	Factory setting (constant length)
SLT = 011	012.030	Suppression of positive sign
SLT = 010	012.03	Deletion of zeros after the decimal point and of the positive sign
SLT = 000	12.03	Deletion of all non-significant zeros and + sign (at shortest)
SLT = 110	+012	Special case - no decimal point for an integer (e.g. +012.000)

16. Remote commands

The data request is done by the sending of the character ASCII <?>, followed by <CR> (carriage return). The instrument also answers in the same way during the detection of an impulse pedals/automation.

The other commands are shown in the following table:

?	
AOFF 0 / AOFF 1 / AOFF?	Deactivates/activates/status the automatic switch-off
BAT?	Sends the status of the battery (BAT1=ok or BAT0=low)
ID ?	Sends the instrument identification (SY306)
IN	Activates the Inch unit
KEY 0 / KEY 1 / KEY?	Locks/unlocks/status of keyboard (except data output)
ECO 1 / ECO 0 / ECO?	Activate/deactivate/status of Bluetooth® economic mode
LCAL?	Sends the date of the last calibration (DD.MM.YYYY)
LCAL DD.MM.[YY]YY	Sets the date of the last calibration
MM	Activates the millimeter unit
NCAL?	Sends the date of the next calibration (DD.MM.YYYY)
NCAL DD.MM.[YY]YY	Sets the date of the next calibration
NUM ?	Sends the instrument number
NUM X..X	Modifies the instrument number (up to 10 characters)
OFF	Switches instrument OFF
OUT 0 / OUT 1 / OUT?	Disables/enables/status of the automatic data transmission
PRE?	Sends the Preset value (±xxx.yyy[yy])
PRE ±XXX.YYY	Sets the Preset value (max. 199.999mm / 7.83'')
RST	Resets instrument
SBY xx	xx number of minutes before stand-by
SET?	Transmits the configuration of the instrument (IN or MM, STO0 or STO1, KEY0 or KEY1, BAT1 or BAT0)
SLT xyz	Configures output format
SLT RST	Applies default configuration
SLT?	Returns active transmission format
STO 0 / STO 1 / STO?	Hold off/Hold on/status of Hold mode

UNI 0 / UNI 1 / UNI?	Locks/unlocks/status of measuring unit
VER?	Sends the version and date of software (Vx.x DD.MM. YYYY)
BT 0 / BT 1 / BT?	Desactivate/activate/status of the Bluetooth® module
BTRST	Clear pairing information
MAC ?	Transmits the Bluetooth® MAC Address

17. Error messages

In case of problems, the following error messages will be sent via the data connection and on to the display :

- ERR0 : Error of the reading sensor
- ERR1 : Error of parity
- ERR2 : Error in the received remote command
- ERR3 : Overflow of the measuring range
- ERR8 : Memory error
- ERR9 : Critical error, the instrument must be revised
- No Data : Bluetooth® transmission error

The errors 0 and 3 must be confirmed by the button MODE or SET, and then the instrument must be reinitialised.

The Error ‘No Data’ must be confirmed by button MODE or SET.

CERTIFICATE OF CONFORMITY
We certify that this instrument has been manufactured in accordance with our Quality Standard and tested with reference to masters of certified traceability by the federal institute of Metrology.

CERTIFICAT DE CONFORMITE
Nous certifions que cet instrument a été fabriqué et contrôlé selon nos normes de qualité et en référence avec des étalons dont la traçabilité est reconnue par l'institut fédéral de métrologie.

QUALITÄTSZEUGNIS
Wir bestätigen, dass dieses Gerät gemäss unseren internen Qualitätsnormen hergestellt wurde und mittels Normalen mit anerkannter Rückverfolgbarkeit, kalibriert durch das eidgenössische Institut für Metrologie, geprüft worden ist.

CERTIFICATO DI CONFORMITÀ
Con il presente si certifica che questo strumento è stato prodotto secondo il nostro standard sulla qualità e controllato rispetto a campioni di riferibilità riconosciuta dall'instituto federale di metrologia.

CERTIFICADO DE CONFORMIDAD
Certificamos que este instrumento ha sido fabricado conforme a nuestras normas de calidad y ha sido controlado en relación con patrónes de trazabilidad reconocida por la oficina nacional de metrología.

Calibration certificate
Because we make our instruments in batches, you may find that the date on your calibration certificate is not current. Please be assured that your instruments are certified at point of production and then held in stock in our warehouse in accordance with our Quality Management System ISO 9001. Re-calibration cycle should start from date of receipt.

Certificat d'étalonnage
En raison de la fabrication de nos instruments par lots de production, il est possible que la date de votre certificat d'étalonnage ne soit pas actuelle. Nous garantissons que nos instruments sont certifiés au moment de leur fabrication puis stockés conformément à notre système de gestion de la qualité ISO 9001. Le cycle de réétalonnage peut commencer à partir de la date de réception.

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Da wir unsere Instrumente in Serien herstellen, kann es sein, dass das Datum auf dem Zertifikat nicht aktuell ist. Die Instrumente sind jedoch ab der Herstellung zertifiziert und werden dann gemäß unserem Qualitätsmanagementsystem ISO 9001 in unserem Lager aufbewahrt. Der Nachkalibrierungszyklus kann ab dem Empfangsdatum beginnen.

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Puesto que fabricamos nuestros instrumentos por lotes, puede que la fecha de su informe de prueba / certificado de calibración no esté al día. Asegúrese de que los instrumentos estén certificados en nuestro lugar de producción y estén almacenados en nuestro almacén conforme a nuestro sistema de control de calidad ISO 9001. El ciclo de recalibración puede empezar a partir de la fecha de recepción.

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U.S./Canada certification



FCC ID: 2AAQS-ISP1807

IC: 11306A-ISP1807

Sylvac
m.n : S_Head Smart

NOTICE :

Changes or modifications made to this equipment not expressly approved by Sylvac may void the FCC authorization to operate this equipment.

NOTICE :

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject

to the following two conditions.

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE :
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Radiofrequency radiation exposure Information :
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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