

Digimatic Holtest

Safety Precautions
To ensure operator safety, use the instrument in conformance with the directions and specifications given in this manual.

Export Control Compliance

The goods, technologies or software described herein may be subject to National or International Japanese Export controls in order of exportability or inductibility which matter without approval from the appropriate authorities may therefore be a breach of export control regulations and the law.

The shiver output battery used for this instrument contains irritating substance. Should the liq. contact accidentally come into contact with the eye or skin, rinse with water immediately then consult a physician. Should it get into the mouth, immediately rinse inside the mouth with plenty of water and vomit. If, then consult a physician.

The lip of the contact point on this Holtest is sharp. Handle it with care so as not to scratch your fingers or other parts of your body.



Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. To reduce the environmental impact of WEEE (Waste Electrical and Electronic Equipment) and minimize the volume of WEEE entering landfills, please reuse and recycle.

* Further information, please contact your local dealer or distributors.

IMPORTANT
Do not disassemble. Do not modify.Holtest. It may damage Holtest. Do not use and store the Holtest at sites where the temperature will change abruptly. Prior to use, thoroughly stabilize the Holtest against any temperature fluctuations.

Do not store the Holtest in a humid or dry environment. Do not store the Holtest in contact with liquid or corrosive liquid. Do not use any organic solvent. Do not use the Holtest with any other measuring device with coolant, or the like, especially that the battery cover is closed tightly. When attaching the output cable and when installing the cover, ensure that the firing screws are tightly fastened and that there are no gaps.

Do not apply self-reversing force to the output cable or to the Holtest. Do not apply shock to the output studs including a drop or excessive force to the Holtest. Do not apply pressure during setting up to measurement.

Wipe off dust, cutting chips, and moisture from Holtest before use. Do not clean Holtest. Use a soft cloth soaked in a diluted neutral detergent. Do not use any organic solvent (acetone, etc.) in any case of oil or damage to the instrument. Do not use any abrasive or damage the instrument. The spray should be removed so that it does not be removed from the inner side. Do not use the upper limit of the measuring range. It may damage the instrument.

Do not use an electric measuring device or other test devices on the Holtest. The LCD automatically turns off if it has been idle for 20 minutes. To turn on the LCD, turn the trimble or press the ZERO/ABS button.

Do not change or disassemble the battery. Doing so may cause short circuit. If the Holtest is not in use for more than 3 months, remove the battery from the Holtest for safe keeping. The battery could leak and cause damage to the Holtest. Do not use the Holtest if the battery is damaged or if it has been used for long wear and tear including battery drain.

Do not use the Holtest in water during use, as this may result lead to infiltration of coolant, etc. Furthermore, exercise caution when using the device in a position where it is sprayed directly with a jet of liquid, as infiltration of coolant, etc., may be unavoidable in such cases, depending on the conditions of use.

Do not twist Holtest or let it hang while it is fitted in a hole.

Only use the supplied anvil. Do not remove the anvil from the measuring head. Do not use any other measuring force except the measuring force by using a collet. To gain proper measuring force, move the measuring force until you touch the workpiece, then stop moving them, and rotate the Holtest until the display shows the desired value.

Note that an excessive measuring force may be an error factor for this Holtest. The measurement value differs depending on whether the entire surface of the anvil is used for the measurement or only at the mechanism of the Holtest. Align the datum point under the same conditions before measurement.

Refer to the illustrations on the reverse side while reading the manual.

[1] Name of Each Part

1. Anvil 2. Junction 3. Outer sleeve 4. Outer sleeve stop 5. Trimble 6. Faceplate 7. Microdisplay 8. Microdisplay head 9. Microcutter head 10. ZERO/ABS button 11. ZERO/ABS button 12. HOLD button 13. INCH/MM selector (only on inch/metric models) 14. LCD 15. Data output connector 16. Battery compartment cover

[2] Installing the battery

IMPORTANT
When the battery has been installed, first press the PRESET button, but do not rotate the trimble while the preset values are being set (see Fig.2(8)(9)). Rotating the trimble during this time may result in failure when the battery is removed and the measuring force is obtained by a correct collet. Reinstall the battery if you should happen to have moved the trimble during this time.

The preset values are canceled when the batteries are reinstalled. Reset the preset values if the batteries are removed and reinstalled. Do not use the Holtest until the batteries are reinstalled. Use only one AA R6 button-type silver oxide cell.

(The supplied battery is used only for the purpose of checking the functions and performance of the Holtest. It is not intended for use as a measuring battery.)

Check that the packing seal is attached properly when attaching the battery compartment cover. Do not use the Holtest if the battery compartment cover and packing seal are not attached properly. This may also cause a malfunction.

In the rare event that an abnormal display appears, such as an error display or count flash, the battery should be removed and the Holtest should be reset by pressing the PRESET button.

Please dispose of the battery in accordance with local regulations regarding disposal of hazardous sub-stance. Do not use the battery in a position where it is sprayed directly with a jet of liquid, as infiltration of coolant, etc., may be unavoidable in such cases, depending on the conditions of use.

Remove the battery is not installed at the time of purchase, install the battery by following the procedure described below.

1. Remove the supplied Philips screwdriver (No.05CAAS62) when screwing or unscrewing the screws and tighten the screws at a torque of approximately 5 to 8 N·cm.

2. Loosen the screws from battery compartment cover with the supplied Philips screwdriver.

3. Press the display of the cover, lifting the screws to fix the cover.

4. Press the PRESET button and the LCD when the battery is installed.

5. Press the PRESET button.

6. Pressing the LCD will start when "-----" is no longer displayed and "0.000" is displayed on the LCD.

[3] Button Function and Display Indication

1. Button function
ZERO/ABS button: Press to zero-set the display to zero. Holding it down returns the display to the measurement system when the time range is set.

HOLD button: Press to hold the display value.

2. Display indicators
INC: Incremental mode for comparative measurement. The battery voltage is immediately replace the battery. The display value will hold. To cancel it press the HOLD button. The display value is valid.

3. Function lock
When the function lock is ON, the LCD only the (HOLD) operation is possible.

Function lock: PRESET ZERO/ABS InChM

Operation for function lock: (1) Press and hold (HOLD) and then press ZERO/ABS for two seconds or more.

* Press (HOLD) first. An "H" will lit in the LCD.

(2) Hold "H" lights in the LCD and "H" disappears.

(3) Perform the same operation when canceling function lock.

[4] Datum Point Setting

IMPORTANT
When the battery has been installed, first press the PRESET button, but do not rotate the trimble while the preset values are being set (see Fig.2(8)(9)). Rotating the trimble during this time may result in failure in setting the datum setting by the electrical unit which will prevent the obtaining of a correct count. Reinstall the battery if you should happen to have moved the trimble during this time.

Always make sure to check and set the datum point by following the procedure below prior to measurement.

Remove any debris or grease from the measuring surface before making this setting.

The datum point of the Holtest should always be set with a set ring that has been installed. It is recommended that the Holtest is held in the same position and under the same conditions for both datum setting and actual measurement. The datum setting procedure is as follows.

1. Presetting the datum point
The dimension of the set ring is stored in the Holtest memory. The Holtest is able to store two preset values ("P1", "P2") in memory.

Switching between P1 and P2
Switch between "P1" and "P2" by holding down the HOLD button while "P1" or "P2" is flashing.

Example: Wipe registering a value of 125.000mm for P1

(1) Press the PRESET button. The previously registered value is displayed and "P1" flashes. An "H" also is displayed after the battery has been replaced. In addition, if "P2" is flashing, hold down the HOLD button until "P1" is flashing.

(2) Hold down the PRESET button, and release when the left most digit place flashes.

(3) Press the PRESET button several times until "1" is displayed in this place.

(4) Hold down the PRESET button, and release when the next digit place flashes.

(5) Repeat steps (3) and (4) for "5" and "0" in this and subsequent digit places.

(6) Hold down the PRESET button, and release when "125.000" is displayed.

(7) Press the PRESET button to stop "P1" from flashing and complete the datum point setting procedure.

CAUTION
* Do not contact pressing preset the ZERO/ABS button. The previous preset value will be restored. * During presetting, the display value is not affected by trimble rotation.

2. Aligning the datum point

1. Wipe the measuring faces of both the Holtest and the set ring. 2. Insert the holtest into the set ring and rotate the trimble until the measuring face of the anvils gently contact the measuring face of the set ring.

3. Press the PRESET button. The previously registered value is displayed and "P1" flashes. An "H" also is displayed after the battery has been replaced. In addition, if "P2" is flashing, hold down the HOLD button until "P1" is flashing.

4. When the PRESET button is pressed, "P1" or "P2" flashes and the previously registered value is displayed (or a zero is displayed if correct, press the PRESET button). Hold down the HOLD button to switch between the P1 and P2.

5. If the display is correct, press the PRESET button to stop "P1" or "P2" from flashing and complete the datum setting procedure.

6. In addition, when the trimble is rotated, the thin scale shows the outside and slowly the outer sleeve shows the inside scale. Loosen the outer sleeve and slowly rotate the outer sleeve until the display shows the required indication. After adjusting, tighten the screws with the outer sleeve screwdriver.

CAUTION
The PRESET button is accidentally pressed during measurement, press ZERO/ABS button to restore. Set the datum point again when PRESET button is still unable to be restored.

* Be careful when pressing PRESET because it will hold the hold state. The previous datum point will be changed.

[5] Measurement

As with datum setting, perform measurement, and then take the reading. It is recommended that the Holtest is held in the same position and under the same conditions for both datum setting and actual measurement.

[6] Attaching the Extension Rod

For measuring diameters in a deep hole, attach the optional extension rod to the Holtest as follows. 1. Using the supplied wrench, attach the measuring head from the micrometer head.

2. Screw the extension rod into the measuring head. Tighten the extension rod, then tighten the rod nutting in clockwise direction. The rod should be firmly tightened, but not overly so.

3. To remove the extension rod, follow similar steps.

4. Be sure to check the datum point of the Holtest after attaching the extension rod.

IMPORTANT

If the Holtest is used with the measuring head or micrometer head incorrectly assembled, compatibility is not realized and the accuracy cannot be guaranteed.

When the Holtest is used with the junction with the wrench, hold other than the LCD panel. The LCD panel may be damaged if it is held.

[7] Specifications

Instrumental error (20°C) ±2 mm (maximum difference: 0.02 mm). Maximum range below 20mm ±3 mm (maximum difference 0.003 mm). Maximum range between 20mm and 100mm ±5 mm (difference maximum: 0.02 mm). Maximum range between 100mm and 300mm ±0.01 mm (0.0005").

Resolution Quoting error ±1 count

Display LCD (6 digit and main sign)

Power supply Silver oxide cell (SR44), 1 piece.

Battery life 5°C/40°C (functioning), 10°C/40°C (storage)

Standard accessories Wrench, hexagonal wrench, Philips screwdriver (No.05CAAS62)

IP protection level IP65 (refer to IEC60529-21:2004)

(Display Unit) Protection against water spray (level 5). Protect the instrument against water spray from any direction.

[8] Output Function

1. Connecting cable (option): Order No.05CA2662 (1m), Order No.05CA2663 (2m)

IMPORTANT

For installing a core of cable, utilize the setting procedure (refer Fig. 8(1)). Utilizzare sempre un cassetto di dimensioni (o) (No.05CA2662) fornito con il cavo di collegamento (opzionale) quando si avvia il sistema di sensori esterni (No.05CA2662) per minimizzare il volume di WEEE entrante nei rifiuti. Tenendo per il cavo a cistalli liquidi, questo può danneggiarsi.

(1) Utilizzando il cassetto a stella fornito con il cavo di collegamento, svitare le viti di fissaggio del coperchio (M1.7 x 0.5 x 2.0 mm, No.09GA4374).

(2) Rimuovere il coperchio.

(3) Controllare il connettore di collegamento (No. 09GA4374) sono installati correttamente.

(4) Fissare il cavo di collegamento.

(5) Premere l'interruttore di collegamento con la lima, in modo che non ci siano tensioni tra i fili di collegamento e il corpo principale di misurazione, quindi avvitare le viti di fissaggio del cavo di collegamento per bloccare il cavo in posizione.

(6) Rimuovere il cassetto.

CAUTION
Do not remove the packing.

When outputting data in the Holtest while in the HOLD state, INC is canceled after data has been output.

2. Data format
The data format is set by the following procedure.

1. Setting data format
* 1. DATAw as Low level the data setting is held down.

* 2. Time interval TW between the falling of data and the input of REQ on the performance of the measurement to be continued.

Digimatic Holtest

Precavzioni relative alla sicurezza
Per garantire l'operatività sicura di questo strumento in conformità alle specifiche, leggere attentamente le avvertenze riportate in questo manuale.

Note sulle Norme di Esportazione

Rimandiamo qui che vi impegnate e sarete d'accordo a non compiere alcuna azione che, diretta o indiretta, violi leggi o norme del Giappone o del V. Paico, o qualsiasi altro trattato internazionale relativo all'esportazione o all'importazione di prodotti.

* La batteria alcalina utilizzata per questo strumento contiene sostanze irritanti. Se il liquido contenuto dovesse accidentalmente entrare in contatto con gli occhi o la pelle, o se il liquido entrasse accidentalmente in contatto con la lingua, lavare immediatamente con acqua, quindi consultare un medico. Se viene ingerito, sciacquare immediatamente la bocca, deglutire acqua in abbondanza e vomitare, quindi consultare un medico.

* La scassa di questo micrometro sono affilate. Manipolare con cura in modo da non graffiare.

ATTENZIONE



Consulenza di vecchia apparecchiatura elettrica ed elettronica (Applicabile nell'unione europea e negli altri paesi europei con sistemi di raccolta differenziata)

L'operazione di questo prodotto o sui suoi imballaggi indica che questo prodotto non può essere trattato come rifiuto domestico. Per ridurre l'impatto ambientale della apparecchiatura elettrica ed elettronica di rifiuto (WEEE (Waste Electrical and Electronic Equipment)) e minimizzare il volume di WEEE entrante nei rifiuti discariche, si prega di procedere al riutilizzo e al riciclaggio.

* Per ulteriori informazioni, porsi in contatto con il proprio rivenditore locale o con i distributori.

IMPORTANT

Do not smontar. Do not modify the instrument. Do not disassemble or modify the instrument.

Do not use and conserve the Holtest in luoghi in cui la temperatura varia bruscamente. Prima dell'utilizzo stabilire il Holtest contro qualsiasi variazione di temperatura ambiente.

Do not conserve the Holtest in ambienti umidi o poveri.

Quando si utilizza l'holtest in una posizione dove il liquido refrigerante o simili potrebbe essere versato, assicurarsi che il corpo dell'holtest sia protetto da un coperchio. Se il coperchio è stato installato o coperto, assicurarsi che le viti di fissaggio siano ben serrate e che non vi siano spazi vuoti.

Non applicare forza di torsione o forza di trazione eccessiva al corpo dello strumento o a qualsiasi parte dello strumento. Non applicare forza di torsione o forza di trazione eccessiva al corpo dello strumento.

Non toccare il micrometro Holtest con una caduta o una forza eccessiva.

Eseguire sempre l'imponere del prima della misurazione.

Eliminare la polvere, i trucioli di taglio e i fumi dalla strumentazione prima dell'uso.

Non utilizzare solventi organici (acetone, ecc.) in nessun caso di olio o danno allo strumento. Non utilizzare solventi organici (acetone, ecc.). Ciò potrebbe alterare o danneggiare lo strumento.

Non utilizzare il prodotto in modo che non sia consentito. Non spostarlo oltre il limite superiore dell'intervallo di misurazione. Ciò potrebbe danneggiare lo strumento.

Non utilizzare dispositivi come una pompa per trascinare elettricità o altro software.

Non caricare il sistema di energia automaticamente se viene automaticamente per 20 minuti. Per accedere lo schermo LCD, ruotare il tamburo o premere il pulsante ZERO/ABS.

Non cambiare o disassemblare la batteria. Doing so may cause short circuit.

Se l'holtest è non in uso for more than 3 months, remove the battery from the Holtest for safe keeping. The battery could leak and cause damage to the Holtest.

Do not use the Holtest if the battery is damaged or if it has been used for long wear and tear including battery drain.

Do not use the Holtest in water during use, as this may result lead to infiltration of coolant, etc. Furthermore, exercise caution when using the device in a position where it is sprayed directly with a jet of liquid, as infiltration of coolant, etc., may be unavoidable in such cases, depending on the conditions of use.

Do not twist Holtest or let it hang while it is fitted in a hole.

Only use the supplied anvil. Do not remove the anvil from the measuring head. Do not use any other measuring force except the measuring force by using a collet. To gain proper measuring force, move the measuring force until you touch the workpiece, then stop moving them, and rotate the Holtest until the display shows the desired value.

Note that an excessive measuring force may be an error factor for this Holtest.

The measurement value differs depending on whether the entire surface of the anvil is used for the measurement or only at the mechanism of the Holtest. Align the datum point under the same conditions before measurement.

Refer to the illustrations on the reverse side while reading the manual.

[1] DENOMINATION OF THE COMPONENTS

1. Inchiudi 2. Quiera 3. Bussola esterna 4. Vite di fissaggio esterna 5. Tamburo 6. Finitone a cirocchio 7. Vite di fissaggio cistalli liquidi 8. Testina di misura 9. Finitone microcattolico 10. Pulsante PRESET 11. ZERO/ABS-knapp 12. Pulsante HOLD 13. Pulsante di selezione poli/minuti(millimetri solo sui modelli con sistema di poli/minuti) 14. Schermo LCD 15. Connettore uscita dati 16. Cavo 17. Batteria compartment cover

[2] INSTALLAZIONE DELLA BATTERIA

IMPORTANTE
Una volta installata la batteria, premere il pulsante PRESET ma non ruotare il tamburo mentre i valori di preimpostazione vengono impostati (vedere Fig. 2(8)(9)). Se si ruota il tamburo in quel momento si potrebbe causare un guasto nell'impostazione della impostazione predefinita da parte dell'unità elettrica che potrebbe compromettere il movimento. Impostare l'operazione seguendo la procedura di seguito prima della misurazione.

Always make sure to check and set the datum point by following the procedure below prior to measurement.

Remove any debris or grease from the measuring surface before making this setting.

The datum point of the Holtest should always be set with a set ring that has been installed. It is recommended that the Holtest is held in the same position and under the same conditions for both datum setting and actual measurement. The datum setting procedure is as follows.

1. Presetting the datum point
The dimension of the set ring is stored in the Holtest memory. The Holtest is able to store two preset values ("P1", "P2") in memory.

Switching between P1 and P2
Switch between "P1" and "P2" by holding down the HOLD button while "P1" or "P2" is flashing.

Example: Wipe registering a value of 125.000mm for P1

(1) Press the PRESET button. The previously registered value is displayed and "P1" flashes. An "H" also is displayed after the battery has been replaced. In addition, if "P2" is flashing, hold down the HOLD button until "P1" is flashing.

(2) Hold down the PRESET button, and release when the left most digit place flashes.

(3) Press the PRESET button several times until "1" is displayed in this place.

(4) Hold down the PRESET button, and release when the next digit place flashes.

(5) Repeat steps (3) and (4) for "5" and "0" in this and subsequent digit places.

(6) Hold down the PRESET button, and release when "125.000" is displayed.

(7) Press the PRESET button to stop "P1" from flashing and complete the datum point setting procedure.

CAUTION
* Do not contact pressing preset the ZERO/ABS button. The previous preset value will be restored. * During presetting, the display value is not affected by trimble rotation.

[3] FUNZIONE DEI PULSANTI E INDICAZIONI DEL DISPLAY

1. Pulsante ZERO/ABS: Premendo il pulsante viene resettato il display sulla "0". Premere premuto si porta il display sul valore di riferimento.

2. Indicatori del display
INC: Modalità incrementale per misurazioni comparative. La tensione della batteria è bassa. Sostituire immediatamente la batteria. Il valore del display è stato fissato. Per cancellarlo, premere il pulsante HOLD.

Il blocco funzione: Il display viene bloccato. Per cancellarlo, premere il pulsante HOLD.

ERR: Gli errori indicano se si è verificato un errore di conteggio. Rimuovere la batteria e quindi riprova.

3. Blocco funzione

Se è impostato il blocco funzione, un simbolo con una chiave si illumina sullo schermo LCD e risulta possibile solo i funzionamenti (HOLD).

Operazione per il blocco funzione: (1) Premere il pulsante PRESET ZERO/ABS InChM

Operazione per un blocco funzione: (1) Premere e tenere premuto il pulsante (HOLD) e poi premere ZERO/ABS per 2 sec. o poco più.

* Premere prima (HOLD). Un "H" si illumina nel display.

(2) Un contatore illumina il display e "H" si illumina nel display.

(3) Esegure la stessa procedura quando anche il blocco di funzione.

[4] IMPOSTAZIONE DEL PUNTO DI RIFERIMENTO

IMPORTANTE
Una volta installata la batteria, premere il pulsante PRESET ma non ruotare il tamburo mentre i valori di preimpostazione vengono impostati (vedere Fig. 2(8)(9)). Se si ruota il tamburo in quel momento si potrebbe causare un guasto nell'impostazione della impostazione predefinita da parte dell'unità elettrica che potrebbe compromettere il movimento. Impostare l'operazione seguendo la procedura di seguito prima della misurazione.

Always make sure to check and set the datum point by following the procedure below prior to measurement.

Remove any debris or grease from the measuring surface before making this setting.

The datum point of the Holtest should always be set with a set ring that has been installed. It is recommended that the Holtest is held in the same position and under the same conditions for both datum setting and actual measurement. The datum setting procedure is as follows.

1. Preimpostazione del punto di riferimento
Le dimensioni dell'anello di impostazione sono archiviate nella memoria dell'holtest. L'holtest è in grado di archiviare due valori preimpostati ("P1", "P2") nella memoria.

Interruttore tra P1 e P2
Passare da "P1" a "P2" tenendo premuto il pulsante HOLD mentre "P1" o "P2" blinka.

Example: Wipe registering a value of 125.000mm for P1

(1) Press the PRESET button. The previously registered value is displayed and "P1" flashes. An "H" also is displayed after the battery has been replaced. In addition, if "P2" is flashing, hold down the HOLD button until "P1" is flashing.

(2) Hold down the PRESET button, and release when the left most digit place flashes.

(3) Press the PRESET button several times until "1" is displayed in this place.

(4) Hold down the PRESET button, and release when the next digit place flashes.

(5) Repeat (steps 3) and (4) for "5" and "0" in this and subsequent digit places.