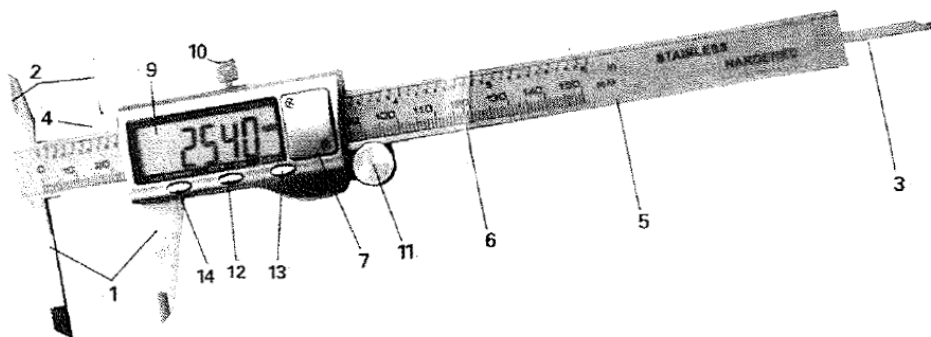


# OWNER'S MANUAL

ITEM:SH20

## FEATURES

- 1.EXTERNAL MEASURING JAWS
- 2.INTERNAL MEASURING JAWS
- 3.DEPTH BLADE
- 4.STEP MEASURING FACES
- 5.BEAM
- 6.SAE & METRIC SCALE
- 7.BATTERY COMPARTMENT
- 9.LCD DISPLAY
- 10.SLIDER CLAMP SCREW



- 11.THUMB ROLLER
- 12.ON/OFF SWITCH
- 13.ZERO SWITCH

- 14.SAE&METRIC  
CONVERSION SWITCH

**FOR YOUR SAFETY , and  
CARE OF THIS TOOL**  
Please read these instructions  
carefully and retain them for future use.

**CE**  
ES151103007E



# SPECIFICATIONS AND FUNCTIONS

Your digital caliper was constructed with quality materials and workmanship and will Give you many years of trouble free use when cared for as described in the " Care &Maintenance" section.

Measuring Range:	Resolution:
0-150mm/0-6 "	0.01mm/0.0005 "
0-200mm/0-8 "	0.01mm/0.0005 "
0-300mm/0-12 "	0.01mm/0.0005 "

Measuring Range:	Accuracy:
0-200mm/0-8 "	0.03mm/0.001 "
200-300mm/8-12 "	0.04mm/0.0015 "

**Repeatability:**0.01mm or 0.0005"

**Maximum measuring speed:** 1.5m/sec or 60"/sec.

**Measuring system :** Non-contact linear CAP measuring system

**Display:** LCD display .minus sign: "—" , character in 6.35mm/0.25" height for 5 digits ,small digit "5" and"IN" sign for inch measuring unit .

**Battery:** One silver oxide battery 1.5V for one year of continuous use .  
Low battery warning by flashing display.

**Operating temperature:**0°C~+40°C

**Storage temperature:**-20°C~+70°C

**Influence of humidity :**Not important within 0 to 80% of relative humidity.

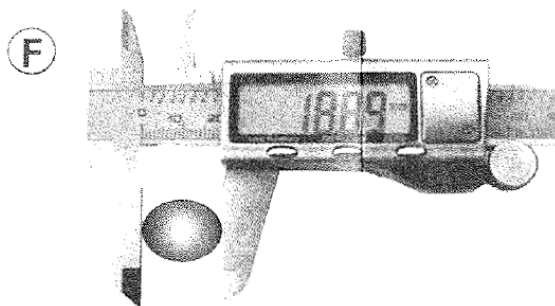
**Data output:** Serial output for interface with host computer or printer

**Data processing interface (option):**Functions:

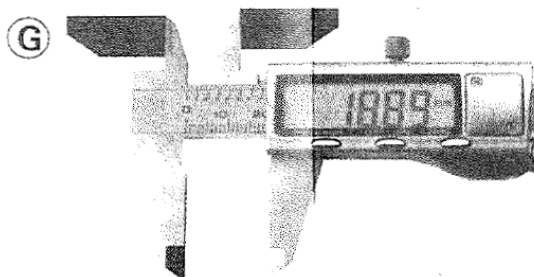
Data storage ,processing & printing,with software of quality control

Auto power off

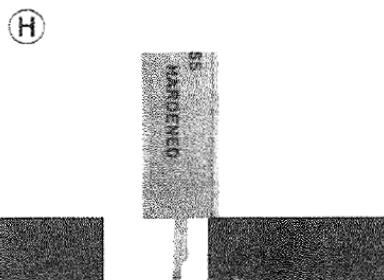
## Measurements of external dimensions



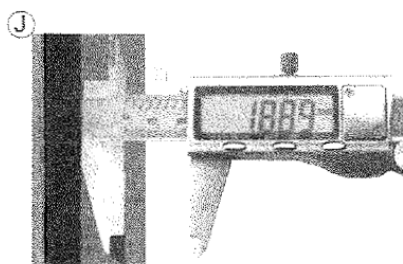
## Measurements of internal dimensions



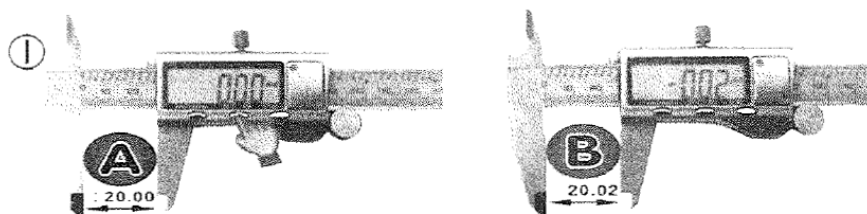
## Measurements of depth



## Measurements of steps



## Differential method measurement (Application of zero setting)



## CARE&MAINTENANCE

- 1、 Keep body face clean ;prevent liquid material from getting into slider to destroy electronics
- 2、 Face should be cleaned with a clean,dry,lint-free cloth. Lubricate body with a few drops of clock oil.Acetone & alcohol must not be used .
- 3、 Keep battery compartment clean and free of corrosion .

## TROUBLESHOOTING

### PROBLEM:

Every second 5 digits  
Jump Simultaneously

Display cannot count.

Display shows 000.00  
Or IN 00.000

Function buttons not  
active

Reading error for full  
Length is  $\geq 0.1$ mm

No display on LCD screen

### SOLUTION:

Battery voltage is under 1.45V .  
Remove cover and replace battery.

Faulty circuit . Remove battery ,after 30  
sec.put battery back into compartment .

Function buttons and sliders signal end  
may have shorted out .Remove the  
cover ,put the button springs in place  
with rubber covers.Contact must be  
unobstructed.

Springs or rubber covers may be out of  
Shape due to excessive pressing .See  
solution above for tips.

Sensor may have dirt or deposits in it  
Remove cover and slider assembly .  
Blow off sensor face with clean  
pressurized air ( $\geq 51$ kg/cm squared),  
clean with a dry ,lint-free cloth.

- 1.) Poor battey contact .Check battery compartment ,clean if necessary .
- 2.) Battery voltage is under1.3V .  
Replace with correct battery.