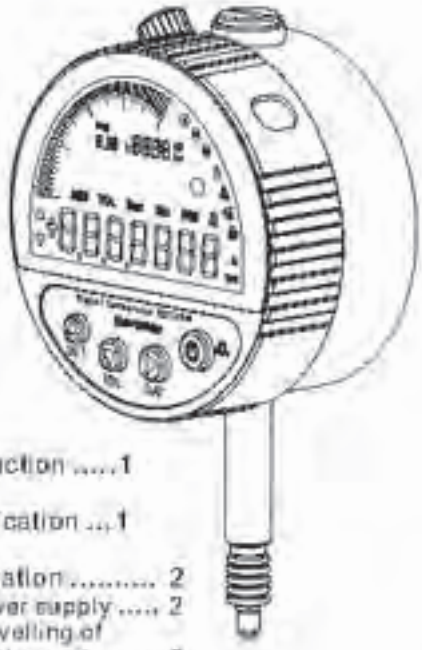
Digital Comparator EDC2000

Important information

Please note the following to prevent damage and malfunction of the measuring instrument:

- Please observe its storage and working temperature and protection level .
- Do not open or modify the instrument.
- Keep the socket for the charger covered when these are not in use.
- The measuring instrument has to be used in a mounting device or other suitable fixture. We recommend a device with a split mounting bore of dia. 8 H7 mm.
- For cleaning of the front cover/dial glass use a soft cloth moistened with a neutral reacting cleaning agent. Never use organic solvents like thinners and petrol. For cleaning of the measuring spindle use a cloth moistened with alcohol. Do not apply oil on to the measuring spindle!



Long Term Storage

Up to a year from –10°C to +35°C. The storage temperature between +10°C and +25°C is recommended .

- To prevent the battery self-discharging or the reduction in the functionality or damage, the rechargeable battery should be charged a minimum of once per 3 months.
- After a long storage period (over 6 months) may lead to a limitation of the battery capacity after the first discharge. Through repeated charge - discharge cycles, the rechargeable battery may restore its capacity.

1 Introduction

The Inductive Digital Comparator EDC2000 is a versatile precision measuring instrument for the economical application in the production process and in the inspection room.
Please read the operating manual carefully to ensure best use. We reserve the right to make modifications on the measuring instrument as well as on this instructions.

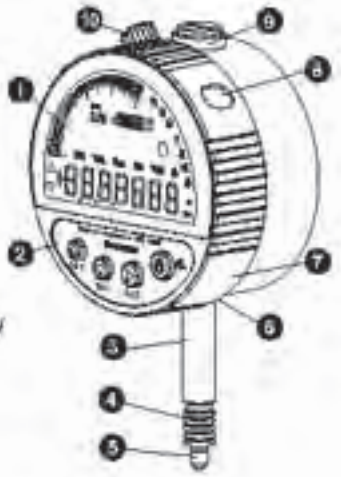
2 Specification

Measuring Span:	2/0.0787" (mm/inch)	Operating time:	approx. 12 h
Resolution:	0.0001/0.000005"(mm/inch)	Charging time:	approx. 3h
Total Stroke:	4 mm	Class of protection:	IP 54
Measuring force:	0. 7~0. 9 N	Operating temperature:	+5° C to +40° C
Measuring system:	LVDT	Storage temperature:	-10° C to +60° C
Display:	LCD	Data Interface:	USB,RF wirless
Memory:	999 readings	Weight:	165 g
Battery:	Li-Ion		

Standard Accessories

- Charger/adapter
- Data/charge cable
- Operation manual
- Inspection certificate

1 Display
2 Operating Keys
3 Mounting Shank
4 Measuring Spindle (in Rubber Bellows)
5 Contact Point
6 Preliminary Screw
7 Display Unit
8 Contactless Key Window
9 Cover Screw
10 USB Socket



1a Readings
1b Unit
1c Signal
1d Directions

2a Analog Display
2b Scale
2c Span

3 ABS Absolute
TOL Tolerance
MAX Maximum
MIN Minimum
PRE Preset

4 Indicator

5 Readings Lock

6 Setting Group No.

7 Contactless Key
Wireless
USB
Print

Duration of key activation

Short Press(<1 sec.)

Long Press(>2 sec, or **Wait for Indicator light to turn white.**)

Key Functions

	Measuring		Setup		Browse		Tolerance	
Power / ZERO	Long	Turn on or off						
	Short	Zeroing display	Short	Select setting group	Short	Delete record / Confirm delete		
Up / SET	Long	Enter Setup	Long	Exit	Long	Exit	Long	Exit
	Short	Lock /Unlock display	Short	Upward / Increase	Short	Page up	Short	Upward /Increase
Down / TOL	Long	Enter tolerance setting	Long	Enter/Exit search input			Long	Enter /Exit search input
	Short	Turn on/off tolerance monitor	Short	Downward / Decrease	Short	Page down	Short	Downward / Decrease
Right / DAT	Long	Enter data browse						
	Short	Save / Upload / Print	Short	Move next			Short	Move next
Contactless key	Long	Zeroing	Can be turn ON/OFF in setting.					
	Short	Save / Upload / Print						

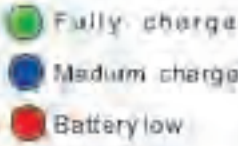
3 Preparation

3.1 Power supply

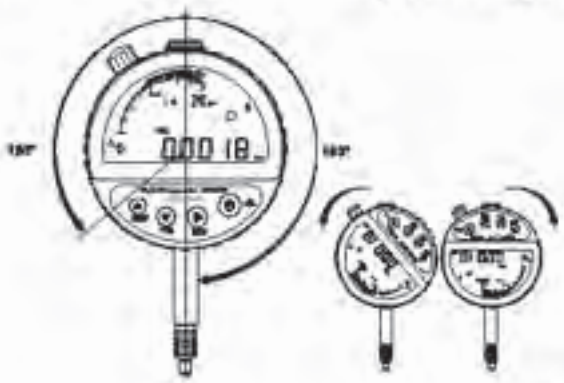
The instrument can be powered either by the integrated Li-ion rechargeable battery or the charger via the USB interface.

The battery power is displayed in the boot display.

Note: As the first use, the battery should be charged for 5 hours at least.



3.2 Setting of the swivelling operating and display unit



3.3 Mounting

The comparator is used usually mounting on a stand or other device.
The stand or the device should be with a split mounting bore of Φ8 H7 mm.
To ensure smooth movement of the measuring spindle, do not use a screw to clamp the mounting shank directly.

3.4 Exchange contact point

- Unscrew a light contact point:
- Take off Rubber bellows, hold the spindle tight with a plier using a piece of cloth to protect the measuring spindle from damage
- Use the another plier to unscrew the contact point.

Important! Ignoring this advice may lead to damage of the interior of the instrument or of the measuring spindle.

3.5 Setting of preliminary stroke

The preliminary stroke is set with the hexagon wrench in the range of -1,3 mm to 0.

Note: When a workpiece is to be inserted into a measuring device without lifting up the measuring spindle, adjusting the preliminary stroke will be useful.

4 Operation

In order to obtain highest accuracy, the instrument requires a warm-up period of about 8 minutes.

4.1 Setup

ω SET Enter Setup

The settable parameters are grouped into 3 groups.

Scale µm/mil	Span µm/mil
0.1 / -	±2 / -
0.25 / -	±5 / -
0.5 / -	±10 / -
1 / 0.05	±20 / ±1
2.5 / 0.1	±50 / ±2
5 / 0.2	±100 / ±4
10 / 0.4	±200 / ±8
25 / 1	±500 / ±20

Group 1

1a. The scale or range of analog-display

1b. Unit
mm: milimeter
in: inch

1c. Directions
▲ Measuring spindle retracted direction is the one in which value increases.

▼ Measuring spindle extended direction is the one in which value increases.

Group 2

2a. TIR set
Max: To display the maxmum of measuring value.
Min: To display the minmum of measuring value.
Max Min: To display value(MAX-MIN).
** When the MAX and MIN are all turn on, to display the value of MAX-MIN.*

2b. **PRE:** To display the value in which added the preset value.

Group 3

3a. Contactless Key: Contactless key is turn on, when it is displayed.

3b. Wireless: Wireless data transfer is turned on, when displayed.

3c. USB: USB data transfer is turned on, when displayed.

3d. Print: Printing data transfer is turned on, when displayed.

* If one or two or all of is/are turn on, press the key DAT in measuring interface, the readings will be saved and be sent through the specified communication path.

** If the contactless key is turn on, its function is same as the key DAT.

4.2 Operation in Measuring Interface

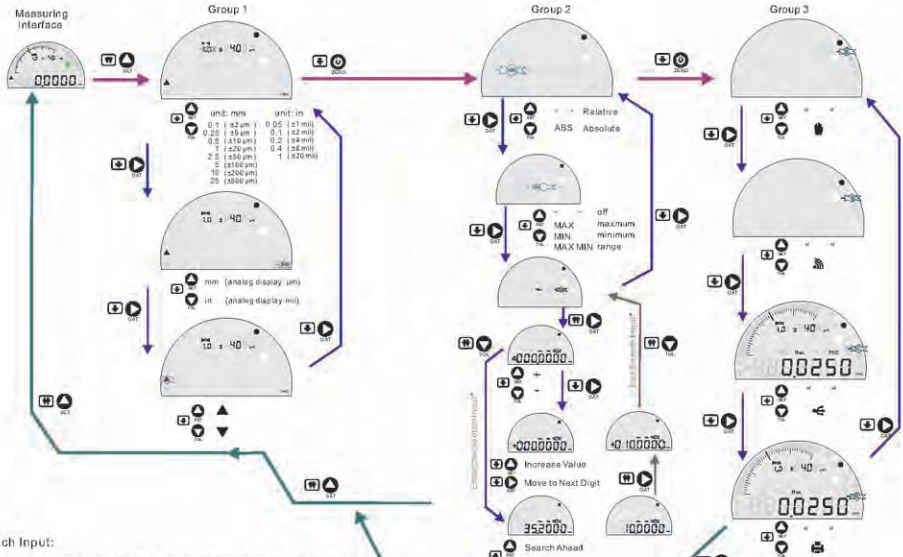
1) Key Functions

ZERO: Turn ON/OFF; Zeroing the readings
DAT: Browse data in memory; Save / Send/ Print current reading.
TOL: Enter tolerance setting; Turn on/off tolerace alarm.
SET: Enter Setting; Lock/unlock the reading.

Zeroing the readings, equivalent to ZERO
Save and send(or print) current reading, equivalent to DAT

2) Zeroing Readings

In ABS, zeroing readings will turn to relative measurement mode.
In PRE, the reading will zero to the preset value.
In the others, the readings will be zeroed. The analog display will also be zeroed.

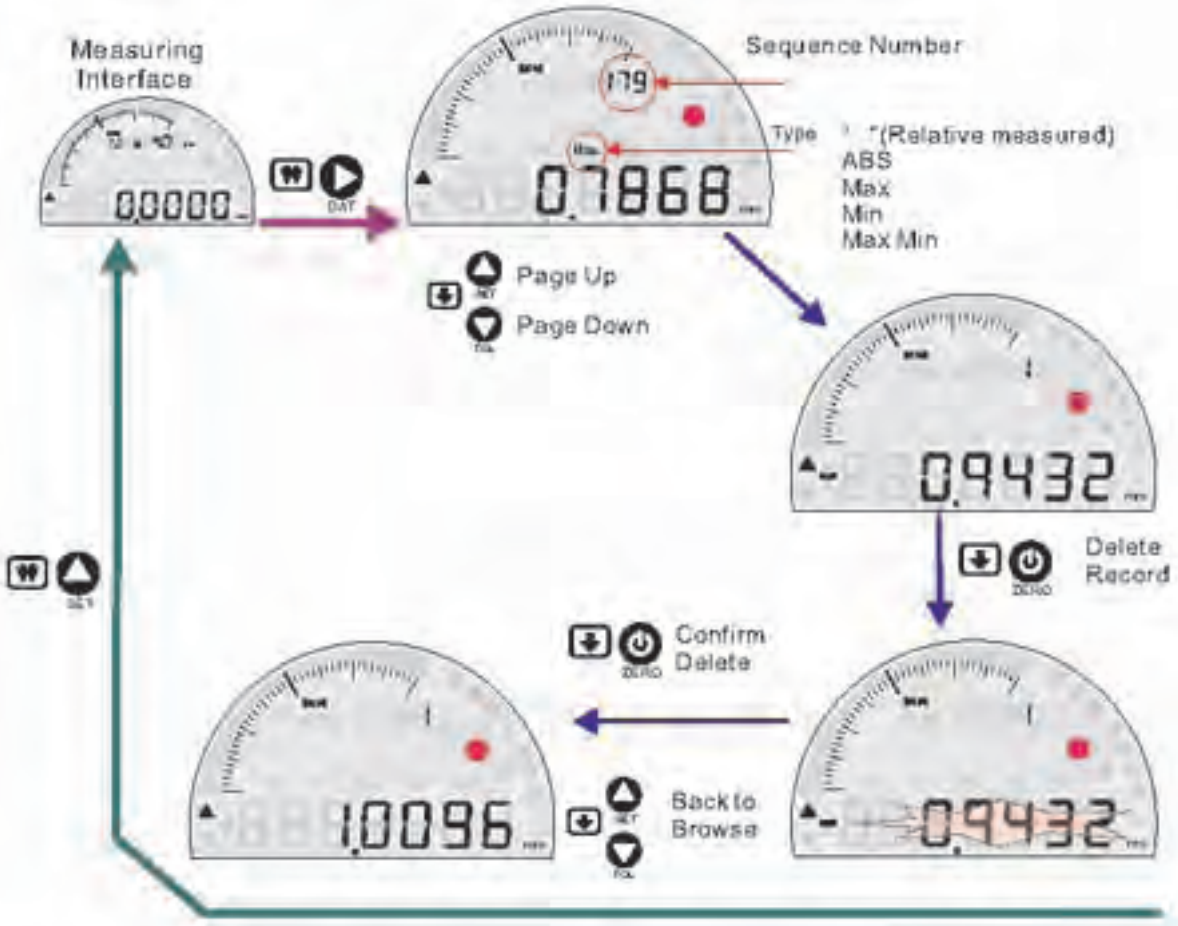


* Seach Input:

The comparator can save up to 10 of preset values that had been inputted.
After reaching 10, the new value is stored and the oldest value is discarded.
The order will be rearranged according to the frequency of use.

3) Data Browse

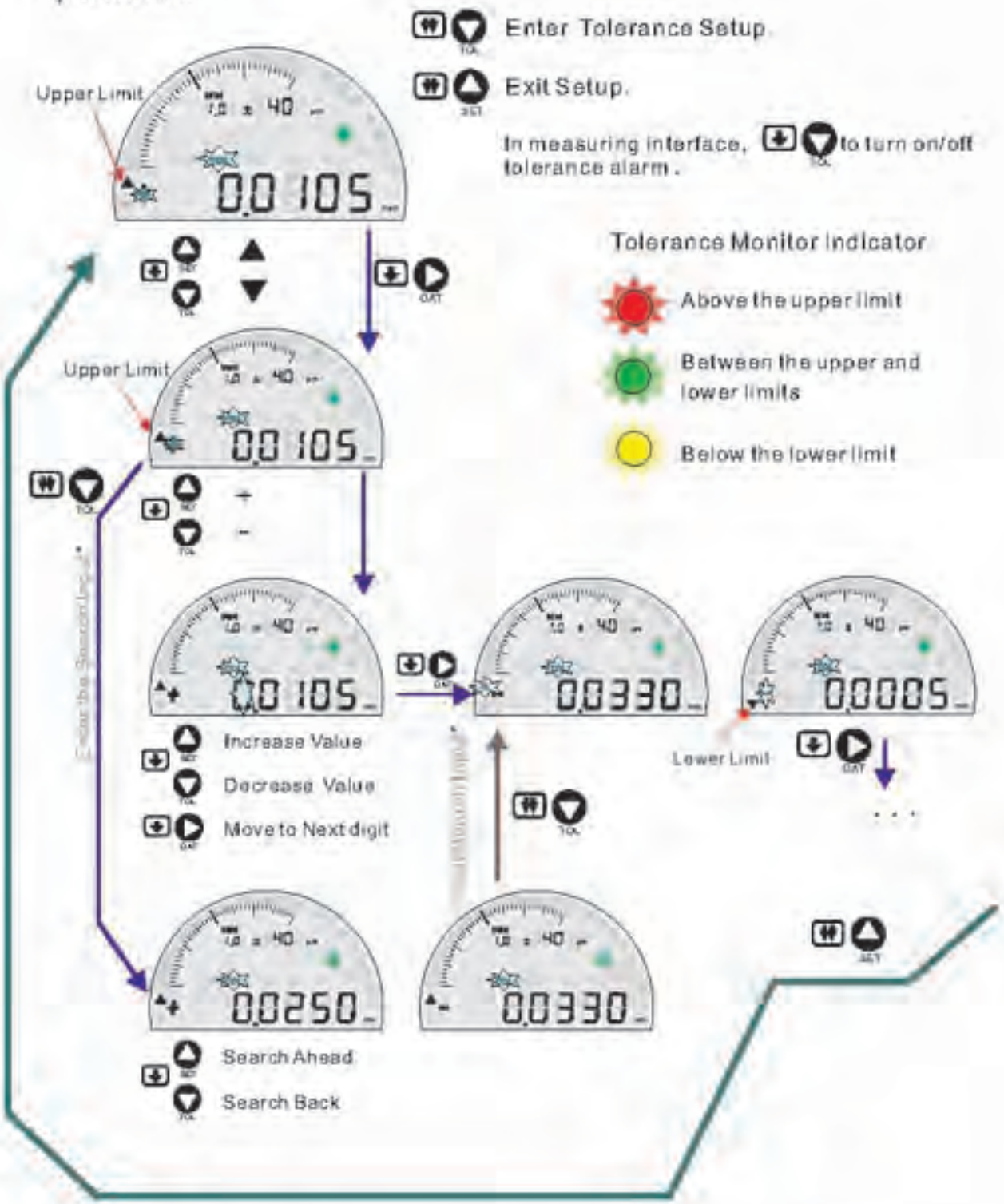
Enter/Exit data browse. To browse the data save in memory.



TIR Measuring

There 3 types of TIR, MAX,MIN and MAX-MIN.

4) Tolerance



* Seach Input:
The comparator can save up to 10 of upper and lower limit values that had been inputted.
After reaching 10, the new value is stored and the oldest value is discarded. The order will be rearranged according to the frequency of use.

5 Save/Print/Upload

On measuring display:

will printing or/and uploading the current readings, at the same time save it.

If the contactless key is turned on, it equivalent to short press key .

5. 1 Save Data

When the above operation is performed, the current reading will be stored in memory first.The stored data can be reviewed and deleted, or uploaded via the data acquisition software.

5. 2 Data Transmission

Data can be transferred via one or both of the specified paths:USB , wireless .

Set turning on
Connect Digital Comparator to PC with the USB Cable
Run data acquisition software on PC side.

Set turning on.
Insert the Wireless transceiver to USB port on PC.
Run data acquisition software on PC side and register the instrument.
Multiple comparators can transfer data with the same transceiver.

5. 3 Printing

Set turning on.
Turn on the wireless printer.
To print the measuring report.
When "---------"(exceeds the measurement strok) is displayed, **twice** will finish the report and ready for a new report.

To finish a report