MT952

USER'S MANUAL

DIGITAL TACHOMETER
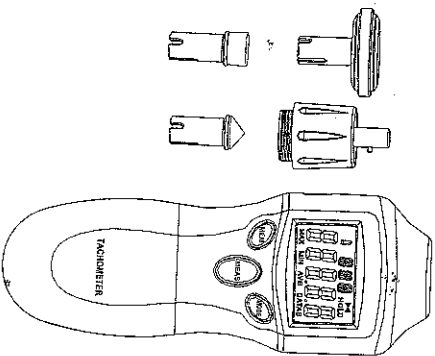
TACHOMETER

1 FEATURE

* The Digital Tachometer provides fast and accurate Contact and Non-Contact RPM and surface speed measurements of rotating objects.

* Measurement type: Rotation Speed (RPM, rPm), Total revolutions (REV), Frequency (HZ), Surface Speed (M/M, I/M, F/M, Y/M) and Length (M, In, FT, Yd).

* Wide measure range and high resolution.

* High visible digital LCD and Backlight display.

* 40 reading memories:
  10 selectable MAX measurements,
  10 selectable MIN measurements,
  10selectable AVG measurements,
  10selectable DATA measurements.

* Laser sighting.

2 SPECIFICATIONS

Display:	5 digits LCD display.
Accuracy:	$\pm$ (0.05%+1 digits).
Contact Test range:	2 to 20,000RPM
Non-Contact Test range:	2 to 99,999RPM
Tot test range:	1 to 99,999.
Resolution:	0.1 RPM (2 to 9999.9 RPM)
	1 RPM. (over 10000 RPM)
Sampling time:	0.5 sec. (over 120 RPM)
Detecting distance:	50mm to 500 mm.
Time base:	Quartz crystal
Power consumption:	Approx 45mA
Battery:	9V
Operation temp:	0 °C to 50 °C (32° to 122°C)

3 OPERATION

* Flip open the battery compartment cover and install a 9V Battery.

● **Non-Contact:** Stick the self-adhesive reflective tape on the object whose rotational

speed is to be measured. The reflective tape should be stocked as close to the outer edge of the object to be measured as possible.

Contact: Attach the contact adapter to the tachometer. Select the adapter included and slides it onto the shaft of the contact adapter. Align the adapter with the alignment pin on the shaft of the contact adapter.

* Press the "MEAS" button. Point the laser spot at the object or bring the contact probe to the object. Then read the measurement on the LCD display.
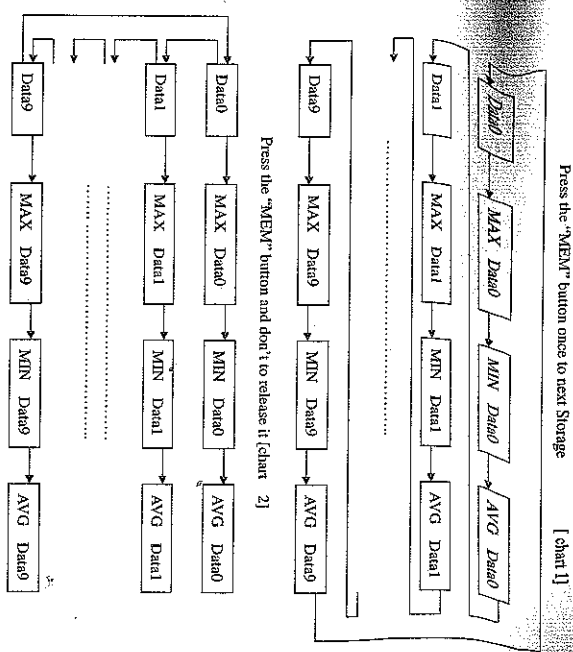
4   FUNCTION DESCRIPTION

In scan mode, the current measurement is displayed on the main display. The main display will hold the last values until the tachometer automatically turns off.

* **Data Storage:** Press the "MEAS" button until the reading displayed on the LCD display. Observe the reading and press the "MEM" Button to record. The maximum, minimum,

average and data during one shot measurement will be stored into a memory set. Then the Data number will increase by one.
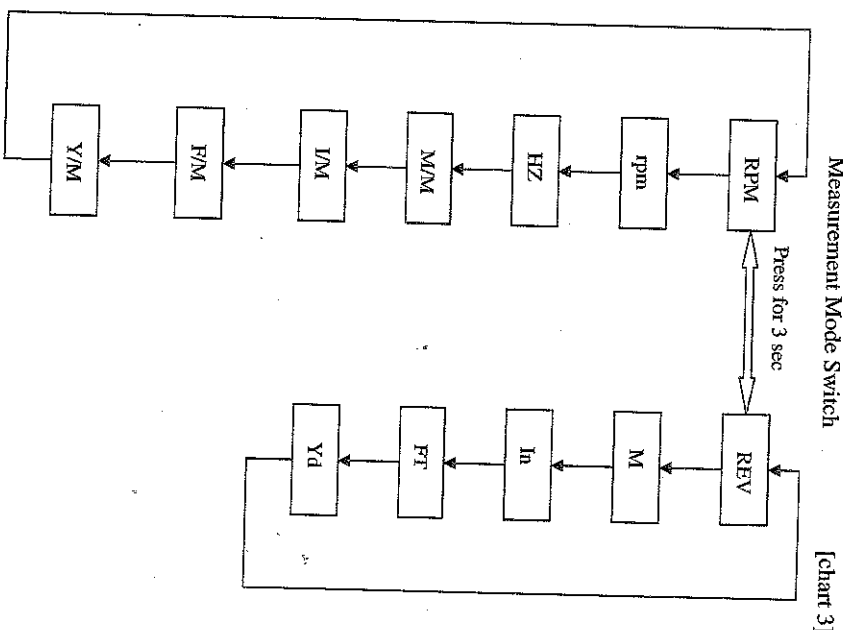
Recall Data: Use the "MEM" button to scroll and view the stored data point. Press the "MEM" button once to next storage, you will view the MAX measurements, MIN measurements, AVG measurements and DATA measurements. Press the "MEM" button and don't to release it to leap to next Data Set. You will view Data0 to Data9, 10 selectable Data measurements.

button once to change from RPM, rpm, HZ,....to the next sequentially. Press the "MODE" button and hold for approx.3 sec to leap to the next group .Then you can press the "MODE" button once to change from REV, M, In....to the next sequentially. Selected the mode of you need, depress the "MEAS" start measures.

Press the "MEM" button once to next Storage　　　[chart 1]

Data0 → MAX Data0 → MIN Data0 → AVG Data0
Data1 → MAX Data1 → MIN Data1 → AVG Data1
....
Data9 → MAX Data9 → MIN Data9 → AVG Data9

Press the "MEM" button and don't to release it [chart 2]

Data0 → MAX Data0 → MIN Data0 → AVG Data0
Data1 → MAX Data1 → MIN Data1 → AVG Data1
....
Data9 → MAX Data9 → MIN Data9 → AVG Data9

* **Measurement Mode Switch:** Release the "MEAS" button and press the "MODE" button before the instrument auto power off(released the "MEAS" button this instrument will auto power off in 15 sec).There are two group of measurement. You can press the "MODE"

Measurement Mode Switch   [chart 3]

Press for 3 sec

RPM → rpm → HZ → M/M → I/M → F/M → Y/M

REV → M → In → FT → Yd

* RPM: Non-Contact revolutions per minute measurements.

* rpm: Contact revolutions per minute measurements.

* HZ: Non-Contact /Contact frequency measurements.

* M/M: Contact Meter per minute measurements.

* I/M: Contact Inch per minute measurements.

* F/M : Contact Feet per minute measurements.

* Y/M: Contact Yard per minute measurements.

* REV: Revolution measurements.

* M : Length measurements in the unit of meter. (Using the master 10cm circumference wheel.)

* In : Length measurements in the unit of inch. (Using the master 10cm circumference wheel.)

* FT : Length measurements in the unit of feet.
  (Using the master 10cm circumference wheel.)
* Yd : Length measurements in the unit of yard.
  (Using the master 10cm circumference wheel.)

5 MEASURING CONSIDERATION

Reflective mark

Cut and adhesive tape provide into approx 12mm (0.5") squares and apply one square to each rotation shaft.

a. The non-reflective area must always be greater than the reflective area.

b. If the shaft is normally reflective, it must be covered with black tape or black paint before attaching reflective tape

c. Shaft surface must be clean and smooth before applying reflective tape.

* VERY LOW RPM MEASUREMENT

As it is easy to get high resolution and fast sampling time. If measuring the very low RPM values, suggest user to attach more "REFLECTIVE MARKS" averagely. Then divide the reading shown by the number of "REFLECTIVE MARKS" averagely. Then divide the reading shown by the number of "REFLECTIVE MARKS" to get the real RPM

6 WARNINGS

To avoid injuries to animal or human eyes, Please do not point the laser beam in eyes or look directly into beam. If the instrument is not to be used for any extended period, Please remove battery.

NOTE:

* If the battery current is weak ,you will view the "BAT" on the LCD when you Press "MEM" button to measure.

* Be careful not to allow any liquids or moisture to get inside the tachometer.