

# SHIMPO

## Digital Totalizer

Model **DT-6LS(-MP)**

Instruction Manual



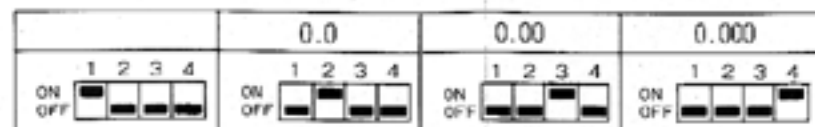
- ★ Long Continuous Reading in Large Red LED 6-Digit (DIN size) Display
- ★ Power Failure Protection (for 1000 hours)

- ★ Can Be Used With Most Sensors
- ★ No External Pull-up Resistors Necessary
- ★ Noise Immune Metal Housing

### ■ SETTINGS

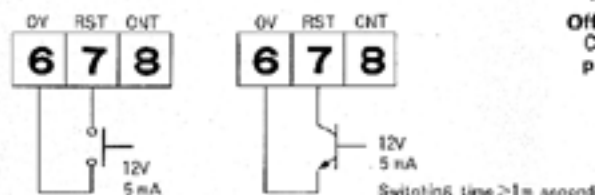
#### A. Decimal Point

Remove rear screws, take off housing and set internal switches:



#### C. Re-setting

1. Manual Reset: Press reset button on front of panel.
2. External Reset: Connect input terminals 6 & 7 to one of the switch systems below:



#### B. Battery Backup



**On Position:**  
Counter memory will reset to "0" automatically after power interruption.

**Off Position:**  
Counter memory will display last reading after power interruption (using battery back-up)

### ■ SPECIFICATIONS

Display Range: 0 ~ 999999 (up count only)  
 Decimal Point: Pre-settable (up to 3 decimals)  
 Memory Back-up: 1000 hour (by rechargeable battery\*)

Display: 6 digit 0.6" high LED

Input Characteristics:

Signal:

Voltage amplitude: 2 ~ 30Vp-p Max. ±30V  
 0 ~ 2000 cps (square wave duty 50%)  
 1 ~ 2000 cps (sine wave)  
 Contact input capacity: 12V DC, 2 mA  
 0 ~ 30cps (on/off ratio 50%)

Impedance: Approx. 10 K ohms

Sensor Power Supply: 12V DC ±0.6V, 50mA

Sensors: Limit switch, rotary pulse generator, proximity switch, retro-reflective sensor

Operational Performance: Multiplier & Divider (for DT-6LS-MP only)

Ambient Temperature: 32° ~ 113° F

Power Requirement: 115V AC ±10%, 50/60Hz

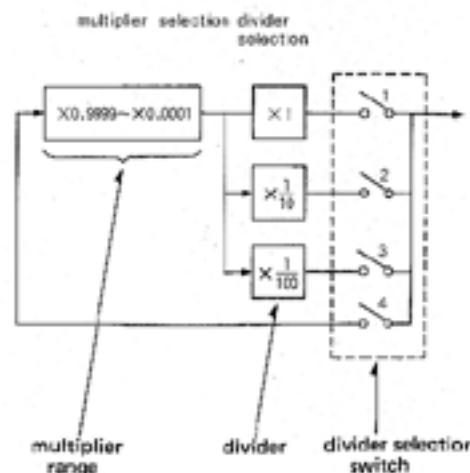
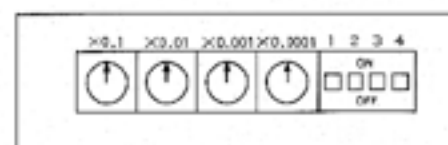
Dimensions: 1.89" H x 3.78" W x 6.75" D  
(45mm x 96mm x 146mm)

Weight: 1.33 lbs.

Warranty: 1 year

\* Battery is shipped discharged. Apply power to totalizer for at least 3 hours to ensure adequate back-up protection.

### ■ TO SET MULTIPLIER ON 6LS-MP (ONLY)



A. Determine multiplying value "A" by number of input pulses and display values.

$$\text{Multiplying Value "A"} = \frac{\text{Display Value}}{\text{No. of Input Pulses}}$$

B. Apply value "A" as follows:

	Multiplier	Divider
$1 > A \geq 0.1$	Set value "A"	Set to 1
$0.1 > A \geq 0.01$	Set value "A" x 10	Set to 2
$0.01 > A > 0.001$	Set value "A" x 100	Set to 3
# input pulses = display #	Do not set	Set to 4

Note: If "A" > 1, setting is not possible. The number of input pulses or display unit must be changed.

### Example

To display linear speed in cm  
 Roller diameter is 10 cm.  
 Rotary pulse generator is 60 pulses per revolution.

1. Find value "A" using formula:  
 $\text{Multiplying Value "A"} = \frac{\text{Display Value}}{\text{No. of Input Pulses}}$

Display Value:  
 Length cm = 3.1415 x D (dia. of roll)  
 = 3.1415 x 10 = 31.415

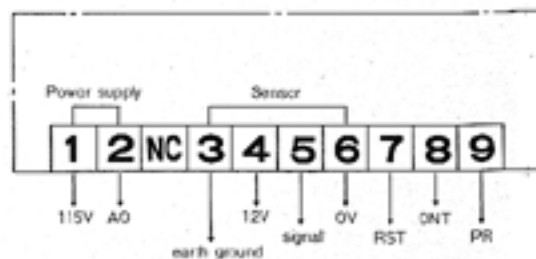
No. of input pulses: 60 p/r  
 Multiplying value "A" = 31.415/60 = 0.52358

2. Following chart B. above:  
 When  $1 > A$  (0.52358)  $> 0.1$

Set multiplier to 0.52358.  
 Set divider to switch #1 "ON" (2, 3, & 4 will be "OFF").

## ■ CONNECTIONS

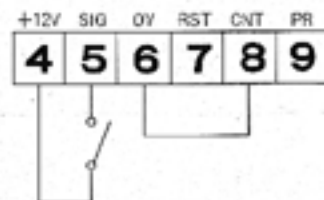
Connect sensor and power to terminals on rear.



Note: Connecting terminals differ according to sensor.  
If sensor is open collector type, connect terminals 5 & 9. (Sink current 2mA, 12VDC)

## Input Signal (Contact Type)

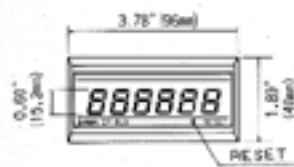
When mechanical contacts are used as an input, connect terminals 6 & 8.



## ■ DIMENSIONS



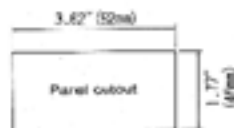
TOP VIEW



FRONT VIEW



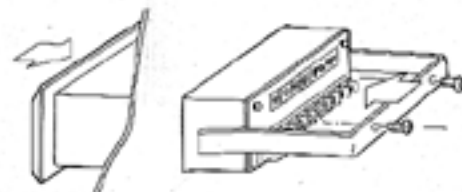
SIDE VIEW



PANEL CUTOUT

## ■ INSTALLATION

- Remove bracket on rear of tachometer.
- Insert unit through front of panel cut-out.
- Re-fasten bracket to rear of tachometer.
- Note: Panel adaptor is available if panel cut-out is too large for tachometer.



## IMPORTANT

All SHIMPO products are warranted against defects in material and workmanship. SHIMPO America Corp. shall replace or repair any part proven to be defective within one year after the date of purchase.

Return the damaged unit to SHIMPO America Corp. prepaid with a written explanation of the problem. Any unauthorized attempt at servicing any SHIMPO product will void this warranty.