

## Warranty Policy

Equipment manufactured by TRIENS / Sankyo Reels, Inc. is warranted against defects for a period of one year from the date of purchase, except the expendables. If under normal use and wear, a product is proven defective TRIENS' satisfaction, TRIENS will at its sole discretion, repair or replace the defective product. No warranty shall be made for products used for purposes other than those intended. We further disclaim any liability, with exception to previously mentioned replacement, for damages that might arise from the use of installation of TRIENS equipment or products.

Warranty will be void in below cases.

- ☐ Under abnormal use, improper maintenance and storage.
  - Product is altered
- ☐ Replacement of expendables such as hose, O ring, rubber parts etc.
- ☐ Trouble caused by using un-genuine replacement parts
- ☐ Trouble caused by dismantle, alter or repair the product by not properly trained persons
- ☐ Trouble caused by improper installation. Our product is designed for indoor use only.
  - Warranty will be void for outdoor installation.
- ☐ Trouble caused by using non-intended fluid for its purpose.
- ☐ Trouble caused by fire, earthquake, flood or any other Act of God.
- ☐ Warranty may not be applied if model name and serial number is not provided to manufacturer.
- ☐ In any other cases if we determine that the product is not covered by the warranty based on reasonable grounds.

|                  |  |
|------------------|--|
| Model            |  |
| Serial Number    |  |
| Date of Purchase |  |
| Your Distributor |  |

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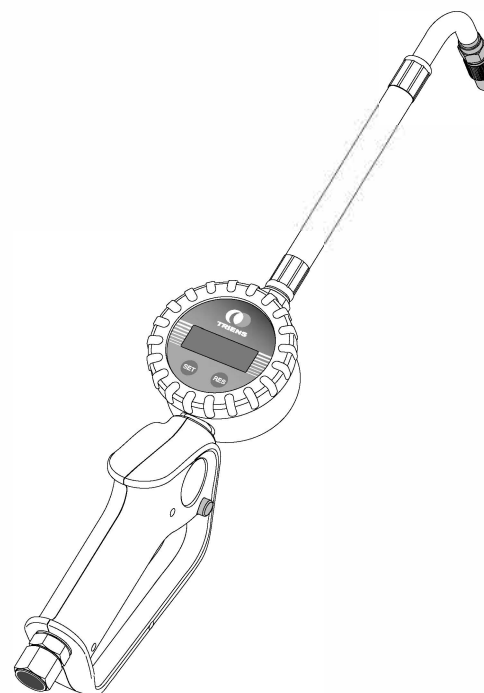
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## Oval Gear Fluid Meter



## User Manual

### Model T102360

## Introduction

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| Safety Precautions    | P.2 |
| Parts and Accessories | P.4 |

## How to Use

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| How to Use   | P.6 |

## Troubleshooting

|                 |      |
|-----------------|------|
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| Warranty Policy | P.12 |

This manual contains the precautions and basic usage of the product in order to prevent injury to people and / or damage their surroundings. Please read the instruction manual carefully before install and use the product. Make sure that only qualified personnel is installing the product. If any problem occurs please contact your distributor.

# Safety Precautions

## Meaning of WARNING and CAUTION marks

Follow precautions and instructions



This mark indicates a potential hazardous situation which failure to comply may lead to death or serious injury.



This mark indicates a potential hazardous situation which failure to comply may lead to personal injury, product damage and/or property damages.

### Prohibition Marks



### Direction Marks



For your own safety, please read this manual thoroughly before operating

### ● Disclaimer:

The user should read and understand all information provided in the user manual. The information in this manual is carefully checked and is entirely reliable and consistent with the product described in this user manual. For your information TRIENS cannot take any responsibility for inaccuracies or any liability coming out of the application and use of this product. Use the product according to the specification provided by TRIENS.

### ● Do not use the malfunctioned product

Stop using the product immediately and ask your dealer for repair

### ● In Case of Trouble

#### EXAMPLE)

- Smoke comes out
- Abnormal sound and/or smell
- Foreign materials come inside
- Dropped the product or products and parts are damaged

① Remove supply line pressure

② Stop using the product and ask your dealer for repair

③ Do not operate the product until it is repaired.

## Trouble shooting

| Symptom                                | Cause                               | Counter Measure   |
|--|-------------------------------------|---|
| No dispense                            | non drip nozzle is closed           | Open the tip nozzle                                     |
|  | shut off valve on piping is closed  | Open the shut off valve                                 |
|  | Fluid is not pumped to the meter    | Check the pump operation<br>check the fluid tank        |
| Dispense weak                          | Pump setting is incorrect           | Check the supply pump setting                           |
|  | Clogged by particles                | Disconnect the hose and clean the swivel filter         |
| Leakage from the inside of grip handle | Valve O-ring worn out               | Replace O-ring<br>Consult with your distributor         |
| Display is unreadable                  | Display board malfunction           | Consult with your distributor                           |
| No display                             | Battery low                         | Replace with new battery (Page 10)                      |
|  | Battery inserted in wrong direction | Check the direction                                     |
|  | Circuit board malfunction           | Consult with your distributor                           |
| Leak from tip nozzle                   | Tip nozzle is open                  | Close the nozzle  |
|  | Tip nozzle worn out                 | Replace the tip nozzle<br>Consult with your distributor |
| Displays the incorrect quantity        | Incorrect correction factor setting | Calibrate the correction factor (Page 8)                |

## After sale service

|                            |  |
|----------------------------|--|
| When product is in trouble | Refer to Trouble shooting on page 10   |
| Still in trouble           | Contact dealer for repair according to the product warranty service program. |

## Maintenance and Trouble Shooting

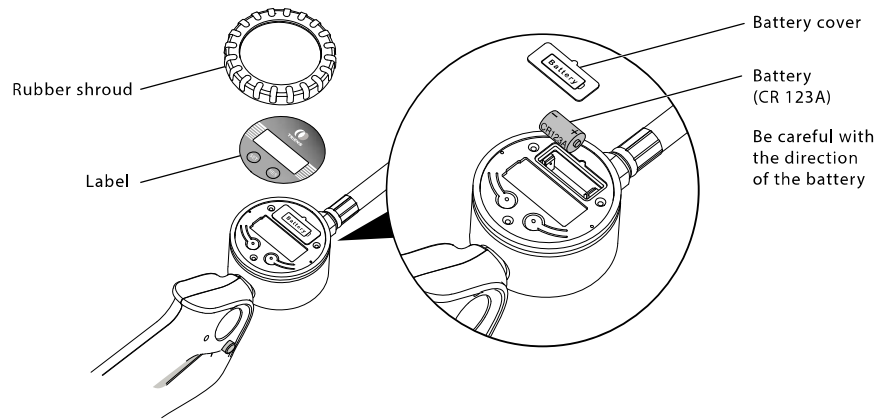
Before operating the product, read this user manual thoroughly and keep it close to you for future reference.

### Changing the Battery

The battery is exchangeable without any tool.



As soon as the "low battery indicator" is displayed, replace the battery.



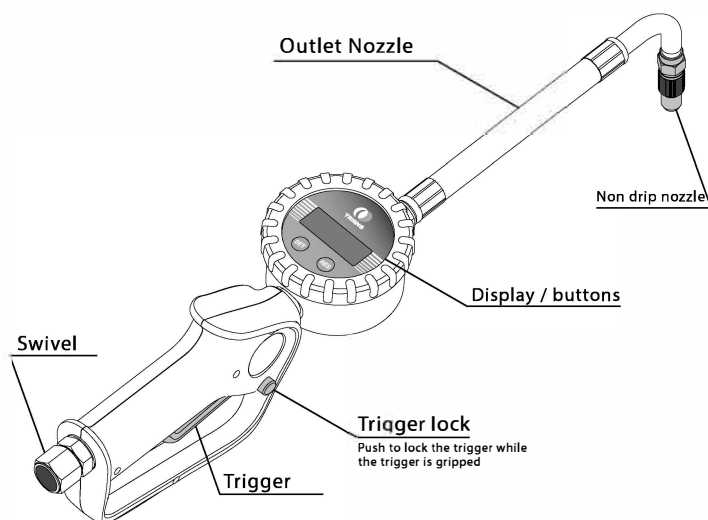
Take out the rubber shroud and remove the label. Under the label you will find the battery cover which you can easily remove. Take out the empty battery and replace it by a new CR 123A battery. Put in place the battery cover, place the label accordingly and fix the rubber shroud again on top of the meter.

### ⚠ WARNING

- ⚠ Keep out the reach of children
- ⚠ Do not run anything other than stipulated fluid.
- ⚠ Do not use the product for other than intended use.
- ⚠ Do not dismantle, alter or repair the product other than trained personnel.
- ⚠ This product is designed for indoor use  
Do NOT install the product in areas where exposed to rain /water
- ⚠ Do not drop the product or hit against the wall
- ⚠ Do not place the product where directly facing the sunlight or a heating device.
- ⚠ Do not drag on the floor
- ⚠ Do not place the product where surrounded by oil smoke, heat, moisture, dust and high temperature condition.
- ⚠ Do not get the meter wet by water or oil

## Parts and Accessories

Make sure all items listed below are contained in the box upon delivery.



### ● Specification

|                     | Oval gear fluid meter           |
|---------------------|---------------------------------|
| Model               | T102360                         |
| Swivel Thread       | G 1/2" (Female)                 |
| Suitable Fluids     | Water Base Product              |
| Working Pressure    | 0.035 ~ 8.0 MPa (0.35 ~ 80 bar) |
| Working Temperature | -10°C ~ +60°C                   |
| Measuring range     | 1~40L/m                         |
| Viscosity           | 8-5000mPa·S                     |
| Measuring Accuracy  | ± 0.2%                          |
| Measurement range   | 0.00~999.99L                    |
| Power source        | CR123A 1PC                      |
| IP rating           | IP65                            |
| RoHS                | RoHS Compliant                  |
| Length              | 600 mm                          |
| Weight              | 2.0 Kg                          |

### ● Accessories

Contact your dealer for any missing parts.



User Manual  
1 pc

## Settings (continued)

### ● Check the Cumulative dispensed quantity

- This menu shows you the non resettable Totalizer.  
Maximum value of total counter on the start display is 40,000 L. Over the amount will be override and starts again from 0, and the number of overflow increases 1.

1. Press long SET  
Unit starts blinking



2. Press short RES 4times  
Display changes UNIT&FACT&TEST&PRN&TOTAL.



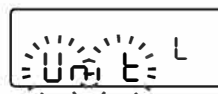
3. Press short SET  
to see the number of overflow



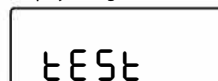
i.e.) If the number of overflow shows 2 and total counter shows 15400 L. Cumulative dispensed quantity is  $2 \times 40k L = 80.000 L + 15400 L = 95.400 L$

### ● Display Test

1. Press long SET  
Unit starts blinking



2. Press short RES 2 times  
Display changes UNIT&FACT&TEST



3. Press short SET  
Press short SET to automatic test of all digits.  
Press long RES to return to start display.

### ● Check the software version

1. Press long SET  
Unit starts blinking



2. Press short RES 3 times  
Display changes UNIT&FACT&TEST&PNR



3. Press short RES  
Press short RES 2 times.  
Display changes UNIT&FACT&TEST

# How to Use

## Settings (Continued)

### ● Correction factor calibration

Attention: The range is limited between 0,7 and 1,3.  
If you use higher or lower values, the display will show you the maximum value HI or LOW.  
It is not accepting a value out of the range.

• It is important and strongly recommended to measure the reference quantity with an approved and appropriate measuring device.

• Error rate = (measured Quantity) / (dispensed Quantity)  
Correction factor = (current value) \* (Error rate)

• Current correction factor  
Press short SET to see the programmed correction factor.

1) calculation based default settings  
(Factor: 1,000)

Quantity dispensed: 6,00 liters  
Quantity displayed : 5,95 liters  
Error rate:  $5,95/6,00 = 0,9917$

The existing correction factor is 1.00 (factory setting)  
Calculation:  $1 \times 0,9917 = 0,9917$

2) recalculation of an existing correction factor showing on the display

Quantity dispensed: 6,00 liters  
Quantity displayed : 6,02 liters  
Error rate :  $6,02/6,00 = 1,003$

The existing correction factor is 0,9917  
Calculation:  $0,9917 \times 1,003 = 0,9947$

#### 1. Press long SET

Unit starts blinking



#### 2. Press short RES

Fact starts blinking



#### 3. Press short SET

First digit starts blinking



#### 4. Press short SET

first digit increases on each press.  
Set to the desired value.

#### 5. Press short RES

Second digit starts blinking



#### 7. Press short RES

Third digit blinking.  
set the 2nd and 3rd digits to the desired value same as 4.



#### 6. Press long RES

press long RES to confirm the value and back to start display.

# Installation

Make sure that only qualified personnel is installing the product.

## ! WARNING



Do NOT install the meter in hazardous areas



Do NOT install the product in areas where exposed to rain /water



Avoid the meter from falling down or against a wall

## Preparation

### ● Tools

- Adjustable wrench  
(250 / 300mm) 1 each

### ● Preparing

- Flush the pipings to make sure no particles inside to avoid the damage to the product.

\*Please make sure that all technical data of the installation match with those for the meter described in previous page

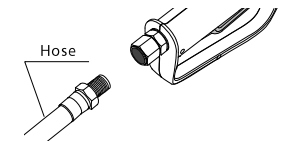
### ● For Relocation and Replacement

- Close the supply valve and release the pressure first to avoid injury and/or leakage.

## How to Install

### Connect the hose

Please check all connections and make sure no leakage.



If any problem occurs please contact your distributor.

# How to Use

## CAUTION

To avoid the product falling and damage, DO NOT use the product as follows:

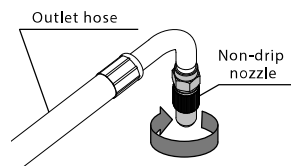
- Bend the hose
- Put a heavy load on
- Jerk strongly
- Get it wet by water, chemical or paint dust
- Place near the heat source
- Fall onto ground
- Nip with tools or equipment

## How to Operate

### 1. Open the non drip nozzle

Turn the non drip nozzle clockwise to open fully.

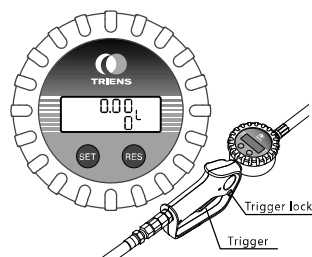
Non drip nozzle is to prevent leakage. open fully before dispense. Trigger it while nozzle closed may cause damage on the non drip nozzle.



### 2. Grip the trigger and dispense

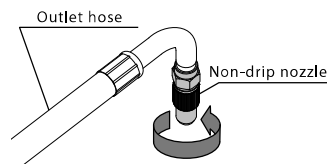
Meter can measure from 0.00 to 999.99L at a time. Check the display and release the trigger at the desired amount. By pressing lock button while dispense, the trigger will be locked. To release, grip the trigger again.

\*If the display is showing other than 0.00, press RES to reset before dispense.



### 3. Close the non drip nozzle

Turn the non drip nozzle clockwise to open fully.



## Daily Checkup

### ● Before Operate

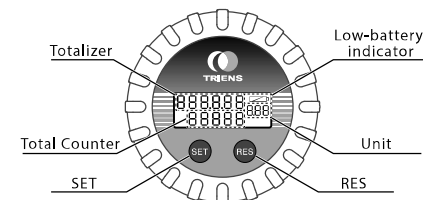
Check for damage, connection and leakage.

### ● After the use

Wipe the oil, dust and dirt with cloth. Check for damage, connection and leakage.

## Settings

| Item               | Default setting |
|--------------------|-----------------|
| Last Dispense      | 0               |
| Unit of Measure    | L ( Liter )     |
| Correction Factor  | 1.000           |
| Total Counter      | 0               |
| Number of Overflow | 0               |



### ● Wake up

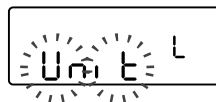
The display goes to sleep mode while not in use.

- The meter can be waked up through pressing SET or RES or if the meter is receiving any pulse by starting dispensing

### ● Change UNIT of MEASURES

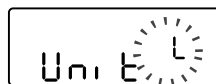
#### 1. Press SET long

Unit starts blinking



#### 2. Press SET short

Current unit starts blinking



#### 3. Press RES short

The unit changes in order of L → GAL → QT → PT → L... in each press,

#### 4. Press short SET

Press short SET to confirms the unit of measures.

### ● Display Last Dispense Amount

#### 1. Press long RES

The last dispense is shown with the remark LAST on the display.

