

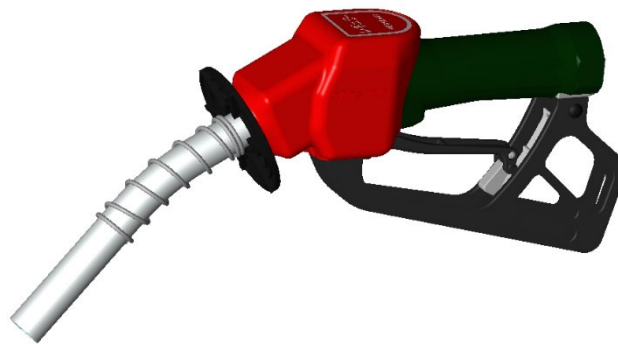
**TATSUNO ULTRA Automatic Nozzle  
for Fuel Dispenser**

**Nozzle Model: FN-1024 & FN-1029**

**Installation and Maintenance Manual**

EN 13012  
CML 17ATEX9003U

TATSUNO ULTRA automatic nozzle for standard speed (FN-1024)



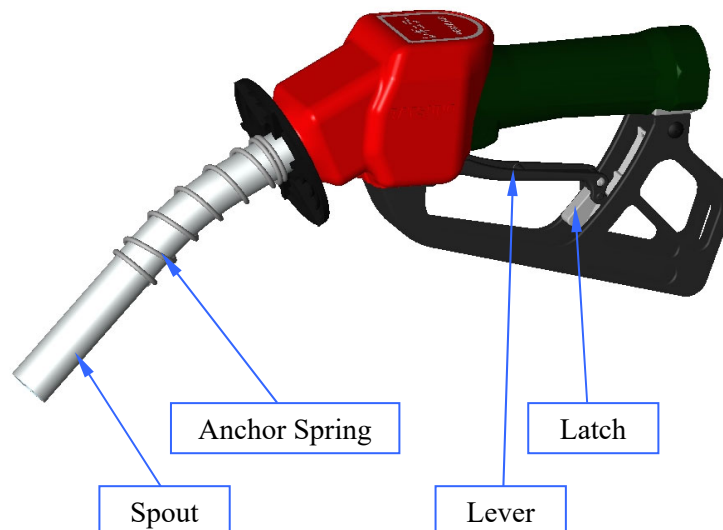
TATSUNO ULTRA automatic nozzle for high speed (FN-1029)



**Ex II 1 G**

## How to use nozzle

1. Insert the nozzle sufficiently into the fuelling port of the automobile.
2. Pull the nozzle lever and lock in the latch. Fuelling starts.
3. When the fuel level reaches the pilot hole of the nozzle spout, the main valve of the nozzle closes automatically to stop fuelling.
4. Unlock the nozzle lever from the latch, and return to the initial state. It can refuel again if pulling the lever once again.



## Installation

1. Shut off power to the dispenser before starting the nozzle & swivel installation or replacement. Relieve system pressure before servicing or replacing.
2. Carefully drain fuel from hose & nozzle & swivel into approved container in the case of replacing nozzles.
3. The tightening torque of the screw 70N.m to connect with the hose.
4. Flow test nozzles & swivels before putting nozzles & swivels in service.

## Flow test

1. Leak confirmation  
Start pump, and check for leaks between the nozzle & swivel and hose connections.
2. Flow rate test  
Measure the flow rate of the nozzle first latch position.  
Ensure the maximum flow rate is below the maximum flow rate of the dispenser.
3. Automatic shut off test  
Start flow into approved metal test container; place nozzle in first latch position.  
Immerse the sensor on nozzle spout tip below the level of liquid.  
Nozzle must shut off immediately.  
Repeat procedure at the “minimum” shut off flow rate.

## Daily inspection

1. Confirm that the nozzle & swivel do not leak with normal visual acuity.
2. Confirm that the nozzle & swivel have not deformation or other damages.
3. Inspect the splashguards, scarves, grip covers, and confirm that there are not damages and intense dirt.  
Replace there, as necessary.

## Periodic inspection (less than six months after installation)

1. Starts pump and confirm that the nozzle & swivel do not leak.
2. Confirm the automatic shut off function of the nozzle
3. Confirm that the nozzle & swivel have not deformation or other damages.

4. Inspect the splashguards, scarves, grip covers, and confirm that there are not damages and intense dirt. Carry out replacement if abnormality is discovered.

## Trouble Shooting

<b>Problem</b>	<b>Solution</b>
Nozzle keeps tripping off immediately.	<ol style="list-style-type: none"> <li>1. The sensor or the air passage on the nozzle spout may be blocked by an alien substance or fuel. Remove the alien substance or fuel and fill again.</li> <li>2. The safety cut out attitude valve may operate with some near horizontal fill pipes. Turn the nozzle spout downward and fill again.</li> <li>3. Some filler necks are difficult to refuel. Slow down fuel delivery. Put on low latch position.</li> </ol>
Nozzle fails to open.	<ol style="list-style-type: none"> <li>1. Pump pressure is not added to the nozzle. Check the pump and solenoid valve.</li> <li>2. The passage in the nozzle is clogged up. Replace or clean the nozzle.</li> <li>3. Confirm whether nozzle lever was damaged. In the case of damage, change the lever.</li> </ol>
Nozzle does not close automatically	<p>Stop use promptly. Call your service contractor for repair or replace the nozzle.</p>
Nozzle leaks.	<p>Stop use promptly. Call your service contractor for repair or replace the nozzle.</p>

## Guarantee

TATSUNO guarantees against defective materials and manufacturing during warranty period.

Warranty period: One year from date of supply.

If the delivery date cannot be established, the date code on the nozzle prevails.

Warranty does not cover below.

- (1) Damage to the nozzle & swivel in an accident etc.
- (2) Damage by natural disasters, such as a typhoon and an earthquake.
- (3) Wear items such as spouts, vapour recovery boots, scarves or grip covers.

## Replacement period

Nozzles are expendables. Even if there is no abnormality, we recommend replacement after use of the nozzle & swivel for three years or the quantity of refuelling 2,500,000L.

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## Suggestions

If you have any suggestions as to how we can improve the quality and/or readability of this manual, then we would be happy to hear from you. We can be contacted at the following address:

International Marketing Department  
TATSUNO CORPORATION  
1-1, Kasama 4-Chome, Sakae-ku, Yokohama-shi, Kanagawa  
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## EU Attestation of Conformity

**Manufacturer's Name:** TATSUNO CORPORATION

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Fax: (+81) 45-891-1414

Web: <http://www.tatsuno.co.jp>

**Product name:** Liquid Fuel Dispenser Nozzle

**Style 1:** FN-1024, FN-1029

**Style 2:** FN-1025

**Description of Equipment or Protective System:**

The FN-1024, FN-1025 and FN-1029 Liquid Fuel Dispensing Nozzles are of the automatic delivery type. The FN-1025 Liquid Fuel Dispensing Nozzles additionally provide vapour recovery. All models are of Type I fuel dispensing nozzles as detailed in EN 13012:2012 Table 1 (Types of Construction). The nozzles are intended to fit the delivery end of a fuel dispensing hose which is, in turn, attached to a liquid fuel dispenser. The nozzle body is manufactured from cast aluminium and has a separate spout and guard assemblies attached to the main body.

Fuel enters at the rear of the body and the flow is governed by the internal components. The valve assembly consists of a main regulating valve which is operated by the trigger, an angle sensor arrangement and an over-fill feedback valve activated via a capillary extending to the nozzle delivery end. All identification is marked directly onto the outside of the aluminium body. The nozzles may be supplied with a plastic cowling fitted over the main body.

**Conforms to the following Standards:**

**ATEX 2014/34/EU – EU Type Examination Certificate:**

CML 17ATEX9003U

**Applicable International Standards:**

ATEX: EN 13012: 2012 Petrol filling stations

- Construction and performance of automatic nozzles for use on fuel dispensers

Other: ISO 9158:1988 - Road vehicles - Nozzle spouts for unleaded gasoline

ISO 9159:1988 - Road vehicles - Nozzle spouts for leaded gasoline

**Markings:**



II 1 G

EN 13012 Type 1

**Ambient temperature:**

-20 °C to +50 °C

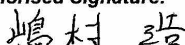
**Caution:**

Important safety information is contained in the installation, instruction, maintenance manual read and understand this information prior to installing or using this equipment. This document applies only to the equipment described above and is invalid if not reproduced in its entirety.

**Supplementary Information:**

The product described in this EU Attestation of Conformity complies with the Applicable European Directives and relevant sections of the Applicable International Standards. The signature on this document authorizes the distinctive European mark to be applied to the equipment described.

**Authorised Signature:**



Hiroshi Shimamura, General Manager



1st Mar. 2019