



European Technical Center[®]
for Engineering & Distribution GmbH

Handling Instructions Diaphragm pump 5013

Please carefully read the following instructions before handling the product:

Unpacking: Handle pump with care when unpacking.

Shocks: This product is not shockproof resistance. Drops or excessive shocks may damage sensible parts like eccentric cam.

Specifications: Data displayed on the datasheet are measured with purified water at 20°C at 12V. For operation with different type of liquid please consult us.

Fluid Temperature: Operation temperature for purified water is from 5°C to 50°C. For operation with different type of liquid please consult us.

Load: Operation under excessive load may reduce operation life of motor and pump. In event of motor stall immediately turn off power supply to avoid damages.

Operating Voltage: Operating voltage range is from 6 to 13V. Performance decreases at voltage lower than 12V.

Electrical Connection: Pump is designed with motor rotation clockwise only. Please correctly connect the motor to power supply, red lead wire to positive and black lead wire to ground.

Motor Temperature: Motor housing temperature may reach high temperature while loaded operation. Do not touch motor during operation or soon after stop.

Pump Installation: Pump is designed to operate in any position. Set pump on hard and flat base using the designed mounting holes, depth 6mm. Select suitable screws and limit torque to 280mNm at 3mm depth. Adhesive mounting is not suggested; please contact us for detailed instruction if need to.

Tube Connection: Correctly connect tubing to suction and exhaust nozzles as displayed on the pump head (arrow mark). Make sure that tubing is inserted completely to the nozzles. Tubing size from ID 3 to 4mm is recommended. Turn off pump and remove tubing from suction nozzle first. Turn on the power to expel the inside liquid completely then turn off again and remove tubing from exhaust nozzle.

Parts Replacement: Parts and/or materials replacement made by unauthorized operator may damage pump and reduce its quality. Bearings are lubricated for life and additional lubrication is not required.

Operating Environment: Pump should be operated within the specifications displayed in the datasheet. Pump is not water and explosion proofed and for no reasons should be operated in such environments. Especially do not use in corrosive and chemically aggressive environments such as chlorine, sulfur, cyanoacrylate, silicon gas, etc. Do not load pump housing with heavy materials.

Storage Conditions: This product should be stored at 20°C ± 5°C RH of 60%. Do not store in corrosive and chemically aggressive environments. If stored long period, brake-in is required before operation until flow rate stabilized. In case of pumping problem clean the valves by injecting purified water into nozzles before operation. During cleaning avoid dropping water to the motor housing.

Operation & Cleaning: After short operation period clean the pump by injecting purified water into nozzles. During cleaning avoid dropping water to the motor housing.

Warranty: Each single unit is thoroughly inspected before ship. In event of unconformity claim is necessary, contact Namiki immediately after unpacking. Namiki will accept no claim for the products used, abusively handled and manipulated by user side unless the cause of failure is clearly imputable to Namiki's defects in material or workmanship. For details refer to "Warranty notice" separate document.

Warning: Do not operate pump or immediately turn off in event of unordinary noise or smell and if water has been dropped on the motor housing.

Handling Instructions Diaphragm pump 5014

Please carefully read the following instructions before handling the product:

Unpacking: Handle pump with care when unpacking.

First operation : When pumping is not started at first operation , please fill purified water into **Valve head through suction nozzle by means of syringe to clean Valve head inside .**

Shocks: This product is not shockproof resistance. Drops or excessive shocks may damage sensible parts like eccentric cam.

Specifications: Data displayed on the datasheet are measured with purified water at 20°C at 12V. For operation with different liquid please consult us.

Fluid operation Operation temperature for purified water is from 5, degree to 50.

Temperature degree . In case of other fluid, please contact us .

Load: Operation under excessive load will reduce motor and pump operation life. In case of motor stall immediately turn off power supply to avoid damages.

Operation Voltage: Operating voltage range is from 12 to 24V. Performance will decrease if pump is operated at voltage lower than 24V.

Electrical Connection: Pump is designed for operating clockwise only. Please correctly connect the motor to power supply, red lead wire to positive and black lead wire to ground.

Motor Temperature: Motor housing temperature may reach high temperature when operated at load. Do not touch motor during operation or soon after stop.

Pump Installation: Pump is designed to operate in any position. Install the pump on hard and flat base using the designed mounting holes, depth 6mm. Select suitable screws with a length of 3mm and limit torque to 280mNm. Glue mounting is not suggested; please contact us for detailed instruction if required.

Tube Connection: Correctly connect the tube to suction and exhaust nozzles as displayed on the pump head (arrow mark). Make sure that the tube is inserted completely in the nozzles. Tube with an inner diameter from 3 to 4mm is recommended.

Turn off the pump and remove first tube at suction nozzle size. Turn on the power and operate the pump until liquid is completely expelled then turn off again and remove the tube also at exhaust nozzle side.

Parts Replacement: Parts and/or materials replacement made by unauthorized operator may damage the pump and reduce its quality. Bearings are lubricated for life and additional lubrication is not required.

Operating Environment: Pump should be operated within the specifications displayed in the datasheet. Pump is not water and explosion proofed and for no reasons should be operate in such environments. Do not load pump housing with heavy materials.

Do not use in the environment of corrosion gas and harmful gas like chlorine, Sulfur, Cyanoacrylate, Silicon gas ,etc. In addition do not use at over maximum ambient temperature in our datasheet

Storage Conditions: This product should be stored at $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ with a humidity of 60% RH. Do not store it in corrosive or chemically aggressive environments. If stored for more than 6 months before use operate at 24 V without load (dry) for 2 minutes.

Short Operation: After short operation period clean the pump by injecting cleaner in the nozzles by means of a syringe. Do not apply water to motor housing.

Warning: Do not operate pump or immediately turn it off in case of strange noise or smell and if water has been dropped on the motor housing.

Handling Instructions Diaphragm pump 7038

Please carefully read the following instructions before handling the product:

Unpacking: Handle pump with care when unpacking.

Shocks: This product is not shockproof resistance. Drops or excessive shocks may damage sensible parts like eccentric cam.

Specifications: Data displayed on the datasheet are measured with purified water at 20°C at 24V. For operation with different type of liquid please consult us.

Fluid Temperature: Operation temperature for purified water is from 5°C to 50°C . For operation with different type of liquid please consult us.

Load: Operation under excessive load may reduce operation life of motor and pump. In event of motor stall immediately turn off power supply to avoid damages.

Operating Voltage: Operating voltage range is from 8 to 24V. Performance decreases at voltage lower than 24V.

Electrical Connection: Pump is designed with motor rotation clockwise only. Please correctly connect the motor to power supply, red lead wire to positive and black lead wire to ground.

White lead wire is FG output (speed pulse output) . 3 pulse /rotation.

Motor Temperature: Motor housing temperature may reach high temperature while loaded operation. Do not touch motor during operation or soon after stop.

Pump Installation: Pump is designed to operate in any position. Set pump on hard and flat base using the designed mounting holes, depth 4 mm. Select suitable screws and limit torque to 39.2 cNm at 4mm depth. Adhesive mounting is not suggested; please contact us for detailed instruction if need to.

Tube Connection: Correctly connect tubing to suction and exhaust nozzles as displayed on the

pump head (arrow mark). Make sure that tubing is inserted completely to the nozzles. Tubing size from ID 3 to 4mm is recommended. Turn off pump and remove tubing from suction nozzle first. Turn on the power to expel the inside liquid completely then turn off again and remove tubing from exhaust nozzle.

Parts Replacement: Parts and/or materials replacement made by unauthorized operator may damage pump and reduce its quality. Bearings are lubricated for life and additional lubrication is not required.

Operating Environment: Pump should be operated within the specifications displayed in the datasheet. Pump is not water and explosion proofed and for no reasons should be operated in such environments. Especially do not use in corrosive and chemically aggressive environments such as chlorine, sulfur, cyanoacrylate, silicon gas, etc. Do not load pump housing with heavy materials.

Handling Instructions Diaphragm pump 7039

Please carefully read the following instructions before handling the product:

Unpacking: Handle pump and drive circuit with care when unpacking.

Contents:

- 7039	= Standard pump only
- 7039S	= Pump with position sensor Omron EE-SX672A
- 7039D	= Pump with drive circuit Japan Servo FTD3S2DP16-01
- 7039SD	= Pump with drive circuit above drive circuit and position sensors

Verify that contents correspond to the ordered set.

Shocks: Drops or excessive shocks may damage sensible parts like eccentric cam.

Specifications: Data displayed on the datasheet are measured with purified water at 20°C when FTD3S2DP16-01 is supplied with 24V. For operation with different liquid please consult us.

Fluid Temperature: Operation temperature for purified water is from 5°C to 40°C. For other fluids please consult us.

Load: Operation under excessive load will reduce motor and pump operation life. In case of motor stall immediately turn off power supply to avoid damages.

Operating Voltage: Drive circuit voltage supply is 24V while motor voltage 10.8V. Pump performance decreases if operated at lower voltage.

Electrical Connection: Stepper motor cannot be directly driven by a DC voltage supply, please follow operation manual for correctly connect the motor to drive circuit. 7039 is designed for operation with drive circuit Japan Servo FTD3S2DP16-01 only. Operation failures or damages caused by other drive circuits are not covered by Namiki warranty. Pump is designed for operating clockwise only.

Position Sensors: In 7039S & 7039SD models sensor position is mechanically set to sense diaphragm higher dead position when motor shaft rotates clock wise.

Motor Temperature: Motor housing temperature may reach high temperature when operated at load. Do not touch motor during operation or soon after stop.

Pump Installation: Pump is designed to operate in any position. Install the pump on hard and flat base using the designed mounting holes, depth 6mm. Select suitable screws with

limit torque to 39.2cNm at 3mm depth. Glue mounting is not suggested; please contact us for detailed instruction if required.

Tube Connection: Correctly connect the tube to suction and exhaust nozzles as displayed on the pump head (arrow mark). Make sure that the tube is inserted completely in the nozzles. Tube with an inner diameter of 4mm is recommended. Turn off the pump and remove first tube at suction nozzle size. Turn on the power and operate the pump until liquid is completely expelled then turn off again and remove the tube also at exhaust nozzle side.

Parts Replacement: Parts and/or materials replacement made by unauthorized operator may damage the pump and/or reduce its quality. Bearings are lubricated for life and additional lubrication is not required.

Operating Environment: Pump should be operated within the specifications displayed in the datasheet. Pump is not water and explosion proofed and for no reasons should be operated in such environments. Especially do not use it in corrosive and chemically aggressive environments such as chlorine, sulfur, cyanoacrylate, silicon gas, etc. Do not load pump housing with heavy materials.

Storage Conditions: This product should be stored at $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ with a humidity of 60% RH. Do not store it in corrosive and chemically aggressive environments. If stored for long period, brake-in until flow rate is stable is required before operation. In case of pumping problem clean the valves by injecting purified water in the nozzles by means of a syringe and trying again. During cleaning avoid dropping water to the motor housing.

Operation & Cleaning: After short operation period clean the pump by injecting purified water in the nozzles by means of a syringe. During cleaning avoid dropping water to the motor housing.

Warranty: Each single unit is thoroughly inspected before ship. In case of nonconformity claim is necessary, contact Namiki immediately after unpacking. Namiki will accept no claim for the products used, abusively handled and manipulated by user side unless the cause of failure is clearly imputable to Namiki's defects in material or workmanship. For details refer to "Warranty notice" separate document.

Warning: Do not operate pump or immediately turn it off in case of strange noise or smell and if water has been dropped on the motor housing.

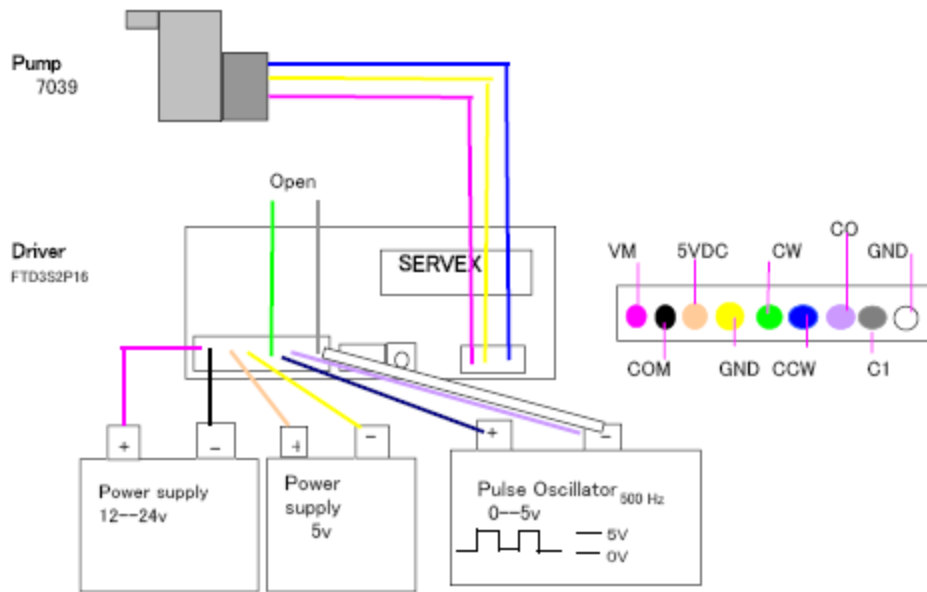
Storage Conditions: This product should be stored at $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ RH of 60%. Do not store in corrosive and chemically aggressive environments. If stored long period, brake-in is required before operation until flow rate stabilized. In case of pumping problem clean the valves by injecting purified water into nozzles before operation. During cleaning avoid dropping water to the motor housing.

Operation & Cleaning: After short operation period clean the pump by injecting purified water into nozzles. During cleaning avoid dropping water to the motor housing.

Warranty: Each single unit is thoroughly inspected before ship. In event of nonconformity claim is necessary, contact Namiki immediately after unpacking. Namiki will accept no claim for the products used, abusively handled and manipulated by user side unless the cause of failure is clearly imputable to Namiki's defects in material or workmanship. For details refer to "Warranty notice" separate document.

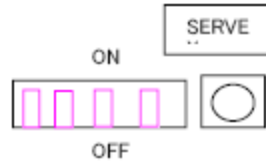
Warning: Do not operate pump or immediately turn off in event of unordinary noise or smell and if water has been dropped on the motor housing.

Subjects: Lead wire for model 7039+ driver



Speed	Frequency
100rpm	500hz
200	1000hz
300	1500hz

$(\text{Speed} \times 300) / 60 = \text{Frequency}$



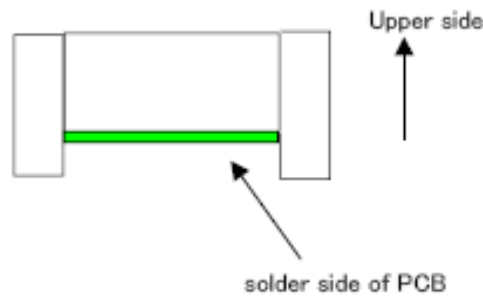
All dip switches are OFF

* Frequency oscillator like function generator that supports pulse from from 0 to 5 v is available in stead of Pulse oscillator.

Driver Notice for model 7039 (Products # FTD3S2P16)

This Driver has no safety logic on driver .
Please pay attention following for handling.

1. Please connect correct lead wire to correct connector.
If voltage is added to wrong connector, driver will be open circuit.
Please refer lead wire connection sheet.
2. Please do not attach conductive material to solder side of driver.
Please pay attention for installing driver to protect solder side of PCB



Handling Instructions Diaphragm pump 8018

Please carefully read the following instructions before handling the product:

Unpacking: Handle pump with care when unpacking.

Shocks: This product is not shockproof resistance. Drops or excessive shocks may damage sensible parts like eccentric cam.

Specifications: Data displayed on the datasheet are measured with purified water at 20°C at 24V. For operation with different type of liquid please consult us.

Fluid Temperature: Operation temperature for purified water is from 5°C to 40°C. For operation with different type of liquid please consult us.

Load: Operation under excessive load may reduce operation life of motor and pump. In event of motor stall immediately turn off power supply to avoid damages.

Operating Voltage: Operating voltage range is from 12 to 24V. Performance decreases at voltage lower than 24V.

Electrical Connection: Pump is designed with motor rotation clockwise only. Please correctly connect the motor to power supply, red lead wire to positive and black lead wire to ground.

White lead wire is FG signal. 1 Pulse per one rotation

Motor Temperature: Motor housing temperature may reach high temperature while loaded operation. Do not touch motor during operation or soon after stop.

Pump Installation: Pump is designed to operate in any position. Set pump on hard and flat base using the designed mounting holes, depth 4.5mm. Select suitable screws and limit torque to 39.2 cNm at 4mm depth. Adhesive mounting is not suggested; please contact us for detailed instruction if need to.

Tube Connection: Correctly connect tubing to suction and exhaust nozzles as displayed on the pump head (arrow mark). Make sure that tubing is inserted completely to the nozzles. Tubing size from ID 3 to 4mm is recommended. Turn off pump and remove tubing from suction nozzle first. Turn on the power to expel the inside liquid completely then turn off again and remove tubing from exhaust nozzle.

Parts Replacement: Parts and/or materials replacement made by unauthorized operator may damage pump and reduce its quality. Bearings are lubricated for life and additional lubrication is not required.

Operating Environment: Pump should be operated within the specifications displayed in the datasheet. Pump is not water and explosion proofed and for no reasons should be operated in such environments. Especially do not use in corrosive and chemically aggressive environments such as chlorine, sulfur, cyanoacrylate, silicon gas, etc. Do not load pump housing with heavy materials.

Storage Conditions: This product should be stored at 20°C ± 5°C RH of 60%. Do not store in corrosive and chemically aggressive environments. If stored long period, brake-in is required before operation until flow rate stabilized. In case of pumping problem clean the valves by injecting purified water into nozzles before operation. During cleaning avoid dropping water to the motor housing.

Operation & Cleaning: After short operation period clean the pump by injecting purified water into nozzles. During cleaning avoid dropping water to the motor housing.

Warranty: Each single unit is thoroughly inspected before ship. In event of unconformity claim is necessary, contact Namiki immediately after unpacking. Namiki will accept no claim for the products used, abusively handled and manipulated by user side unless the cause of failure is clearly imputable to Namiki's defects in material or workmanship. For details refer to "Warranty notice" separate document.

Warning: Do not operate pump or immediately turn off in event of unordinary noise or smell and if water has been dropped on the motor housing.