# **NSO-0 ROTARY MASTER SWITCH** INSTALLATION INSTRUCTIONS & SERVICE BULLETIN

# **Description**

The Type NSO-0 Rotary Master Switch is available with the switches and potentiometers mounted so they extend horizontally from the body.

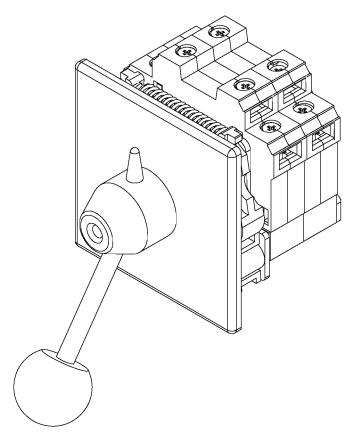
The NSO-0 Rotary Master Switch provides a step or stepless output for controlling the operation of machinery.

# Installation

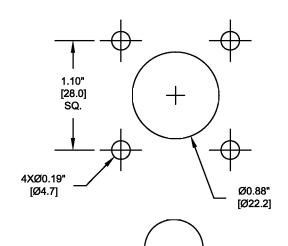
The NSO-0 Rotary Master Switch requires a 5 hole mounting pattern (see panel hole detail). It is necessary to remove the operating knob to install the NSO-0 Rotary Master Switch.

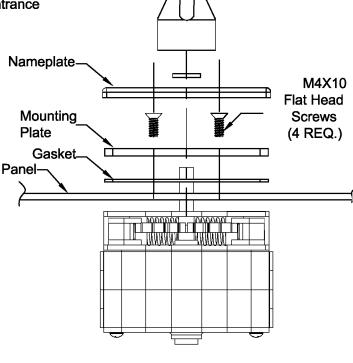
Access to the controller should be comfortable and unobstructed. Care should be taken in console and cab design to AVOID LOCATIONS WHERE:

- Inadvertent operation is possible
- Operator is able to apply an excessive amount of force to the control lever.
- Control handle could be used as means of supporting entrance and exit from the cab area
- Hand and knuckle clearance is limited.



### **Panel Hole Detail**





**NSO-0 ROTATY MASTER SWITCH** 

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#### Service

Periodic lubrication is recommended. A light grease should be applied to active components, such as bearings and detent rollers.

Inspect condition of contacts and cams and replace them if needed. Replace any worn, burnt, or pitted contact assemblies immediately.

Check assembly and mounting bolts for tightness.

Immediately report any abnormal operation characteristics of the controller to the proper authority. DO NOT continue to operate the equipment until the problem is resolved.

## Wiring

The Type NSO-0 contacts utilize a saddle clamp type terminal. It is recommended when using bare copper wire that all terminal connections are re-tightened after a short interval to "coldflow" the conductor. Cold flowing the copper through re-tightening will insure a non-resistive connection.

# **Proportional Control**

Potentiometers, Rotary Inductive Transformers, Encoders, Rheostats, etc. are field replaceable but may require calibration and alignment by field service technician. Before operating, the device should be tested by an authorized technician for proper alignment and calibration.

### **Contacts and Cams**

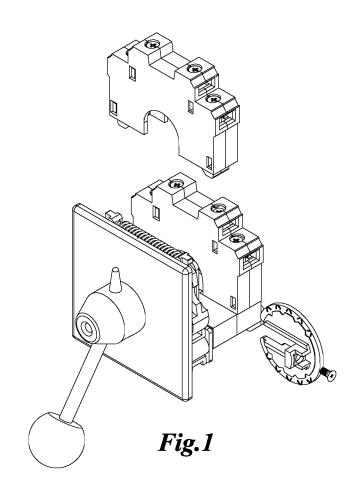
Cam-operated contacts are field replaceable and can be removed by gripping contact box between thumb and forefinger and pulling up in direction of terminals. Reinstall with terminals facing in proper directions by pressing box into locking nest (See Fig.1). If contacts are to be cleaned it is important to check compatibility of the contact cleaner with the contact block as some contact cleaners will destroy the plastics used in the contact block. Please consult factory before using a contact cleaner. If a contact cleaner can be used it is recommended that it be a low residue spray contact cleaner. (Never file or sand the contact tips).

NOTE: For low voltage dry circuit applications, gold contacts are available



#### **IMPORTANT:**

DISCONNECT ALL POWER PRIOR TO SERVICING CONTROLLER



# **Contact AC Ratings**

AC continuous 16 amps @ 240 volts AC resistive 8 amps @ 240 volts AC inductive 6 amps @ 240 volts 1 H.P. 120 VAC 1 phase 2 H.P. 240 VAC 2 phase

#### **Disclaimer**

Rotary master switches are normally supplied with deadman spring return to neutral. For safety reasons, a deadman control is recommended for applications with maintained handle action. (Consult factory).

The customer is responsible for meeting OSHA compliance of deadman safety devices, providing operator safety and proper equipment use training, and for maintaining the equipment and controls in the safe working condition. Customer agrees to indemnify and hold J.R.Merritt Controls, Inc. harmless and defend at its expense, all claims and suits asserted or brought against J.R.Merritt Controls, Inc. due to the absence, removal, tampering, improper installation or improper use of this equipment and associated deadman safety devices.



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