

# M4 BANG / BANG FINGER OPERATED JOYSTICK SERVICE BULLETIN



## IMPORTANT:

- Disconnect all power prior to servicing the controller.
- 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.

## Description

The type M4 Joystick is a rugged, finger operated compact device that offers excellent application versatility.

## General Care

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

- Where inadvertent operation is possible.
- Where the operator is able to apply an excessive amount of force to the control lever.
- Where the control handle could be used as a means of supporting entrance and exit from the equipment.
- Where hand and knuckle clearance is limited.
- Handle is not protected by guarding in portable consoles or where inadvertent operation will cause an unsafe condition.

## Installation

The M4 controller requires a 5 hole mounting pattern (see panel hole detail). It is not necessary to remove the operating handle or boot to install the controller.

## Wiring

The M4 uses a V series snap action switches with 0.187" quick connect tab or can be directly soldered to. The recommended maximum wire size is 18 AWG. For additional support documentation visit [www.jrmerritt.com/support](http://www.jrmerritt.com/support) to view hook up instructions including contact wiring and handle wiring instructions.

## Service

- Inspect for torn or damaged boots and replace them immediately.
- Check mounting bolts for tightness.

## Contacts

The 11A 125, 250VAC form C, V series snap action switches on the M4 are field replaceable by removing the mounting screws. See **FIG. 2**

## Handle Operated Functions

The maximum allowance voltage for a wired handle is 30 Volts. Wired handles require that the wires pass through the steel operating shaft. At the base of the operating shaft the wire is formed into a service loop, this service loop provides the needed flex for the shaft to operate in all directions successfully.

Do not alter the service loop to a different bend configuration. If the loop is pushed down toward the body, the wires can potentially be trapped between the shaft and body, thus resulting in a broken wire. Insure wire service loop has panel clearance at base of controller and that loop can operate in all directions unobstructed. See **FIG. 1**.

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## Disclaimer

M4 finger operated joysticks are supplied with deadman spring return to neutral.

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 a 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.

### M4 PANEL MOUNTING

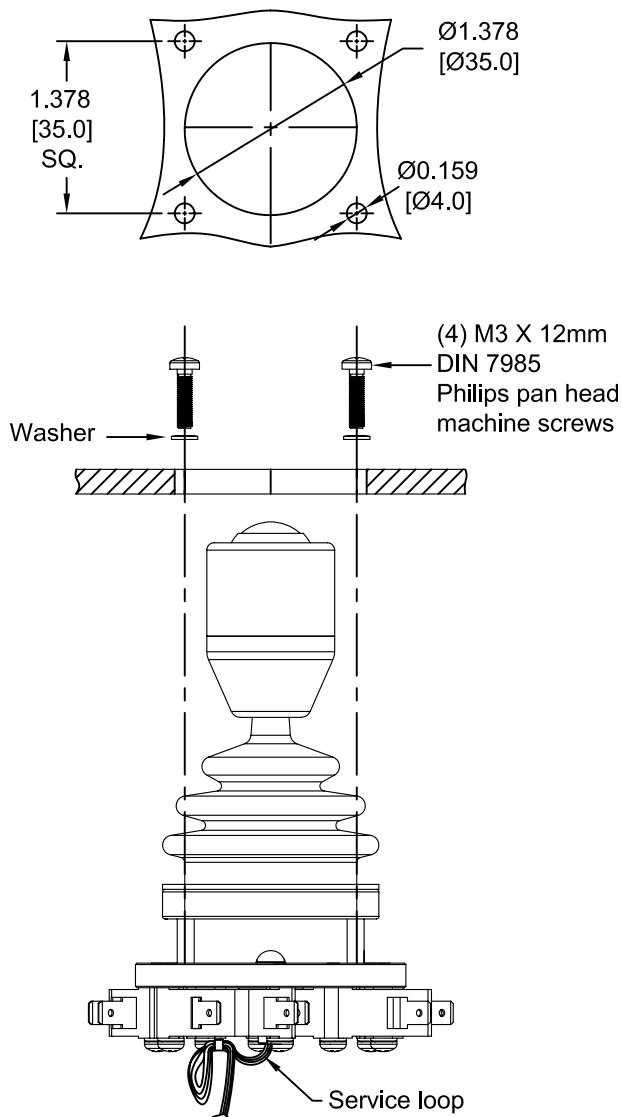


FIG.1

### M4 SNAP ACTION SWITCH REPLACEMENT

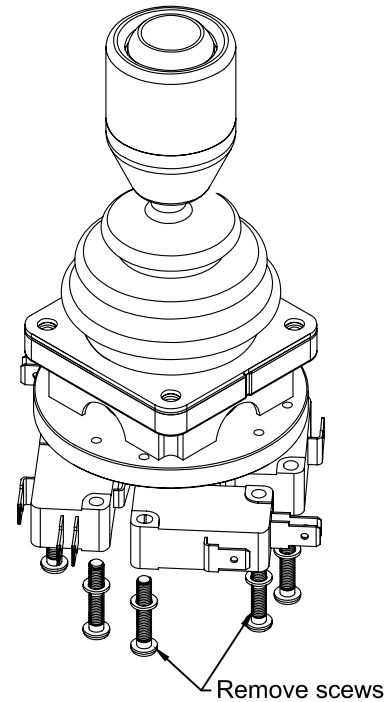


FIG.2