

VCS2 JOYSTICK SERVICE BULLETIN



IMPORTANT:

- Disconnect all power prior to servicing the controller.
- Immediately report any abnormal operational characteristics of the controller to the proper authority.
Do not continue to operate the equipment until the problem is resolved.

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

Service:

- Periodic lubrication is recommended. A light grease application should be applied to active components, such as spring return arms, gear drives, and detent rollers.
- Inspect for torn or damaged boots and replace them immediately.
- Check assembly and mounting bolts for tightness.

Micro Switch Replacement:

Remove switch mounting screws and the switch, replace in the reverse order. Check that the switch lever is operating properly on the cam. If adjustment is needed, loosen screws and reposition the micro-switch. Tighten screws and re-test.

Wiring:

VCS2 switches utilize .110" wide quick connect terminals. The terminals also have Ø1.2mm holes for soldering small gauge wires for hard wired connections.

Proportional Control:

Potentiometers, encoders, rheostats, etc. are field replaceable but may require calibration and alignment by a field service technician. Before operating, the device should be tested by authorized technician for proper alignment and calibration.

Handle Operated Function:

The maximum allowable voltage for a wired handle is a 30 Volts. Wired handles require that 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. See **FIG. 1**.

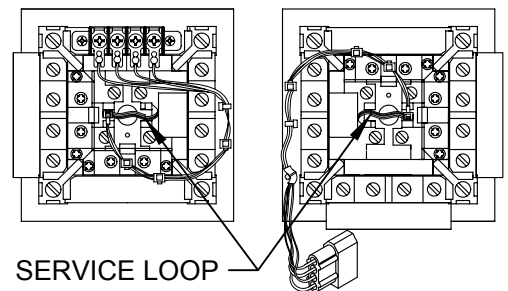


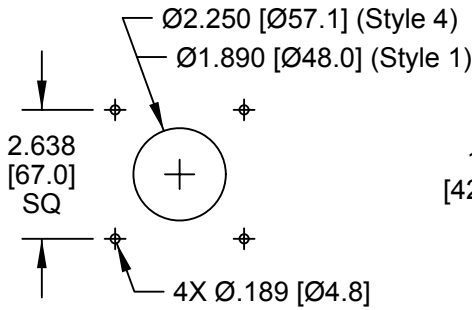
FIG.1

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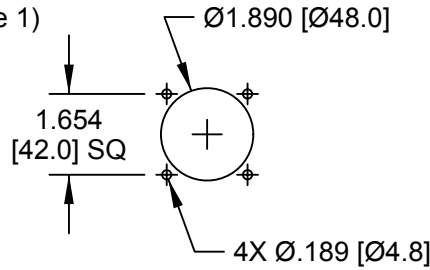
Installation:

VCS2 controller requires a (5) hole mounting pattern. It is not necessary to remove the operating knob or boot to install the controller. When the joystick includes a bronze guide gate (single axis, dual axis cross gate, or special gate) care must be taken to correctly align the gate assuring that the shaft operates smoothly in the gate slots. Alignment marks on the gate and the switch body are provided to facilitate this task. Any final adjustments can be made just prior to fully tightening the mounting screws.

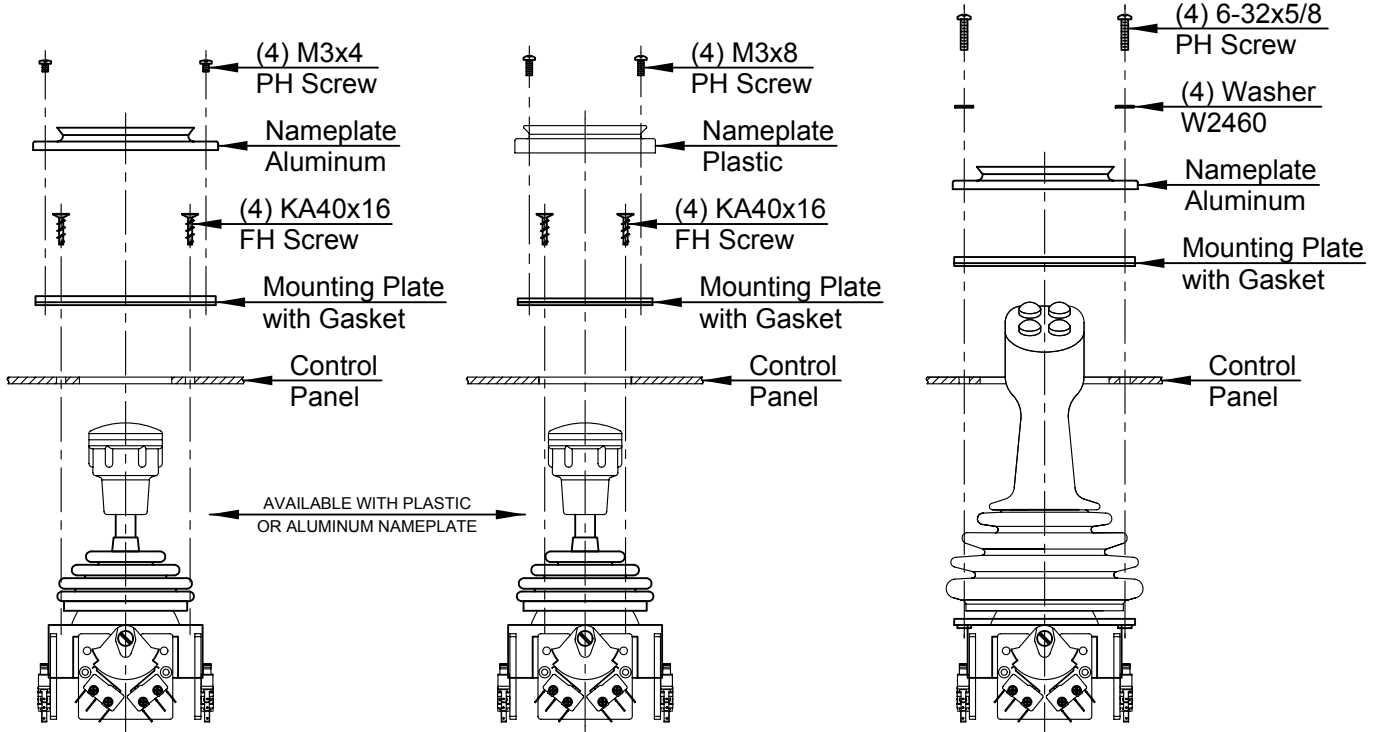
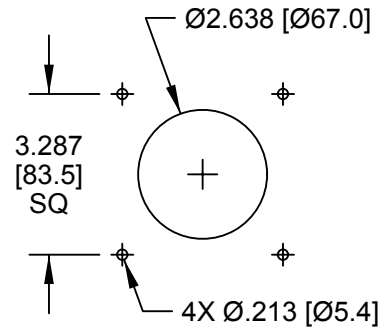
MOUNTING STYLE 1 & 4:



MOUNTING STYLE 2:



MOUNTING STYLE 3:



Disclaimer:

Joysticks are supplied with deadman spring return to neutral. For safety reasons, electronic deadman equipment control is recommended for applications with optional maintained handle action (consult factory).

The customer is responsible for meeting OSHA compliance of deadman safety devices, providing operator safety, proper training in using the equipment, 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.