Information Bulletin

OEM CONTROLS

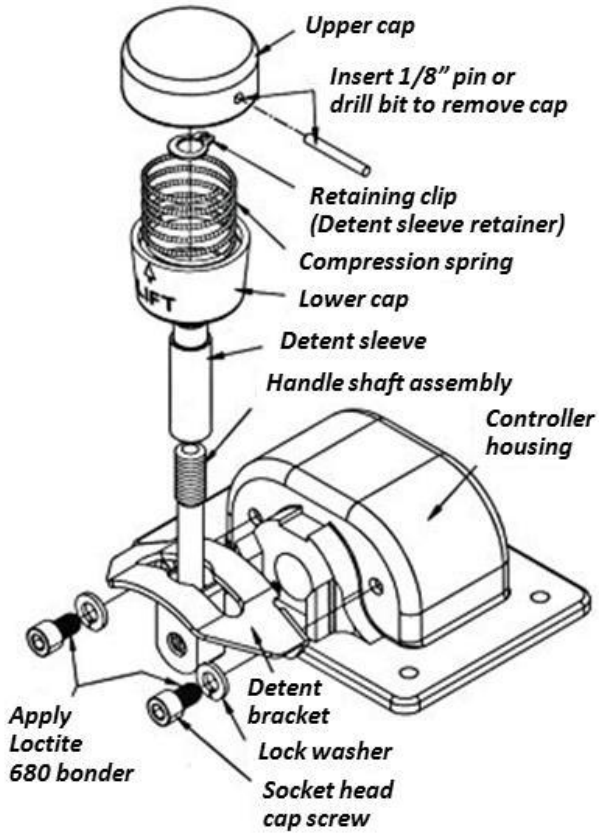
MS-2 and MS-5 Maintained Center Detent

Type MS-2 and MS-5 controllers provided with the maintained center detent feature should be inspected and serviced regularly to ensure proper operation.

The maintained center detent feature, if properly maintained, will withstand a static load of 50 lbs. without failure. However, if accidental operation of the controller could cause equipment damage or personal injury, additional physical guarding of the controls is strongly recommended to protect against sharp blows to the controller handles.

Use and Maintenance: *Prior to every usage, the operator must check the maintained center detent operation.*

WARNING: BEFORE TESTING, BE SURE THAT THE MACHINE IS OFF AND THAT CONTROLLERS ARE NOT FUNCTIONAL!



Exploded Handle Assembly View
MS-2 / MS-5

1. *Without lifting lower cap, push controller handle firmly in both directions of operational axis. If controller moves from the center position, see "Troubleshooting Procedures".*
2. *Lift lower cap, then release. Detent sleeve should seat firmly in detent bracket. If not, see "Troubleshooting Procedures".*
3. *Lift lower cap, push handle to the end of travel in one direction of operation, then release. Repeat operation in the other direction. Controller handle should return to center position and detent sleeve should seat firmly in detent bracket. If not, see "Troubleshooting Procedures".*
4. *Controller is provided with a free-spinning upper cap to help prevent inadvertent loosening. To remove the upper cap, insert a 1/8" diameter pin, drill bit, or 4-40 screw into the hole in upper cap as shown. If the pin, drill bit, or screw does not go 3/4" into the hole in the upper cap, rotate the cap until it does. The upper cap may now be removed by rotating it counter clockwise. Reverse the procedure to reinstall the handle. Be sure to firmly tighten the upper cap.*

SEE WARNING ON REVERSE SIDE

OEM CONTROLS
10 Controls Drive • Shelton, CT 06484
Phone: 203.929.8431
Telefax: 203.929.3867
Internet: www.oemcontrols.com

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Safety Inspection and Troubleshooting Procedure

MS-2 and MS-5 Maintained Center Detent

Symptom	Inspection Procedure	Problem Found	Corrective Action
Controller operates without lifting lower handle or detent sleeve will not reseat after operation.	Unscrew upper handle cap, loosen boot clamp ring, remove boot and detent sleeve assembly.	No compression spring.	Replace compression spring and retest.
		Worn or broken detent sleeve.	Replace detent sleeve and retest.
		Worn cast housing.	Replace controller.
		Foreign matter prevents seating.	Remove foreign matter. Replace boot if torn or missing. Retest.
Maintained center detent will not disengage when lower handle is lifted.	Unscrew upper handle cap, remove compression spring and inspect detent sleeve retaining clip.	Detent sleeve retaining clip not properly seated.	Reseat retaining clip and retest.
		Retaining clip missing.	Replace retaining clip and retest.
		Retaining clip groove worn, preventing proper seating.	Replace detent sleeve and retest.
Handle will not return to center position when released.	Inspect drive and slave gears for foreign matter.	Foreign matter prevents return.	Remove foreign matter and retest.
		Gears damaged.	Return to factory for service.
	Inspect return spring.	Return spring broken.	Return to factory for service.
	Unscrew upper handle cap one full turn.	Upper handle cap overtightened.	Replace upper handle cap and recheck handle action.

WARNING: IF THE PROCEDURES LISTED ABOVE DO NOT CORRECT THE PROBLEM, RETURN THE CONTROLLER TO THE FACTORY FOR SERVICE. DO NOT OPERATE EQUIPMENT IF THE MAINTAINED CENTER DETENT MECHANISM IS NOT FUNCTIONING PROPERLY.

WARNING: It is the purchaser's responsibility to determine the suitability of any OEM Controls product for an intended application, and to ensure that it is installed and guarded in accordance with all federal, state, local and private safety and health regulations, codes and standards.

Due to the unlimited variety of machines, vehicles and equipment on which our controls are used, and the numerous standards which are frequently the subject of varying interpretation, it is impossible for OEM Controls personnel to provide expert advice regarding the suitability of a given controller for a specific application. The flexibility of our products allows us to offer thousands of custom configurations. We can advise you of the various features that are available and you can examine models to see what meets your needs. We believe our customers' engineering departments should be the qualified experts in their own product field. If the product will be used in a safety critical application, the customer must undertake appropriate testing and evaluation to prevent injury to the ultimate user.

Should you have any questions or if any of the above warning is unclear, please contact OEM Controls at 10 Controls Drive, Shelton, CT 06484, FAX: 203.929.3867, TEL: 203.929.8431.

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