## MSA-KS-1 Key Switch



The Banner model MSA-KS-1 (right) is a replacement key switch that mounts on the front cover of Banner safety light screen control boxes.

Instructions for removal and replacement of the MSA-KS-1 are given below.



WARNING! Before performing any work inside the control box, always remove all power from the control box and from the machinery to which the control box is connected.

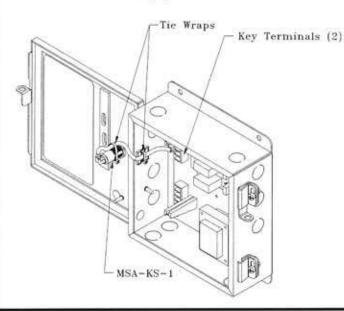
Failure to do so can result in electrical shock and serious injury or death.

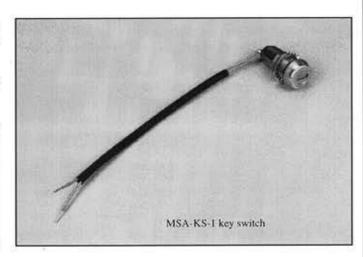
## Removing the old key switch

- Before opening the control box cover, remove all power to the control box and to the machinery to which the control box is connected. Open the control box cover. Refer to the drawings, below.
- 2) The MSA-KS-I key switch is connected electrically to the power supply board at the terminals labeled KEY 1 and KEY 2 (terminals on some models may be labeled KEY a and KEY b). Loosen the terminal screws to release the cable. Clip off the tie wraps holding the cable to the tie mount in the housing and around the key switch body.
- 3) The MSA-KS-1 is held to the control box cover by a single hex nut. Use a 3/4" wrench to remove the nut, then pull the key switch and cable out through the panel hole.

If you have any problems or questions, contact the Banner Applications Department at (612) 544-3164.

## Installation drawings, MGA-KS-1





## Installing the new MSA-KS-1 key switch

- Remove all power to the control box and to the machinery to which the control box s connected. If you are replacing the MSA-KS-1, remove the key switch following the procedure at the left. Refer to the drawings, below.
- 2) Make sure that the o-ring is installed on the key switch as shown. Guide the key switch wires through the panel hole, lining up the flat areas on the side of the switch with the sides of the panel hole. It is important that the wires be positioned up, as shown below.
- Slip the lockwasher and hex nut over the connecting cable, and tighten securely (30 to 40 inch-pounds maximum).
- 4) Slide the plastic tubing over the key switch wires. Attach the key switch to the power supply board at the terminals marked KEY 1 and KEY 2 (terminals on some models may be labeled KEY a and KEY b). Orientation is not critical. Connect one wire to each terminal. Tighten the terminal screws by hand (7 in-lbs maximum). Secure the wires in place by installing the supplied tie wraps to the tie mount in the housing and around the key switch body.
- 5) Refer to the system instruction manual and perform the Commissioning Checkout Procedure found there.

