



Care & Servicing Open Knife Switches

Filnor knife switches are carefully fit and adjusted at the factory. All contacts are tested and a rigid inspection is performed on each switch before it is shipped.

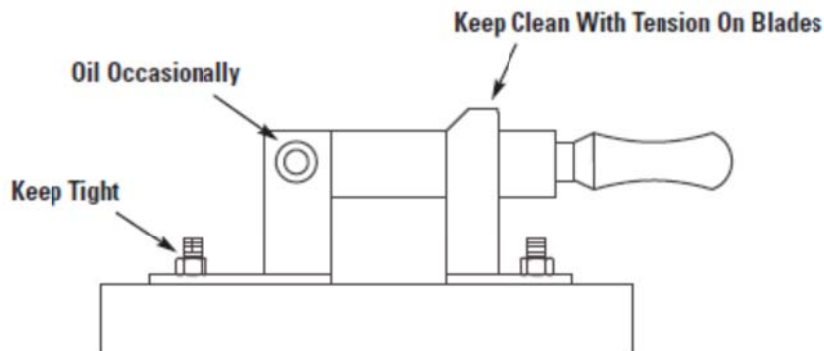
On standard Type A Front-Connected knife switches, which are mounted on GPO-3 bases, they are ready for use when packed.

With ordinary care, the only service required is an occasional lubrication of the hinges and an application of Alvania No. 2 grease or vaseline at the point the blade enters the clip. If the blade and clip contacts should oxidize, through lack of use or corrosive atmosphere, cleaning them with a few strokes of a fine cut file will restore the current carrying capacity and operation.

Spring washers on the hinge provide continual contact pressure on the rotating connection.

The first requisite of a switch is that the contacts be in perfect alignment and fit. In case of misuse or accident, the leaves of the clip and hinge should be fitted to the blade so that a 0.003 inch thick feeler gauge will be rejected in at least 75% of the contact area.

Filnor switches are designed for heavy duty use, and because of the rugged construction, best materials, proven design, and good workmanship, they will provide long and satisfactory service with little care and little attention if properly installed.



WARNING: DO NOT OPEN UNDER LOAD



Instructions For Installing Unmounted Knife Switches On Panels

Correct assembly and adjustment of knife switch parts is necessary to obtain satisfactory operation. The following procedure is used on factory mounted switches and is recommended for all assemblies.

TOOLS - Fitting "pins" referred to on the right are steel rods, having same diameter as the blade thickness. Pliers should be parallel jaw type. They should have smooth contact surfaces without knurling or may be covered with tape. Plastic or rawhide hammer should be used on switch parts in lieu of metal hammer.

30 Ampere .....	.3/32" dia
60, 100 Ampere .....	.1/8" dia
200 Ampere .....	.3/16" dia
300, 400, 800, 1600 Ampere .....	.1/4" dia
600, 1200, 2000 Ampere .....	.5/16" dia

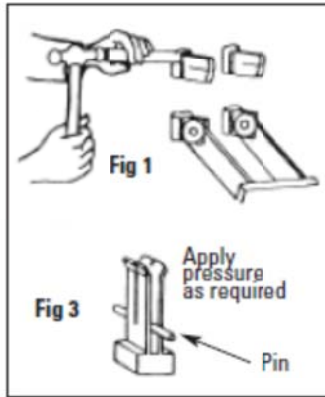
HINGE & BLADE - Blades are carefully assembled in hinges with Alvania No. 2 grease and proper tension placed on hinge washers, having approximately the following torque on nuts.

100 Ampere .....	.2 inch lbs
200 Ampere .....	.3 inch lbs
300, 400 Ampere .....	.7 inch lbs
600 Ampere .....	.8 inch lbs
800, 1200 Ampere .....	.9 inch lbs

MOUNTING - The hinge and blade sub-assemblies should be mounted on cross bar with blade screws loose. The clips and hinges (and fuse holders if fusible) should then be mounted on panel with nuts loose. Then with blades in clips (and fuse in place if fusible) all nuts and screws should be tightened. Handle may be added at most opportune time.

CLIP FIT - Proper fit of the clip to blade is of the utmost importance. Although all parts have a preliminary fit at the factory, it is essential that they have a final alignment and fit after mounting, which can be accomplished as follows.

- a) First the blades should be checked at the point of entering clips exactly between leaves simultaneously. Leaves can be tapped with plastic hammer to provide this alignment.
- b) With the blade in the clip, check for a good flat contact. If correction are required, use the following methods.

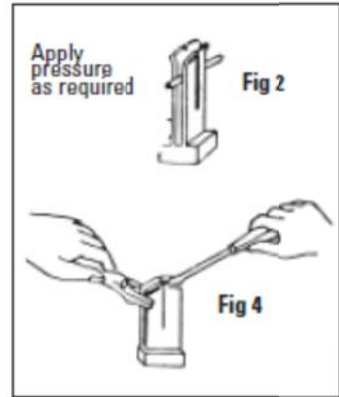


If alignment of clip on blade is not parallel, the clip can be adjusted by using a piece of fiber between clip block and hammer to move the clip on base as shown in **Fig 1**.

If clip leaf is bowed out at bottom, it can be straightened by placing pin between leaves at top and pinching at bottom with pliers as shown in **Fig 2**, or by placing blade partially in clip and tapping bottom with a plastic hammer.

If clip leaf is flared out at top, it should be pulled into place by placing pin between leaves and pinching in with pliers at top below flare in **Fig 3**.

If leaves are not parallel with blade after alignment with fiber and hammer, they may be adjusted by placing point of screwdriver between leaves at top and pulling leaf into place as shown in **Fig 4**.



CAUTION - Hammer and pliers should be used gently so as not to bend the leaves more than required or a kink may develop that is difficult to remove.

NOTE - In attaching terminal lugs or bus to studs or terminals, great care should be taken to make certain that the nuts are as tight as possible and also not to force the parts out of alignment in the process.

CARE - With ordinary care, the only service required is an occasional drop of oil on hinge and small application of Alvania No. 2 grease or vaseline at the point the blade enters the clip.

If contacts should oxidize through lack of use or corrosive atmosphere, they should be carefully cleaned with a fine cut file or emery cloth and refit in accordance with the above.