

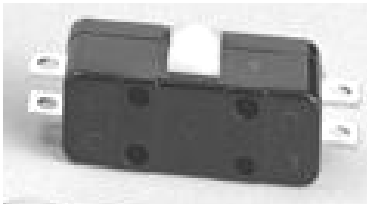
Yoke Switches

February, 2007

End users are familiar with Switches failing on standard 'Economy' Yokes, using Licon Series 11 Snap Action Switches (Micro Switch), due to arcing of the contacts. The contacts fail relatively soon due to the electrical load carried (400 to 800 Watts) and the number of cycles they endure. These Series 11 switches have no grounding provision so Western Instruments does not recommend this type of switch for Wet Method Media, even though our exclusive slip in Switch Cover provides a superior seal.

Western Instruments specifically refers to these Yokes, using this type of switch, as Economy Units. The Original Yoke introduced in England, subsequently copied by Magnaflux and a decade later by Parker, used this specific switch and remains unchanged. Seasoned Operators are more than familiar with electrical shocks for Economy Yokes. The 11-104 switch is the most common, however the 11-304 is used on most models with smaller frames, such as Western's WE-Series (WE-3, WE-3HD, WE-3LT & WE-7) and Parker's B310.

Licon #11-104



#11-304



Note: The Series 11 Switches, as illustrated, are manufactured with 4 contacts, however the lower 2 must be removed before installation into a Yoke Housing.

When entering the Portable MPI Equipment market Western Instruments set out to develop safer, more compact, rugged, and reliable Yokes. The WC-Series Yokes use a different methodology to actuate the electrical coil within the Yoke Housing. What appears to be a standard switch cover on a WC-Series Yoke is actually covering a Miniature, Space-saving Switch.

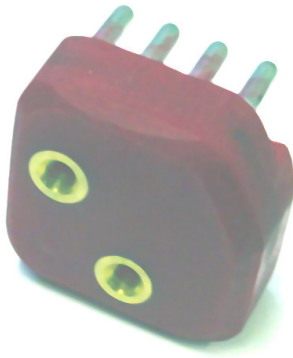


Omron B3F Series Switch

Note: The B3F is manufactured for PCB mount, so the 4 leads are reshaped for use on W-Series Products and lie flat in the switch housing.

These B3F Series switches have a grounding provision, and are themselves sealed. The B3F Series switches are designed for rugged field environments so while there housing is sealed, they are also designed to be cleaned either by brush or bath. Furthermore, the Yellow Switch Cover, on WC-Series Yokes, seals the cavity further and provides unparalleled protection for the switch. A switch this small can not handle the electrical load of a Yoke, so Western engineered a Solid State Switching Module that will handle over 2 times more load than the Licon Series 11. However with no moving parts in the Solid State Module, the reliability is unsurpassed.

Western Boasts that Electrical Cords on its Yokes last about 10 times longer than competitors, and switch reliability is similar. When we refer to the 'switch' on a WC-Series Yoke, it is actually a Switching System. The Switch itself only handles ½ Watt of Power, and provides only a control signal to the *Module*. The electronic semiconductors, in the Module, switch the entire load of the Yoke. The Module plugs into a 4 Pin Connector located inside the Junction Tube of the Yoke, and in turn the Power Cord is connected to terminals on the Module. A similar Switch and Module are used on our WA-Series Coils.



Modules for 115 Volt / 60 Hz (WC-6) Yokes are Black, while 230 Volt / 50 Hz Modules are Red.

Modules for the original W-6 Yokes use the same color scheme, however W-6's have the male connector pins in the Yoke Body, and the female pins and connector body on the Module.

Again, Modules for WA-Series Coils follow the Red/Black color scheme, however the connector pins exit the Module Straight while on the Yoke Modules they are at Right Angles.

Modules used on WA-Series Coils and on WC-6X2 Yokes, are fitted to Heat Sinks, which permit the modules to handle double the Amperage.