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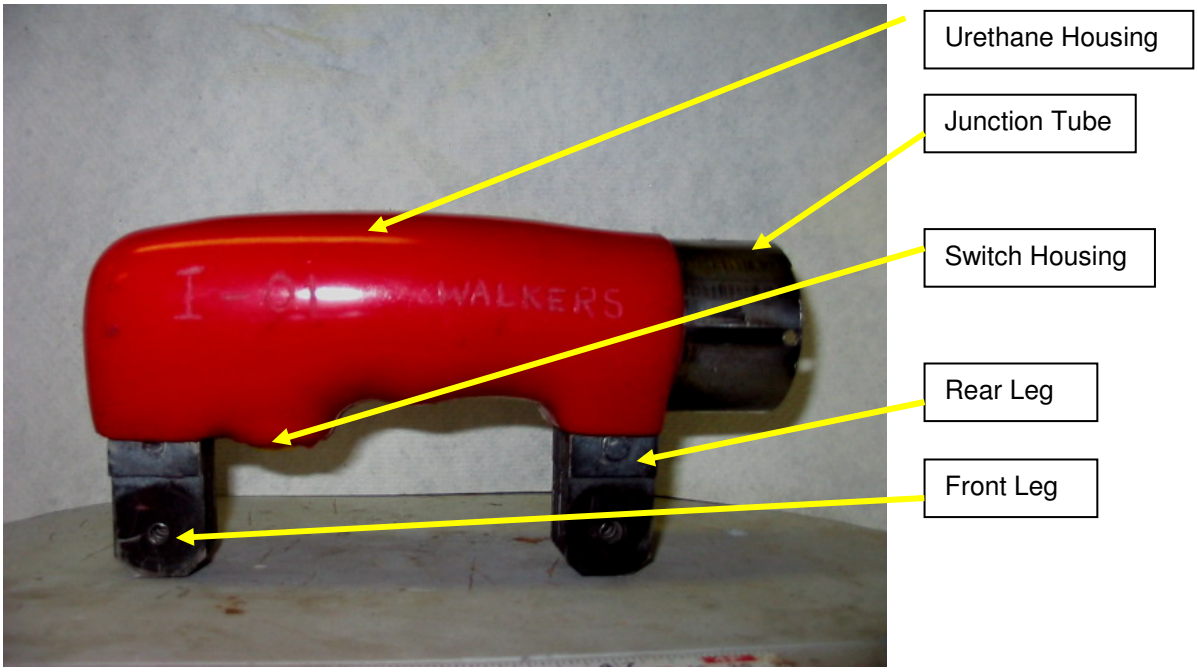
Western Instruments Yoke WC-42 - Trouble Shooting

WC-Series Yoke Frames are manufactured in 2 styles; 115 Volt; and 230 Volt. The only identification distinguishing the styles, is from the Serial Number; 230 Volt frames have a “K” at the end. As an example, a 230 Volt frame might have a Serial Number 491CK, while a 115 Volt would be 491C. Serial Numbers are stamped into the Name Plate, as well as on the Front or Rear Leg, where they extend from the cast housing/handgrip.

End users are often familiar with Switches failing on ‘Standard’ Economy Yokes, using a Lycon Type 11 Snap Action Switch (Micro Switch), due to arcing of the contacts. WC-Series Yokes use our Solid State Switching Module, which is Plugged into a 4 Pin Connector located inside the Junction Tube. The Semiconductors in the Module do the switching, without arcing, while the Low Profile activation switch only provides a low amperage signal to the Module. WC-Series switches conduct less than ½ Watt of Power, where the Lycon Switch on ‘Standard’ Economy Yokes conduct 400 to 700 Watts of Power.



WC-Series Frame

While the End Cap and power cord are removed from the Yoke for testing, the Electrical cord must be visually inspected for possible damage (internal or external) and tested for continuity, as this assembly is typically the first to fail. First ensure the ground has continuity from the Mains Plug to the Green wire at the End Cap end of the Power Cord. Secondly test the continuity on the Neutral (white) and Live (Black) wires also from the Mains Plug to the Green wire at the End Cap end of the Power Cord. Third,

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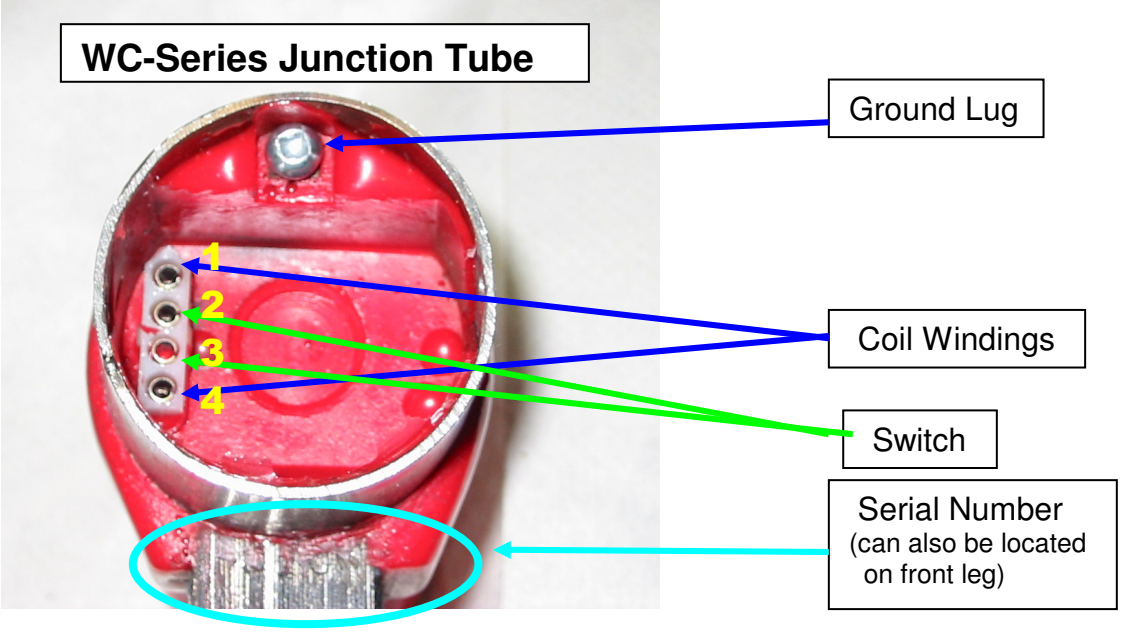
make sure all 3 connections are isolated from one another. For further information, review the operating instructions and the technical guide on *Yoke Wiring*.



To test the Frame, the two circuits (Windings & Switch) must be evaluated with a Multimeter or some other continuity tester. To ensure the Windings on the Core are Serviceable, place one test lead from your meter on the Upper most pin (**1**) of the connector, and the second one on the lowest connector (**4**). If the Windings are serviceable, you will have continuity immediately. For extra insurance test either Winding Connector (**1** or **4**) against the ground, such as the ground lug or junction Tube. The ground must be isolated from Windings.

If there is a concern about the internal wire Coil of the Yoke, it is easily identified with a Digital Multimeter. The resistance for a 115 Volt frame (Across Terminals 1 and 4) should be approximately 1.5Ω, while a 230 Volt Frame should be 5.5Ω

To test the switch, place your test leads on the middle two connectors (**2** and **3**), if the switch is **not** pressed the circuit will be open, and if the switch is pressed, you should have continuity. For extra insurance test either Switch Connector (**2** or **3**) against the ground, such as the ground lug or junction Tube. The Switch must be isolated from both the Ground and the Coil. W-Series Switches, for reasons outlined above, are very reliable, rarely requiring replacement….thus the Switching Module protects the switch and internal connections.

Note: Modules for 115 Volt / 60 Hz are potted in a Black Epoxy, while 230 Volt / 50 Hz modules are potted in a Red Epoxy.

Modules for the WC-8 and WC-9 are dark blue (or purple), but are larger than those used on the AC WC-6. A modified WC-6 Frame (115 volt) is used for these models of DC Yokes.

Modules for the older W-6 Yokes use the same color scheme. However, W 6's have a reversed connector, where the Yoke Frame utilizes a Male Type Connector and the Module utilizes the Female Type Connector.

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