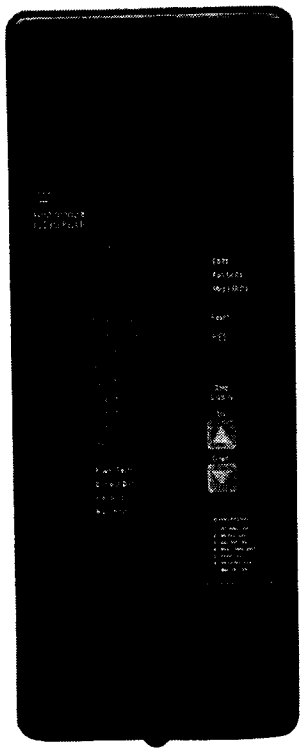
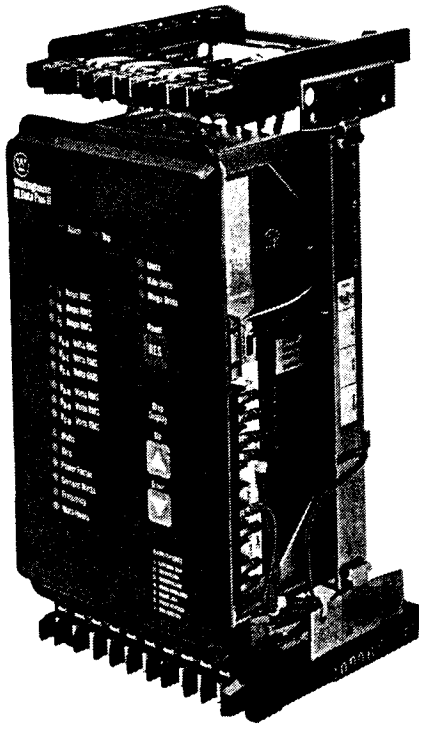
Instructions for IQ Data Plus II Drawout Case Module

I.L. 17491



IQ Data Plus II with Drawout Case
Style No. 2D78522G04



IQ Data Plus II Chassis Assembly
Style No. 2D78522G06

Fig. 1 Drawout Case Configured IQ Data Plus II

1.0 Introduction and Product Description.

The IQ Data Plus II Drawout Case is a dust-tight and water-resistant enclosure designed to protect the IQ Data Plus II from harsh industrial environments and to allow rapid, simple changeout of the IQ Data Plus II unit. Changeout of the IQ Data Plus II may be done without powering down its monitored and/or protected motor or process machinery for most applications.

The enclosure itself consists of a steel case with a rugged, gasketed plastic cover. The IQ Data Plus II unit for the drawout case is a modified production unit which is mounted into a chassis-type cradle that slides into the drawout case (see Figure 1). Electrical connections are made between the IQ Data Plus II and its associated equipment by means of knife switches in the front of the drawout case and through an edge connector circuit card, a terminal block, and screw type terminals mounted on the back of the drawout case. All electrical connections from the IQ Data Plus II are accessible and may be made to terminals on the exterior of the drawout case. Refer to the IQ Data Plus II user's manual, TD 17217A, for the IQ Data Plus II operating and programming instructions.

NOTE: This industrial control is designed to be installed, operated and maintained by adequately trained workers. These instructions do not cover all details, variations, or combinations of the equipment, its storage, delivery, installation, checkout, safe operation, or maintenance. Care must be exercised to comply with local, state and national regulations, as well as safety practices, for this class of equipment.

2.0 Installation.

The drawout case is designed to be mounted semi-flush to a standard thickness panel or enclosure door. Semi-flush mounting requires an FT-32 sized cutout and drilling four .250" mounting holes (see Figure 2) (the two 1/4-20 threaded standoffs on the rear of the case are not used). To secure the drawout case to the panel, first remove the unit's front cover. Loosen the knurled screw on the bottom of the front cover, swing the bottom of the cover away from the drawout case and lift the cover off of the case. Open the exposed knife switches at the top and bottom of the drawout case by pivoting them up or down

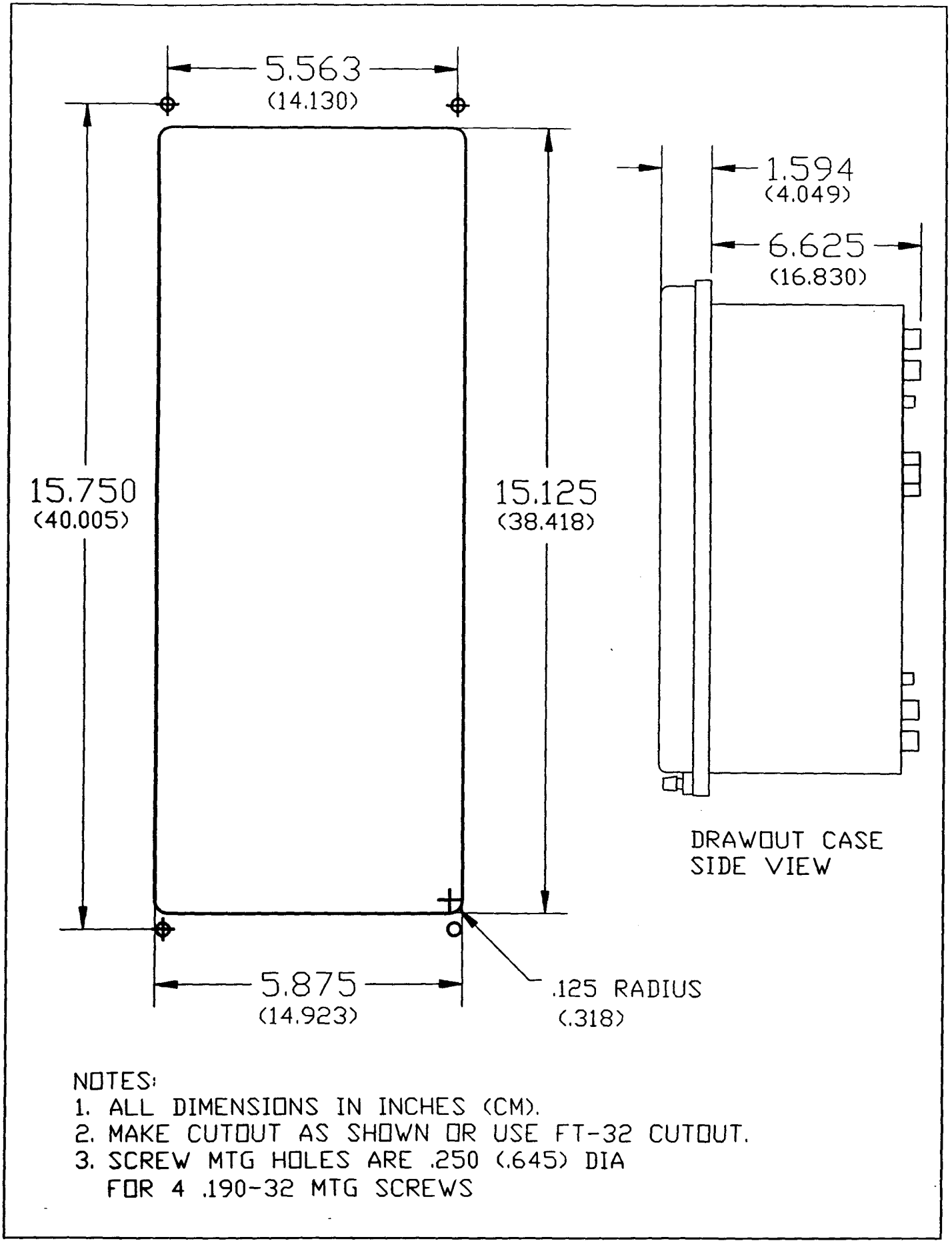


Fig. 2 Cutout and Clearance Dimensions for IQ Data Plus II Drawout Case.

as required. Grasp the IQ Data Plus II by the faceplate edges and pull outward, removing the chassis assembly, and set it off to the side. Insert the drawout case into the cutout and attach it to the panel using the hardware provided.

Make sure the drawout case is oriented with the correct end up (embossed numbers on the rear of the drawout case should be right side up).

After securing the drawout case to the panel, return the IQ Data Plus II chassis assembly to the drawout case by sliding the entire assembly into the case.

Close the upper and lower knife switches. Replace the cover on the drawout case by first hooking the top of the cover to the drawout case and then pivoting the cover down to the closed position. Tighten the knurled screw finger tight.

2.1 IQ Data Plus II Drawout Case Wiring.

All electrical connections to the IQ Data Plus II terminals are made to the drawout case's external terminals. The external terminals are connected to the unit's electronics through jumpers to the drawout case's upper and lower knife switches and jumpers to an edge connector circuit card on the back of the chassis assembly. The circuit card mates to the terminal block mounted on the rear of the drawout case. See Figure 3 for the IQ Data Plus II drawout case terminal labeling. Make wiring connections according to the installation-specific Wiring Plan Drawing developed by the application engineer. See the IQ Data Plus II technical manual, TD 17271A, for specific start-up and programming information.

3.0 IQ Data Plus II Unit Removal and Replacement Procedure.

The IQ Data Plus II is factory-mounted and wired in a cradle-type chassis. Removal and replacement procedures are straightforward; however, all personnel should be aware of and follow standard electrical safety practices when working with any electrical equipment.

3.1 IQ Data Plus II Removal Procedure.

The IQ Data Plus II may be removed and replaced with a spare unit while its monitored and/or protected equipment is on-line and operating.

CAUTION: Replacing the IQ Data Plus II while its associated equipment is operating leaves the equipment unprotected.

Step 1 – If possible, turn off all power to the IQ Data Plus II and its associated equipment.

Step 2 – Loosen the knurled screw at the bottom of the drawout case front cover, swing the bottom of the cover away from the drawout case and lift off the front cover. See Figure 4.

WARNING: Potentially lethal voltages may be present and exposed on the knife switches when the drawout case front cover is removed. Personnel must exercise extreme caution when working around energized equipment.

CAUTION: If the application is using a voltage trip relay, opening the knife switches out of order will cause the IQ Data Plus II's associated equipment to trip off the line and shut down if running.

Step 3 – Refer to Figure 5. First, open knife switches #1 through 10; then open the remaining knife switches on the drawout case.

WARNING: Potentially lethal voltages may be present on the side terminals of the IQ Data Plus II if control power to the unit and power to associated equipment, switches and relays has not been turned off. Personnel must exercise extreme caution when working around energized equipment.

Step 4 – Firmly grasp the sides of the IQ Data Plus II faceplate and pull the chassis assembly out of the drawout case.

3.2 IQ Data Plus II Replacement Procedure.

Replacement of the IQ Data Plus II is essentially the reverse of the removal procedure.

WARNING: Potentially lethal voltages may be present and exposed on the knife switches when the drawout case front cover is removed. Personnel must exercise extreme caution when working around energized equipment.

CAUTION: Ensure that the Voltage Selector Jumper and all DIP switches on the replacement unit are set to the same position as the original unit and are in conformance with the Installation Record Sheet. Damage to the IQ Data Plus II may result if the Voltage Selector Jumper is incorrectly positioned.

Step 1 – Assuming that the drawout case front cover is removed and all knife switches are open, firmly grasp the IQ Data Plus II by the edges of the faceplate and insert the chassis assembly into the drawout case.

CAUTION: If the application is using a voltage trip relay, closing the knife switches out of order will cause the equipment connected to the IQ Data Plus II's alarm and trip contacts to trip off the line and shut down if running.

Step 2 – If installing a replacement unit and the associated equipment is running, close knife switches #11 through 20 (refer to Figure 5). Once these switches have been closed, switches #1 through 10 may be closed.

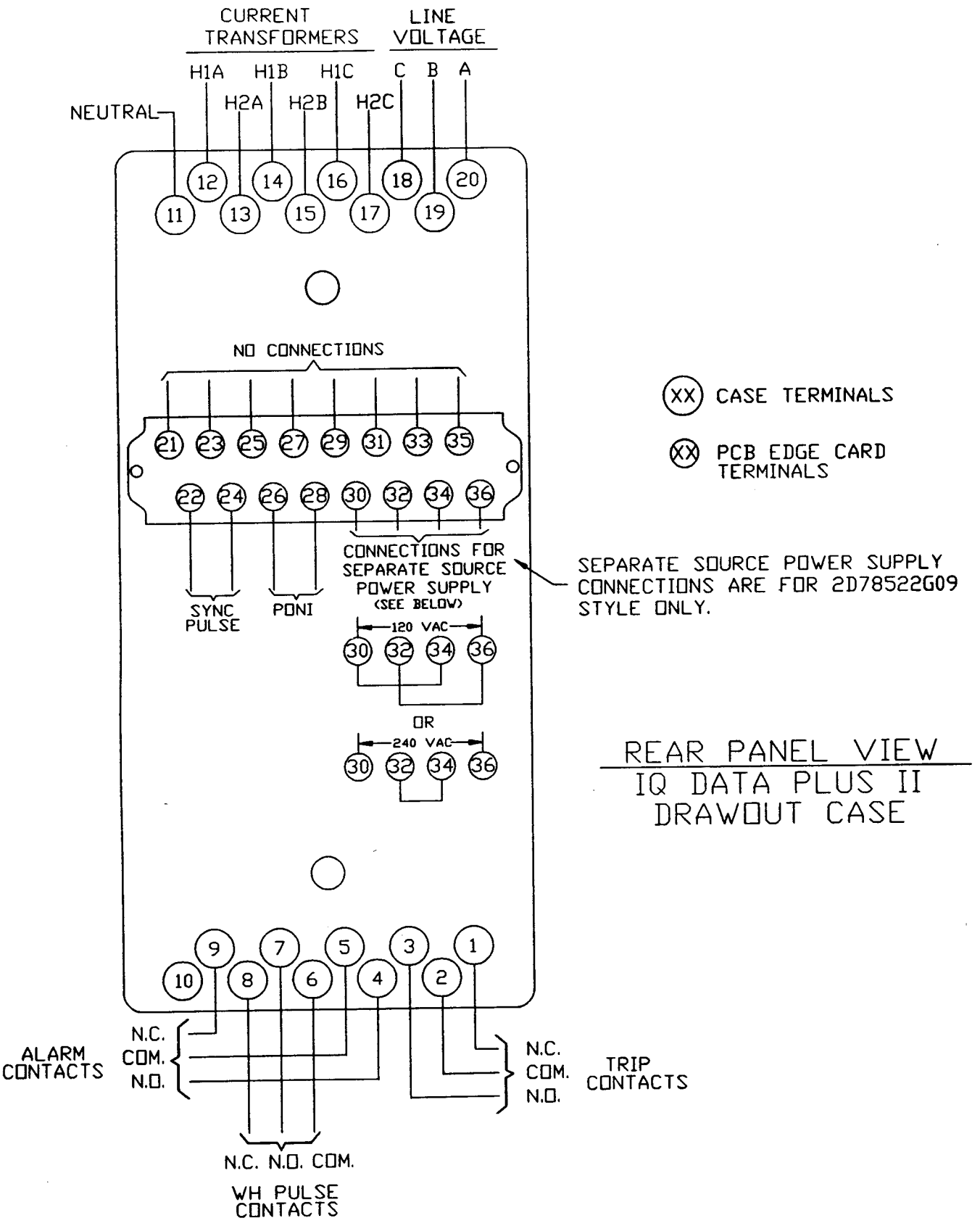


Fig. 3 IQ Data Plus II Drawout Case Terminal Numbering

Step 3 – Reinstall the drawout case front cover. Hook the top of the cover to the top of the drawout case, swing the cover down to the closed position, and tighten the knurled screw at the bottom of the cover finger tight.

Step 4 – Reapply power to the IQ Data Plus II and its associated equipment if necessary. The unit is now ready for operation.

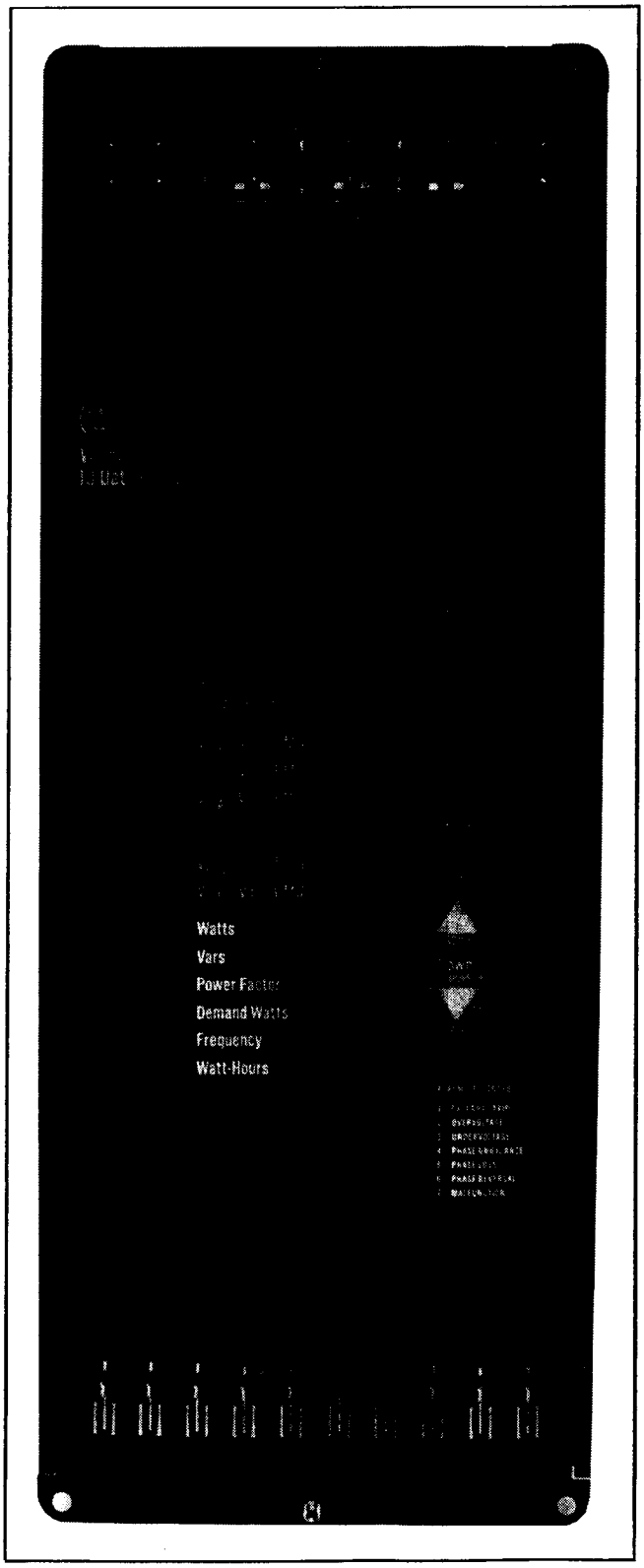


Fig. 4 IQ Data Plus II Drawout Case with Front Cover Removed

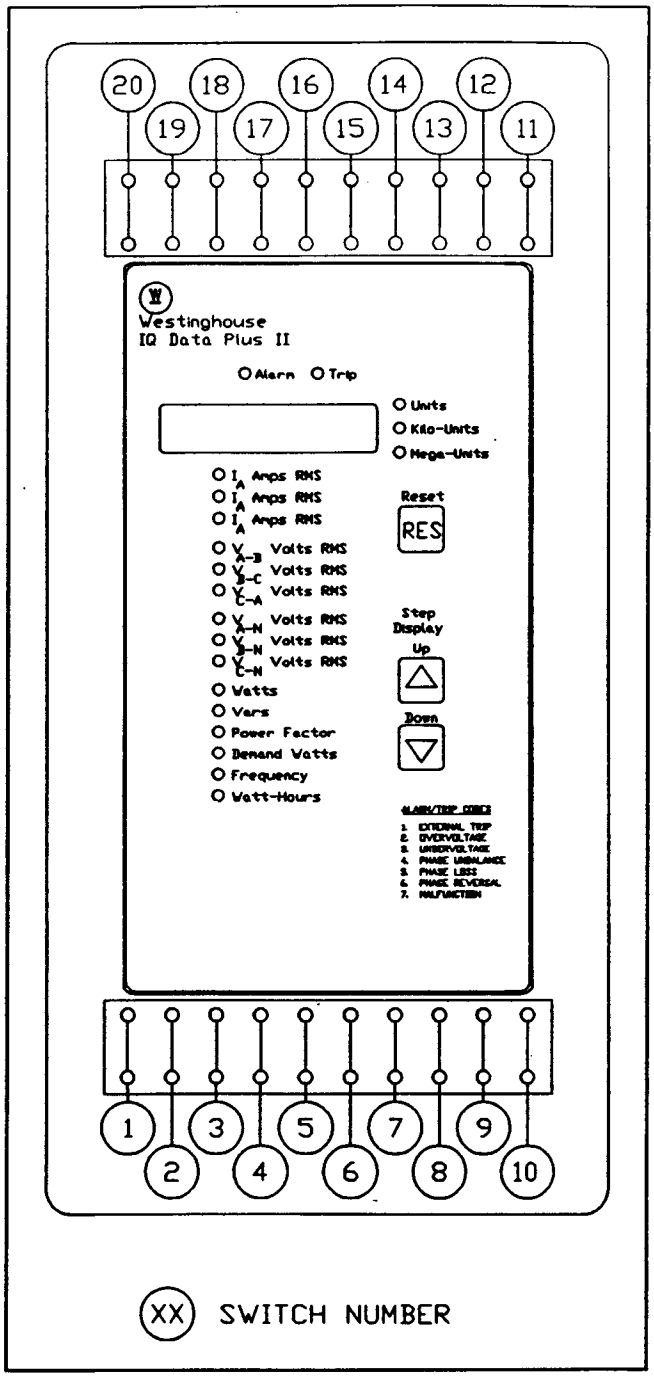


Fig. 5 Drawout Case Knife Switch Numbering

Table 1. Specifications

Operating Temperature:
0 to 70 degrees C
(32 to 158 degrees F)

Storage Temperature:
–20 to 85 degrees C
(–4 to 185 degrees F)

Humidity:
0 to 95%
(noncondensing)

Drawout Case Dimensions:
Height: 16.5 in. (41.91 cm)
Width: 6.4 in. (16.19 cm)
Length: 7.7 in. (19.45 cm)

Shipping Weight:
IQ Data Plus II w/case = 19 lbs.

Table 2. Drawout Case Configuration Options

Style No.	Description
2D78522G04	Drawout case with IQ Data Plus II (three phase configuration) included
2D78522G06	IQ Data Plus II electronics (three phase configuration) and chassis only (drawout case not included)
2D78522G09	Drawout case with separate source power module (single phase configuration) IQ Data Plus II included
2D78522G10	IQ Data Plus II separate source power module (single phase configuration) electronics and chassis only

Effective 7/92

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Printed in USA