

INSTRUCTION SHEET D-3827-5 High Capacity Control Circuit Transformer Kits For Medium Horsepower Non-Regenerative MaxPak © Plus Controllers and All Regenerative MaxPak Plua Controllers Model Numbers 23C70-23C71

DANGER

ONLY QUALIFIED ELECTRICAL PERSONNEL FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THIS EQUIPMENT AND THE HAZARDS INVOLVED SHOULD INSTALL, AD-JUST, OPERATE, AND/OR SERVICE IT. READ AND UNDERSTAND THIS MANUAL IN ITS EN-TIRETY BEFORE PROCEEDING. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.

DESCRIPTION

THE PRODUCTS DESCRIBED IN THIS INSTRUCTION MANUAL ARE MANUFACTURED BY RELIANCE ELEC-TRIC INDUSTRIAL COMPANY.

The non-regenerative medium horsepower MaxPak plus controller and all regenerative MaxPak controllers are furnished with a 150 VA control transformer. In cases where additional 115 volt A-C control power is required for user auxiliary circuits, an appropriate 350 VA control circuittransformer may be substituted for it. Non-regenerative MaxPak Plus controllers from 25 through 75 horsepower at 230 volt A-C in pull.50 through 150 horsepower at 460 volt A-C input and 40 through 180 horsepower at 550 voll A-C input and all regenerative MaxPak Plus controllers have been configured to accept these larger transformers as a direct replacement for the standard 150 VA transformer. The kits described by this manual allow this replacement. They will not fit on non-regenerative MaxPak Plus controllers below the horsepower ratings listed above.

Three models are available, one which is reconnectable for operation from 230 or 460 volt plant power, a second for operation from 550 volt plant power and a third, with a multiple-tapped primary winding, allows generation of 115 volt A-C control power from a wide range of unusual plant voltages. All transformers are capable of operation from 50 or 60 Hz power. All kits include the control circuit transformer and a 3.2 ampere dual element control circuit fuse to replace the 1.6 ampere fuse supplied as standard with the controller.

APPLICATION

These kits provide 1.6 amperes of 115 volt A-C power for operation of low power control or electronic circuitry added by the user.

Since the control transformer providing power to the user circuitry also powers the drive regulator, user circuitry must not generale electrical noise onto the transformer secondary circuit, or exceed the 1.6 ampere capacity allowed, either on a steady state or transient basis. Any relays operated from this aupply must have their coils suppressed (Use Reliance Part # 600686-33X, RC Suppressor). Improper application of this 115 volt power source can cause erratic drive operation or drive shutdown.

SPECIFICATIONS

Table 1 provides the electrical specifications for the high capacity control circuit transformer kits.

Kit Model Number	Transformers			Euro
	VA Reling	Primary Voltage	Secondary Voltage	Ampere Rating
23C70	350	230/460	115	3.2
23071	350	550	115	3.2

TABLE 1 - KIT SPECIFICATIONS

INSTALLATION

(Refer to Figure 1)

The standard 150VA control circuit transformer is mounted in the upper left hand section of the MaxPak Plus controller as can be seen from Figure 1. It is held in place by means of a supporting clip and two self tapping phillips head screws. The mounting clip supports the weight of the transformer and mounts its lower feet to the controller back panel. The two phillips head screws fasten the top feet of the transformer to the controller back panel and complete the installation.

A degree of power unit disassembly is required for the replacement of this transformer with the high capacity transformers described by this manual.

DANGER

DO NOT INSTALL MODIFICATION KITS WITH POWER APPLIED TO THE UNIT. DISCONNECT AND LOCK OUT INCOMING POWER BEFORE ATTEMPTING SUCH INSTALLATION. FAILURE TO OBSERVE THIS PRECAUTION MAY RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.

- Remove the four Phillips head screws holding the fuse panel to the power unit assembly. See figure 1.
- Carefully disconnect leads 192, 193 and 194 from the current transformers and disconnect leads 45 and 47 from the bus bar. Unbolt the three bus bars as indicated in Figure 1.
- The fuse panel is now free to be slid forward to allow enough working room to remove the transformer mounting clip.
- Remove the wires labeled 281 and 283 from the control circuit transformer.
- Remove the two Phillips head screws securing the control circuit transformer to the controller back panel and discard.
- Lift the transformer from its clip and remove the remaining wirings to transformer terminals.

- Remove the 150VA control circuit transformer and set it aside.
- The transformer clip was mounted in the higher of the two possible mounting positions. Reinstall it in its lower position using the the pre-drilled holes provided and (2) #10 screws packed in this kit.
- Install the 350VA control transformer, using the repositioned mounting clip and the two remaining #10 Phillips heads screws provided in this kit. Be sure to resecure the green ground lug under one of the transformer feet. If it has been lugged with a #8 lug, relug it with the #10 lug included with this kit.
- Referring to the transformer nameplate, install any required primary-vollage-selection jumpers to the transformer terminals.
- Wire the transformer being certain to connect the wiring as follows:

Wire 281 to transformer H1 Wire 283 to transformer H4 Wire 86 to transformer X1 Wire 189 to transformer X2

- Reinstall the power module fuse panel and retighten the bus bar bolts to 125/140 lb-in. (1.44/1 x 1.6 kg-m)
- Replace the control circuit fuse (6FU) with the 3.2 ampere fuse provided with the kit.



Figure 1

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