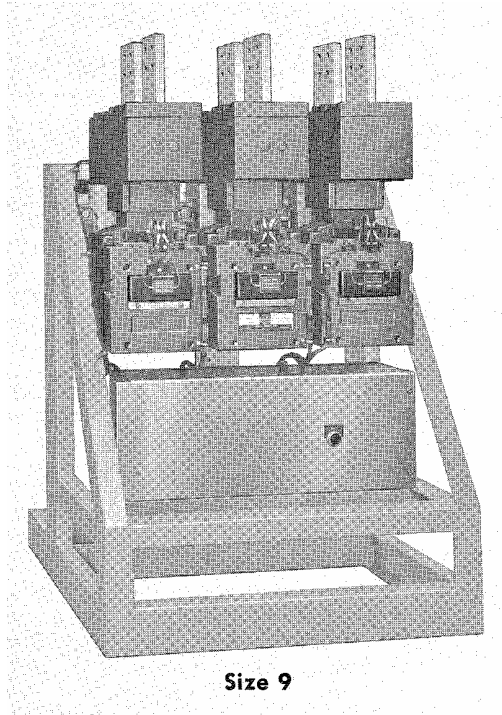


Bulletin 500 Three Phase Full Voltage NEMA Contactors Size 9 Series A

Renewal Parts

**Warning:**

To avoid hazards of electrical shock, remove all power before proceeding. Auxiliary contacts commonly control separate sources of power. Be sure they and all sources of power are disconnected. The assembly and disassembly procedures should only be performed by qualified personnel familiar with the operation of the equipment in which the starter is mounted.



push rod assemblies, and the magnet armature assembly. With the cross bar assembly out, the mounting screws for the rear stationary contacts are accessible and they can be removed along with the arc quenchers which are attached to the contact block.

The movable contacts are carried in stainless steel cages which in turn are mounted in cavities in the molded portion of the cross bar. This cage assembly is held in place by a screw which can be loosened from the underside. Therefore, to replace movable contacts, it is only necessary to replace the assembly with a new assembly.

STATIONARY CONTACT BLOCK — To detach the contact block, remove the contact block cover which is held in place by two captive screws. Then take out the two contact block screws which hold the contact block to the base assembly. The contact block can now be detached.

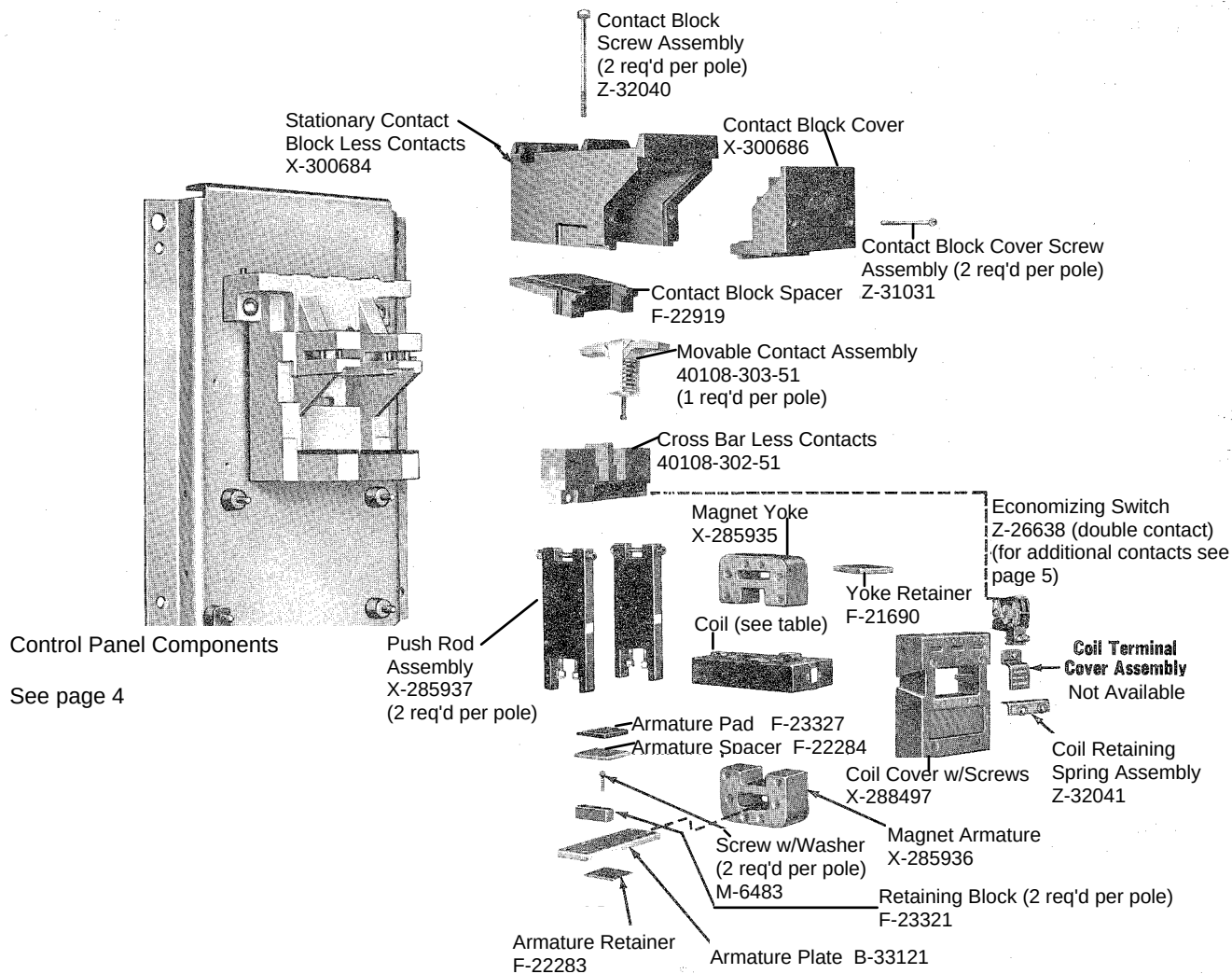
CROSS BAR ASSEMBLY — To remove the cross bar assembly: first, detach contact block cover which is held in place by two captive screws; second, remove the coil terminal cover and loosen the screws on the coil retaining spring; third, detach coil leads; fourth, loosen the four captive screws holding down the coil cover and pull out. The cross bar assembly, as one unit, is then lifted out. Disassembly of all parts of the cross bar assembly is easily accomplished by loosening all the nuts and screws on the push rod assemblies. The cross bar is available less the movable contacts. The push rod assemblies are obtainable as separate items. The magnet armature assembly can be disassembled and its parts procured separately. For replacement, reverse the above procedure.

PUSH ROD ASSEMBLY — Attached to the cross bar molding with screws which clamp together two sides of a dovetail joint to make a very rigid connection. The push rod assemblies are molded with insert studs at the lower end which are used to fasten the lower cross member which is a steel plate going through the armature iron. Make certain that upon replacement the push rod assemblies lie against the shoulder of the cross bar.

MAGNET ARMATURE ASSEMBLY — To remove the magnet armature assembly, loosen the four lock nuts at the lower end of the push rods. Note — Removal of the magnet armature assembly will probably cause the push rod shims to fall free. Be sure that upon replacing the magnet armature assembly, the push rod shims are placed in the same position, so that consistent overtravel may be maintained. Take out the retaining blocks located on each side of the magnet armature. Force the armature plate through the armature, thereby isolating the magnet armature. Note — The armature pad, spacer, and retainer must be replaced in the same order. For correct replacement, refer to the exploded view on Page 3.

CONTACTS — Removal of the contact block cover makes the mounting screws for the front stationary contact assembly accessible. The contacts are brazed on heavy copper parts which are attached to the contact block by two screws. Remove these screws and extract the front stationary contact assembly by depressing the movable contact. To take out the rear stationary contact assembly, simply remove the coil cover and pull out the cross bar assembly, which includes the following items: cross bar,

BULLETIN 1495 AUXILIARY SWITCH — The economizing switch is mounted on the top of the coil cover and is operated by engagement of a lever with the cross bar. Provisions are made for two auxiliary switches in addition to the one which is required for the economizing action. Each auxiliary switch provides one or two independent circuits, either of which can be set as normally open and normally closed, depending on the circuit requirements. See Instructions for the auxiliary contact on Page 4.



OPERATING COILS — Very little trouble can be expected from the operating coils. If the controller should fail to function, check control panel.

Removing the coil is a simple operation that is easily performed from the front. First, remove the coil terminal cover; second, detach the coil leads; third, loosen the two screws located on the coil retaining spring; and fourth, slacken the four captive screws holding down the coil cover. The coil cover is then lifted out from the front. Now remove the operating coil and magnet yoke and detach the yoke from the coil.

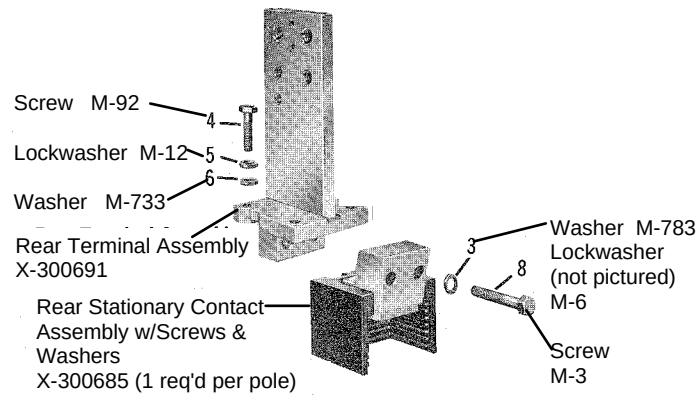
To replace the operating coil, first insert the magnet yoke into the operating coil. After this has been accomplished, insert both the operating coil and the magnet yoke, as a unit, into the switch unit securely. Now replace the coil cover into the switch unit, but do not tighten the screws on the coil retaining spring. **Be sure to place the auxiliary contact operating lever into the auxiliary contact actuator fastened to the cross bar.** (See Page 5 for instructions). Tighten the four captive screws on the coil cover. Then, tighten the coil retaining spring screws. Restore the coil leads and put back the coil terminal cover.

Coil Number	Volts	Coil Current (Amperes)	
		Inrush	Sealed
109D206 (90V DC)	120	15.9	.576
	208	9.2	.250
	240	7.95	.288
	480	4.0	.144
	600	3.2	.115

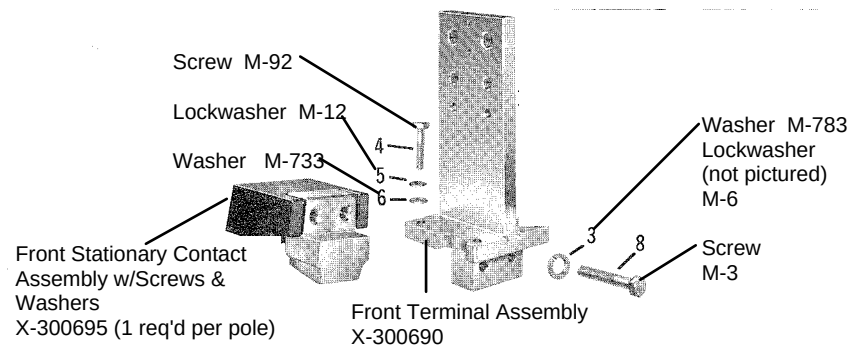
NOTE — Given values are input current (amperes) into the control circuit transformers with 120 volt, 60 cycle secondary.

Single Pole Illustration

REAR STATIONARY CONTACTS — TERMINALS



FRONT STATIONARY CONTACTS — TERMINALS



Knowledgebase technotes can be found at <http://support.rockwellautomation.com/>

Control Circuit Transformer (if used) 240/480V Primary 120V Secondary, 750VA 1497-H-BASX-0-N

★ Rectifier 24808-451-01

★ Varistor 24797-010-01

★ Capacitors 21526-520-01 (qty 4 req'd)

★ Resistor 24708-362-01 (qty 2 req'd)

Bulletin 700, Type P Relay 700-NX14

Control Circuit Secondary Fuse (not pictured) 6.25A 250V Type FNM X-276129

Control Panel Timing Relay (not pictured) 700-NT200A1

Control Panel Timing Relay Coil 84AB86

('star' indicates recommended renewal parts)

Bulletin 700 - Type P Special Coil ★

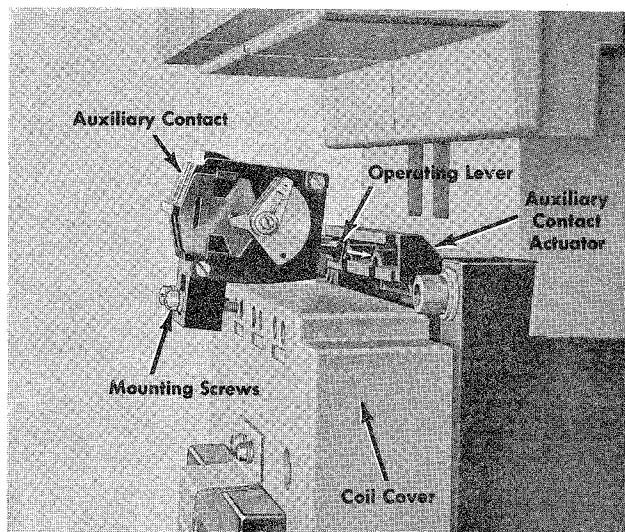
Coil Number	Volts	Hz	Coil Current (Amperes)	
			Inrush	Sealed
	120	60	0.68	.070
	110	60	.610	.060

Knowledgebase technotes can be found at <http://support.rockwellautomation.com/>

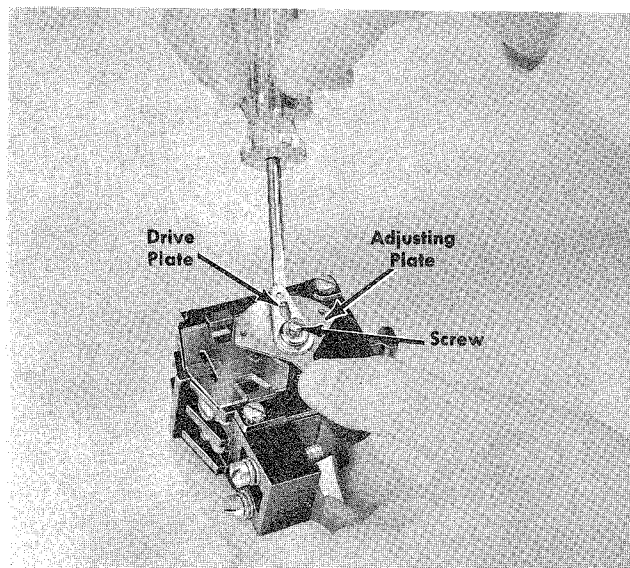
BULLETIN 1495 AUXILIARY CONTACT KITS

Catalog Number 1495-J8 (Single Contact)

Catalog Number 1495-K8 (Double Contact)



MOUNTING INSTRUCTION — To mount the Bulletin 1495 Auxiliary Contact place the auxiliary contact operating lever into the auxiliary contact actuator fastened to the crossbar. Tighten the two mounting screws on the auxiliary contact to the coil cover. The crossbar will now engage the operating lever of the auxiliary contact.

**CHANGING BULLETIN 1495 AUXILIARY CONTACT FROM NORMALLY OPEN TO NORMALLY CLOSED AND VICE VERSA**

— To change the Bulletin 1495 Auxiliary Contact from Normally Open to Normally Closed and vice versa, first loosen the screw which holds the drive plate and adjusting plate together. Then lift the drive plate as shown in the illustration. Now rotate the adjusting plate to the opposite hole and snap the drive plate into place. Then tighten the screw. Double contact auxiliary switches have isolated circuits, therefore, each side must be adjusted independently.

Important User Information

Because of the variety of uses for the products described in this publication, those responsible for the application and use of this control equipment must satisfy themselves that all necessary steps have been taken to assure that each application and use meets all performance and safety requirements, including any applicable laws, regulations, codes and standards.

The illustrations, charts, sample programs and layout examples shown in this guide are intended solely for purposes of example. Since there are many variables and requirements associated with any particular installation, Rockwell Automation does not assume responsibility or liability (to include intellectual property liability) for actual use based upon the examples shown in this publication.

Allen-Bradley publication SGI-1.1, *Safety Guidelines for the Application, Installation and Maintenance of Solid-State Control* (available from your local Allen-Bradley office), describes some important differences between solid-state equipment and electromechanical devices that should be taken into consideration when applying products such as those described in this publication.

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Throughout this document we use notes to make you aware of safety considerations:

ATTENTION



Identifies information about practices or circumstances that can lead to personal injury or death, property damage or economic loss

IMPORTANT

Identifies information that is critical for successful application and understanding of the product.

Use only replacement parts and devices recommended by Rockwell Automation to maintain the integrity of the equipment. It is the user's responsibility to ensure that the renewal part number selected is properly matched to the model, series and revision level of the equipment being serviced.

ATTENTION



Servicing energized Industrial Control Equipment can be hazardous. Severe injury or death can result from electrical shock, burn, or unintended actuation of controlled equipment. Recommended practice is to disconnect and lockout control equipment from power sources, and release stored energy, if present.

Refer to **National Fire Protection Association Standard No. NFPA70E, Part 2 and (as applicable) OSHA rules for Control of Hazardous Energy Sources (Lockout/Tagout) and OSHA Electrical Safety Related Work Practices** for safety related work practices, including procedural requirements for lockout/tagout, and appropriate work practices, personnel qualifications and training requirements where it is not feasible to de-energize and lockout or tagout electric circuits and equipment before working on or near exposed circuit parts.

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