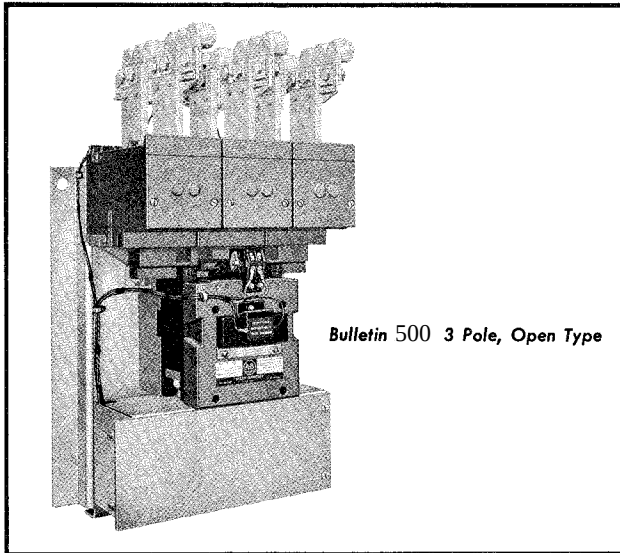


AC CONTACTORS • SERIES A CONSTRUCTION

BULLETIN 500 SIZE 7 • BULLETIN 500L SIZE 720 AMPERES



Bulletin 500 3 Pole, Open Type

CONTACTS — The weld-resistant, double break contacts are of cadmium oxide silver. Square, solid seating prevents twisting or sliding motion and extends contact life. These contacts should not be filed or dressed.

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 stationary 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 slide out the cross bar assembly, which includes the following items: cross bar, 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 stationary 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 — The hot-molded contact block has a high degree of mechanical strength and dimensional accuracy. Material resists arc tracking and arc blast damage. Separate arc chambers contain efficient metal arc quenchers.

To detach the stationary 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 stationary contact block to the base assembly. The contact block can now be detached.

CROSS BAR ASSEMBLY — The portion of the cross bar carrying the movable contacts is molded, but the movable contacts are carried in stainless steel cages which in turn are mounted in cavities in the molded portion. The push rod assemblies are 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.**

The cross bar is available less the movable contacts. However, if the movable contacts are needed, they can be purchased as a completed assembly. The push rod assemblies are obtainable as separate items. The magnet armature assembly can be disassembled and its parts procured separately. Part numbers for each item can be found on Page 3.

To remove the cross bar assembly: first, detach contact block cover which is held in place by two captive screws; second, loosen the screws on the coil retaining spring; third, loosen the four captive screws holding down the coil cover; and fourth, slide off the coil cover. 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.

MAGNET ARMATURE ASSEMBLY — The magnet armature is laminated and is mounted on the armature plate with a rubber pad to absorb shock and prolong life. To remove the magnet armature assembly, loosen the lock nut 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.**

MAGNET YOKE — The magnet yoke is laminated and mounted on an aluminum base casting. The pressure molded coil is mounted with the yoke projecting into the openings of the coil so that the coil slides out with the magnet yoke.

OPERATING COIL — Unique high-pressure molding results in a coil protected against mechanical damage and the corrosive effects of atmospheric conditions and protects the coil against swelling when subjected to overvoltage. Very little trouble can be expected from the operating coils.

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 Instructions for the auxiliary contact.) Tighten the coil retaining spring screws and the four captive screws on the coil cover. Restore the coil leads and put back the coil terminal cover.

OPERATING COIL

Coil Number	Volts	Coil Current (Amperes)	
		Inrush	Sealed
107D206 (90V DC)	120	17.6	.392
	208	10.2	.226
	240	8.8	.196
	480	4.4	.093
	600	3.5	.078

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

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

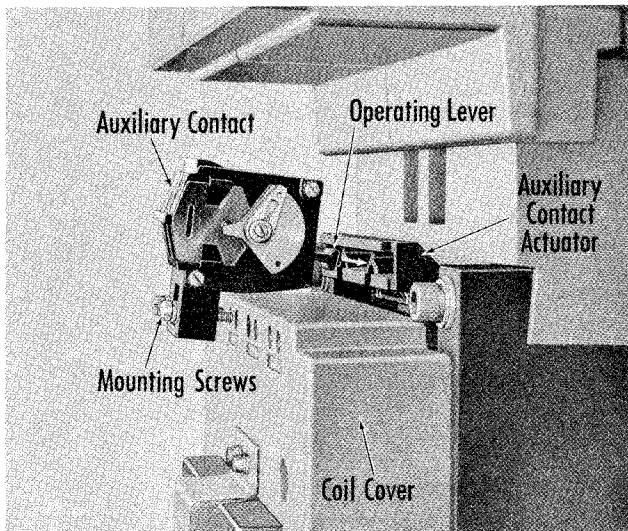
CONTROL PANEL — All auxiliary equipment — capacitor, rectifier, resistors, contact protector, terminal blocks and control transformer (when used) — is mounted in a metal cabinet. The cabinet is normally mounted below the contactor, but may be mounted separate from the contactor. The cabinet (when below contactor) is mounted on rubber grommets to absorb heavy shock during opening and closing of contactor. The control panel has a hinged cover which can be swung out for inspection or to check wiring of auxiliary equipment.

BULLETIN 1495 AUXILIARY CONTACTS — Provisions are made for two auxiliary contacts in addition to the one which is required for the economizing action. Each auxiliary contact provides two independent circuits, either of which

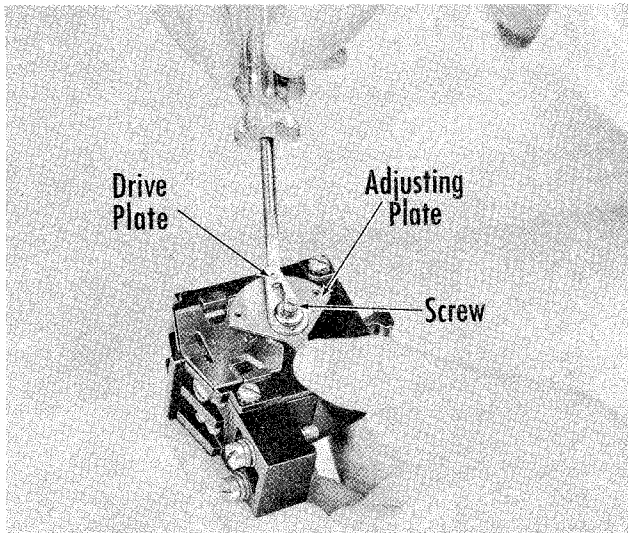
can be set as normally open and normally closed, depending on the circuit requirements. (See Instructions below.)

BULLETIN 1495 AUXILIARY CONTACT KITS

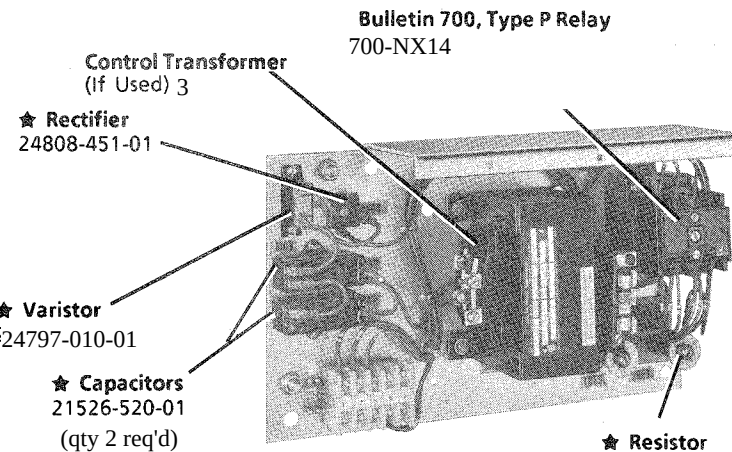
Catalog Number 1495-J6 (Single Contact)
Catalog Number 1495-K6 (Double Contact)



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

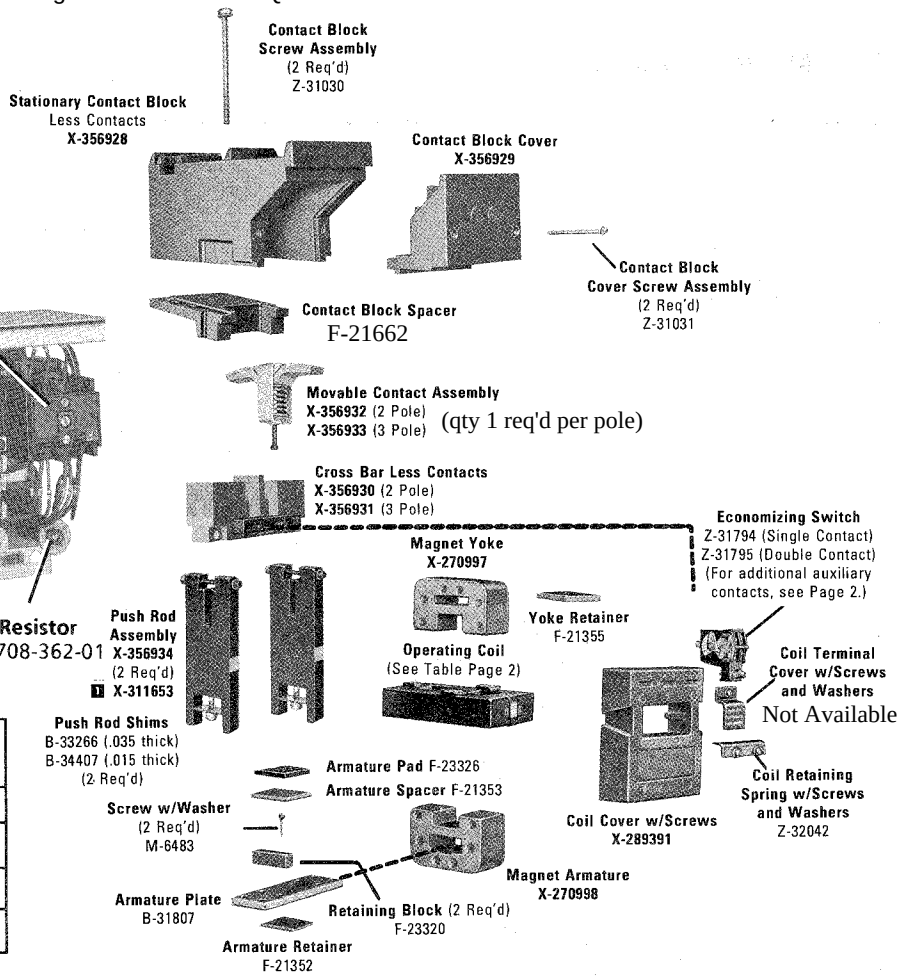


CHANGING BULLETIN 1495 AUXILIARY CONTACT FROM NORMALLY OPEN TO NORMALLY CLOSED AND VICE VERSA — To change the Bulletin 1495 Auxiliary Contact from Normally Open to Normally Closed and vice versa, first loosen the screw which holds the drive plate and adjusting plate together. Then lift the drive plate 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.



Bulletin 700 - Type P Special Coil ★

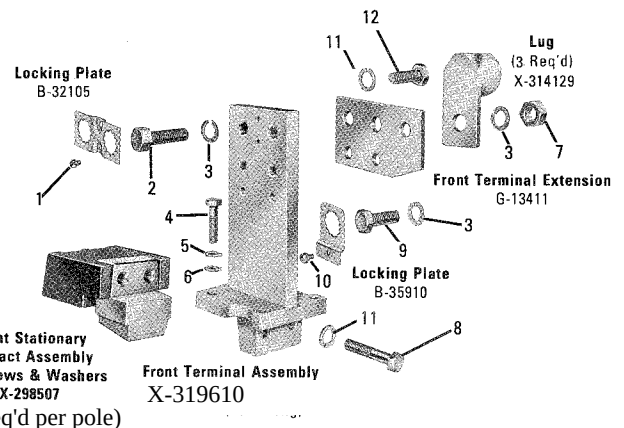
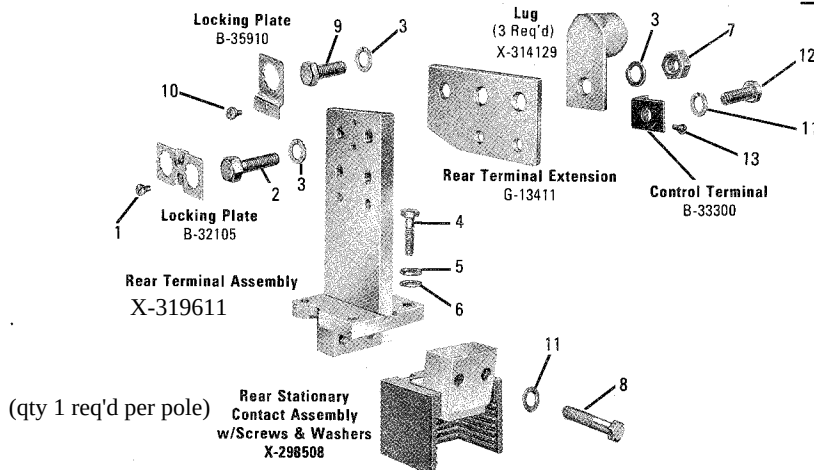
Coil Number	Volts	Hz	Coil Current (Amperes)	
			Inrush	Sealed
40266-905-14	120	60	0.68	.070
	110	50	.700	.089
	110	60	.610	.060



- 1 Notched Push Rod Assembly used on Interlocked Contactors. Note — Push Rod Shims are not included with this assembly, but are included with standard assembly.
- 2 May be mounted separate from contactor.
- 3 Refer to nameplate and Bulletin 1497 listings in Handy Catalog.

STATIONARY CONTACTS — TERMINALS — LUGS

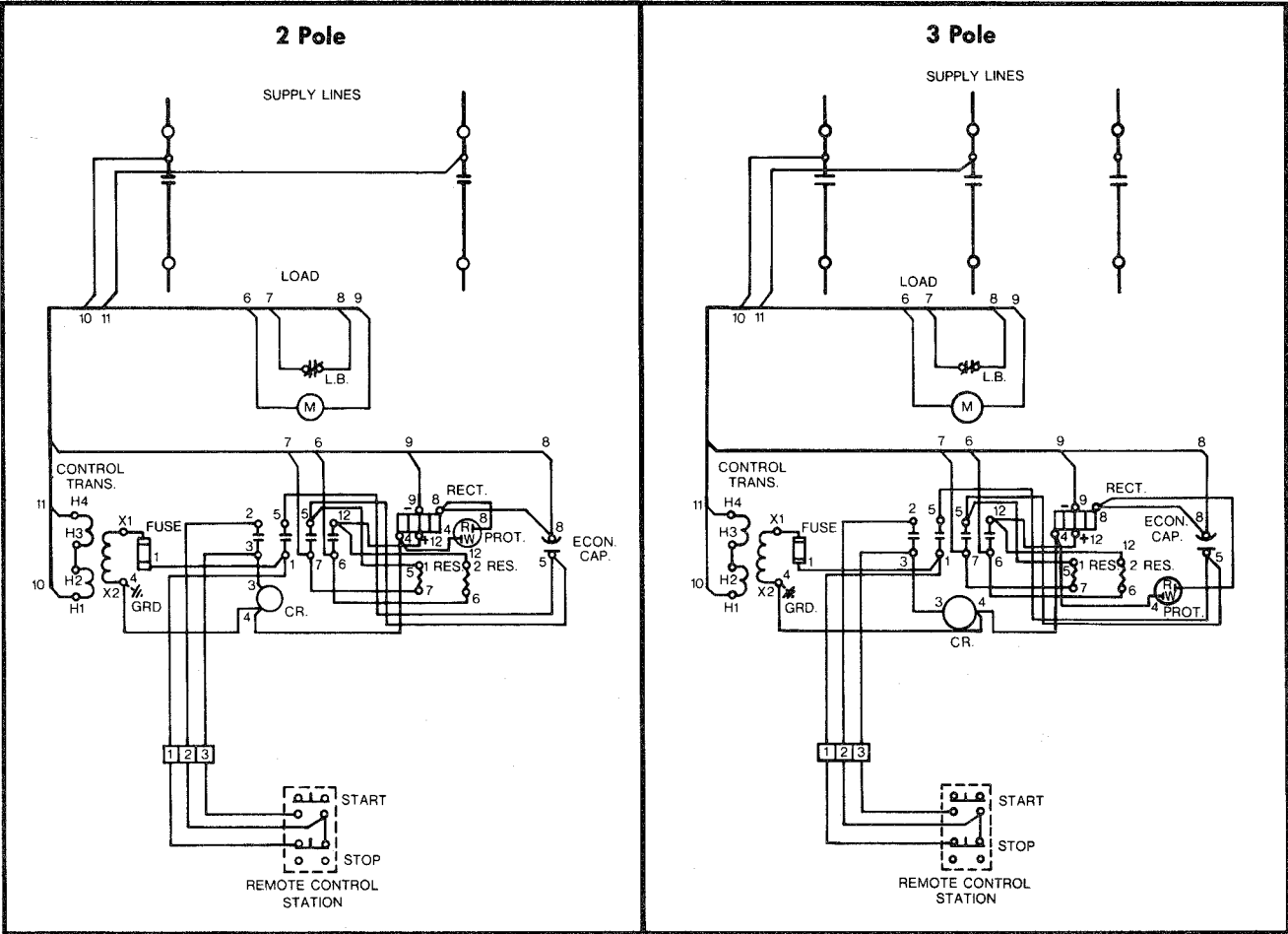
(Single Pole Illustrated)



MOUNTING HARDWARE

Item	Description	Part No.	Item	Description	Part No.
1	Screw	M-7693	7	Iron Nut	M-22
	Lock Washer	M-103	8	Screw	M-165
2	Screw Not Available		9	Screw	M-756
3	Lock Washer	M-248	10	Screw	M-7692
4	Screw	M-471		Lock Washer	M-1100
5	Lock Washer	M-180	11	Lock Washer	M-12
6	Washer	M-5683	12	Screw	M-144
			13	Terminal Screw	M-1552

TYPICAL WIRING DIAGRAMS — (See applicable codes and laws)



ORDERING INFORMATION — Your order cannot be entered unless the following information is given: Part number, description of part, catalog number and series letter of contactor. This renewal parts list applies also to these contactors when used on control apparatus listed under other Bulletin numbers.

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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