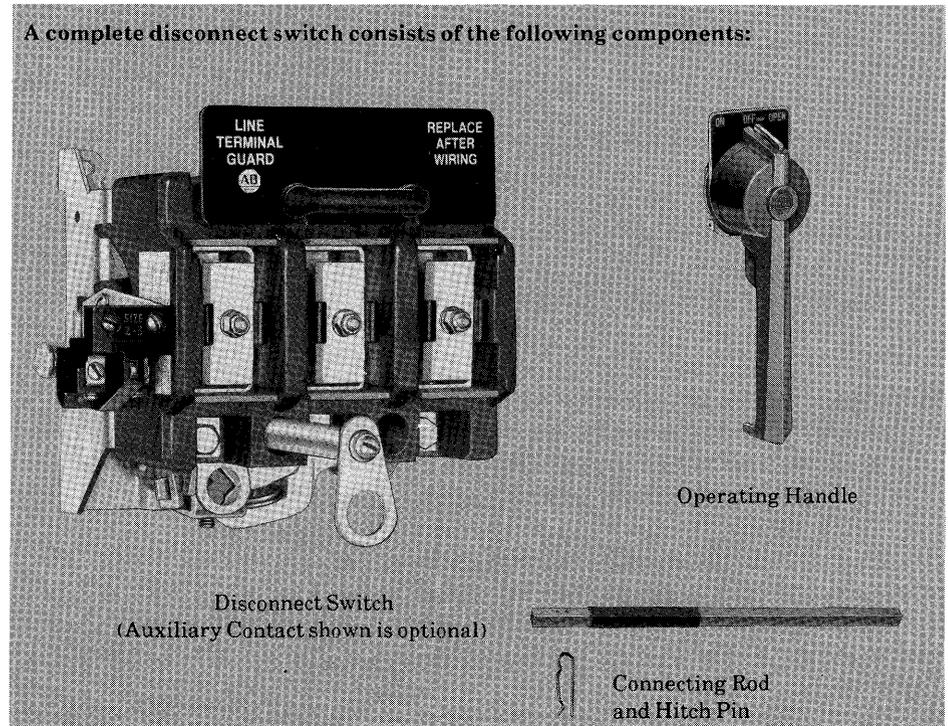




ROD OPERATED DISCONNECT SWITCHES - 30 Through 200 Ampere Size

A complete disconnect switch consists of the following components:



Description The Bulletin 1494R rod operated disconnect switch is applicable to both NEMA Type 1 and 12 enclosures. It is designed to meet industrial requirements for a dependable manual type disconnect device. The complete Disconnect Switch consists of the disconnect switch, operating handle, connecting rod and hitch pin.

Warning

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

Allen-Bradley PLCs

Mounting the Disconnect Switch

1. Measure the cabinet depth (Dimension "J" on Page 2), to insure that your cabinet is within the minimum and maximum size range.
 2. Select desired location on disconnect switch mounting surface for mounting the disconnect switch.
 3. From the line drawing and dimension table on Page 2, locate the mounting holes of the switch.
 4. Mount the disconnect switch on the enclosure mounting surface. Use 3/16" or #10 screw. Torque to 25-30 lb-in.
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Mounting the Activating Rod

1. Determine shaft length (Dimension "L" on Page 2) from table and cut uninsulated end of shaft to size.
 2. Insert the insulated end of shaft through the hole in the support bracket and into the two square holes in the switch lever. Torque the set screw to 35-40lb-in to secure shaft to switch lever. Insert hitch pin furnished into hole in shaft (see side view on Page 2).
 3. Determine the adjusted coupling position (Dimension "K" on Page 2) and attach the coupling to the shaft with set screws. The "D" molded on the face of the coupling must be at the bottom and the "C" at the top, with the switch in "Off" position. Torque the set screws to 25-30 lb-in.
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Mounting the Handle Assembly

1. Using the template and dimension table as a guide, determine the point on the cover, within 1/8", at which the center of the rod and the center of the handle assembly should meet.
2. With the template located, center-punch the location of the five mounting holes. Drill the 13/64" diameter holes. Drill pilot holes for Greenlee cutters for the 1/2" and 1 1/4" diameter holes. Cut the 1/2" diameter hole with Greenlee cutter first, then the 1 1/4" diameter hole.
3. Close the cover and check the coupling spear-point for alignment with the center of the large diameter hole. Adjust the support bracket, if necessary, to center the spear-point within 1/16".
4. On the outside surface of the cover, mount the nameplate and handle so that the handle passes through the nameplate and enclosure cover. Peel off the adhesive protective shield from the back of the nameplate before installing. On the inside surface of the cover the rubber washer, the spacer (used only on 14 and 16 gauge covers) and the interlock are assembled, in that order, around the protruding shoulder of the handle assembly. Torque the three mounting screws to 16-20 lb-in.

5.

**CAUTION:**

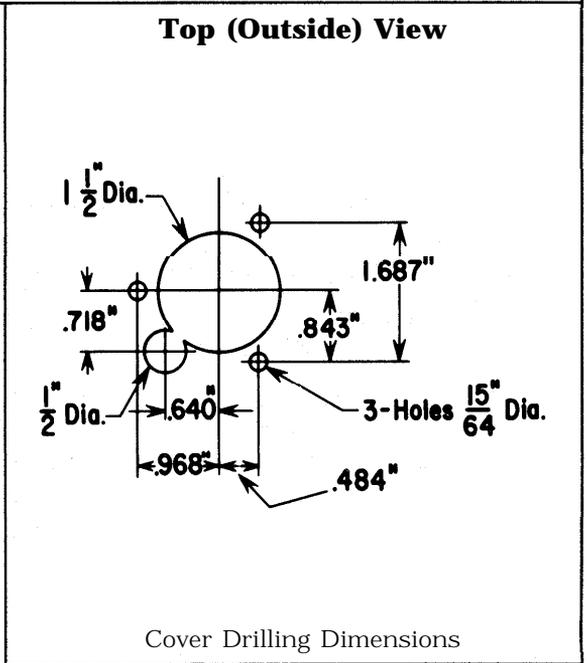
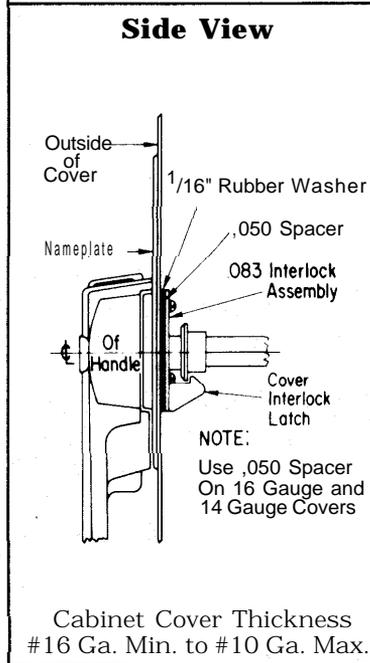
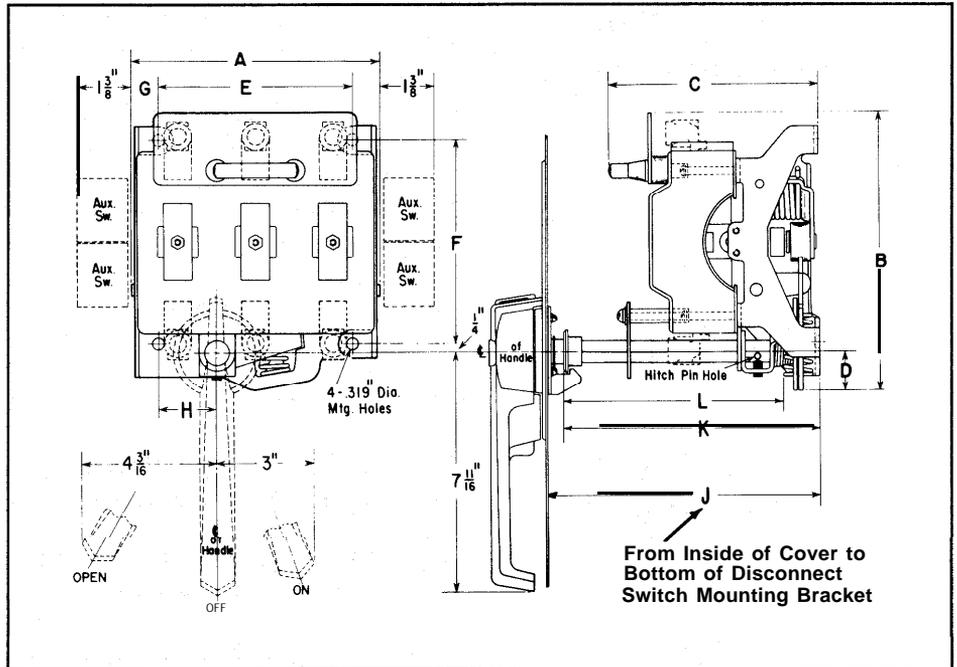
Make sure the cover interlock latch swings freely.

6. With the handle in the "Open" position, the cover should open freely. With the handle in either the "On", "Off" or "Lock" position, the cover interlock MUST prevent opening the cover unless the defeater is used.
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100 Ampere and 200 Ampere Size Installation

**100 Ampere Size -
Catalog No. 1494R-N100**

**200 Ampere Size -
Catalog No. 1494R-N200**



NEMA Designation	Dimensions In Inches											Approximate Shipping Weight	
	A	B	C	D	E	F	G	H	J		K		I
	Wide	High	Deep						Standard Shaft	Long Shaft			
100 Amperes	6-7/16	7-3/16	5-7/16	15/16	5	5-1/4	23/32	1-1/2	6-1/4 Min. 12-7/8 Max.	6-1/4 Min. 25-7/8 Max.	①	②	9 Lbs.
200 Amperes	7-1/4	9-1/2	6-1/2	1-7/16	5-3/4	6-1/2	3/4	1-23/32	7-7/16 Min. 12-7/8 Max.	7-7/16 Min. 25-7/8 Max.	①	②	15 Lbs.

① The Adjusted Coupling Position is determined by measuring the cabinet depth and subtracting 1 5/16" ± 1/16".

② The Shaft Length is determined by measuring the cabinet depth (Dimension "J") and subtracting 1-7/8".

Mounting the Disconnect Switch

1. Measure the cabinet depth (Dimension “J” on Page 4) to insure that your cabinet is within the minimum and maximum size range.
 2. Select desired location on disconnect switch mounting surface for mounting the disconnect switch.
 3. From the line drawing and dimension table on Page 4, locate the mounting holes of the switch.
 4. Mount the disconnect switch on the enclosure mounting surface. Use $\frac{1}{4}$ " or $\frac{4}{16}$ " screws. Torque to 40-50 lb-in.
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Mounting the Activating Rod

1. Determine shaft length (Dimension “L” on Page 4) from table and cut uninsulated end of shaft to size.
 2. Insert the insulated end of the shaft through the hole in the support bracket and into the two square holes in the switch lever. Torque the set screw (or screws) to 35-40 lb-in. to secure shaft to switch lever. Insert hitch pin furnished into hole in shaft (see side view above).
 3. Determine the adjusted coupling position (Dimension "K") and attach the coupling to the shaft with set screws. The word “On” and the arrow molded on the face of the coupling must be at the bottom with the switch in the “Open” position. Torque the set screws to 25-30 lb-in.
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Mounting the Handle Assembly

1. Using the template and dimension table on Page 4 as a guide, determine the point on the cover, within $\frac{1}{8}$ ", at which the center of the rod and the center of the handle assembly should meet.
2. With the template located, center-punch the location of the five mounting holes. Drill the $\frac{15}{64}$ " diameter holes. Drill pilot holes for Greenlee cutters for the $\frac{1}{2}$ " and $1\frac{1}{2}$ " diameter holes. Cut the $\frac{1}{2}$ " diameter hole with Greenlee cutter first, then the $1\frac{1}{2}$ " diameter hole, overlapping the $\frac{1}{2}$ " diameter hole.
3. Close the cover and check the coupling spear-point for alignment with the center of the large diameter hole. Adjust the support bracket, if necessary to center the spear-point within $\frac{1}{16}$ ".
4. On the outside surface of the cover, mount the nameplate and handle so that the handle passes through the nameplate and enclosure cover. Peel off the adhesive protective shield from the back of the nameplate before installing. On the inside surface of the cover the rubber washer, the spacer (used only on 14 and 16 gauge covers) and the interlock are assembled, in that order, around the protruding shoulder of the handle assembly. Torque the three mounting screws to 25-30 lb-in.

5.



CAUTION:

Make sure the cover interlock latch swings freely.

6. With the handle in the “Open” position, the cover should open freely. With the handle in either the “On”, “Off”, or “Lock” position, the cover interlock MUST prevent opening the cover unless the defeater is used.
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