



**Flange-Mounted Disconnect Enclosures
for
Variable Depth and Flexible Cable
Disconnect Devices**

ADALET Enclosure Series

DN4 – Polyester Powder Coated Steel

DN4X – Stainless Steel 304

DN4X6- Stainless Steel 316L

Application

The DN Series Single Door Flange-Mounted Disconnect Enclosure can be used indoors or outdoors. These enclosures are designed to protect against dust, dirt, oil and water. They are for applications in petrochemical plants, dairies, breweries, food processing areas and similar environments where they can be subject to frequent high pressure hosing and generally wet conditions. They are also for use in areas where severe corrosion problems exist (Not submersible).

Designed to House the Following

Allen - Bradley Bulletin 1494V disconnect switches with flange mounted variable depth operating mechanisms and Bulletin 1494V flange mounted variable depth operating mechanisms for circuit breakers.

Please Note: Allen Bradley Bulletin 1494V-RI, -R2 and -W2 operating handles and Allen Bradley Bulletin 1494F disconnect devices or Bulletin 1494D circuit breaker operators will not fit.

ABB Controls Flange mounted variable depth operating mechanisms for disconnect switches and circuit breakers

Cutler Hammer/ Westinghouse Type C361 flange mounted variable depth operating mechanisms with disconnect switches and Type C371 flange mounted variable depth operating mechanisms for circuit breakers. Flex Shaft™ operating handles for circuit breakers.

General Electric Type STDA flange handles and variable depth operating mechanisms for disconnect switches and circuit breakers. Also Spectra Flex™ cable operators for circuit breakers

Siemens (I-T-E) Max Flex™ flange mounted variable depth operating handles for circuit breakers.

Square D Class 9422 disconnect switches with flange mounted variable depth operating mechanisms or cable mechanisms and Class 9422 flange mounted variable depth operating mechanisms for circuit breakers.

Construction

The DN enclosures are available in Steel with a Polyester Powder Coat Finish and Type 304 & Type 316L Stainless Steel with a brushed finish. The enclosure has continuously welded seams ground to a smooth finish. Around the door opening it has a folded lip consisting of multiple 90 degree bends. This provides complete and maximum gasket contact, and prevents liquids from dripping into the enclosure when the door is open. Each enclosure comes complete with 3/8 collar studs (for mounting optional panels), 1/4-20 grounding studs, padlock hasp & staple. Covers feature heavy gauge stainless steel continuous hinge and a neoprene gasket. A mounting panel and grounding hardware kit is included.

Panels

Optional panels are available. Panels are fabricated from 12 ga. cold rolled steel and are powder coated white.

Standards

All DN enclosures conform to the National Electrical Manufacturers Association (NEMA) standard for Type 3 (Dusttight, Raintight and Sleet / Ice Resistant), Type 3R (Rainproof and Sleet / Ice Resistant), Type 4 (Watertight and Dusttight), Type 4X (Watertight, Dusttight and Corrosion Resistant) *Stainless Steel Only*, Type 12 (Dusttight) and Type 13 (Oiltight and Dusttight) enclosures. These enclosures conform to the Joint Industry Council (JIC) standard EGP-1-1967. They are listed by Underwriters Laboratories, Inc. (UL) for Canada and the United States.

NOTICE

To Maintain the Environmental Type rating of the enclosure, Openings in the Enclosure must be Closed by Equipment Marked for the Same Environmental Type Rating.

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The information in this Installation Instruction Sheet is compiled from data which we believe is reliable and is given in good faith. Since the methods of application and conditions under which our products are used are beyond our control, we are not able to guarantee the application and/or same. The user assumes all risks and liability in connection with the application and use of our products.

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DN Series Flange-Mounted Disconnect Enclosures Installation Steps

1. Drill mounting holes in panel (furnished separately) for specific disconnect device being installed. See Installation Instruction Index on page 2 for appropriate panel drilling instructions. Additional holes may be required when using fused switches. See disconnect manufacturer's instructions.
2. Mount the operating handle on the enclosure flange with the holes provided. Refer to the disconnect manufacturer's instructions for installation.
3. Install interlock defeater bracket to interlock bracket that is welded to the inside of the door. Refer to the disconnect manufacturer's instructions for installation and adjustment.
4. Mount disconnect device to panel. Refer to the disconnect manufacturer's instructions for installation.

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Allen-Bradley 1494V Variable Depth Disconnects

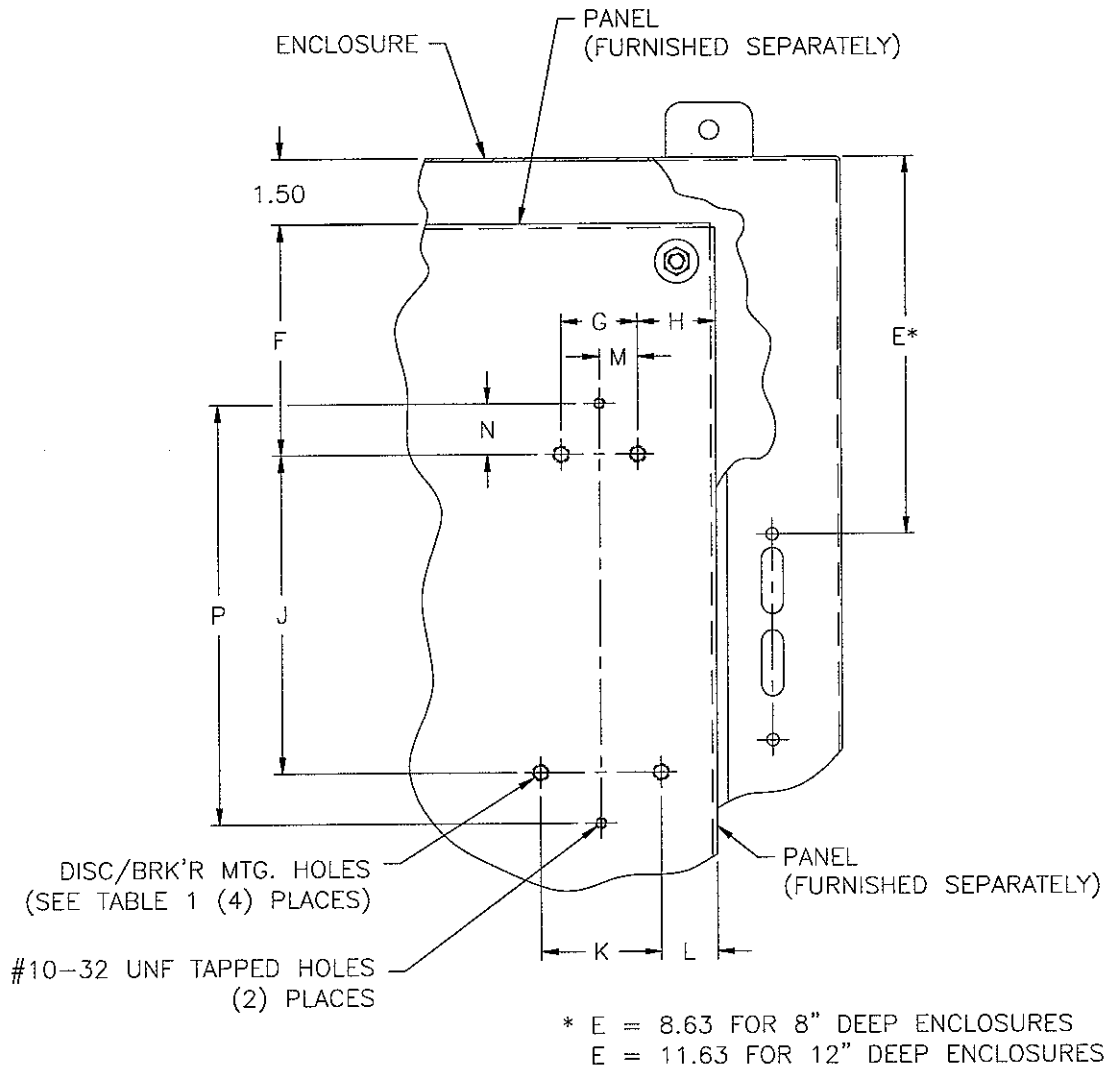


Figure 1

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Allen-Bradley 1494V Variable Depth Disconnects

TABLE 1											
Sub-Panel Drilling (Figure 1)											
Allen-Bradley Bulletin 1494V Disconnect or Operator for Circuit Breaker	Enclosure Depth		G	H	J	K	L	M	N	P	Hole Size
	8.00 F	12.00 F									
*1494V-DS30 (30 AMP)	5.28	8.28	1.97	2.56	4.38	3.94	1.56	---	---	---	10-32 UNF
*1494V-DS60 (60 AMP)											
*1494V-DS100 (100 AMP / Series B)											
*1494V-DS200 (200 AMP / Series B)	Do Not Install	7.16	2.36	2.94	4.92	4.72	1.81	---	---	---	¼-20 UNC
1494V-M40 for 15-150 AMP West.	7.38	10.38	1.38	1.09	4.50	1.38	1.09	---	---	---	8-32 UNF
1494V-M50 for 15-150 AMP West.	Do Not Install	10.94	1.38	1.25	7.25	1.38	1.25	.69	2.03	10.62	¼-20 UNC
1494V-M60 for 70-400 AMP West.	Do Not Install	9.88	1.72	1.78	8.44	1.72	1.78	.86	1.16	10.75	¼-20 UNC

* See Allen-Bradley instructions for locating the fuse blocks

Note: Allen-Bradley Variable Depth Disconnects are provided with connecting rods that must be cut to length to fit the enclosure depth (from flange surface to subpanel surface). See TABLE 2 and Allen-Bradley Instructions.

TABLE 2	
Enclosure Depth C	Allen-Bradley D (1)
8.00	6.88
12.00	10.88

1) This enclosure depth dimension is used to calculate the length of Allen-Bradley connecting rod(s).

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Cutler-Hammer C361 and C371 Variable Depth Disconnects

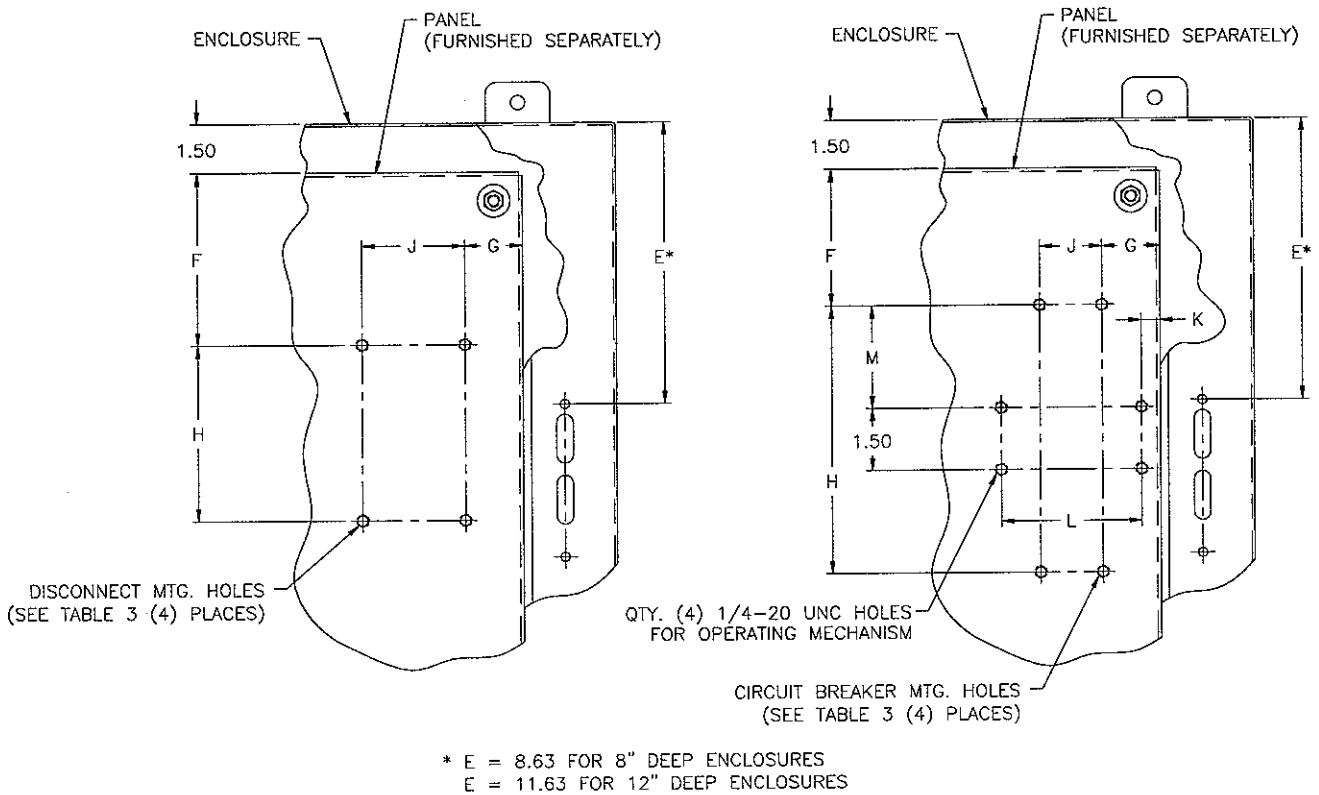


Figure 2A

Figure 2B

Hole Pattern for Disconnect Switches (Figure 2A)	
Disconnects	Size
C361NC/C361SC	30 AMP
C361ND/C361SD	60 AMP
C361NE/C361SE	100 AMP
C361NF/C361SF	200 AMP
Hole Pattern for Circuit Breakers (Figure 2B)	
Circuit Breakers	Frame Size
HMCP, FS, FH, EHD, FDB, FD, HFD	150 AMP
HMCP, JS, JH, JL, JD, JDB, HJD, JDC	250 AMP
HMCP, HK, KS, KD, DK, KDB, HKD	400 AMP
LH, LS, LC	600 AMP

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Cutler-Hammer C361 and C371 Variable Depth Disconnects

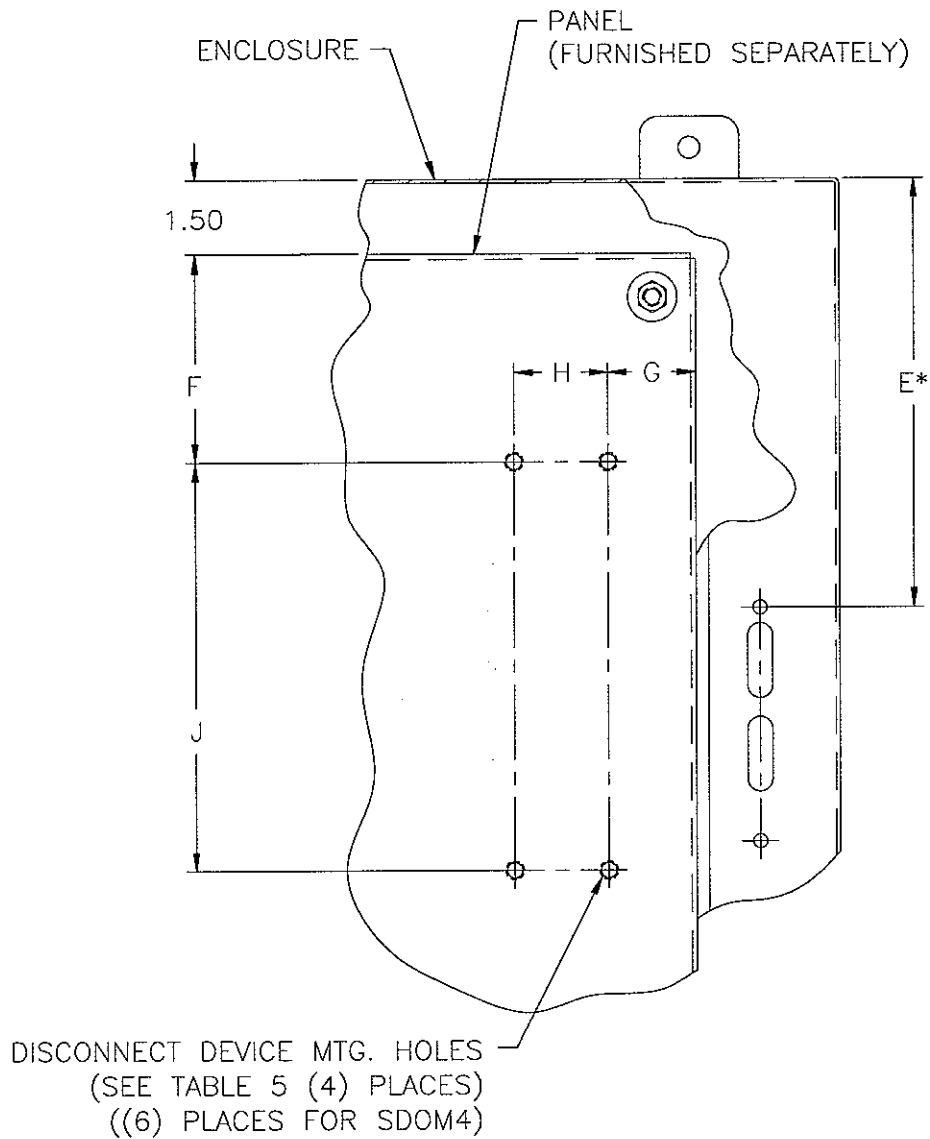
TABLE 3										
Sub-Panel Drilling (Figure 2A & 2B)										
Disconnect Switch or Circuit Breaker	Frame Size	Enclosure Depth		G	H	J	K	L	M	Hole Size
		8.00 F	12.00 F							
C361NC (30A)	---	5.56	8.56	2.47	4.00	7.13	---	---	---	10-32 UNF
C361SC (30A)	---	5.56	8.56	2.47	4.00	9.75	---	---	---	10-32 UNF
C361ND (60A)	---	5.56	8.56	2.47	4.00	7.13	---	---	---	10-32 UNF
C361SD (60A)	---	5.56	8.56	2.47	4.00	9.75	---	---	---	10-32 UNF
C361NE (100A)	---	5.38	8.38	2.34	5.50	7.13	---	---	---	10-32 UNF
C361SE (100A)	---	5.38	8.38	2.34	5.50	11.98	---	---	---	10-32 UNF
C361NF (200A)	---	3.79	6.79	.81	8.50	15.50	---	---	---	5/16-18 UNC
C361SF (200A)	---	3.79	6.79	.81	8.50	15.50	---	---	---	5/16-18 UNC
HMCP, FS, FH, EHD, FDB, FD, HFD	150A	7.79	10.79	2.62	1.38	4.50	---	---	---	8-32 UNF
JS, JH, JL	250A	Do Not Install	10.75	3.13	1.38	7.25	.31	6.95	2.75	10-32 UNF
HMCP	250A		10.75	3.13	1.38	7.25	.31	6.95	2.75	1/4-20 UNC
KH, KS, DK, KDB, KD, HKD, KDC	400A		10.31	2.96	1.72	8.44	.31	6.95	3.18	1/4-20 UNC
HMCP	400A		10.31	2.96	1.72	8.44	.31	6.95	4.00	1/4-20 UNC
LH, LS, LC	600A		8.42	3.88	2.75	9.53	.23	10.05	4.32	1/4-20 UNC

Note: Cutler-Hammer Variable Depth Disconnects are provided with connecting rods that must be cut to length to fit the enclosure depth (from flange surface to subpanel surface). See TABLE 4 and Cutler-Hammer Instructions.

TABLE 4	
Enclosure Depth C	Cutler-Hammer D (1)
8.00	6.88
12.00	10.88

1) This enclosure depth dimension is used to calculate the length of Cutler-Hammer connecting rod(s).

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for General Electric Type STDA Variable Depth Disconnects



* E = 8.63 FOR 8" DEEP ENCLOSURES
E = 11.63 FOR 12" DEEP ENCLOSURES

Figure 3

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for General Electric Type STDA Variable Depth Disconnects

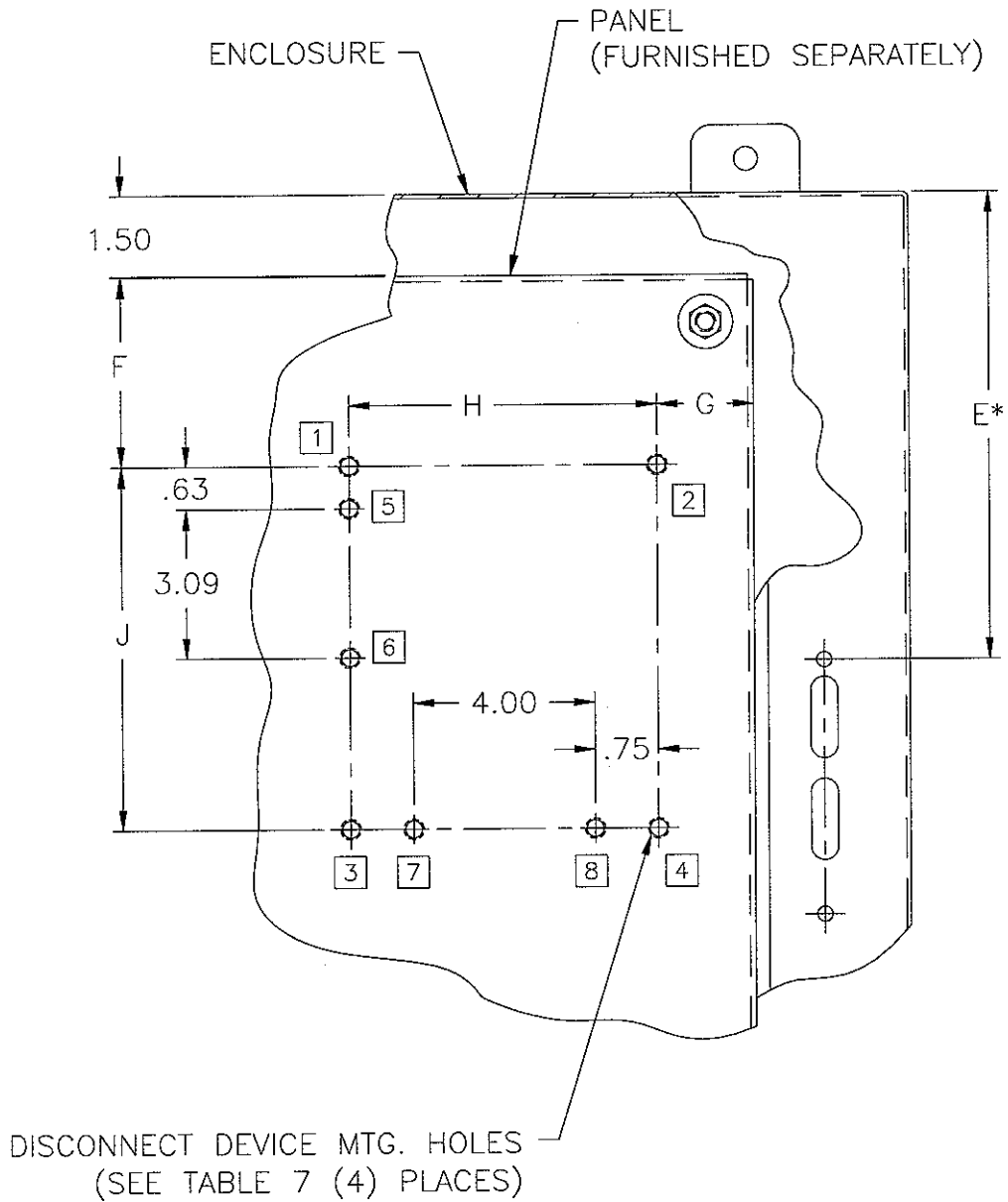
TABLE 5							
Sub-Panel Drilling (Figure 3)							
Disconnect Switch or Circuit Breaker	Frame Size	Enclosure Depth		G	H	J	Hole Size
		8.00 F	12.00 F				
TDOM1A	QMR-QMW	5.50	8.50	.75	3.00	6.75	¼-20 UNC
TDOM1JA				.75	3.00	6.75	
TDOM1B				.75	3.00	6.75	
TDOM1JB				.75	3.00	6.75	
TDOM2				.69	7.00	7.25	
SDOM1A	SE150	5.50	8.50	.75	3.00	6.75	
SDOM3	SF250	5.91	8.91	1.69	2.75	10.88	
SDOM4	SG600	Do Not Install	6.91	1.34	3.35	5.51 and 12.20	
SDOM1A	TEB, TED	5.50	8.50	.75	3.00	6.75	
SDOM1A SDOM1AP	TB1, TEC, TECL	5.50	8.50	.75	3.00	6.75	
TDOM3	TFJ, TFK	5.50	8.50	1.69	2.75	10.88	
TDOM4	J FRAME	4.88	7.88	1.63	5.50	8.63	
TDOM5	TB4, TJH	4.88	7.88	1.63	5.50	14.63	
TDOM6	K FRAME	Do Not Install	4.13	1.63	5.50	16.75	

Note: General Electric Variable Depth Disconnects are provided with connecting rods that must be cut to length to fit the enclosure depth (from flange surface to subpanel surface). See TABLE 6 and General Electric Instructions.

TABLE 6	
Enclosure Depth C	General Electric D (1)
8.00	6.88
12.00	10.88

1) This enclosure depth dimension is used to calculate the length of General Electric drive rod and stiffener rod (if used).

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Square D 9422 Variable Depth Disconnects



* E = 8.63 FOR 8" DEEP ENCLOSURES
E = 11.63 FOR 12" DEEP ENCLOSURES

Figure 4

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Square D 9422 Variable Depth Disconnects

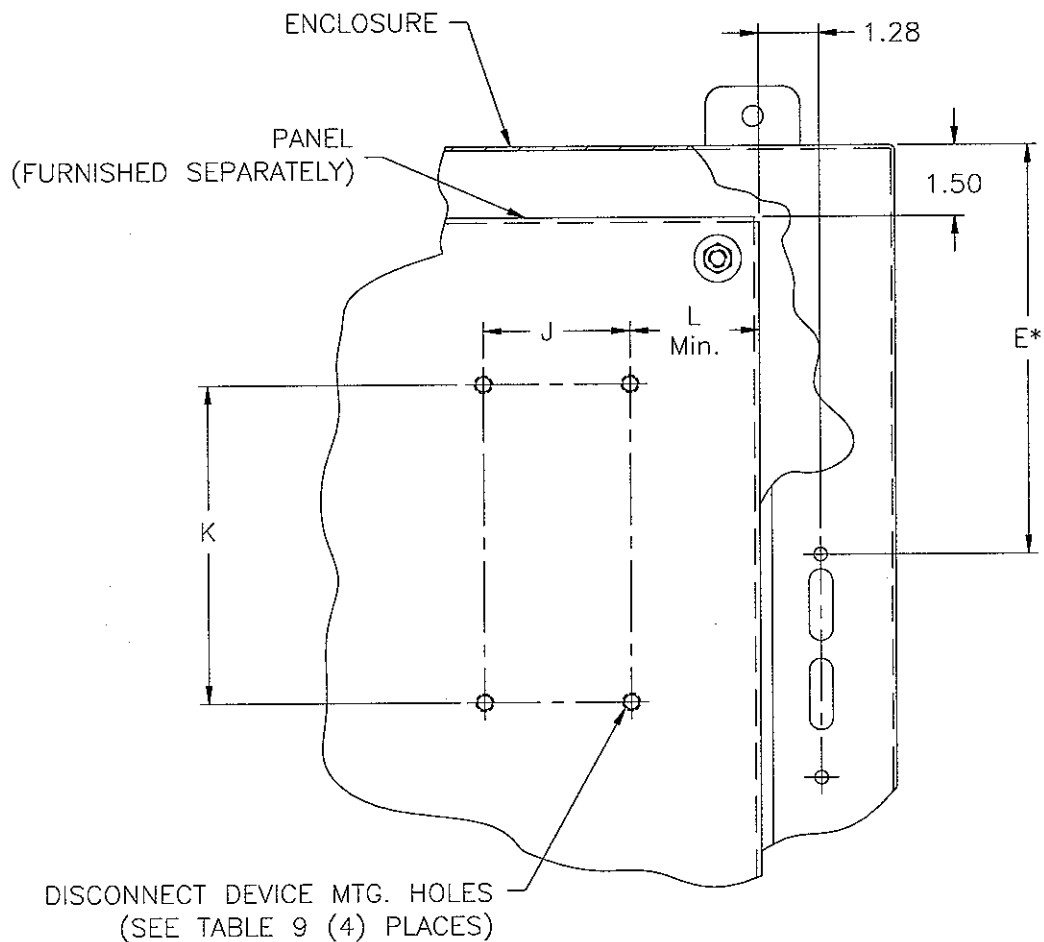
TABLE 7								
Sub-Panel Drilling (Figure 4)								
Disconnect Switch or Circuit Breaker	Enclosure Depth		G	H	J	No. of Holes	Mtg. Hole Position	Hole Size
	8.00 F	12.00 F						
TCN, TCF	6.13	9.13	.38	5.50	4.50	4	1, 2, 7, 8	10-24 UNC
TDN, TDF	6.13	9.13	.38	5.50	4.50	4	1, 2, 7, 8	10-24 UNC
TEN, TEF	6.13	9.13	.38	5.50	4.50	4	1, 2, 7, 8	10-24 UNC
TC	5.94	8.94	.38	5.13	6.50	4	2, 4, 5, 6	10-24 UNC
TD	6.13	9.13	.47	5.19	5.25	4	1, 2, 4, 7	10-24 UNC
TE	Do Not Install	7.50	1.84	5.50	6.50	4	1, 2, 3, 4	1/4-20 UNC
TF	Do Not Install	6.88	1.31	9.44	8.00	4	1, 2, 3, 4	5/16-18 UNC
RG1	6.13	9.13	1.47	1.18	3.94	4	1, 2, 3, 4	8-32 UNF
RN1	6.66	9.66	1.38	1.50	5.13	4	1, 2, 3, 4	8-32 UNF
RP1	6.66	9.66	1.56	1.50	7.13	4	1, 2, 3, 4	10-24 UNC
RR-1	6.00	9.00	.19	6.63	6.56	4	1, 2, 3, 4	1/4-20 UNC
	4.63	7.63	2.50	2.00	9.25	4	1, 2, 3, 4	.38 Dia

Note: Square D Variable Depth Disconnects are provided with connecting rods that must be cut to length to fit the enclosure depth (from flange surface to subpanel surface). See TABLE 8 and Square D Instructions.

TABLE 8	
Enclosure Depth C	Square D D (1)
8.00	6.88
12.00	10.88

1) This enclosure depth dimension is used to calculate the length of Square D operating rods. Use .070 for "T" dimension.

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Cutler-Hammer C371 Flex Shaft™ Flexible Cable Disconnects



* E = 8.63 FOR 8" DEEP ENCLOSURES
E = 11.63 FOR 12" DEEP ENCLOSURES

Figure 5

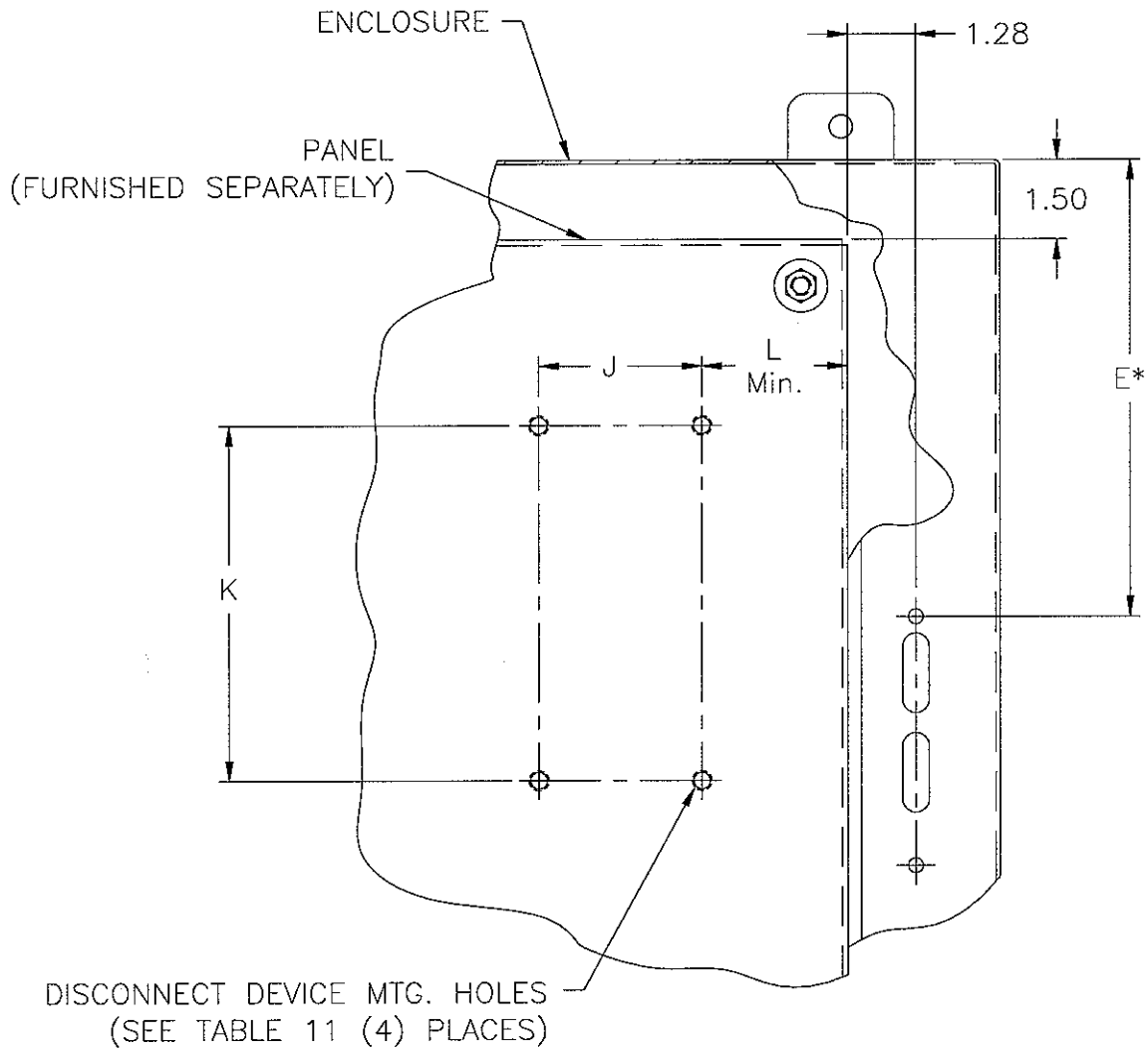
DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Cutler-Hammer C371 Flex Shaft™ Flexible Cable Disconnects

TABLE 9				
Sub-Panel Drilling (Figure 5)				
Circuit Breaker Frame Size	J	K	L Min.	Hole Size
F	1.38	4.50	1.38	8-32 UNF
J	1.38	7.25		¼-20 UNC
K	1.38	8.44		¼-20 UNC

1) Determine disconnect hole pattern from Figure 5 and above Table 9. See disconnect manufactures instructions for range of disconnect location based on cable length being used and depth of enclosure.

NOTE: Locate disconnect so appropriate wire bend space is provided for the line side wire being used. Refer to National Electrical Code 430-10b for wire bending space requirements.

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for General Electric SCH Spectra Flex™ Flexible Cable Disconnects



* $E = 8.63$ FOR 8" DEEP ENCLOSURES
 $E = 11.63$ FOR 12" DEEP ENCLOSURES

Figure 6

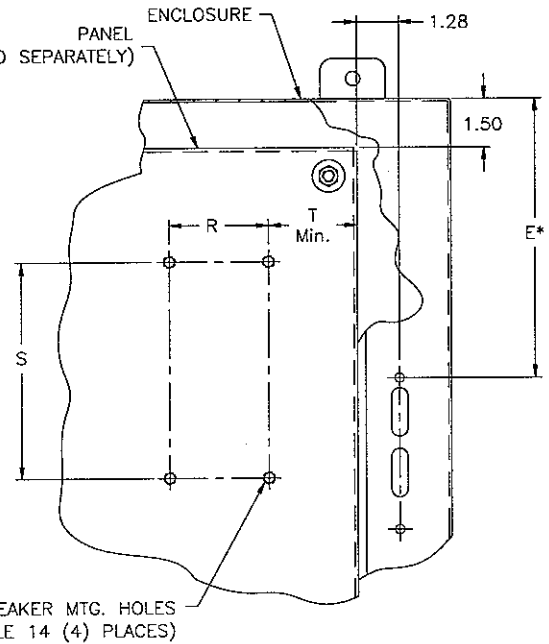
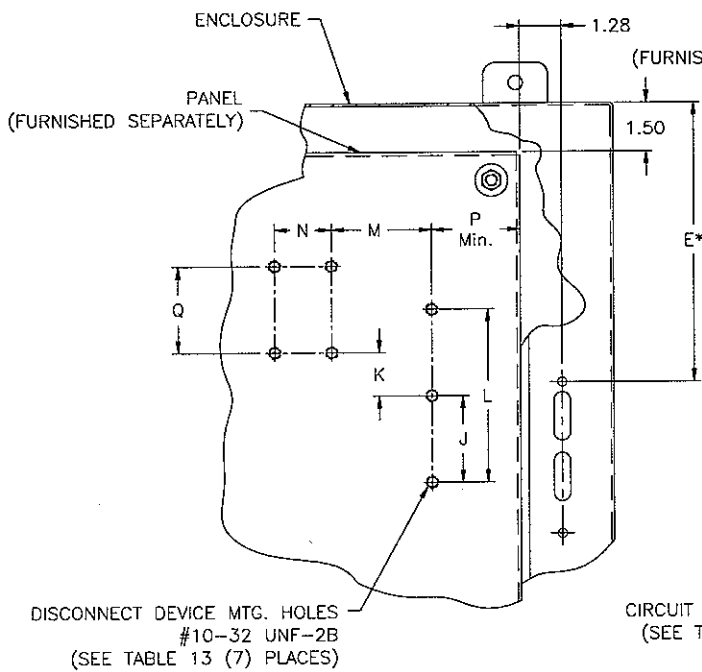
DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for General Electric SCH Spectra Flex™ Flexible Cable Disconnects

TABLE 11					
Sub-Panel Drilling (Figure 6)					
Cable Mechanism	Circuit Breaker	J	K	L Min.	Hole Size
SCOM1A	E150	1.38	4.88	1.38	8-32 UNF
SCOM1EF	SE150	1.38	4.88	1.38	10-32 UNF
	SF250	1.38	7.75	1.38	12-24 UNC
SCOM1G	SG600	1.81	7.75	1.84	12-24 UNC
SCOM1K	SK1200	2.75	14.25	2.75	5/16-18 UNC

1) Determine disconnect hole pattern from Figure 6 and above Table 10. See disconnect manufactures instructions for range of disconnect location based on cable length being used and depth of enclosure.

NOTE: Locate disconnect so appropriate wire bend space is provided for the line side wire being used. Refer to National Electrical Code 430-10b for wire bending space requirements.

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Siemens (I-T-E) Max Flex™ Flexible Cable Disconnects



* E = 8.63 FOR 8" DEEP ENCLOSURES
E = 11.63 FOR 12" DEEP ENCLOSURES

Figure 7A

Figure 7B

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Siemens (I-T-E) Max Flex™ Flexible Cable Disconnects

TABLE 13 Sub-Panel Drilling for Disconnect Switches(Figure 7A)								
I-T-E* Mechanism	Fits Disconnect Device	J	K	L	M	N	P	Q
FHOS06036R	30 A Switch	2.00	1.69	5.10	2.88	1.50	.66	1.89
FHOS06036R	60 A Switch	2.00	1.69	5.10	2.88	1.50	.66	1.89
FHOS06036R	100 A Switch	2.00	.82	5.10	3.21	1.81	.66	3.00
FHOS20036R	200 A Switch	2.50	-1.00	5.50	1.00	7.86	.62	5.44

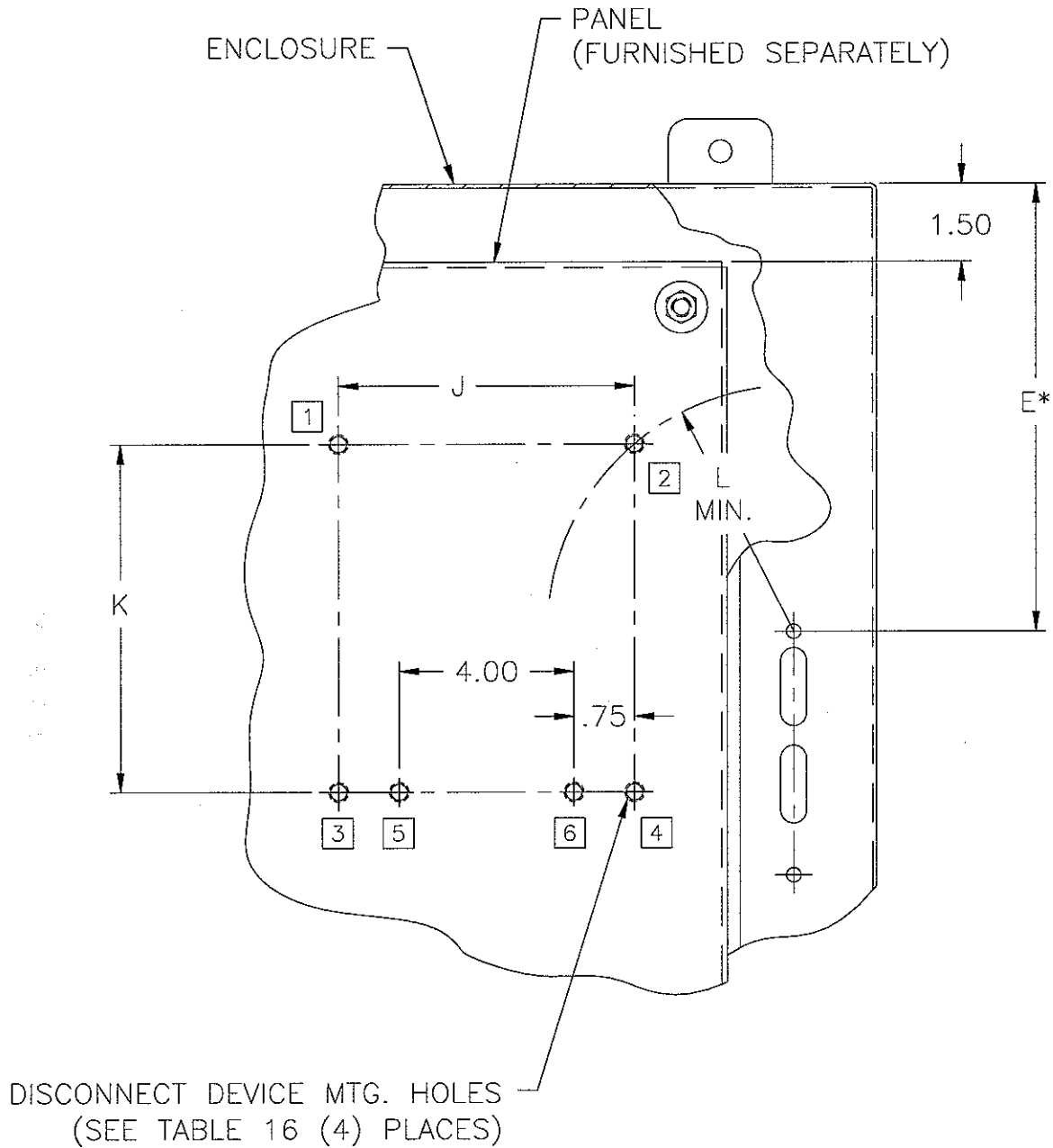
TABLE 14 Sub-Panel Drilling for Circuit Breakers (Figure 7B)				
I-T-E* Mechanism	R	S	T Min.	Hole Size
FHOE036	1.00	5.00	1.00	8-32 UNF
FHOF036	1.50	7.50	1.50	¼-20 UNC
FHOJ036	2.50	9.75	2.50	¼-20 UNC
FHOLM036	2.50	9.75	2.50	¼-20 UNC

* These mechanisms include 36" operating cables. If longer cables are needed, order I-T-E components separately.

1) Determine disconnect hole pattern from Figure 6 and above Table 10. See disconnect manufactures instructions for range of disconnect location based on cable length being used and depth of enclosure.

NOTE: Locate disconnect so appropriate wire bend space is provided for the line side wire being used. Refer to National Electrical Code 430-10b for wire bending space requirements.

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Square D 9422-CFT Flexible Cable Disconnects



* E = 8.63 FOR 8" DEEP ENCLOSURES
E = 11.63 FOR 12" DEEP ENCLOSURES

Figure 8

DN Series Flange-Mounted Disconnect Enclosures Installation Instructions for Square D 9422-CFT Flexible Cable Disconnects

TABLE 16						
Sub-Panel Drilling (Figure 8)						
Cable Mechanism	Disconnect Mechanism	J	K	L	Hole Position	Hole Size
CFT	TCN, TCF	5.50	4.50	1.00	1, 2, 5, 6	10-24 UNC
	TDN, TDF	5.50	4.50	1.00	1, 2, 5, 6	10-24 UNC
	TEN, TEF	5.50	4.50	1.00	1, 2, 5, 6	10-24 UNC
CGJ	GJL	1.18	3.94	2.50	1, 2, 3, 4	8-32 UNF
CFA	FAL, FHL	1.50	5.13	3.75	1, 2, 3, 4	8-32 UNF
CKA	KAL, KHL	1.50	7.13	3.75	1, 2, 3, 4	10-24 UNC
CLA **	LAL, LHL	6.63	6.56	2.25	1, 2, 3, 4	¼-20 UNC
		2.00	9.25	---	1, 2, 3, 4	.375 DIA.

* See Square D instructions for range of "C" dimensions which vary for 36", 60" and 120" cable lengths.

** See Square D instructions for relationship between ¼-20 UNC and .375 DIA. holes for LA circuit breaker.

1) Determine disconnect hole pattern from Figure 6 and above Table 10. See disconnect manufactures instructions for range of disconnect location based on cable length being used and depth of enclosure.

NOTE: Locate disconnect so appropriate wire bend space is provided for the line side wire being used. Refer to National Electrical Code 430-10b for wire bending space requirements.



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