



# GU/GUE/GUB Series Junction Boxes

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

IF1172

## Installation & Maintenance Information

### APPLICATION

GU/GUE/GUB Series junction boxes are used as a junction box, pull box or equipment and device enclosure in threaded rigid conduit systems.

GU/GUE/GUB Series junction boxes are suitable for use indoors or outdoors in Class I, Group B, C, D; Class II, Groups E, F, G and Class III hazardous (classified) areas as defined by the National Electrical Code® and the Canadian Electrical Code.\*

GU, GUE and GUB01 thru 08 junction boxes are supplied with an "O" ring gasket for the cover opening that makes the enclosure watertight. GUB01110 and GUB15151 junction boxes have tapered cover threads which provides a raintight seal.

### INSTALLATION

#### WARNING

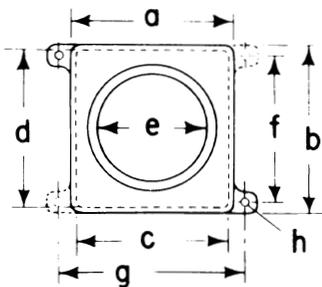
Electrical power must be **off** before and during installation and maintenance.

1. GU/GUE/GUB Series junction boxes are furnished with or without drilled and tapped conduit openings. Drilling and tapping of conduit openings is subject to the limitations of maximum size and number of openings as well as spacings. Refer to DRILLING AND TAPPING section following. All machining must be done prior to installation.
2. Select a mounting location that will provide suitable strength and rigidity for supporting all contained wiring and control devices. Figure 1. shows mounting dimensions for these junction boxes.

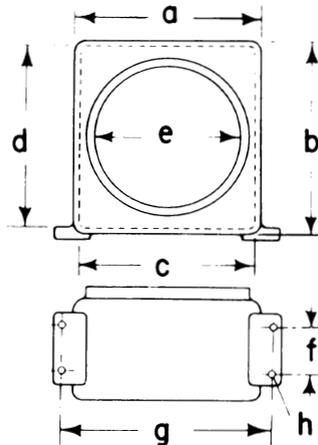
#### CAUTION

- Hazardous location information specifying class and group listing is marked on the nameplate of each junction box.
- Junction boxes installed in Class I, Division I, Groups B & C areas require approved sealing fittings to be installed within 1-1/2" of enclosure to comply with the latest edition of the National Electrical Code Section 501-5 and/or 502-5 and the Canadian Electrical Code. Installation must also meet any other applicable code(s). CSA requires GUB 01110 and 15151 enclosures to be sealed within 1-1/2" of enclosure when used in Group C and D atmospheres.
- All unused conduit openings must be plugged. Plug must engage a minimum of five full threads and be a minimum of 1/8 inch thick.

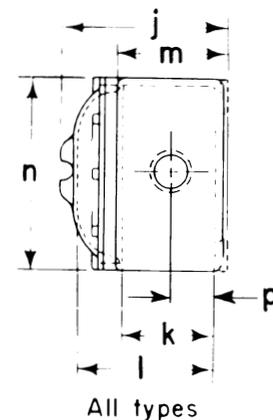
### DIMENSIONS



GUB 01, 02, 03, 06, 01110, and 15151. Dotted mounting feet are included on GUB 03, 01110, and 15151 only. GU and GUE do not have mounting feet.



GUB 04 and 08



All types

Type	a	b	c‡	d‡	e	f	g	h	j	k‡	l‡	m	n	p
GU	4-15/16	4-15/16	3-13/16	3-13/16	3-5/8	—	—	—	4-1/8	1-9/16	3-7/16	2-3/8	4-1/8	1-3/8
GUE	5-5/16	5-5/16	4-3/16	4-3/16	3-5/8	—	—	—	5-3/8	2-1/4	3-7/16	3-1/2	4-1/8	1-7/8
GUB01	6-1/2	7	5-3/8	5-7/8	5-1/2	5-3/4	7-1/2	13/32	5-3/4	3-1/16	4-1/2	4-1/16	6-1/4	2-1/16
GUB02	8	10	7-1/8	9-1/8	7	8-3/4	9	13/32	5-7/8	3	4-5/8	4-1/16	7-3/4	2-1/16
GUB06	8-1/2	10	7-3/8	8-7/8	7	8-3/4	9-1/2	7/16	7-3/8	4-1/4	5-13/16	5-1/4	7-3/4	2-1/16
GUB08	8-1/2	10	7-3/8	8-7/8	7	2-1/2	9-5/8	7/16	7-3/8	4-1/4	5-13/16	5-1/4	7-3/4	2-1/16
GUB03	11	12	9-3/4	10-3/4	9-5/8	10-3/4	12-1/8	7/16	8-13/16	5	7-3/8	6-5/8	11	3-3/8
GUB04	11	12	9-3/4	10-3/4	9-5/8	3-1/2	12-1/8	7/16	8-11/16	5	7-3/8	6-1/2	11	3-3/8
GUB01110	14-1/16	18-1/16	13	17	12-1/4	16	16	1	13-1/2	6-13/16	10-3/4	9-3/4	14	4-3/4
GUB15151	20-7/8	18-7/8	19-1/8	17-1/8	16-3/4	18	21	1	16-5/8	9	13-3/16	11-3/8	18	6

‡Inside Dimensions

Figure 1 GUB Dimensions

\* GUB01110 and 15151 are suitable for Class I, Group C and D, Class II, Group E, F & G and Class III by the Canadian Electrical Code.

®National Electrical Code is a Registered Trademark of the National Fire Protection Association.

- Securely fasten enclosure to the mounting location, then attach into conduit system.
- Unthread enclosure cover and carefully set it aside to prevent damage to the cover threads.

**CAUTION**

Use care to prevent dirt, grit or other foreign material from lodging on threads. If any such material settles on these threads, clean them with kerosene or Stoddard solvent\*, then relubricate with Crouse-Hinds Type STL thread lubricant.

(\*To avoid the possibilities of an explosion, oxidation and corrosion, do not use gasoline or similar solvents.)

- Pull wires into enclosure, making sure they are long enough to make the required connections. Make all electrical connections.
- Test wiring for correctness with continuity checks and also for unwanted grounds with insulation resistance tester.

**NOTE:** Refer to Grounding and Bonding section which follows. Grounding must be in accordance with National Electrical Code, the Canadian Electrical Code and any other applicable codes.

- Rethread cover into enclosure housing, and tighten cover.
- Pour sealing compound into sealing fittings (when required) in accordance with the instructions supplied with each of the approved fittings and sealing compound.

**DRILLING AND TAPPING FOR CONDUIT ENTRIES**

The location and maximum sizes of conduit openings must be in accordance with Table I and Figures 2 and 3.

- To comply with the NEC section 346-8 and provide a smooth entry into the enclosure, all conduit entries must be provided with Crouse-Hinds LNR series conduit liners.

- Female conduit entries must be taper tapped with the thread form and taper (3/4 in. per ft.) conforming to NPT. A standard NPT male gage must enter the tapped opening 1-1/2 turns past the gage notch. Openings are tapped deeper than standard NPT gage to ensure a minimum of five full threads engagement with standard NPT threaded conduit.

First Division of Cat.#**	Fig.	MAXIMUM SIZES OF DRILLED AND TAPPED OPENINGS (inches)												OUTLINE DIMENSIONS, DEFINED AREA (inches)				
		TOP & BOTTOM†				SIDES†				BACK WALL‡				A	B	C	D	E
		NO. OF OPENINGS				NO. OF OPENINGS				NO. OF OPENINGS								
		1	2	3	4	1	2	3	4	1	2	3	4					
<b>Group D*</b>																		
GU	2	1	1			1	1			3	1	3/4	3/4	1-3/16	11/16	11/16	11/16	11/16
GUE	2	2	1			2	1			3	1	3/4	3/4	1-3/16	11/16	11/16	11/16	11/16
GUB01	2	2	1-1/2	3/4		2	1-1/2	1	1/2	3/4	3/4	3/4	3/4	1-3/8	5/8	3/4	3/4	3/4
GUB02	2	2	2	1	3/4	2	2	1-1/2	1	3/4	3/4	3/4	3/4	1-5/16	7/8	1-1/8	1	1
GUB06	2	2	2	1	3/4	2	2	1-1/2	1	2	2	2	2	1-5/8	1-1/4	1-1/8	1-1/8	1-1/8
GUB08	3	2	2	1	3/4	2	2	1-1/2	1	2	2	2	2	1-5/8	1-3/8	1-1/8	1-1/8	1-1/8
GUB03	2	2	2	1-1/2	1	2	2	2	1-1/4	4	4	3-1/2	3	2-1/8	1-3/8	1-1/8	1-1/8	1-1/8
GUB04	3	2	2	1-1/2	1	2	2	2	1-1/4	4	4	3-1/2	3	2-1/8	1-3/8	1-1/8	1-1/8	1-1/8
GUB01110	2	2	2	2	1-1/2	2	2	2	2	6	6	4	3-1/2	2-1/4	2	1-1/8	2	1-3/8
GUB15151	2	5	4	3-1/2	2-1/2	5	4	4	3	6	6	6	6	2-3/4	2	1-7/8	1-7/8	1-7/8
<b>Group C</b>																		
GU	2	1	1			1	1			3	1	3/4	3/4	1-3/16	11/16	11/16	11/16	11/16
GUE	2	2	1			2	1			3	1	3/4	3/4	1-3/16	11/16	11/16	11/16	11/16
GUB01	2	2	1-1/4	1/2		2	1-1/4	1/2		3/4	3/4	3/4	3/4	1-3/8	5/8	3/4	3/4	3/4
GUB02	2	2	1-1/2	3/4		2	2	1-1/4	1/2	3/4	3/4	3/4	3/4	1-5/16	7/8	1-1/8	1	1
GUB06	2	2	1-1/2	3/4		2	2	1-1/4	1/2	2	2	2	1-1/2	1-5/8	1-1/4	1-1/8	1-1/8	1-1/8
GUB08	3	2	1-1/2	3/4		2	2	1-1/4	1/2	2	2	2	1-1/2	1-5/8	1-3/8	1-1/8	1-1/8	1-1/8
GUB03	2	2	2	1-1/4	3/4	2	2	1-1/2	1	4	3-1/2	2-1/2	2-1/2	2-1/8	1-3/8	1-1/8	1-1/8	1-1/8
GUB04	3	2	2	1-1/4	3/4	2	2	1-1/2	1	4	3-1/2	2-1/2	2-1/2	2-1/8	1-3/8	1-1/8	1-1/8	1-1/8
GUB01110	2	2	2	2	1-1/4	2	2	2	2	6	6	4	3-1/2	2-1/4	2	1-1/8	2	1-3/8
GUB15151	2	5	4	3	2	5	4	3-1/2	2-1/2	6	6	6	5	2-3/4	2	1-7/8	1-7/8	1-7/8
<b>Group B</b>																		
GU	2	1	1			1	1			3	1	3/4	3/4	1-3/16	11/16	11/16	11/16	11/16
GUE	2	2	1			2	1			3	1	3/4	3/4	1-3/16	11/16	11/16	11/16	11/16
GUB01	2	2	1-1/4	1/2		2	1-1/4	1/2		3/4	3/4	3/4	3/4	1-3/8	5/8	3/4	3/4	3/4
GUB02	2	2	1-1/2	3/4		2	2	1-1/4	1/2	3/4	3/4	3/4	3/4	1-5/16	7/8	1-1/8	1	1
GUB06	2	2	1-1/2	3/4		2	2	1-1/4	1/2	2	2	2	1-1/2	1-5/8	1-1/4	1-1/8	1-1/8	1-1/8
GUB08	3	2	1-1/2	3/4		2	2	1-1/4	1/2	2	2	2	1-1/2	1-5/8	1-3/8	1-1/8	1-1/8	1-1/8
GUB03	2	2	2	1-1/4	3/4	2	2	1-1/2	1	4	3-1/2	2-1/2	2-1/2	2-1/8	1-3/8	1-1/8	1-1/8	1-1/8
GUB04	3	2	2	1-1/4	3/4	2	2	1-1/2	1	4	3-1/2	2-1/2	2-1/2	2-1/8	1-3/8	1-1/8	1-1/8	1-1/8
GUB01110	2	2	2	2	1-1/4	2	2	2	2	4	4	4	4	2-1/4	2	1-1/8	2	1-3/8
GUB15151	2	4	4	3-1/2	2-1/2	4	4	3-1/2	2-1/2	4	4	4	4	2-3/4	2	1-7/8	1-7/8	1-7/8

\*Group D chart is based on use of staggered unions. If adjacent unions are desired, additional spacing may be necessary.

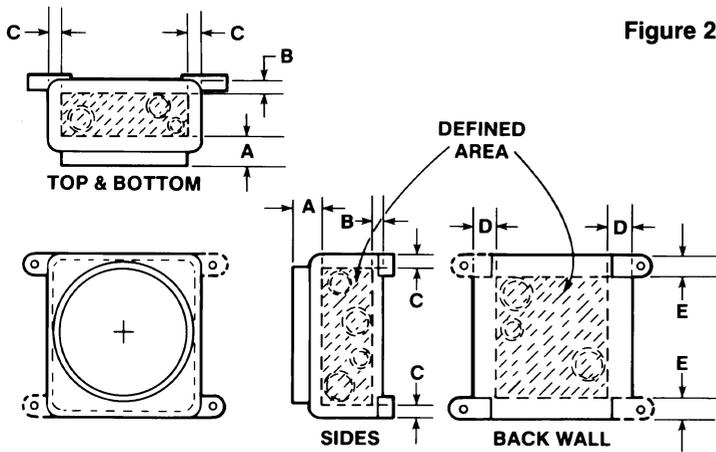
†Sidewall and top and bottom sizes are based on all openings being in line.

‡Backwall sizes are based on: two per side—diagonal corners; four per side—one in each corner; three per side—triangular pattern with two on adjacent corners of long wall and third in center of opposite long wall.

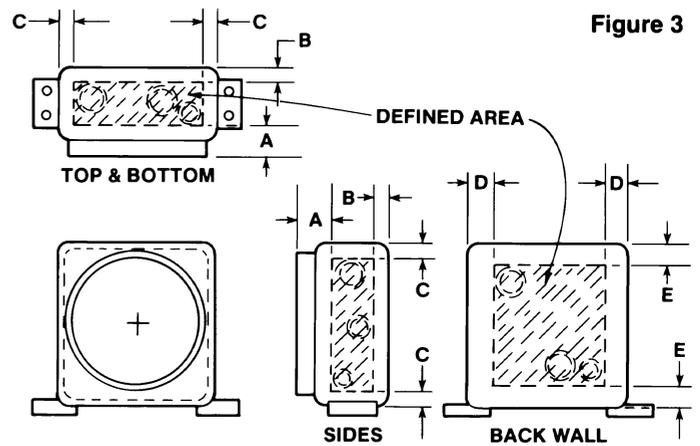
\*\*UL Listed Junction Boxes

**Table 1**  
**Field Drilling Chart, GU/GUE/GUB Junction Boxes**

- Openings may be tapped to accept UL and CSA listed reducers that provide an integral conduit stop.



GU, GUE, GUB01, 02, 03, 06, 01110 and 15151



GUB 04 and 08

**NOTE:** When reducers are used, maximum conduit size will be one size smaller than the drilled and tapped opening shown in table. Maximum conduit size is 5" when bushings are used.

- The minimum center-to-center distance of drilled and tapped conduit openings for conduit using reducers, conduit bushings and/or unions not directly adjacent to each other must be in accordance with Table III.

**CAUTION**

Additional spacing may be required if conduit fittings are located adjacent to each other.

If reducers are used, the spacing is to be based on the trade size of the outside thread of the reducer, not the trade size of the conduit.

- The minimum center-to-center distance of drilled and tapped openings for conduit fittings located immediately adjacent to each other is determined as follows:

1. **For conduit with non-interfering sealing fittings** — The center-to-center distance is the total of: 1/2 the outside diameter (O.D.) of the larger conduit; 1/4 inch clearance; and the turning radius of the sealing fitting used in the smaller conduit.
2. **For conduit adjacent sealing fittings** — The center-to-center distance is the total of: the turning radius of the smaller sealing fitting; 1/2 the outside diameter (O.D.) of the adjacent sealing fitting and 1/4 inch clearance.
3. **For conduit with adjacent unions** — The center-to-center distance is the total of: the turning radius of both unions; and 1/4 inch clearance.

**DRILLED AND TAPPED CONDUIT OPENINGS  
MINIMUM CENTER-TO-CENTER DISTANCE (IN.)**

Conduit Size	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
1/2	1-1/2											
3/4	1-5/8	1-3/4										
1	1-3/4	1-7/8	2									
1-1/4	2	2-1/8	2-1/4	2-1/2								
1-1/2	2-1/8	2-1/4	2-3/8	2-5/8	2-3/4							
2	2-3/8	2-1/2	2-5/8	2-7/8	3	3-1/4						
2-1/2	2-3/4	2-7/8	3-1/8	3-1/4	3-3/8	3-5/8	3-7/8					
3	3-1/8	3-1/4	3-3/8	3-1/2	3-5/8	4	4-1/4	4-5/8				
3-1/2	3-3/8	3-1/2	3-5/8	3-7/8	4	4-1/4	4-1/2	4-7/8	5-1/8			
4	3-3/4	3-7/8	4	4-1/8	4-1/4	4-1/2	4-7/8	5-1/8	5-3/8	5-3/4		
5	4-3/4	4-7/8	5	5-1/8	5-1/4	5-1/2	5-3/4	6-1/8	6-3/8	6-5/8	7-1/4	
6	5-1/4	5-3/8	5-1/2	5-3/4	5-7/8	6-1/8	6-3/8	6-5/8	6-7/8	7-1/8	7-3/4	8-1/4

**Table III**

**CAUTION**

Sealing fittings must be installed with access allowing the dams to be made and the sealing compound to be properly poured.

## GROUNDING AND BONDING

A ground lug pad screw hole or recess has been provided in the inside bottom of the body. The minimum size equipment grounding conductor for grounding raceway and equipment shall be in accordance with National Electrical Code Table 250-95 and the Canadian Electrical Code Part 1 Table 16.

GU, GUE and GUB 01 thru 08 bodies are provided with one lug. GUB 01110 and 15151 are provided with two lugs. Select the proper lug based on the required ground wire size needed in the installation.

## MAINTENANCE

### WARNING

Always disconnect primary power source before opening enclosure for inspection or service.

1. Frequent inspection should be made. A schedule for maintenance check should be determined by the environment and frequency of use. It is recommended that it should be at least once a year.
2. Perform visual, electrical and mechanical checks on all components on a regular basis.
  - Visually check for undue heating evidenced by discoloration of wires or other components, damaged parts, or leakage evidenced by water or corrosion in the interior.
  - Electrically check to make sure that all connections are clean and tight.
  - Mechanically check that all parts are properly assembled.

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*All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Crouse-Hinds "Terms and Conditions of Sale", and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.*

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