



To learn more about B-I-A please visit us at our
WEB site: www.BiaGmbH.com





Style D shown

EXPLOSIONPROOF JUNCTION BOXES

Available in styles C and D, EJB junction boxes provide an ideal, cost-effective solution for threaded rigid conduit systems in hazardous areas or where exposure to water and humidity is a concern.

Listed for field drilling and tapping of conduit entries for flexible application.

UL classified and CSA certified.



FEATURES

OPTIONAL STAINLESS STEEL HINGES may be ordered factory- or field-installed.

Available in many sizes.

FOUR INTERNAL MOUNTING PADS are factory machined to enable adding a mounting plate in the field.

OPTIONAL MOUNTING PLATES may be ordered factory- or field-installed. (mounting plate not shown).

NEOPRENE COVER GASKET provides a NEMA 4 (hose-tight) and IP66 environmental rating.

INTERNAL GROUND LUG makes grounding electrical equipment quick and simple.

STAINLESS STEEL, SPRING-LOADED, TRIPLE-THREAD, CAPTIVE HEX-HEAD BOLTS deliver quick access and a visual indication that cover bolts are fully retracted from body (on Style C enclosures only).

Wiring and mounting of electrical apparatus is easy, thanks to an **EXTERNAL-FLANGE DESIGN** which enables an unobstructed cover opening and a completely accessible interior.

All enclosures are **MACHINED FOR FIELD INSTALLATION** of optional hinges or mounting plates.

DETACHABLE MOUNTING FEET for flexible mounting—no need to replace the entire enclosure if a mounting foot is broken.

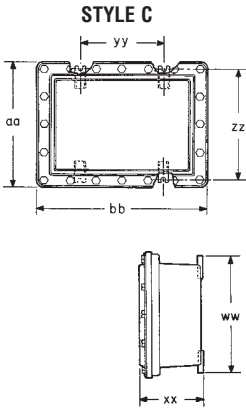
FLAT COVER provides space for mounting control devices. (consult factory for requirements)

FERALOY® IRON OR COPPER-FREE ALUMINUM CONSTRUCTION provides the best material solution for challenging environmental conditions.

ORDERING INFORMATION

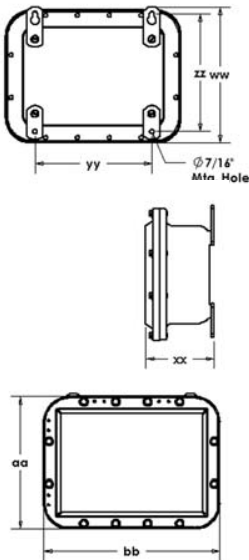
Style C

DIMENSIONS (IN INCHES)



Catalog No.	NOMINAL INSIDE			OUTSIDE							Net Wt. (lbs.) w/Cover
	Sides (aa)	Top & Bot (bb)	Depth (bb)	aa	bb	Mtg. Hole	ww	xx	yy	zz	
EJB100806	10	8	6	13 ³ / ₃₂	15 ³ / ₃₂	9 ¹ / ₁₆	12 ¹ / ₄	8 ³ / ₁₆	5 ¹ / ₂	11 ¹ / ₄	60
EJB121204	12	12	4	17 ¹ / ₁₆	17 ¹ / ₁₆	9 ¹ / ₁₆	16 ¹ / ₈	6 ¹³ / ₁₆	5 ¹ / ₂	15 ¹ / ₈	60
EJB121206	12	12	6	17 ¹ / ₁₆	17 ¹ / ₁₆	9 ¹ / ₁₆	16 ¹ / ₈	8 ⁷ / ₈	5 ¹ / ₂	15 ¹ / ₈	70
EJB121208	12	12	8	17 ¹ / ₁₆	17 ¹ / ₁₆	9 ¹ / ₁₆	16 ¹ / ₈	10 ⁷ / ₈	5 ¹ / ₂	15 ¹ / ₈	80
EJB161606	16	16	6	21 ³ / ₁₆	21 ³ / ₁₆	9 ¹ / ₁₆	20 ¹ / ₈	8 ⁷ / ₈	9 ¹ / ₂	19 ¹ / ₈	103
EJB161608	16	16	8	21 ³ / ₁₆	21 ³ / ₁₆	9 ¹ / ₁₆	20 ¹ / ₈	10 ⁷ / ₈	9 ¹ / ₂	19 ¹ / ₈	113
EJB181206	12	18	6	17 ⁵ / ₁₆	23 ³ / ₁₆	9 ¹ / ₁₆	16 ¹ / ₈	8 ⁷ / ₈	11 ¹ / ₂	15 ¹ / ₈	101
EJB181208	12	18	8	17 ⁵ / ₁₆	23 ³ / ₁₆	9 ¹ / ₁₆	16 ¹ / ₈	10 ⁷ / ₈	11 ¹ / ₂	15 ¹ / ₈	110
EJB241208	12	24	8	17 ⁵ / ₁₆	29 ⁹ / ₁₆	9 ¹ / ₁₆	16 ¹ / ₈	11 ³ / ₄	17 ¹ / ₂	15 ¹ / ₈	149
EJB241210	12	24	10	17 ⁵ / ₁₆	29 ⁹ / ₁₆	9 ¹ / ₁₆	16 ¹ / ₈	13 ³ / ₄	17 ¹ / ₂	15 ¹ / ₈	160
EJB241808	18	24	8	23 ³ / ₁₆	29 ³ / ₈	11 ¹ / ₁₆	23 ¹ / ₂	12 ¹ / ₄	17 ¹ / ₄	21 ¹ / ₈	243
EJB242408	24	24	8	29 ³ / ₁₆	29 ³ / ₁₆	11 ¹ / ₁₆	29 ¹ / ₂	12 ⁹ / ₁₆	16 ¹ / ₄	27 ¹ / ₈	296
EJB242410	24	24	10	29 ³ / ₁₆	29 ³ / ₁₆	11 ¹ / ₁₆	29 ¹ / ₂	14 ³ / ₁₆	16 ¹ / ₄	27 ¹ / ₈	322
EJB361208	12	36	8	17 ¹ / ₁₆	41 ¹ / ₁₆	9 ¹ / ₁₆	16 ¹ / ₈	11 ¹¹ / ₁₆	29 ¹ / ₂	15 ¹ / ₈	185
EJB361808	18	36	8	23 ¹⁵ / ₁₆	41 ¹⁵ / ₁₆	11 ¹ / ₁₆	23 ¹ / ₂	12 ⁷ / ₁₆	28 ¹ / ₄	21 ¹ / ₈	351
EJB362408	24	36	8	30 ³ / ₁₆	42 ³ / ₁₆	11 ¹ / ₁₆	31 ¹ / ₄	12 ³ / ₈	28 ¹ / ₄	29 ¹ / ₂	571
EJB602212*	60	22	12	29	66 ¹ / ₂	11 ¹ / ₁₆	70	14 ¹ / ₄	68	15	1,078

STYLE D



Style D

DIMENSIONS (IN INCHES)

Catalog No.	NOMINAL INSIDE			OUTSIDE							Net Wt. (lbs.) w/Cover
	Sides (aa)	Top & Bot (bb)	Depth (bb)	aa	bb	Mtg. Hole	ww	xx	yy	zz	
EJB060404	4	6	4	8 ¹¹ / ₃₂	10 ¹¹ / ₃₂	7 ¹ / ₁₆	8 ³ / ₄	6 ¹ / ₈	5	7 ¹ / ₈	43
EJB080604	6	8	4	10 ¹⁵ / ₃₂	12 ¹⁵ / ₃₂	7 ¹ / ₁₆	10 ²⁵ / ₃₂	6 ³ / ₁₆	7	9 ¹ / ₈	64
EJB080606	6	8	6	10 ¹⁵ / ₃₂	12 ¹⁵ / ₃₂	7 ¹ / ₁₆	10 ²⁵ / ₃₂	8 ³ / ₁₆	7	9 ¹ / ₈	84
EJB080806	8	8	6	12 ¹⁵ / ₃₂	12 ¹⁵ / ₃₂	7 ¹ / ₁₆	12 ²⁵ / ₃₂	8 ⁷ / ₃₂	7	11 ¹ / ₈	98
EJB120804	8	12	4	12 ¹ / ₂	16 ¹ / ₂	7 ¹ / ₁₆	12 ¹⁹ / ₁₆	6 ³ / ₈	11	11 ¹ / ₈	103
EJB160404	4	16	4	8 ¹ / ₂	20 ¹ / ₂	7 ¹ / ₁₆	8 ¹³ / ₁₆	6 ⁵ / ₃₂	15	7 ¹ / ₈	86
EJB060404-SA	4	6	4	8 ¹¹ / ₃₂	10 ¹¹ / ₃₂	7 ¹ / ₁₆	8 ³ / ₄	6 ¹ / ₈	5	7 ¹ / ₈	16
EJB080604-SA	6	8	4	10 ¹⁵ / ₃₂	12 ¹⁵ / ₃₂	7 ¹ / ₁₆	10 ²⁵ / ₃₂	6 ³ / ₁₆	7	9 ¹ / ₈	24
EJB080606-SA	6	8	6	10 ¹⁵ / ₃₂	12 ¹⁵ / ₃₂	7 ¹ / ₁₆	10 ²⁵ / ₃₂	8 ³ / ₁₆	7	9 ¹ / ₈	32
EJB080806-SA	8	8	6	12 ¹⁵ / ₃₂	12 ¹⁵ / ₃₂	7 ¹ / ₁₆	12 ²⁵ / ₃₂	8 ⁷ / ₃₂	7	11 ¹ / ₈	37
EJB120604-SA	6	12	4	10 ¹ / ₂	16 ¹ / ₂	7 ¹ / ₁₆	10 ¹⁹ / ₁₆	6 ³ / ₁₆	11	9 ¹ / ₈	32
EJB120804-SA	8	12	4	12 ¹ / ₂	16 ¹ / ₂	7 ¹ / ₁₆	12 ¹⁹ / ₁₆	6 ³ / ₈	11	11 ¹ / ₈	39
EJB120808-SA	8	12	8	12 ¹ / ₂	16 ¹ / ₂	7 ¹ / ₁₆	12 ¹⁹ / ₁₆	10 ³ / ₈	11	11 ¹ / ₈	56
EJB160404-SA	4	16	4	8 ¹ / ₂	20 ¹ / ₂	7 ¹ / ₁₆	8 ¹³ / ₁₆	6 ⁵ / ₃₂	15	7 ¹ / ₈	33
EJB101008-SA	10	10	8	14 ²¹ / ₃₂	14 ²¹ / ₃₂	7 ¹ / ₁₆	14 ⁷ / ₈	10 ³ / ₈	9	13 ¹ / ₈	59
EJB141006-SA	10	14	6	14 ²¹ / ₃₂	18 ²¹ / ₃₂	7 ¹ / ₁₆	14 ⁷ / ₈	8 ¹⁵ / ₃₂	13	13 ¹ / ₈	66

* Class I, Division 1 & 2, Groups C & D only.

Available with Lightning Service. Blank enclosures without options will ship within 24 hours. Enclosures with drilled and tapped openings, hinges and/or mounting plate will ship within 72 hours. Maximum quantity for Lightning Service is 5 boxes.

ORDERING INSTRUCTIONS

EJB junction boxes can be furnished with drilled and tapped conduit entries, subject to the limitations of maximum size and number of openings as well as spacing, as shown in Tables 1 and 2.

TO ORDER:

Step 1. Select the box required from Ordering Information.

Step 2. Select the standard conduit arrangement desired from Table 1, based on number of drilled and tapped conduit entries per side. Table 2 lists the maximum size and number of openings permitted for each box size.

Step 3. Select the appropriate symbols for required drilled and tapped openings from Table 3.

EXAMPLE:

Step 1. Box required is an EJB080604

Step 2. Arrangement 2 has been selected which allows up to two drilled and tapped conduit openings per side.

Step 3. Openings desired are two 1" openings on the top and bottom of the box, one 3/4" opening on the right side and no openings on the left side of the box. Symbols from Table 3 are then substituted and written in clockwise order starting with "a." When no opening is required at a particular location use symbol "0."

For this example the final catalog number is EJB080604-2-CC B0 CC 00.

If none of the standard arrangements meet your requirements, send a sketch showing junction box catalog number with size and location of each conduit opening desired.

For field drilling and tapping of junction boxes, see instruction sheet IF 931 (Style C) and IF 1444 (Style D)

TABLE 1—CONDUIT ARRANGEMENT DIAGRAMS

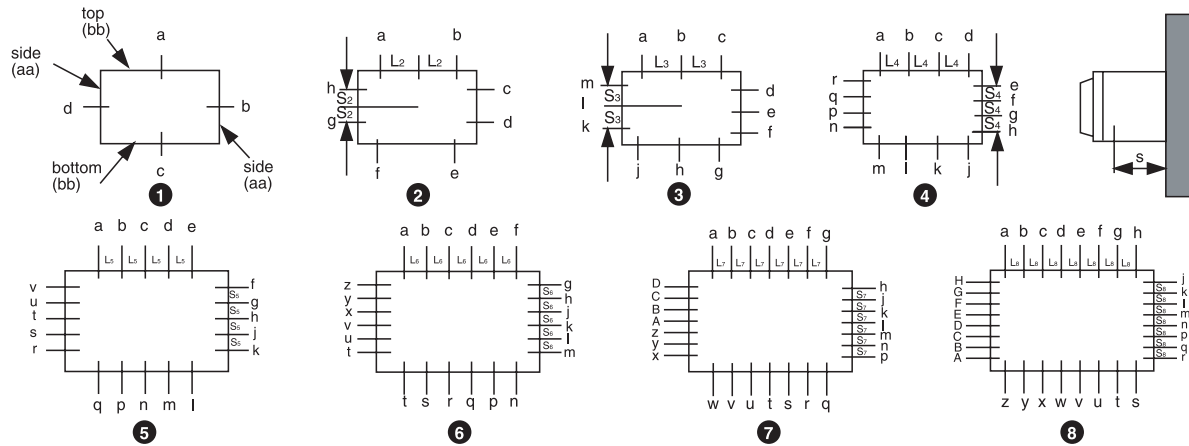


TABLE 2—CONDUIT ARRANGEMENTS—Style C (Note: Spacing dimensions for Style C boxes on back cover)

Catalog No.	Maximum Trade Size and Number of Openings								Sides (aa)							
	Top and Bottom (bb)*								1	2	3	4	5	6	7	8
EJB100806	3½	3	1½	1¼	—	—	—	—	3½	2½	1½	1¼	—	—	—	—
EJB121204	1½	1½	1½	1½	1	¾	½	—	1½	1½	1½	1¼	1	¾	½	—
EJB121206	3½	3½	1½	1½	1	¾	½	—	3½	3½	1½	1¼	1	¾	½	—
EJB121208	5	3½	1½	1½	1	¾	½	—	5	3½	1½	1¼	1	¾	½	—
EJB161606	3½	3½	2½	2	1½	1¼	1	¾	3½	3½	2½	2	1½	1¼	1	¾
EJB161608	5	5	3	2	1½	1¼	1	¾	5	5	3	2	1½	1¼	1	¾
EJB181206	3½	3½	3½	2½	1½	1½	1	¾	3½	3½	1½	1¼	1	¾	½	—
EJB181208	5	5	3½	2½	2	1½	1	1	5	3½	1½	1¼	1	¾	½	—
EJB241208	5	5	5	3½	3	2½	2	1½	5	3½	1½	1¼	1	1	½	—
EJB241210	6	6	5	3½	3	2½	2	1½	6	3½	1½	1¼	1	1	½	—
EJB241808	5	5	5	3½	3	2½	2	1½	5	5	3½	2½	2	1½	1¼	1
EJB242408	5	5	5	3½	3	2½	2	1½	5	5	5	3½	3	2½	2	1½
EJB242410	6	6	5	3½	3	2½	2	1½	6	6	5	3½	3	2½	2	1½
EJB361208	5	5	5	5	4	4	3½	2½	5	3½	1½	1¼	1	¾	½	—
EJB361808	5	5	5	5	4	4	3½	2½	5	5	3½	2½	2	1½	1¼	1
EJB362408	5	5	5	5	4	4	3½	2½	5	5	5	3½	3	2½	2	1½

TABLE 2—CONDUIT ARRANGEMENTS—Style D

Catalog No.	Maximum Trade Size and Number of Openings								Spacing Dimensions							
	Top and Bottom (bb)*				Sides (aa)				S	L2	S2	L3	S3	L4	S4	
EJB060404	2	1¼	½	—	2	½	—	—	2⅝	1⅝	1⅛	2⅞	—	—	—	—
EJB080604	2	2	1	½	2	1¼	½	—	2⅝	2⅞	1⅝	2¼	2⅞	2⅛	—	—
EJB080606	3½	2	1	½	3½	1¼	½	—	3¾	2¼	1⅝	2¼	2⅞	2⅛	—	—
EJB080806	3½	2	1	½	3½	2	1	½	3¾	2¼	2¼	2¼	2¼	2⅞	2⅛	—
EJB101008	4	2½	1½	1	4	2½	1½	1	4¾	2¼	2¼	3⅞	3⅞	2⅞	2⅞	—
EJB120604	2	2	2	1¼	2	¼	½	—	2¾	3	1⅝	4⅞	2⅞	3⅞	—	—
EJB120804	2	2	2	1¼	2	2	1	½	2⅞	3	2¼	4⅞	2¼	3⅞	2⅞	—
EJB120808	4	4	2	1¼	4	2	1	½	4¾	3¼	2¼	4⅞	2¼	3⅞	2⅞	—
EJB141006	3½	3½	2½	1½	3½	2½	1½	1	3⅞	3¾	2¼	5	3⅞	3⅞	2⅞	—
EJB160404	2	2	2	2	2	½	—	—	2⅝	3	1⅛	6	—	4⅞	—	—

NOTE: Conduit seals are required in all conduit entrances for Class I, Division 1, Group B hazardous areas, and for EJB361208, EJB361808, EJB362408, and all Style D enclosures when used in Class I, Division 1, Group C hazardous areas. For other sealing requirements, consult the National Electrical Code®. Where standard arrangements are not adequate, special drilling and tapping can be ordered, or instructions can be provided for field drilling and tapping. Breathers and drains must be ordered separately. Maximum trade size for Group B applications is 4."

* Top and bottom are longer dimensions on enclosures which are not square.

TABLE 3—SYMBOLS FOR OPENINGS

Conduit Size	Hole Symbol	Conduit Size	Hole Symbol	Conduit Size	Hole Symbol
½"	A	2"	G	4"	L
¾"	B	2½"	H	5"	M
1"	C	3"	J	6"	N
1¼"	E	3½"	K	None	0
1½"	F				

APPLICATIONS

EJB junction boxes are used in threaded, rigid conduit systems in hazardous areas:

- as a junction or pull box
- to provide enclosures for splices and branch circuit taps
- for housing terminal blocks, relays and other electrical devices
- as mounting boxes for multi-device custom control panels
- indoors or outdoors in damp, wet, dusty, corrosive and hazardous locations where exposure to frequent or heavy rain, water spray, moisture and humidity is common, such as offshore drilling facilities, cooling towers, coal preparation and handling facilities, sewage treatment plants and food processing facilities
- in areas which are hazardous due to the presence of hazardous gases, vapors, dusts or fibers

STANDARD MATERIALS

Body and Cover—Feraloy® iron alloy (Style D) or copper-free aluminum (Style D when ordered with suffix -SA and all Style C)

Gasket—neoprene

Cover bolts—stainless steel (Style C), steel (Style D)

Hinges—stainless steel

Mounting plate—sheet aluminum

FINISHES

Feraloy iron alloy—electrogalvanized finish and aluminum acrylic paint

Copper-free aluminum—natural

Steel—electrogalvanized

CERTIFICATIONS AND COMPLIANCES

- NEC/CEC
 - Class I, Divisions 1 and 2, Groups B*, C† and D‡
 - Class II, Division 1, Groups E, F and G
 - Class II, Division 2, Groups F and G
 - Class III
 - Class I, Zones 1 and 2
- UL Standard 886
- cUL to CSA Standard C22.2 No. 30
- Style C only: GENELEC EEx d IIB + H₂ T6, IP66
ATEX certificate: PTB 01 ATEX 1020 U (when ordered with -ATEX suffix)
- Enclosure Type 3, 3R, 4, 7BCD, 9EFG

* For Group B, install sealing fitting in each conduit run within 18" of the enclosure.

† EJB361208, 361808, 362408 and all Style D enclosures require sealing fittings within 18" of enclosure for each conduit run for Group C locations.

‡ Style D enclosures require sealing fittings within 18" of enclosure for each conduit run for Group D locations.

OPTIONS

Description	Suffix to be added to Cat. No.
Hinged covers. Hinges mounted on left (short side). Available on all Style C and the following Style D enclosures: EJB101008-SA, EJB120804, EJB120804-SA, EJB120808-SA & EJB141006-SA	-S598
Hinge kit for field installation of hinges. (No machining required.)	
for EJB100806 through EJB361208	EJB-KIT 1 (2 hinges)
for EJB361808	EJB-KIT 3 (3 hinges)
for EJB362408	EJB-KIT 4 (4 hinges)
for EJB101008-SA, EJB120804, EJB120804-SA, EJB120808-SA & EJB141006-SA	EJB-KIT 5 (2 hinges)
GENELEC certified (Style C only)	-ATEX
Factory installed aluminum mounting plate	-MP
Factory drilled and tapped conduit entries	See ordering instructions

MOUNTING PLATE KITS (FOR FIELD INSTALLATION)

Select kit number that matches junction box number.

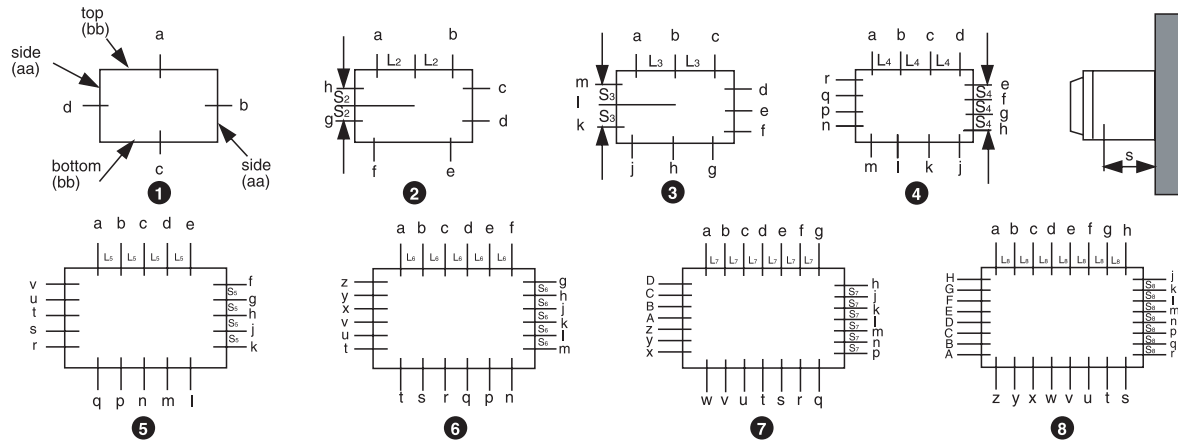
Example: EJB-MP1410 is used in EJB141006-SA

Catalog No. Style C	Catalog No. Style D
EJB-MP1008	EJB-MP0604
EJB-MP1212	EJB-MP0806
EJB-MP1616	EJB-MP0808
EJB-MP1812	EJB-MP1206
EJB-MP2412	EJB-MP1208
EJB-MP2418	EJB-MP1604
EJB-MP2424	EJB-MP1010
EJB-MP3612	EJB-MP1410
EJB-MP3618	
EJB-MP3624	

SPACING DIMENSIONS—Style C

Catalog No.	S	L2	S2	L3	S3	L4	S4	L5	S5	L6	S6	L7	S7	L8	S8
EJB100806	3 ³ / ₈	2 ³ / ₄	1 ⁷ / ₈	3	2 ³ / ₈	2 ¹ / ₄	1 ³ / ₄	—	—	—	—	—	—	—	—
EJB121204	3	2 ¹ / ₄	2 ¹ / ₄	3 ⁵ / ₈	3 ⁵ / ₈	3 ¹ / ₁₆	3 ¹ / ₁₆	2	2	1 ³ / ₄	1 ³ / ₄	1 ¹ / ₂	1 ¹ / ₂	—	—
EJB121206	3 ³ / ₄	3	3	3 ⁵ / ₈	3 ⁵ / ₈	3 ¹ / ₁₆	3 ¹ / ₁₆	2	2	1 ³ / ₄	1 ³ / ₄	1 ¹ / ₂	1 ¹ / ₂	—	—
EJB121208	4 ³ / ₄	3	3	3 ⁵ / ₈	3 ⁵ / ₈	3 ¹ / ₁₆	3 ¹ / ₁₆	2	2	1 ³ / ₄	1 ³ / ₄	1 ¹ / ₂	1 ¹ / ₂	—	—
EJB161606	3 ³ / ₄	3	3	4 ⁵ / ₈	4 ⁵ / ₈	4 ³ / ₁₆	4 ³ / ₁₆	2 ³ / ₄	2 ³ / ₄	2 ¹ / ₂	2 ¹ / ₂	2	2	1 ³ / ₄	1 ³ / ₄
EJB161608	4 ³ / ₄	3 ¹ / ₄	3 ¹ / ₄	4 ⁵ / ₈	4 ⁵ / ₈	4 ³ / ₁₆	4 ³ / ₁₆	2 ³ / ₄	2 ³ / ₄	2 ¹ / ₂	2 ¹ / ₂	2	2	1 ³ / ₄	1 ³ / ₄
EJB181206	3 ³ / ₄	3	3	6	3 ⁵ / ₈	4 ⁵ / ₈	3 ¹ / ₁₆	2 ³ / ₄	2	2 ³ / ₄	1 ³ / ₄	2	1 ¹ / ₂	1 ³ / ₄	—
EJB181208	4 ³ / ₄	4 ³ / ₁₆	3	6	3 ⁵ / ₈	4 ⁵ / ₈	3 ¹ / ₁₆	3 ¹ / ₄	2	2 ³ / ₄	1 ³ / ₄	2	1 ¹ / ₂	2	—
EJB241208	5 ¹ / ₈	4 ³ / ₁₆	3	8 ⁷ / ₁₆	3 ⁵ / ₈	6	3 ¹ / ₁₆	4 ⁵ / ₈	2	3 ⁷ / ₈	2	3 ¹ / ₄	1 ¹ / ₂	2 ³ / ₄	—
EJB241210	6 ¹ / ₈	4 ³ / ₄	3	8 ⁷ / ₁₆	3 ⁵ / ₈	6	3 ¹ / ₁₆	4 ⁵ / ₈	2	3 ⁷ / ₈	2	3 ¹ / ₄	1 ¹ / ₂	2 ³ / ₄	—
EJB241808	5 ¹ / ₄	4 ³ / ₁₆	4 ³ / ₁₆	8 ⁷ / ₁₆	6	6	4 ⁵ / ₈	4 ⁵ / ₈	3 ¹ / ₄	3 ⁷ / ₈	2 ³ / ₄	3 ¹ / ₄	2 ¹ / ₂	2 ³ / ₄	2
EJB242408	5 ³ / ₈	4 ³ / ₁₆	4 ³ / ₁₆	8 ⁷ / ₁₆	8 ⁷ / ₁₆	6	6	4 ⁵ / ₈	4 ⁵ / ₈	3 ⁷ / ₈	3 ⁷ / ₈	3 ¹ / ₄	3 ¹ / ₄	2 ³ / ₄	2 ³ / ₄
EJB242410	6 ³ / ₈	4 ³ / ₄	4 ³ / ₄	8 ⁷ / ₁₆	8 ⁷ / ₁₆	6	6	4 ⁵ / ₈	4 ⁵ / ₈	3 ⁷ / ₈	3 ⁷ / ₈	3 ¹ / ₄	3 ¹ / ₄	2 ³ / ₄	2 ³ / ₄
EJB361208	4 ³ / ₄	4 ⁷ / ₁₆	3	8 ⁷ / ₁₆	3 ⁵ / ₈	8 ⁷ / ₁₆	3 ¹ / ₁₆	5 ³ / ₄	2	5 ³ / ₄	1 ³ / ₄	5 ¹ / ₈	1 ¹ / ₂	3 ⁷ / ₈	—
EJB361808	5 ¹ / ₂	4 ⁷ / ₁₆	4 ⁷ / ₁₆	8 ⁷ / ₁₆	6	8 ⁷ / ₁₆	4 ⁵ / ₈	5 ³ / ₄	3 ¹ / ₄	5 ³ / ₄	2 ³ / ₄	5 ¹ / ₈	2 ¹ / ₂	3 ⁷ / ₈	2
EJB362408	6	4 ³ / ₄	4 ³ / ₁₆	8 ⁷ / ₁₆	8 ⁷ / ₁₆	8 ⁷ / ₁₆	6	5 ³ / ₄	4 ⁵ / ₈	5 ³ / ₄	3 ⁷ / ₈	5 ¹ / ₈	3 ¹ / ₄	3 ⁷ / ₈	2 ³ / ₄

CONDUIT ARRANGEMENT DIAGRAMS



To learn more about B-I-A please visit us at our
WEB site: www.BiaGmbH.com



EJB, Style C Model M82 Series Junction Boxes

Installation & Maintenance Information

IF 931

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

APPLICATION

EJB series junction boxes are used as a junction box or pull box in rigid conduit systems.

EJB series junction boxes are suitable for use indoors or outdoors and are UL Listed and CSA Certified for Class I, Groups 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®, and include a gasket to meet type 4 watertight requirements.

EJB series junction boxes should be installed, inspected and maintained by qualified and competent personnel.

INSTALLATION



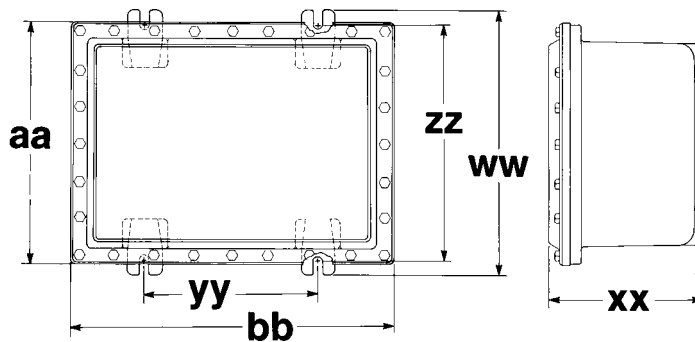
WARNING

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

1. EJB series junction boxes are furnished with or without drilled and tapped 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 the mounting dimensions for the four detachable mounting feet.



Catalog No.	DIMENSIONS (in.)								Net Wt. W/Cover (Lb.)
	Inside Depth **	aa	bb	Mtg. Hole	ww	xx	yy	zz	
EJB100806	6-3/8	13-1/32	15-1/32	9/16	12-1/4	8-9/16	5-1/2	11-1/4	60
121204	4-13/16	17-1/16	17-1/16	9/16	16-1/8	6-15/16	5-1/2	15-1/8	60
121206	6-13/16	17-1/16	17-1/16	9/16	16-1/8	8-9/16	5-1/2	15-1/8	70
121208	8-13/16	17-1/16	17-1/16	9/16	16-1/8	10-9/16	5-1/2	15-1/8	80
161606	6-11/16	21-3/16	21-3/16	9/16	20-1/4	8-9/16	9-1/2	19-1/8	103
161608	6-11/16	21-3/16	21-3/16	9/16	20-1/4	10-9/16	9-1/2	19-1/8	113
181206	8-11/16	17-5/16	23-5/16	9/16	16-3/8	8-9/16	11-1/2	15-1/8	101
181208	6-13/16	17-5/16	23-5/16	9/16	16-3/8	10-9/16	11-1/2	15-1/8	110
241208	9-1/4	17-9/16	29-9/16	9/16	16-5/8	11-5/16	17-1/2	15-1/8	149
241210	11-1/4	17-9/16	29-9/16	9/16	16-5/8	13-5/16	17-1/2	15-1/8	160
241808	8-3/4	23-9/16	29-5/8	11/16	23-1/2	11-13/16	17-1/4	21-7/8	243
241810	10-3/4	23-9/16	29-5/8	11/16	23-1/2	13-13/16	17-1/4	21-7/8	258
242408	8-7/16	23-9/16	29-9/16	11/16	29-1/2	11-13/16	16-1/4	27-7/8	296
242410	10-7/16	23-9/16	29-9/16	11/16	29-1/2	13-13/16	16-1/4	27-7/8	322
361208	8-5/8	16-5/16	40-5/16	9/16	16-1/8	11-5/8	29-1/2	15-1/8	185
361808	8-5/8	23-15/16	41-15/16	11/16	23-3/4	11-7/8	28-1/4	21-7/8	357
361810	10-5/8	23-15/16	41-15/16	11/16	23-3/4	14-1/4	28-1/4	21-7/8	396
362408	8-1/4	30-3/16	42-3/16	11/16	30-3/8	12-3/4	28-1/4	28-1/2	571

*Body and Cover

Figure 1. EJB-M82 Dimensions

© National Electrical Code is a Register Trademark of the National Fire Protection Association.

© Canadian Electrical Code is a voluntary code for Adoption and Enforcement by Regulatory Authorities.

3. Install detachable mounting feet.

- Insert four wedge shaped mounting feet into dove-tail slots in enclosure body.
- Tap each foot to securely tighten into slot.

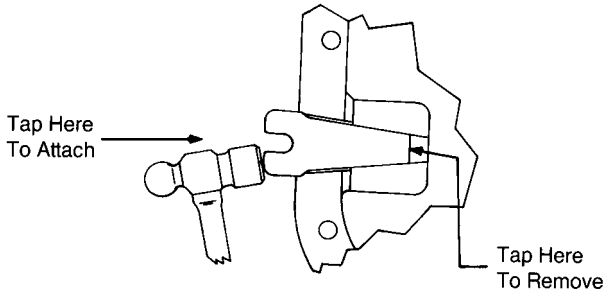


Figure 2. Mounting Feet

4. Securely fasten enclosure to the mounting location, then attach into conduit system. Install approved conduit sealing fittings when required by Section 501-5 and/or 502-5 of the National Electrical Code plus any other applicable standards.

CAUTION

- Hazardous location information specifying class and group listing of each device is marked on the nameplate of each enclosure. Class and group listing for any device penetrating the enclosure must be suitable for the classification of the location in which the enclosure is installed.
- All unused conduit openings must be plugged. Listed plug must engage a minimum of five full threads and be a minimum of 1/8 inch thick.
- In Class I, Division 1, Group B locations, conduit sealing fittings MUST be installed in each attached conduit run (within eighteen inches of the enclosure) to comply with the latest edition of the National Electrical Code Section 501-5 and/or 502-5 plus any other applicable code.
- Conduit sealing fittings are required on all conduit entrances (within eighteen inches of the enclosure) for EJB361208, EJB361808, EJB361810 and EJB362408 enclosures when used in Class I, Div. 1, Group C hazardous areas. For other sealing requirements, consult the National Electrical Code®.

CAUTION

Do not use cover bolts as a means to lift the enclosure. Excessive force on the fully retracted cover bolts may damage the bolt/spring assembly.

5. Loosen all cover bolts until each bolt is fully retracted into the cover by the stainless steel spring under the bolt head. Remove the nuts from two stud bolts, then lift off cover and carefully set it aside to prevent damage to the ground-joint and flange gasket.

NOTE: EJB junction boxes without cover hinges have two stud bolts located at diagonally opposite corners of the body to aid in positioning cover. Do not remove stud bolts. Covers may be handled more easily by installing two 5/8-11 triple lead eyebolts into the two threaded holes provided in the cover where provided. The eyebolts should only be threaded part way through the cover to prevent damage to the machined flange of the body.

EJB enclosures are furnished with captive triple lead bolts, that utilize a spring to aid and indicate full retraction of the bolts into the cover when opening and closing. Make sure all cover bolts are fully retracted into the cover before attempting to open or close the cover.

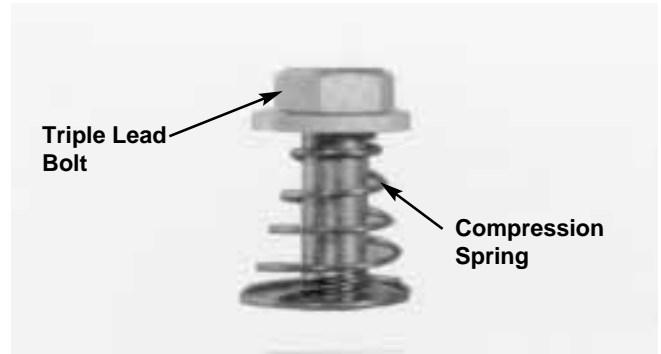


Figure 3

When bolts are disengaged from the body flange threads, the bolts will withdraw and be held in this position by the spring and washer under the bolt heads. (See Figure 3)

After all bolts are fully disengaged, firmly grasp the bottom and right side of the cover and carefully swing cover aside to prevent damage to the ground joint surface. Avoid striking cover, or devices in cover, on neighboring enclosures or structures.

CAUTION

Hammers or prying tools must not be allowed to damage the flat ground-joint surfaces or cover gasket. Do not handle covers roughly, or place them on surfaces that might damage or scratch the flat ground-joint surfaces.

6. Pull wires into enclosure, making sure they are long enough to make the required connections. Make all electrical connections. Enclosures with suffix "ATEX" are provided with an external ground lug located at lower left of the body.

7. Test wiring for correctness with continuity checks and also for unwanted grounds with insulation resistance tester.

CAUTION

Clean both ground-joint surfaces of body and cover before closing. Dirt or foreign material must not accumulate on flat ground-joint surfaces. Surfaces must seat fully against each other to provide a proper explosionproof seal.

8. To install cover, make sure cover and body ground joint surfaces are clean and not scratched. Orient cover to align with two stud bolts on body. Lift cover to approximate position, and line up bolt holes of cover with body. **Avoid** sliding cover ground-joint surface over ground-joint surface of body. Cover/body bolt holes must match up. Hand start the corner bolts. Fully tighten all cover bolts (torque to 40-45 ft. lbs.) and then reinstall the two 5/16 - 18 hinge bolts (torque to 8ft. lbs.) in the cover.

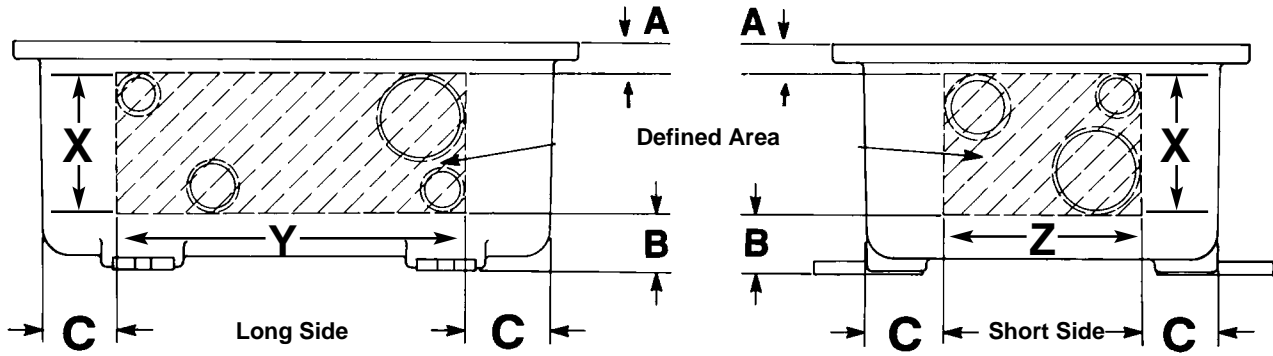
9. Pour sealing compound into sealing fittings (when required) in accordance with the instructions supplied with each of the approved fittings and sealing compound.

BREATHER AND DRAIN

Junction boxes installed with breather and/or drains must be protected during hosedown operations. The junction box is watertight but the breather and drain are not.

CAUTION

Check breather and/or drain or their carton label to be certain that they are suitable for the hazardous location (class and group) in which they are being installed.



Catalog Number	Maximum* Size of Drilled and Tapped Conduit Openings								Outlined Dimensions Defined Area			Dimensions Defined Area		
	Long Side				Short Side				A	B	C	X	Y	Z
	Number of Openings				Number of Openings									
1	2	3	4	1	2	3	4							
EJB100806	3-1/2	3	1-1/2	1-1/4	3-1/2	2-1/2	1-1/2	1-1/4	1-1/8	1-3/4	1-1/4	4.46	9.25	7.25
EJB121204	1-1/2	1-1/2	1-1/2	1-1/4	1-1/2	1-1/2	1-1/2	1-1/4	1-1/8	1-3/4	1-1/4	2.38	11.31	11.31
EJB121206	3-1/2	3-1/2	1-1/2	1-1/4	3-1/2	3-1/2	1-1/2	1-1/4	1-1/8	1-7/8	1-1/4	4.32	11.13	11.13
EJB121208	5	3-1/2	1-1/2	1-1/4	5	3-1/2	1-1/2	1-1/4	1-1/8	1-7/8	1-1/4	6.38	11.06	11.06
EJB161606	3-1/2	3-1/2	2-1/2	2	3-1/2	3-1/2	2-1/2	2	1-1/8	2	1-1/4	4.19	15.13	15.13
EJB161608	5	5	3	2	5	5	3	2	1-1/8	2	1-1/4	6.19	15.06	15.06
EJB181206	3-1/2	3-1/2	3-1/2	2-1/2	3-1/2	3-1/2	1-1/2	1-1/4	1-1/8	2	1-1/4	4.23	16.50	10.50
EJB181208	5	5	3-1/2	2-1/2	5	3-1/2	1-1/2	1-1/4	1-1/8	2	1-1/4	6.22	16.44	10.44
EJB241208	5	5	5	3-1/2	5	3-1/2	1-1/2	1-1/4	1-7/16	2	1-3/8	5.97	23.43	11.43
EJB241210	6	6	5	3-1/2	6	3-1/2	1-1/2	1-1/4	1-7/16	2	1-3/8	7.97	23.36	11.36
EJB241808	5	5	5	3-1/2	5	5	3-1/2	2-1/2	1-7/16	2-5/8	1-3/8	5.85	23.08	17.06
EJB241810	6	6	5	3-1/2	6	6	3-1/2	2-1/2	1-7/16	2-5/8	1-3/8	7.85	23.01	17.01
EJB242408	5	5	5	3-1/2	5	5	5	3-1/2	1-7/16	2-11/16	1-3/8	5.85	23.08	23.08
EJB242410	6	6	5	3-1/2	6	6	5	3-1/2	11-7/16	2-11/16	1-3/8	7.85	23.01	23.01
EJB361208	5	5	5	5	5	3-1/2	1-1/2	1-1/4	1-7/16	2	1-3/8	5.92	34.97	10.97
EJB361808	5	5	5	5	5	5	3-1/2	2-1/2	1-7/16	2-13/16	1-3/8	5.83	35.08	17.08
EJB361810	6	6	5	5	6	6	3-1/2	2-1/2	1-7/16	2-5/16	1-5/8	8.29	35.40	17.40
EJB362408	5	5	5	5	5	5	3-1/2	3-1/2	1-7/16	3-1/4	2	5.56	35.05	23.05

TABLE 1

Consult our sales office for proper space for installing and servicing fittings such as seals, unions, GUA's etc.
 *Maximum conduit size permitted in Group B locations is 4".

DRILLING AND TAPPING FOR CONDUIT ENTRIES

- To comply with the NEC section 346-8, all conduit entries must be provided with a smooth rounded entry into the enclosure. This may be accomplished in various ways including the use of RE series reducers or by using LNR series conduit liners.

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

- Female conduit 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 (refer to NEMA FB-1-4.01)

If more than four (4) conduit entries, or a mix of conduit entry trade sizes are needed in any wall of the enclosure, use the following instructions:

- From Table 1, determine how many 5" conduit entries are

permitted on a side.‡ For example, a quantity of (4) 5" entries are permitted on the long side of an EJB361808.

- For each 5" conduit entry permitted‡, one may substitute a quantity of smaller conduit entry trade sizes.
- Some smaller enclosures cannot accept a 5" opening, in which case, the maximum number of 3 1/2" or 1 1/2" conduit openings must be determined (again, using Table 1).
- Use Table 2 to determine how many of the smaller conduit entries may be substituted for either the 5", the 3 1/2" or the 1 1/2" trade size. Use Table 3 for minimum spacing of conduit entries.

Basis of Substitution	1/2"	3/4"	1"	1 1/4"	1 1/2"	2	2 1/2"	3"	3 1/2"	4"	5"
5"	9	7	7	4	3	2	1	1	1	1	1
3 1/2"	5	4	3	2	1	1	1	1	1	0	0
1 1/2"	2	2	1	1	1	0	0	0	0	0	0

TABLE 2

Number and size of smaller conduit entries which may be substituted for 5" or 3 1/2" entries.

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	4-7/8	4-1/4	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

Minimum clearance for unions only.

TABLE 3

- For conduit entries with non-interfering vertical seals: center-to-center distance is the total of; 1/2 the outside diameter of the larger conduit plus the turning radius of the sealing fitting used in the smaller conduit plus 1/4 inch clearance.
- For conduit entries with non-interfering horizontal seals: center-to-center distance is the total of; 1/2 the outside diameter of the larger conduit plus the turning radius of the sealing fitting used in the smaller conduit plus 2 inches clearance for pouring.

CAUTION

While the number of openings derived from the above will result in a safe configuration, the number of openings could be reduced if center-to-center spacings were required to be increased for the following reason:

- If sealing fittings are required to be installed in the conduit, sufficient room must be provided to install, pack and pour the fitting after the conduit and fittings are installed and the conductors are in place. This is particularly important in horizontal conduit runs, when fittings are directly over one another.

CAUTION

The space between drilled & tapped conduit entries is a factor of the following considerations:

- Ability to install conduit with a variety of fittings (for various reasons, the conduit which is to be threaded into each conduit entry may, in turn, be threaded into a variety of fittings including (but not limited to) the following: unions, sealing fittings of various types, and GUA type fittings. Dimensions of these fittings are provided in the manufacturer catalog, and should be referred to in planning a conduit layout.)
- All drilled and tapped conduit entries must fall completely within the defined areas as specified in Table 1.

MAINTENANCE

WARNING

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

- 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.
- 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 or worn parts, or leakage evidenced by water or corrosion in the interior.
 - Electrically check to make sure that all connections are clean and tight and that contacts in the components make or break as required.
 - Mechanically check that all parts are properly assembled, and operating mechanisms move freely.
- EJB gasketed junction boxes: do not attempt field replacement or repair of cover gasket. Instead, remove damaged gasket and continue to use cover without gasket. This will assure safety for use in Class I and Class II hazardous (classified) locations. However, the enclosure will **not be** watertight.

CAUTION

Clean both ground-joint surfaces of body and cover before closing. Dirt or foreign material must not accumulate on flat ground-joint surfaces. Surfaces must seat fully against each other to provide a proper explosionproof seal.

EJB, Style D Series Junction Boxes

Installation & Maintenance Information

IF 1444

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

APPLICATION

EJB series junction boxes are used as junction boxes or pull boxes in rigid conduit systems.

EJB series junction boxes are suitable for use indoors or outdoors and are UL Listed and cUL certified to CSA Standards for Class I, Groups 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®, and include a gasket to meet type 4 watertight requirements.

EJB series junction boxes should be installed, inspected and maintained by qualified and competent personnel.

INSTALLATION

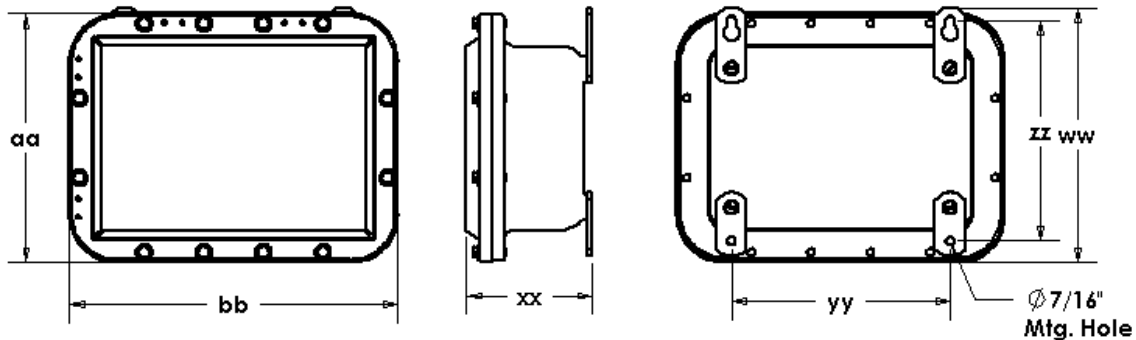


WARNING

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

1. EJB series junction boxes are furnished with or without drilled and tapped 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 the mounting dimensions for the four detachable mounting feet.
3. Remove cover bolts securing cover. Carefully set cover aside to prevent damage to the machined joint and cover gasket. Remove mounting feet kit, balance of cover screws and hinge kit (if ordered with suffix -S598) from inside enclosure.
4. Install mounting feet.
 - Use (4) 5/16-18 screws supplied to attach mounting foot to pre-drilled hole on back wall of enclosure



Catalog No.	DIMENSIONS (in.)							Net Wt. (Lb.)
	Inside Depth *	aa	bb	ww	xx	yy	zz	
EJB060404	4-5/8	8-11/32	10-11/32	8-3/4	6-1/8	5	7-1/8	43
EJB060404 SA	4-5/8	8-11/32	10-11/32	8-3/4	6-1/8	5	7-1/8	16
EJB080604	4-5/8	10-15/32	12-15/32	10-25/32	6-3/16	7	9-1/8	64
EJB080604 SA	4-5/8	10-15/32	12-15/32	10-25/32	6-3/16	7	9-1/8	24
EJB080606	6-5/8	10-15/32	12-15/32	10-25/32	8-3/16	7	9-1/8	84
EJB080606 SA	6-5/8	10-15/32	12-15/32	10-25/32	8-3/16	7	9-1/8	32
EJB080806	6-5/8	12-15/32	12-15/32	12-25/32	8-7/32	7	11-1/8	98
EJB080806 SA	6-5/8	12-15/32	12-15/32	12-25/32	8-7/32	7	11-1/8	37
EJB101008 SA	8-5/8	14-21/32	14-21/32	14-7/8	10-3/8	9	13-1/8	59
EJB120604 SA	4-5/8	10-1/2	16-1/2	10-13/16	6-3/16	11	9-1/8	32
EJB120804	4-5/8	12-1/2	16-1/2	12-13/16	6-3/8	11	11-1/8	103
EJB120804 SA	4-5/8	12-1/2	16-1/2	12-13/16	6-3/8	11	11-1/8	39
EJB120808 SA	8-5/8	12-1/2	16-1/2	12-13/16	10-3/8	11	11-1/8	56
EJB141006 SA	6-5/8	14-21/32	18-21/32	14-7/8	8-15/32	13	13-1/8	66
EJB160404	4-5/8	8-1/2	20-1/2	8-13/16	6-5/32	15	7-1/8	86
EJB160404 SA	4-5/8	8-1/2	20-1/2	8-13/16	6-5/32	15	7-1/8	33

* Body and Cover

Figure 1. EJB Style D Dimensions

© National Electrical Code is a Register Trademark of the National Fire Protection Association.

© Canadian Electrical Code is a voluntary code for Adoption and Enforcement by Regulatory Authorities.

- Securely fasten enclosure to the mounting location, then attach into conduit system. Install approved conduit sealing fittings in all conduit entries within 18 inches of enclosure.

CAUTION

- Hazardous location information specifying class and group listing of each device is marked on the nameplate of each enclosure. Class and group listing for any device penetrating the enclosure must be suitable for the classification of the location in which the enclosure is installed.
- All unused conduit openings must be plugged with a listed plug that engages a minimum of five full threads and is a minimum of 1/8 inch thick.
- In Class I, Division 1 locations, conduit sealing fittings **MUST** be installed in each attached conduit run (within eighteen inches of the enclosure) to comply with the latest edition of the National Electrical Code Section plus any other applicable code.

CAUTION

Hammers or prying tools must not be allowed to damage the flat ground-joint surfaces or cover gasket. Do not handle covers roughly, or place them on surfaces that might damage or scratch the flat machined joint surfaces.

- Pull wires into enclosure, making sure they are long enough to make the required connections. Make all electrical connections. Enclosures with suffix "ATEX" are provided with an external ground lug.
- Test wiring for correctness with continuity checks and also for unwanted grounds with insulation resistance tester.

CAUTION

Clean both ground-joint surfaces of body and cover before closing. Dirt or foreign material must not accumulate on flat ground-joint surfaces. Surfaces must seat fully against each other to provide a proper explosionproof joint.

- To install cover, make sure cover and body ground joint surfaces are clean and not scratched. Lift cover to approximate position, and line up bolt holes of cover with body. **Avoid** sliding cover machined joint surface over machined joint surface of body. Cover and body bolt holes must match up. Hand start the corner bolts. Fully tighten all cover bolts in the cover. See Table 1
- If hinges were ordered (suffix -S598) install hinges to body and cover as shown in figure 2 and 3.

Catalog Number	Cover Screw	Required Torque (Ft.-Lbs.)
EJB060404	1/4-20	10 - 15
EJB080604	5/16-18	20 - 25
EJB080606	5/16-18	20 - 25
EJB060806	5/16-18	20 - 25
EJB101008	3/8-16	35 - 40
EJB120604	3/8-16	35 - 40
EJB120804	3/8-16	35 - 40
EJB120808	3/8-16	35 - 40
EJB141006	3/8-16	35 - 40
EJB160404	3/8-16	35 - 40

Table 1

- Install sealing fittings (when required) in accordance with the instructions supplied with each of the approved fittings and sealing compound.



- Attach female hinge leaf to cover using two lock washers and screws as shown. When required, place spacer between cover and female leaf.
 - After female hinge leaf is secured to cover, slide pin of male hinge leaf into female leaf. Align mounting holes with holes in body flange and secure with two lock washers and screws.
- Note:** Spacer required on EJB120804 and EJB120808.

Figure 2

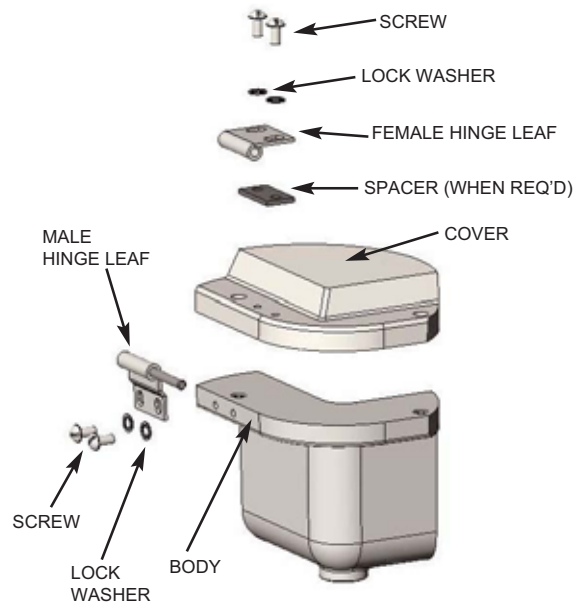


Figure 3

BREATHER AND DRAIN

Junction boxes installed with breather and/or drains must be protected during hosedown operations. The junction box is watertight but the breather and drain are not.

CAUTION

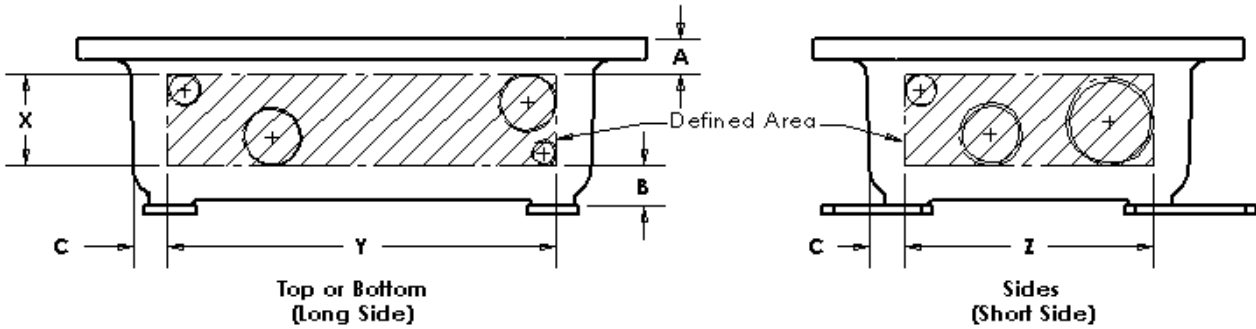
Check breather and/or drain or their carton label to be certain that they are suitable for the hazardous location (class and group) in which they are being installed.

DRILLING AND TAPPING FOR CONDUIT ENTRIES

- To comply with the NEC, all conduit entries must be provided with a smooth rounded entry into the enclosure. This may be accomplished in various ways including the use of RE series reducers or by using LNR series conduit liners.

The location and maximum sizes of conduit openings must be in accordance with Table 2 on the next page.

- Female conduit 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.



Catalog No.	Maximum Size of Drilled and Tapped Conduit Openings								Outlined Dimensions Defined Area			Dimensions Defined Area		
	Top and Bottom (Long Side)				Side (Short Side)									
	Number of Openings				Number of Openings				A	B	C	X	Y	Z
	1	2	3	4	1	2	3	4						
EJB060404	2	1-1/2	1		2	3/4			1	1-1/16	1-3/16	2-1/2	4-3/4	2-3/4
EJB060404 SA	2	1-1/2	1		2	3/4			1	1-1/16	1-3/16	2-1/2	4-3/4	2-3/4
EJB080604	2	2	1-1/4	3/4	2	1-1/2	3/4		1	1-1/4	1-3/16	2-1/2	6-3/4	4-3/4
EJB080604 SA	2	2	1-1/4	3/4	2	1-1/2	3/4		1	1-1/4	1-3/16	2-1/2	6-3/4	4-3/4
EJB080606	3-1/2	2-1/2	1-1/4	3/4	3-1/2	1-1/2	3/4		1	1-1/4	1-7/16	4-3/8	6-3/4	4-3/4
EJB080606 SA	3-1/2	2-1/2	1-1/4	3/4	3-1/2	1-1/2	3/4		1	1-1/4	1-7/16	4-3/8	6-3/4	4-3/4
EJB080806	3-1/2	2-1/2	1-1/4	3/4	3-1/2	2-1/2	1-1/4	3/4	1	1-3/8	1-7/16	4-3/8	6-3/4	6-3/4
EJB080806 SA	3-1/2	2-1/2	1-1/4	3/4	3-1/2	2-1/2	1-1/4	3/4	1	1-3/8	1-7/16	4-3/8	6-3/4	6-3/4
EJB101008 SA	4	3	1-1/2	1	4	3	1-1/2	1	1-1/8	1-1/2	1-7/16	6-1/4	8-3/4	8-3/4
EJB120604 SA	2	2	2	1-1/4	2	1-1/2	3/4		1	1-3/8	1-3/16	2-1/4	10-3/4	4-3/4
EJB120804	2	2	2	1-1/4	2	2	1-1/4	3/4	1	1-1/8	1-3/16	2-5/8	10-3/4	6-3/4
EJB120804 SA	2	2	2	1-1/4	2	2	1-1/4	3/4	1	1-1/8	1-3/16	2-5/8	10-3/4	6-3/4
EJB120808 SA	4	4	2-1/2	1-1/2	4	2-1/2	1-1/4	3/4	1	1-1/2	1-7/16	6-1/4	10-3/4	6-3/4
EJB141006 SA	3-1/2	3-1/2	3	2	3-1/2	3	2	1	1-1/8	1-5/8	1-7/16	4-1/8	12-3/4	8-3/4
EJB160404	2	2	2	2	2	3/4			1	1-1/8	1-3/16	2-7/16	14-3/4	2-3/4
EJB160404 SA	2	2	2	2	2	3/4			1	1-1/8	1-3/16	2-7/16	14-3/4	2-3/4

TABLE 2

Consult our sales office for proper space for installing and servicing fittings such as seals, unions, GUA's etc.

If more than four (4) conduit entries, or a mix of conduit entry trade sizes are needed in any wall of the enclosure, use the following instructions:

- From Table 2, determine how many 4" conduit entries are permitted on a side. For example, a quantity of (2) 4" entries are permitted on the long side of an EJB120808.
- For each 4" conduit entry permitted, one may substitute a quantity of smaller conduit entry trade sizes.
- Some smaller enclosures cannot accept a 4" opening, in which case, the maximum number of 3 1/2" or 2" conduit openings must be determined (again, using Table 2).
- Use Table 3 to determine how many of the smaller conduit entries may be substituted for either the 4", the 3 1/2" or the 2" trade size. Use Table 4 for minimum spacing of conduit entries.

Basis of Substitution	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
4"	7	5	4	3	2	1	1	1	1	1
3 1/2"	5	4	3	2	1	1	1	1	1	0
2"	2	2	1	1	1	1	0	0	0	0

TABLE 3

Number and size of smaller conduit entries which may be substituted for 4", 3 1/2", or 2" entries.

Conduit Size	DRILLED AND TAPPED CONDUIT OPENINGS MINIMUM CENTER-TO-CENTER DISTANCE (IN.)									
	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
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	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

TABLE 4 - Minimum clearance for unions only.

- For conduit entries with non-interfering vertical seals: center-to-center distance is the total of 1/2 the outside diameter of the larger conduit plus the turning radius of the sealing fitting used in the smaller conduit plus 1/4 inch clearance.
- For conduit entries with non-interfering horizontal seals: center-to-center distance is the total of 1/2 the outside diameter of the larger conduit plus the turning radius of the sealing fitting used in the smaller conduit plus 2 inches clearance for pouring.

CAUTION

While the number of openings derived from the above will result in a safe configuration, the number of openings could be reduced if center-to-center spacings were required to be increased for the following reason:

- If sealing fittings are required to be installed in the conduit, sufficient room must be provided to install, pack and pour the fitting after the conduit and fittings are installed and the conductors are in place. This is particularly important in horizontal conduit runs, when fittings are directly over one another.

⚠ CAUTION

The space between drilled & tapped conduit entries is a factor of the following considerations:

- Ability to install conduit with a variety of fittings (for various reasons, the conduit which is to be threaded into each conduit entry may, in turn, be threaded into a variety of fittings including (but not limited to) the following: unions, sealing fittings of various types, and GUA type fittings. Dimensions of these fittings are provided in the manufacturer catalog, and should be referred to in planning a conduit layout.)
- All drilled and tapped conduit entries must fall completely within the defined areas as specified in Table 1.

MAINTENANCE**⚠ WARNING**

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

In addition to the following required maintenance procedures, we recommend an Electrical Preventative Maintenance program as described in the National Fire Protection Association NFPA No. 70B.

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 or worn parts, or leakage evidenced by water or corrosion in the interior.
 - Electrically check to make sure that all connections are clean and tight and that contacts in the components make and break as required.
 - Mechanically check that all parts are properly assembled and operating mechanisms move freely.
3. EJB gasketed junction boxes: do not attempt field replacement or repair of cover gasket. Instead, remove damaged gasket and continue to use cover without gasket. This will assure safety for use in Class I and Class II hazardous (classified) locations. However, the enclosure will **not be** watertight.

⚠ CAUTION

Clean both machined joint surfaces of body and cover before closing. Dirt or foreign material must not accumulate on flat machined joint surfaces. Surfaces must seat fully against each other to provide a proper explosionproof joint.

To learn more about B-I-A please visit us at our
WEB site: www.BiaGmbH.com

