

Installation & Maintenance Information

IF 1676

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. The ATEX and IECEX certifications include all EJB Enclosures listed in Tables 1 & 2. EJB Style C Enclosures are constructed of aluminum. EJB Style D Enclosures are constructed of iron, unless suffix -SA is used, making them aluminum.

- IEC 60079-0 Edition 6 2011-06
- IEC 60079-1 Edition 6 2007-04
- IEC 60079-31 Edition 1 2008-11

EJB Series classified enclosures ordered with suffix -ATEX meet the ATEX/IECEX directive and are certified by ETL. EJB classified enclosures with -ATEX suffix have the following classification: II 2 G Ex d IIB + H₂ Gb and II 2 D Ex tb IIIC Db. ATEX/IECEX certified boxes have an IP66 rating and include all EJB Enclosures in Tables 1 & 2. ATEX certified boxes cannot be field drilled and tapped for entries. All entries must be drilled and tapped by Crouse-Hinds at the factory.

EJB Series Junction Boxes should be installed, inspected and maintained by qualified and competent personnel.

- EN 60079-0 2012
- EN 60079-1: 2007
- EN 60079-31: 2009

INSTALLATION

⚠ WARNING

To avoid the risk of fire, explosion or electric shock: Electrical power must be off before and during installation and maintenance.

1. Select a mounting location that will provide suitable strength and rigidity for supporting all contained wiring and control devices. Figure 1 shows the EJB Style C mounting feet locations for the four (4) detachable mounting feet. Table 1 shows EJB Style C mounting dimensions. Figure 2 and Table 2 show the mounting feet locations and dimensions for EJB Style D.

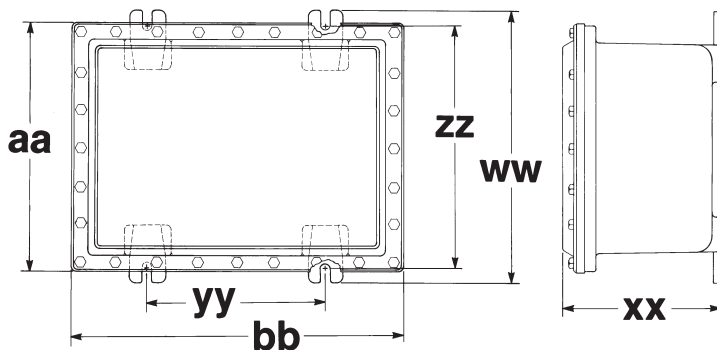


Figure 1

Catalog No.*	Inside Depth**	DIMENSIONS (in.)							Net Wt. with Cover (Lb.)
		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
EJB121204	4-13/16	17-1/16	17-1/16	9/16	16-1/8	6-15/16	5-1/2	15-1/8	60
EJB121206	6-13/16	17-1/16	17-1/16	9/16	16-1/8	8-9/16	5-1/2	15-1/8	70
EJB121208	8-13/16	17-1/16	17-1/16	9/16	16-1/8	10-9/16	5-1/2	15-1/8	80
EJB161606	6-11/16	21-3/16	21-3/16	9/16	20-1/4	8-9/16	9-1/2	19-1/8	103
EJB161608	6-11/16	21-3/16	21-3/16	9/16	20-1/4	10-9/16	9-1/2	19-1/8	113
EJB181206	8-11/16	17-5/16	23-5/16	9/16	16-3/8	8-9/16	11-1/2	15-1/8	101
EJB181208	6-13/16	17-5/16	23-5/16	9/16	16-3/8	10-9/16	11-1/2	15-1/8	110
EJB241208	9-1/4	17-9/16	29-9/16	9/16	16-5/8	11-5/16	17-1/2	15-1/8	149
EJB241210	11-1/4	17-9/16	29-9/16	9/16	16-5/8	13-5/16	17-1/2	15-1/8	160
EJB241808	8-3/4	23-9/16	29-5/8	11/16	23-1/2	11-13/16	17-1/4	21-7/8	243
EJB241810	10-3/4	23-9/16	29-5/8	11/16	23-1/2	13-13/16	17-1/4	21-7/8	258
EJB242408	8-7/16	29-9/16	29-9/16	11/16	29-1/2	11-13/16	16-1/4	27-7/8	296
EJB242410	10-7/16	29-9/16	29-9/16	11/16	29-1/2	13-13/16	16-1/4	27-7/8	322
EJB361208	8-5/8	16-5/16	40-5/16	9/16	16-1/8	11-5/8	29-1/2	15-1/8	185
EJB361808	8-5/8	23-15/16	41-15/16	11/16	23-3/4	11-7/8	28-1/4	21-7/8	357
EJB361810	10-5/8	23-15/16	41-15/16	11/16	23-3/4	14-1/4	28-1/4	21-7/8	396
EJB362408	8-1/4	30-3/16	42-3/16	11/16	30-3/8	12-3/4	28-1/4	28-1/2	571

Table 1. EJB Style C Dimensions

*All catalog numbers are constructed of aluminum.

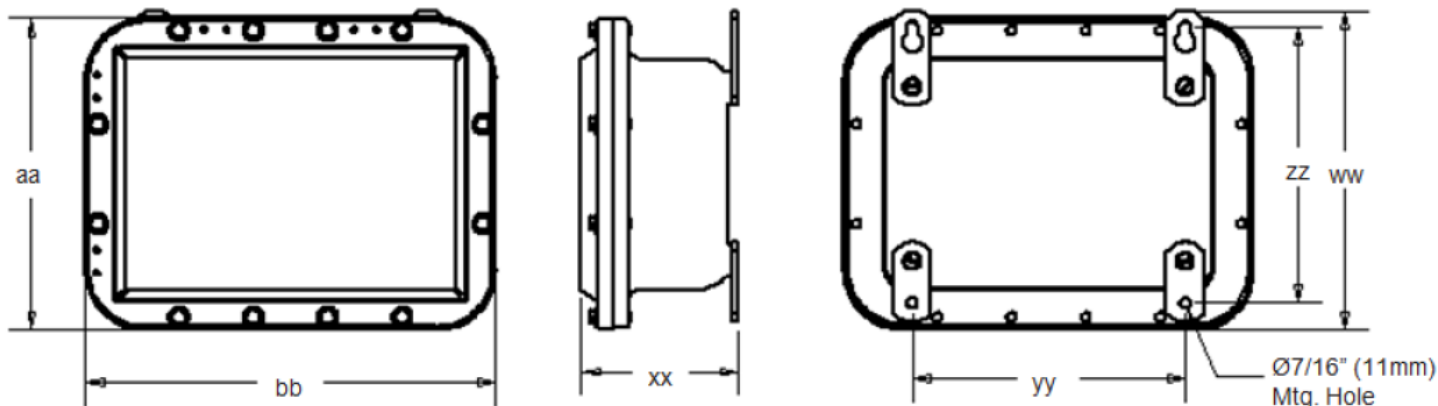


Figure 2

Catalog No.*	Inside Depth**	DIMENSIONS (in.)						Net Wt. with Cover (Lb.)
		aa	bb	ww	xx	yy	zz	
EJB060404	4-5/8 (118)	8-11/32 (212)	10-11/32 (288)	8-3/4 (222)	6-1/8 (156)	5 (127)	7-1/8 (181)	43 (16)
EJB060404 SA	4-5/8 (118)	8-11/32 (212)	10-11/32 (288)	8-3/4 (222)	6-1/8 (156)	5 (127)	7-1/8 (181)	16 (6)
EJB080604	4-5/8 (118)	10-15/32 (266)	12-15/32 (317)	10-25/32 (274)	6-3/16 (157)	7 (178)	9-1/8 (232)	64 (24)
EJB080604 SA	4-5/8 (118)	10-15/32 (266)	12-15/32 (317)	10-25/32 (274)	6-3/16 (157)	7 (178)	9-1/8 (232)	24 (9)
EJB080606	6-5/8 (168)	10-15/32 (266)	12-15/32 (317)	10-25/32 (274)	8-3/16 (208)	7 (178)	9-1/8 (232)	84 (31)
EJB080606 SA	6-5/8 (168)	10-15/32 (266)	12-15/32 (317)	10-25/32 (274)	8-3/16 (208)	7 (178)	9-1/8 (232)	32 (12)
EJB080806	6-5/8 (168)	12-15/32 (317)	12-15/32 (317)	12-25/32 (325)	8-7/32 (209)	7 (178)	11-1/8 (283)	98 (37)
EJB080806 SA	6-5/8 (168)	12-15/32 (317)	12-15/32 (317)	12-25/32 (325)	8-7/32 (209)	7 (178)	11-1/8 (283)	37 (14)
EJB100806 SA	6-3/4 (172)	12-21/32 (321)	14-21/32 (372)	12-1/2 (318)	8-9/16 (217)	9 (229)	11-1/8 (283)	45 (20)
EJB101006 SA	6-3/4 (172)	14-21/32 (372)	14-21/32 (372)	14-1/2 (368)	8-9/16 (217)	9 (229)	13-1/8 (333)	52 (24)
EJB101008 SA	8-5/8 (219)	14-21/32 (372)	14-21/32 (372)	14-7/8 (378)	10-3/8 (264)	9 (229)	13-1/8 (333)	59 (22)
EJB120604 SA	4-5/8 (118)	10-1/2 (267)	16-1/2 (419)	10-13/16 (275)	6-3/16 (157)	11 (279)	9-1/8 (232)	32 (12)
EJB120804	4-5/8 (118)	12-1/2 (318)	16-1/2 (419)	12-13/16 (325)	6-3/8 (162)	11 (279)	11-1/8 (283)	103 (38)
EJB120804 SA	4-5/8 (118)	12-1/2 (318)	16-1/2 (419)	12-13/16 (325)	6-3/8 (162)	11 (279)	11-1/8 (283)	39 (15)
EJB120806 SA	6-3/4 (172)	12-21/32 (321)	16-1/2 (419)	12-1/2 (318)	8-9/16 (217)	11 (279)	11-1/8 (283)	53 (24)
EJB120808 SA	8-5/8 (219)	12-1/2 (318)	16-1/2 (419)	12-13/16 (325)	10-3/8 (264)	11 (279)	11-1/8 (283)	56 (21)
EJB141006 SA	6-5/8 (168)	14-21/32 (372)	18-21/32 (474)	14-7/8 (378)	8-15/32 (215)	13 (330)	13-1/8 (333)	66 (25)
EJB160404	4-5/8 (118)	8-1/2 (216)	20-1/2 (521)	8-13/16 (224)	6-5/32 (156)	15 (381)	7-1/8 (181)	86 (32)
EJB160404 SA	4-5/8 (118)	8-1/2 (216)	20-1/2 (521)	8-13/16 (224)	6-5/32 (156)	15 (381)	7-1/8 (181)	33 (12)

Table 2. EJB Style D Dimensions

*Standard catalog numbers are constructed of iron. SA suffix catalog numbers are aluminum.

2. Install detachable mounting feet for Style C enclosures.
 - Insert four (4) wedge shaped mounting feet into dovetail slots in enclosure body.
 - Tap each foot to securely tighten into slot.

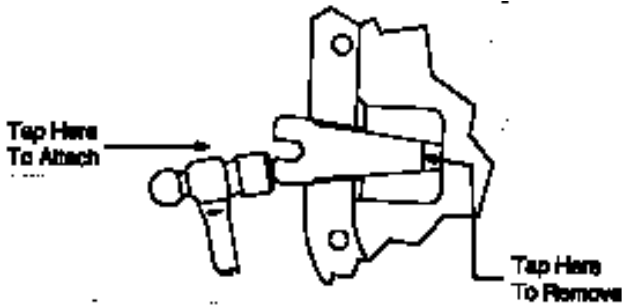


Figure 3. Mounting Feet

3. Securely fasten enclosure to the mounting location, then attach into conduit system. Install approved conduit sealing fittings when required by Section 501.15 and/or 502.15 of the National Electrical Code® plus any other applicable standards.

CAUTION

To avoid explosion:

- All unused conduit openings must be plugged. Certified plug must engage a minimum of five (5) full threads and be a minimum of 1/8 inch thick.
- All cable entries should be made using suitably certified cable gland, or suitably certified conduit seal at the enclosure wall when required. All unused cable entries must be plugged by suitably certified plugs.

CAUTION

To avoid thread damage: 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.

4. Loosen all cover bolts until each bolt is fully retracted into the cover by the stainless steel spring under the bolt head for all Style C enclosures. For all other enclosure sizes, the cover bolts should be fully removed from the cover and placed safely aside. 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 (2) 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 (2) metric eye bolts into the two (2) threaded holes provided in the cover. The eye bolts should only be threaded part way through the cover to prevent damage to the machined flange of the body.

EJB Style C Enclosures are furnished with captive metric 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.

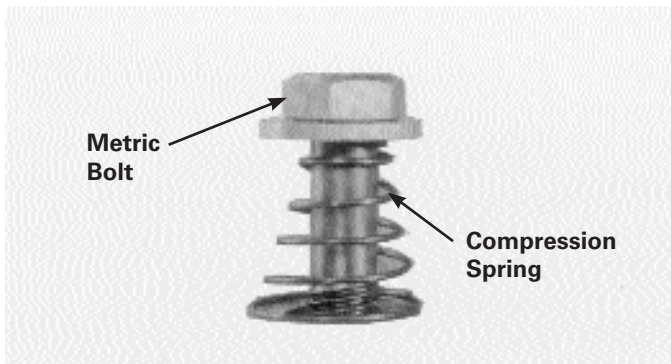


Figure 4

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 4).

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.

WARNING

To avoid explosion: 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.

5. Pull wires into enclosure, making sure they are long enough to make the required connections. Make all electrical connections. The internal grounding terminal shall be used as equipment grounding means. The external terminal is only a supplemental bonding connection.
6. Test wiring for correctness with continuity checks and also for unwanted grounds with insulation resistance tester.

CAUTION

To avoid explosion: 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.

7. To install cover, make sure cover and body ground joint surfaces are clean and not scratched. Orient cover to align with two (2) stud bolts on Style C bodies. 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 (see Table 3 for torque values) and then reinstall hinge bolts in the cover. See Table 3 for EJB torque requirements.

	Catalog Number	Cover Screw	Hinge Torque Values		Required Torque	
			Foot-Pound	Newton-Meters	Foot-Pound	Newton-Meters
Style D	EJB060404	M8x1.25	4-7	5.4-9.5	20 - 25	27 - 34
	EJB080604	M8x1.25	4-7	5.4-9.5	20 - 25	27 - 34
	EJB080606	M8x1.25	4-7	5.4-9.5	20 - 25	27 - 34
	EJB080806	M8x1.25	4-7	5.4-9.5	20 - 25	27 - 34
	EJB100806	M10x1.5	4-7	5.4-9.5	35 - 40	48 - 54
	EJB101006	M10x1.5	4-7	5.4-9.5	35 - 40	48 - 54
	EJB101008	M10x1.5	4-7	5.4-9.5	35 - 40	48 - 54
	EJB120604	M10x1.5	4-7	5.4-9.5	35 - 40	48 - 54
	EJB120804	M10x1.5	4-7	5.4-9.5	35 - 40	48 - 54
	EJB120806	M10x1.5	4-7	5.4-9.5	35 - 40	48 - 54
	EJB120808	M10x1.5	4-7	5.4-9.5	35 - 40	48 - 54
	EJB141006	M10x1.5	4-7	5.4-9.5	35 - 40	48 - 54
EJB160404	M10x1.5	4-7	5.4-9.5	35 - 40	48 - 54	
Style C	EJB100806-362408	M12x1.75	15-20	20-27	40-45	54-61

Table 3. EJB Cover Screw Torque Requirements

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

9. The following are schedule of limitations that must be followed:

- Rotating machines, or other devices which create turbulence, shall not be incorporated.
- Oil filled circuit breakers and contactors shall not be used.
- The content of the Ex component enclosure equipment may be placed in any arrangement, provided that an area of at least 40% of each cross-sectional area remains free.
- Unused entries must be plugged using suitably certified blanking elements.
- Entry to the enclosure must be made by suitably certified cable gland or suitably certified conduit seal installed at the enclosure wall.
- Internal earthing connection must be provided by the end-user.
- Primary and secondary cells and batteries shall only be used when suitably certified and additional assessment is carried out against the requirements of EN60079-1:2007 Annex E.
- Drilling and tapping of holes is only permitted by the enclosure manufacturer.

NOTES:

- Before opening the enclosure in a flammable atmosphere, circuits must be interrupted.
- The approval applies to equipment without cable glands. When mounting the flameproof enclosure in a hazardous area, only rigid metal conduit systems or flameproof cable glands certified to EN60079 must be used.
- All unused conduit entries must be closed with a flameproof plug certified to EN60079.
- Any components attached or installed (e.g. terminal compartments, bushings, explosionproof cable entries, connectors) shall be of a technical standard that complies with the specifications on the cover sheet as minimum and for which a separate type examination certificate has been issued. The operating conditions set forth in the relevant component certificates must, by all means, be complied with.

Securely fasten enclosure to the mounting location, then attach into conduit system. The EJB shall be connected by means of suitable cable entries or conduit systems, which meet the requirements of EN60079-1, Sections 13.1 and 13.2, and for which a separate type examination certificate has been issued.

Terminate ground wire with 5/16" ring terminal appropriately sized for ground wire gauge (10 AWG minimum). Install ground wire such that it cannot become loose or twisted.

The enclosure is intended for wiring connections only, or for controller devices or other equipment which fall within the electrical parameters indicated above.

Note: Cable entries, as well as sealing plugs of simple construction, must not be used.

Cable entries (conduit threads) and sealing plugs of simple designs must not be used. Should the EJB be connected by means of a conduit entry which has been approved for this purpose, the required sealing device shall be provided immediately at the terminal box.

Any openings not used shall be sealed as specified in EN60079-1 Section 13.

The connecting wire of the EJB shall be installed to provide for permanent wiring and adequate protection against mechanical damage.

If the temperature at entry fittings exceeds 70°C, the connecting cables used have to be of the temperature-resistant type.

MAINTENANCE

WARNING

To avoid the risk of fire, explosion or electric shock: 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 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.
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 hazardous (classified) locations. However, the enclosure will not be watertight.

CAUTION

To avoid explosion: 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.

Crouse-Hinds recommends an Electrical Preventative Maintenance Program as described in the National Fire Protection Association Bulletin NFPA 70B.

REPLACEMENT PARTS:

EJB Series Junction Boxes are designed to provide years of reliable service. However, should the need for replacement parts arise, they are available through your Crouse-Hinds Distributor. Assistance may also be obtained through your Crouse-Hinds Sales Representative or the Crouse-Hinds Customer Service Department, 1201 Wolf Street, Syracuse, New York 13208, (866) 764-5454.

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.