BTS80 EMB/D,E,F

Package D, E, & F

20 minute-rated and 3-hour rated

3/4" offset hung, single acting

Installation instructions

08059411 – 03-2021

| EN |

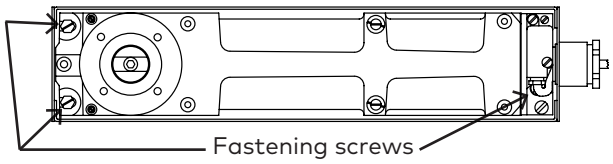
dormakaba

Table of contents

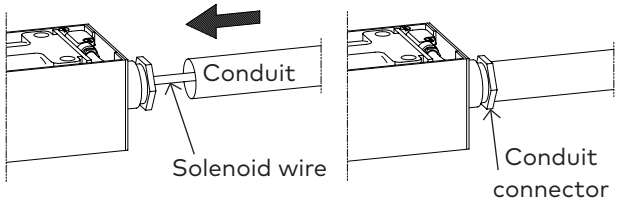
1 Installation

1.1 Install closer

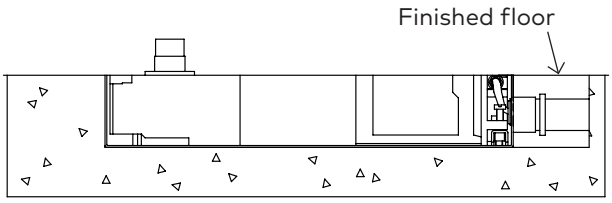
Fig.1



1.1.1 Center closer in cement case.
1.1.2 Tighten fastening screws.



1.1.3 Install closer, cement case, and conduit in floor.
1.1.4 Pull solenoid wire through conduit. (Conduit supplied by others.)

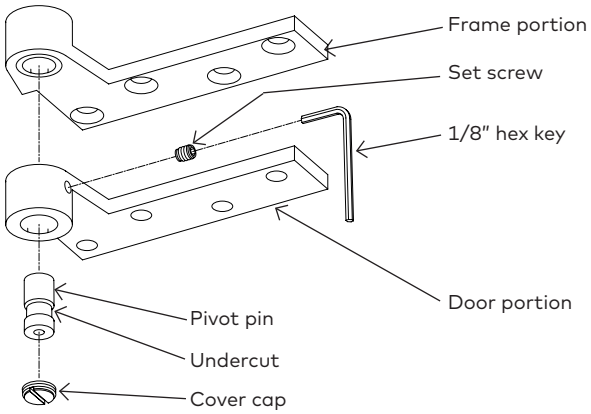


NOTE: Top of cement case must be flush with finished floor.
NOTE: Cement case must be level and installed parallel to frame.
NOTE: Spindle center line must be accurately located.
NOTE: Grout cement case in place.

1.2 Install top pivot

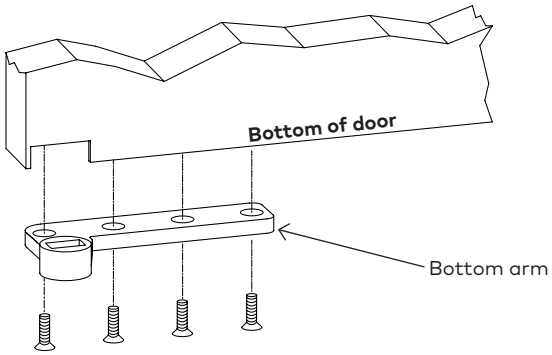
Fig.2

1.2.1 Remove set screw, cover cap, pivot pin.
1.2.2 Install top pivot.



1.3 Install bottom arm in bottom of door (75323)

Fig.3

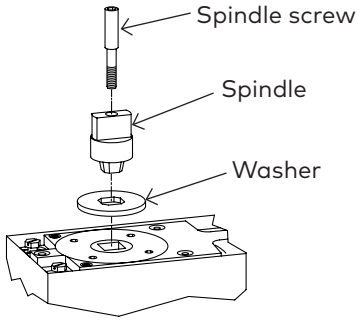


1.4 Install spindle

Fig.4

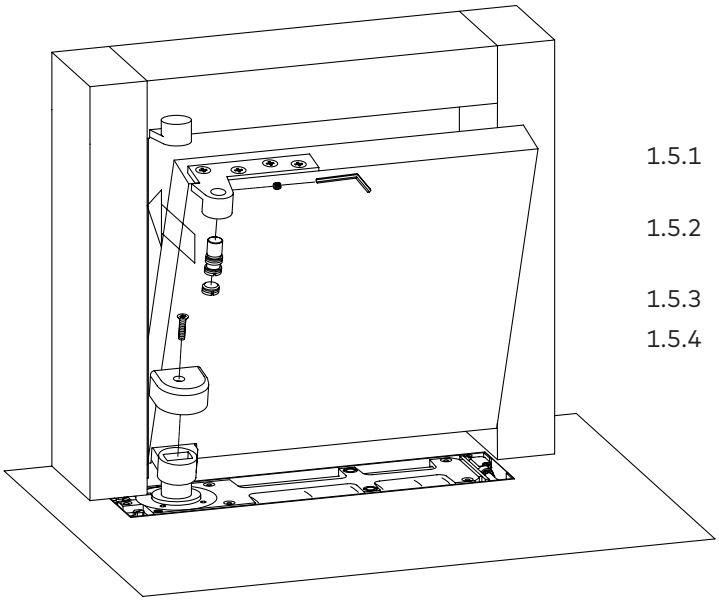
CRITICAL:
WASHER MUST BE INSTALLED

1.4.1 Slide washer over tapered square end of spindle until fully seated in groove.
1.4.2 Fasten spindle with spindle screw provided.
1.4.3 Tighten securely with 5mm hex key.



1.5 Install the door

Fig.5

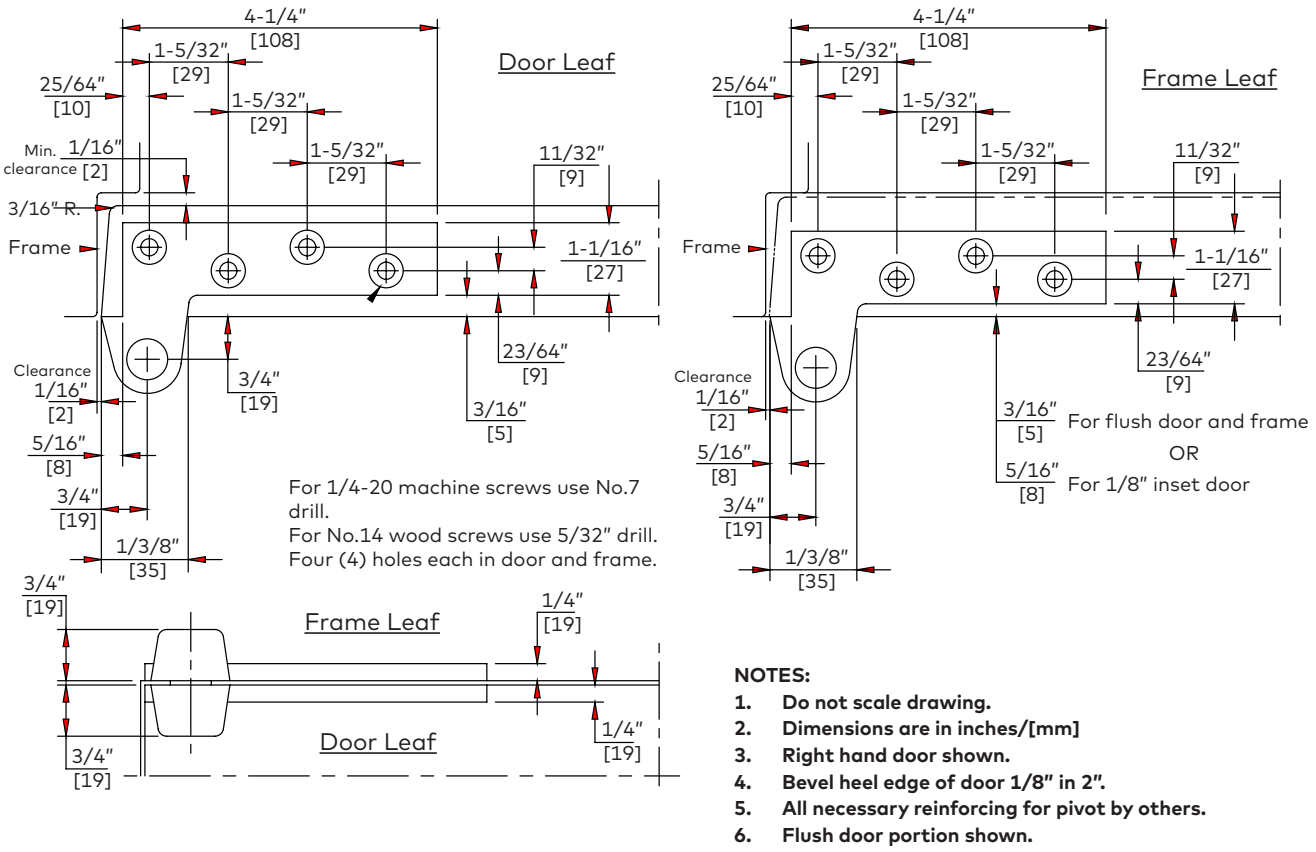


1.5.1 With door parallel to frame, place bottom arm onto closer spindle.
1.5.2 Align door and frame portions of top pivot.
1.5.3 Install pivot pin, set screw and cover cap.
1.5.4 Install cover over bottom arm with screw provided.

2 Templates

2.1 Top pivot template

Fig.6



NOTES:

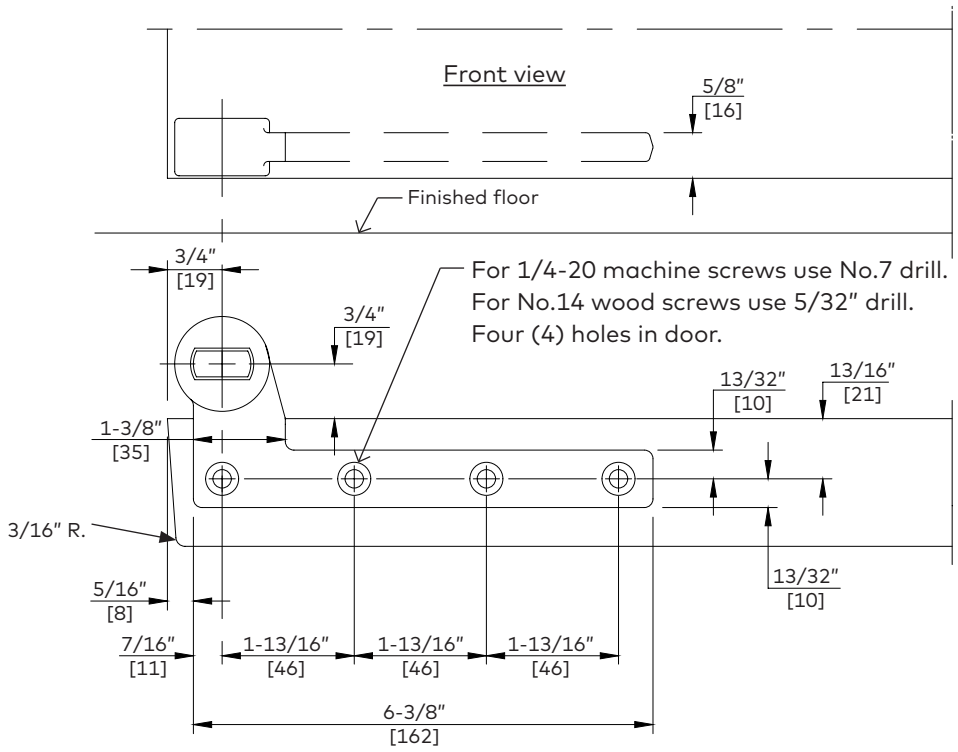
1. **Do not scale drawing.**
2. **Dimensions are in inches/[mm]**
3. **Right hand door shown.**
4. **Bevel heel edge of door 1/8" in 2".**
5. **All necessary reinforcing for pivot by others.**
6. **Flush door portion shown.**

ITEM No. [75120, 75122, 75130, 75133, 75120A, 75122A, 75133A (DOOR FLUSH WITH FRAME) NON-HANDED], [75120 5/8, 75122 5/8, 75133 5/8, 75120A 5/8, 75122A 5/8, 75133A 5/8 (DOOR INSET 1/8" FROM FRAME) HANDED]
3/4" OFFSET FULL MORTISE TOP PIVOT

BTS-65

2.2 Bottom arm (75323) template

Fig.7



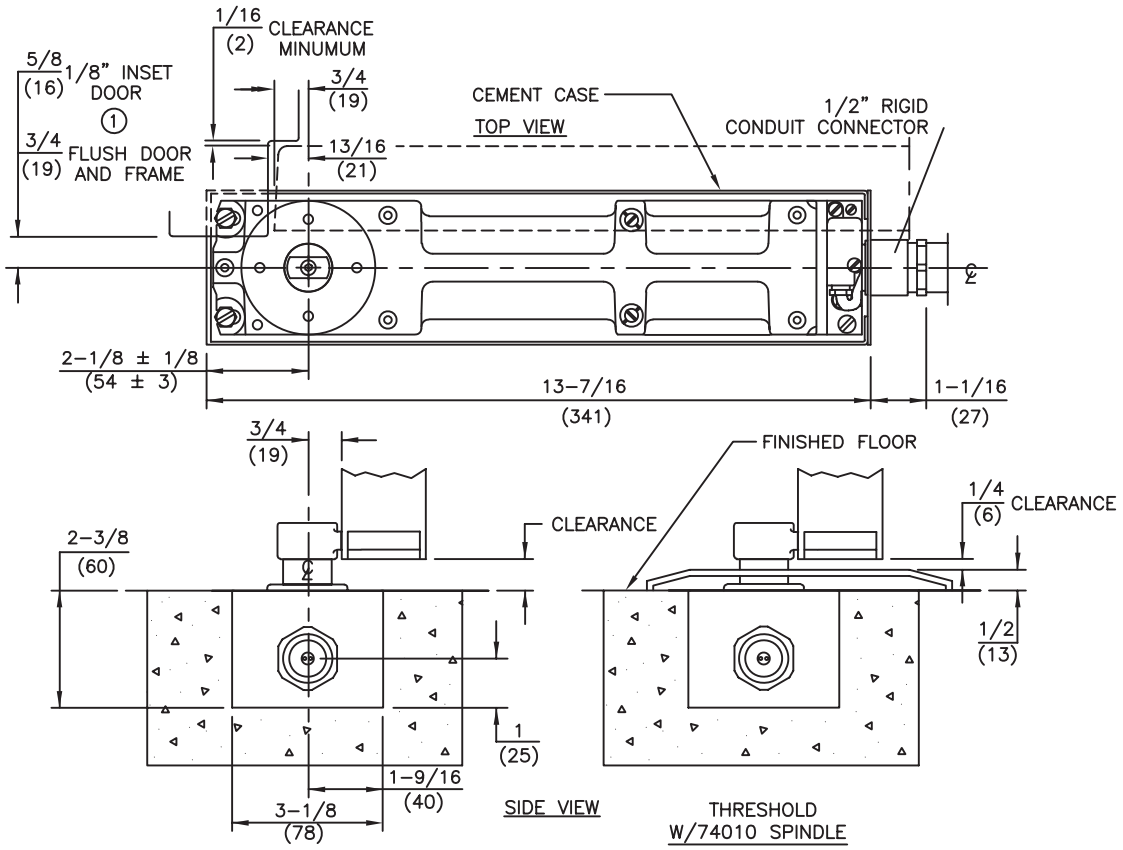
NOTES:

1. **Do not scale drawing.**
2. **Dimensions are in inches/[mm]**
3. **Right hand door shown.**
4. **Bevel heel edge of door 1/8" in 2".**
5. **All necessary reinforcement for arm by others.**

ITEM No. 75323 3/4" OFFSET STANDARD BOTTOM ARM FOR 3 HR. RATED DOORS FOR USE WITH BTS 75/80 FLOOR CLOSERS	BTS-50

2.3 Cement case template

Fig.8



NOTES:

1. **Do not scale drawing.**
2. **Top of cement case must be flush with finish floor line.**
3. **Cememt case must be level and parallel to frame.**
4. **Install cement case with closer centered in case.**
5. **1/2" rigid conduit by others.**
6. **1/8" inset installation shown.**
7. **Dimensions are in inches/[mm].**

Spindle no.	Clearance
74003	5/16"
74005	1/2"
74007	5/8"
(std) 74010	3/4"
74012	13/16"
74015	7/8"

74020	1-1/8"
74025	1-5/16"
74030	1-1/2"
74035	1-11/16"
74040	1-7/8"
74045	2-1/16"
74050	2-5/16"

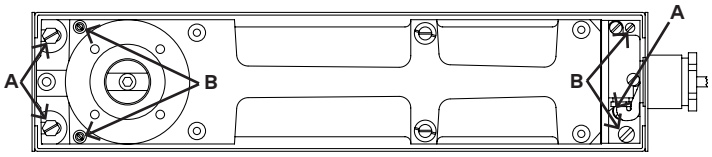
FLOOR CLOSER MODELS: BTS 80EMB/D, BTS 80EMB/E, BTS 80EMB/F AND BTS 80EMB/L 3/4" OFFSET
CEMENT CASE PLACEMENT

BTS-58

3 Adjustments

3.1 Adjust bottom door clearances (if necessary)

Fig.9



3.1.1 Closer can be raised approximately 5/32" with the cement case.

3.1.2 Loosen fastening screws "A".

3.1.3 Turn height adjustment screws "B" CW until desired height is obtained.

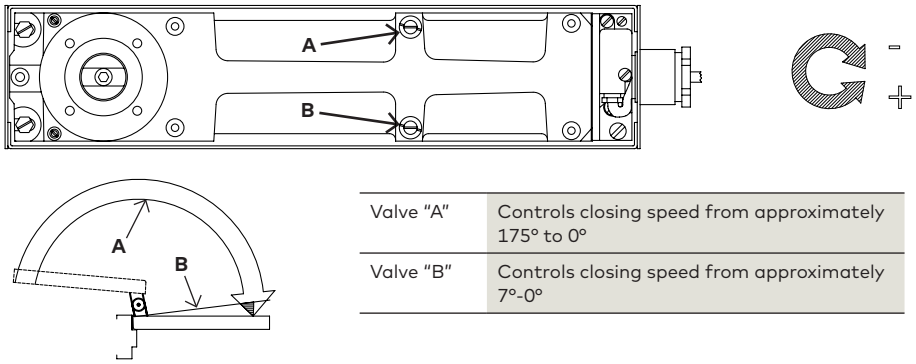
NOTE: Closer must remain level!

3.1.4 Re-tighten fastening screws "A".

3.1.5 If more clearance is necessary, change spindle to appropriate size.

3.2 Adjust closing speeds

Fig.10



Valve "A"	Controls closing speed from approximately 175° to 0°
Valve "B"	Controls closing speed from approximately 7°-0°

3.3 Sealing compound (optional)

Fig.11

Sealing compound is recommended for exterior doors or areas with excessive moisture. Make all final adjustments before adding compound. Refer to instructions packed with compound for full details.

3.4 Intermediate pivot (optional)

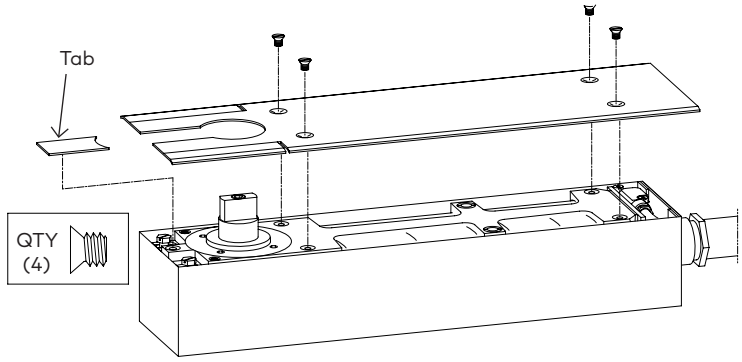
Fig.12

If intermediate pivot is to be used, refer to installation instructions packed with pivot.

4 Covers

4.1 Install cover

Fig.13



4.1.1 Install cover plate or threshold.

4.1.2 Trim cover plate as required to match profile of pivot jamb.

4.1.3 Install cover plate with four screws provided.

4.1.4 Press tab in place behind spindle.

4.1.5 If threshold is installed, do not anchor threshold to closer body, since closer is adjustable within cement case.

5 Operation

5.1 Operating the BTS80EMB

Fig.14

5.1.1 When BTS80EMB is energized, door will hold open at any point between approximately 65° and 175°.

5.1.2 Allow for approximately 4° of fall away when considering hold open position.

5.1.3 To release door from hold open, manually pull door closed a few inches.

5.1.4 When de-energized, the BTS80EMB operates as a standard floor closer.

5.2 Electrical specifications

Fig.15

Operating voltage: 24 Volts DC (10%) max. allowable residual ripple 30%

Input current: 125 MA

5.2.1 **Important: If the BTS80EMB is connected to a fire alarm system, the unit must be tested after installation, by the end user, to be certain that the door closer unit functions properly when the alarm system is activated.**

5.2.2 The entire system must also be tested periodically after the initial installation test, in conjunction with the testing of the fire alarm system.

5.2.3 The end user is also responsible for maintaining the door closing system.

dormakaba
DORMA USA, Inc.
T: 800-523-8483