# BTS80 EMB/I x butt hinges 

Package I
Pull side mortised track - $160^{\circ}$ opening

## Installation instructions

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## 1 Installation

### 1.1 Attach spindle and install closer

Fig. 1

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

1.1.3 Pull solenoid wire through conduit. (CONDUIT
SUPPLIED BY OTHERS.)
1.1.4 Attach conduit to conduit connector on end of cement case.


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


### 1.2 Install slide block to arm

Fig. 2


### 1.3 Install slide arm (7451) into track

Fig. 3


### 1.4 Install arm to closer

Fig. 4

1.4.1 Close both closing speed valves.
1.4.2 Align spindle with slot in arm, shown below.

1.4.3 Place arm over spindle.
1.4.4 Seat arm properly on spindle by tapping with a hammer.
1.4.5 Install cover washer and screw.

## 2 Templates

### 2.1 Closer template

Fig. 5


## 3 Adjustments

3.1 Adjust bottom door clearances (if necessary)

Fig. 6


### 3.2 Adjust closing speeds

Fig. 7


### 3.3 Sealing compound (optional)

Fig. 8

| 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. |

## 4 Covers

### 4.1 Install cover

Fig. 9


## 5 Operations

### 5.1 Operating the BTS30 EMB

Fig. 10
5.1.1 When BTS80 EMB is energized, door will hold open at any point between approximately $65^{\circ}$ and max opening.
5.1.2 Allow for approximately $4^{\circ}$ 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 BTS80 EMB operates as a standard floor closer.

### 5.2 Electrical specifications

Fig. 11

| Operating voltage: | 24 Volts DC (10\%) max. allowable residual ripple 30\% |
| :---: | :---: |
| Input current: | 125 MA |
| 5.2.1 Important: the unit mus certain that system is ac | BTS80 EMB is connected to a fire alarm system, tested after installation, by the end user, to be door closer unit functions properly when the alarm ted. |
| 5.2.2 The entire syst installation t system. | must also be tested periodically after the initial in conjunction with the testing of the fire alarm |
| 5.2.3 The end user | so responsible for maintaining the door closing system. |

