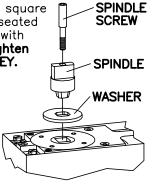
## BTS 80/L 3/4" OFFSET LEAD LINED PACKAGE

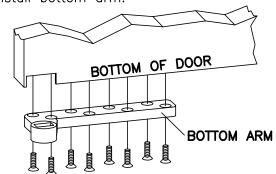


Slide washer over tapered square end of spindle until fully seated in groove. Fasten spindle with spindle screw provided. Tighten securely with 5mm HEX KEY.

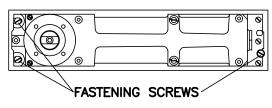
CRITICAL
WASHER MUST
BE INSTALLED.



5 Install bottom arm.

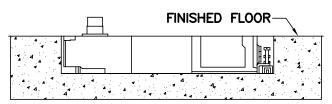


Center closer in cement case.
Tighten fastening screws.



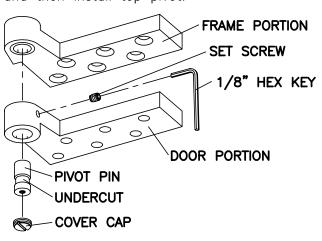
3 Install closer and cement case in floor.

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



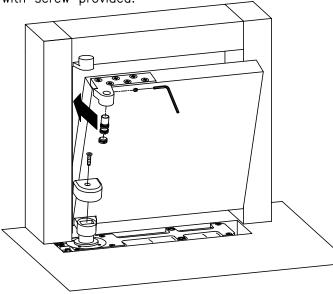
4 Install top pivot.

Remove set screw, cover cap, pivot pin and then install top pivot.



6 Install door.

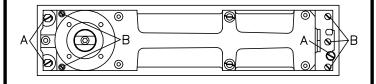
With door parallel to frame, place bottom arm onto closer spindle. Align door and frame portions of top pivot. Install pivot pin, set screw and cover cap (See step #4). Install cover over bottom arm with screw provided.



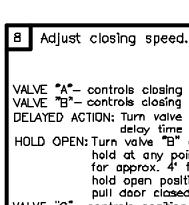
7 Adjust bottom door clearances. (If necessary)

Closer can be raised approximately 5/32" within the cement case. Loosen fastening screws "A". Turn height adjustment screws "B" clockwise until desired height is obtained. Closer must remain level!

Re—tighten fastening screws "A". If more clearance is necessary, change spindle to appropriate size.



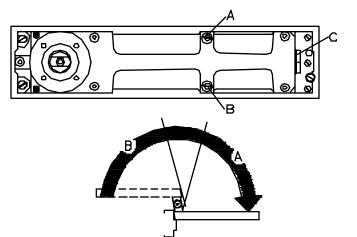
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VALVE "A"— controls closing speed from approx. 80°-0°.
VALVE "B"— controls closing speed from approx. 180°-80°.
DELAYED ACTION: Turn valve "B" clockwise until desired

HOLD OPEN: Turn valve "B" completely clockwise. Door will hold at any point beyond approx. 80°. Allow far approx. 4° fall away when considering hold open position. To release door, manually pull door closed a few inches.

VALVE "C"— controls position at which hold open or delayed action will begin to occur. Clackwise turns increase angle (105° max.). Counter—clockwise turns decrease angle (75° min.).

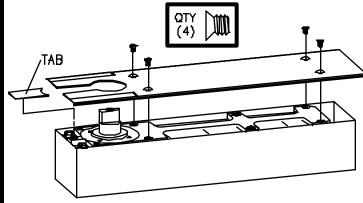


Sealing compound (Optional)

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.

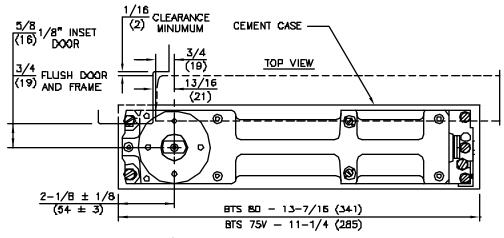
10 Install cover plate or threshold.

Trim cover plate as required to match profile of pivot jamb. Install caver plate with four screws provided. Press tab in place behind spindle. If threshold is installed, do not anchor threshold to closer body since closer is adjustable within cement case.



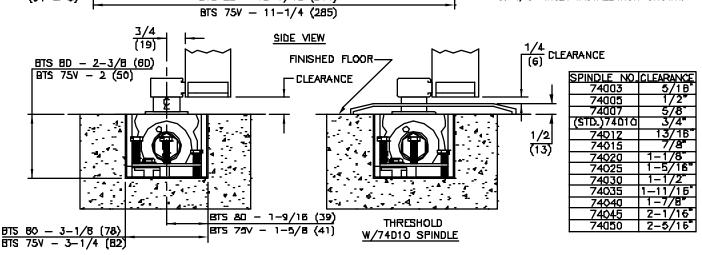
If intermediate pivot is to be used, refer to installation instructions packed with pivot.





## NOTES

- 1. DO NOT SCALE DRAWING.
- 2. DINENSIONS ARE IN INCHES/(mm). 3. TOP OF CEMENT CASE MUST BE
- FLUSH WITH FINISH FLOOR LINE. 4. CEMENT CASE MUST BE LEVEL AND
- PARALLEL TO FRAME.
- 5. INSTALL CEMENT CASE WITH CLOSER CENTERED IN CASE.
- 6. 1/6" INSET INSTALLATION SHOWN.



## TOP PIVOT 4-1/4 4 - 1/41. DO NOT SCALE DRAWING. (108)3-9/16 DIMENSIONS ARE IN INCHES/(MM). RIGHT HAND DOOR SHOWN. (108)3 - 9/16(90)(90)4. BEVEL HEEL EDGE OF DOOR 1/8" IN 2". 2-15/16 2-15/16 5. ALL NECESSARY REINFORCING FOR PIVOT (75)BY OTHERS. (75)2-5/16 6. FOR DOOR THICKNESS NOT LISTED USE NEXT SIZE SMALLER FOR PREPARATION. 2-5/16 (59) (59) TEMPLATE IS BASED ON THE ASSUMPTION 1-11/16 1-11/16 THAT LEAD (BY OTHERS) IS PLACED IN CENTER OF DOOR. (43)(43)FLUSH DOOR AND FRAME PREPARATION SHOWN. -1/161-1/16 (27) (27) DOOR LEAF FRAME LEAF 7/16 7/16 5/16 5/16 (11)(11)(8) (8) 3/16" R. CLEARANCE $\frac{1/16}{\text{MINIMUM}}$ FRAME $(\Phi)$ $\oplus$ $(\oplus)$ $\bigoplus$ $\oplus$ В 3/4 (19) $(\oplus)$ <del>(Ф)</del> $(\Phi)$ 13/16 $(\Phi)$ FRAME (21) <u> 1/8"</u> −1/8"R. 5/16 5/16 ·30° (8)(8) 3/4 3/4 1/16 1/16 С CLEARANCE CLEARANCE (19)(19)(2) (2) 5/16 5/16 1 - 5/8 $\angle$ FOR 1/4-20 MACHINE SCREWS USE No.7 DRILL $\overline{(8)}$ (8) (41) FOR No.14 WOOD SCREWS USE 5/32" DRILL SIX (6) HOLES PER LEAF 3/8 1/16 FOR FLUSH DOOR AND FRAME FOR 1/8" INSET DOOR (19) (10) DOOR THICKNESS DIM "A" DIM "B" DIM "C" DOOR THICKNESS DIM "A" DIM "B"DIM "C" (2)FRAME LEAF 3/8 1/4 1-1/4 1/4 1-3/4 3/8 1-1/4 (19) (10) 5/16 1-3/8 5/16 1-3/8 5/16 3/8 1-1/2 3/8 7/16 1-5/8 7/16 1/2 1-1/2 3/8 9/16 1-5/8 7/16 2-1/4 2-1/4" 2-1/2 2-1/2 5/8 1/2 DOOR LEAF **BOTTOM ARM** FOR 1/4-20 MACHINE SCREWS USE No.7 DRILL FOR No.14 WOOD SCREWS USE 5/32" DRILL 3/4 EIGHT (8) HOLES IN DOOR (19) 1/4 (6)1 - 7/163/4 (36)(19)5/16 **BOTTOM VIEW** (8) $\oplus$ $\bigoplus$ $\oplus$ $\oplus$ $\oplus$ $\oplus$ 3/16 R.-**NOTES** DO NOT SCALE DRAWING. 1/2 2. DIMENSIONS ARE IN INCHES/(MM). 3/4 3/4 3/4 (13)3. RIGHT HAND DOOR SHOWN. (8) 3/4 (19) (19) (19) 4. BEVEL HEEL EDGE OF DOOR 1/8" IN 2". (19)5. ALL NECESSARY REINFORCEMENT FOR ARM BY OTHERS. (32)(32)(32)FOR DOOR THICKNESS NOT LISTED USE NEXT SIZE NARROWER ARM. 7 - 3/4TEMPLATE BASED ON THE ASSUMPTION THAT (197)LEAD (BY OTHERS) IS PLACED IN CENTER OF DOOR. DOOR THICKNESS DIM "A" DIM "B" 1/4 1-1/4 1-3/4" 5/8 1-3/8 5/16 1-1/2 3/8 1-5/8 7/16 (16)

3/16

(5)

1/2

(13)

FINISHED FLOOR

MORTISE DEPTH \*

CLEARANCE \*