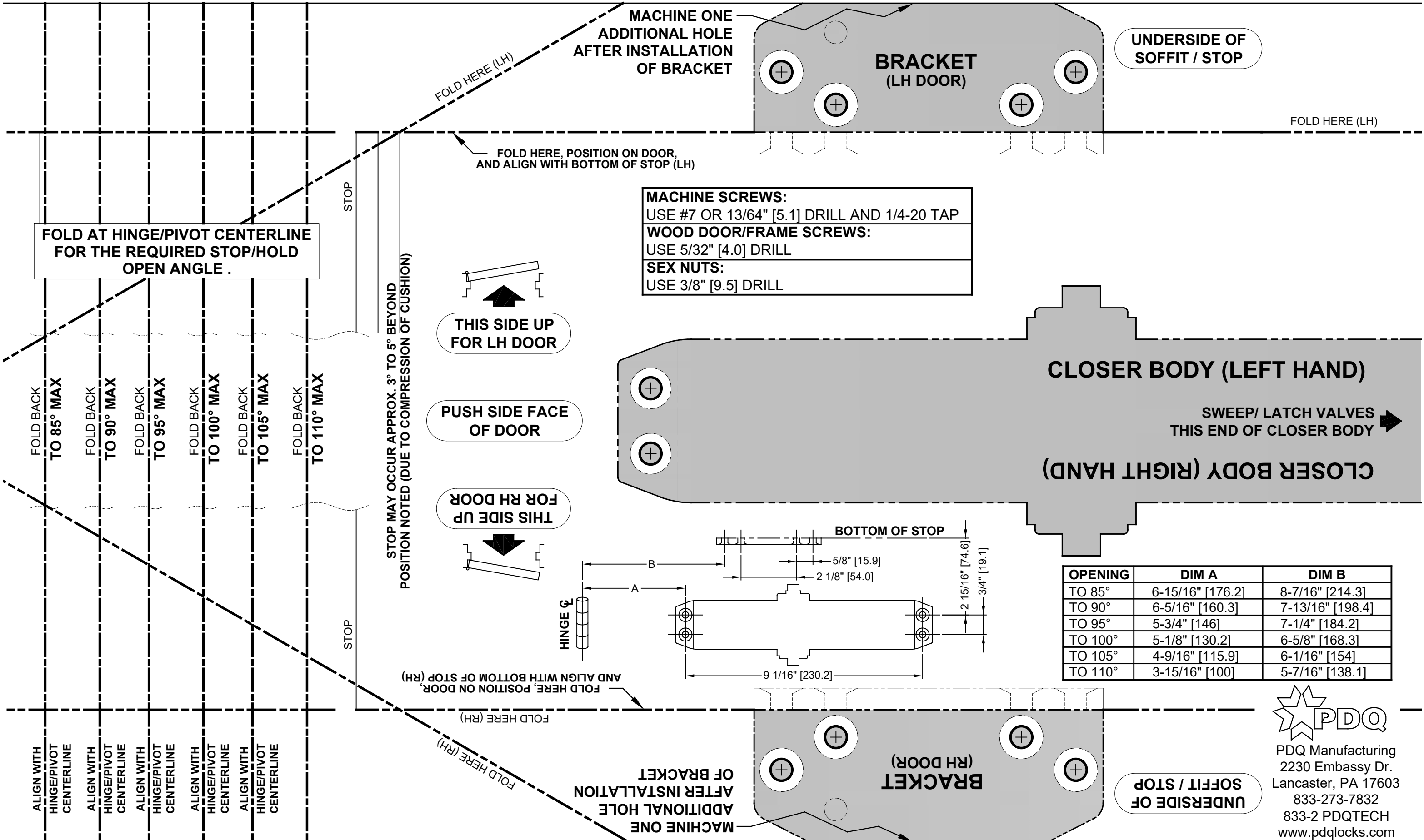


3100/3101 DOOR CLOSER INSTRUCTION SHEET
PARALLEL ARM INSTALLATION - PUSH SIDE - DS (NHO) AND DSHO (HO) APPLICATIONS - 110° MAX

INSTRUCTION: 319354
REV. 2 09-05-19



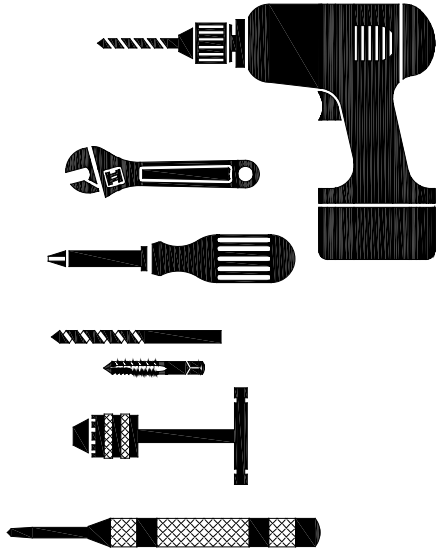
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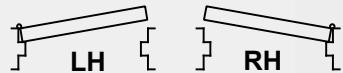
- 1. Confirm this sheet is correct for your product and application.
- 2. Read the complete instruction sheet before starting installation.
- 3. Incorrectly installed or adjusted door closers can cause personal injury or property damage.
- 4. To ensure safe operation closers should be examined and serviced, regularly.

- 1. See reverse side of this sheet to machine door & frame.
- 2. Dimensions based on 4-1/2" x 4-1/2" full mortise butt hinges with 5/8" stop and 1/8" door gap.
- 3. Confirm door & frame are properly reinforced.
- 4. Sex nuts required for un-reinforced or composite fire doors.
- 5. Do not install closer on the exterior (weather) side of building.

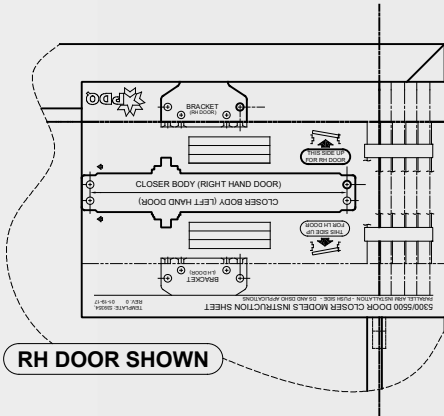
- TOOLS REQUIRED:
- 1. Power drill
- 2. 14mm box/combo wrench
- 3. Phillips screw driver
- 4. #7 or 13/64" drill bit and 1/4-20 tap (machine screws)
- 5. Tap handle
- 6. 5/32" drill bit (wood screws)
- 7. 3/8" drill bit (sex nuts)
- 8. Center punch



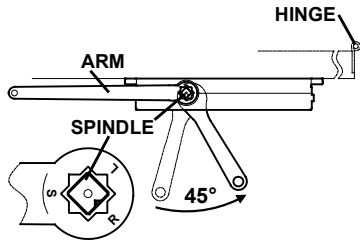
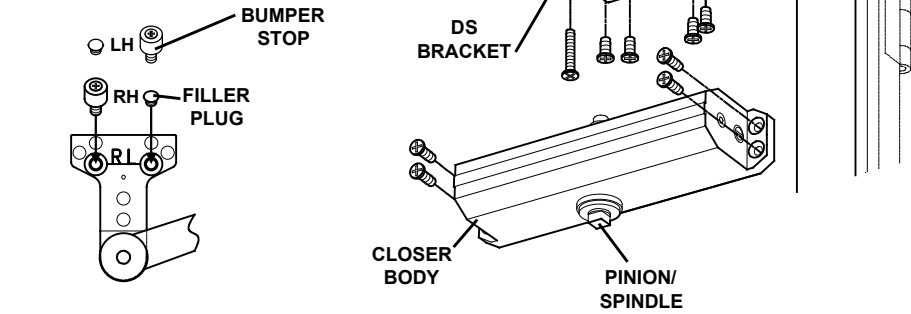
- PREPARE DOOR AND FRAME:
- 1. Determine maximum opening angle.
- 2. Determine door hand (LH or RH).



- 3. Align & attach full size template (see reverse side).
- 4. Mark door & frame with center punch.
- 5. Remove template before machining door & frame.



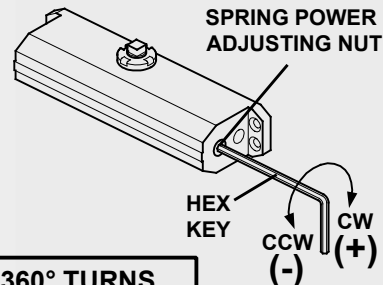
- INSTALL CLOSER AND ARM:
- 1. Attach closer body to door. Sweep & latch valves point away from hinges.
- 2. Install bumper stop into DS bracket. Bracket is stamped: "L"(left hand) and "R"(right hand).
- 3. Install filler plug into other hole.
- 4. Install DS bracket and spacer block to frame.



- 4. Close door & rotate closer spindle 45° toward hinge / pivot.
- 5. Install arm parallel to door face, pointing away from hinge.
- 6. Secure arm to closer spindle.

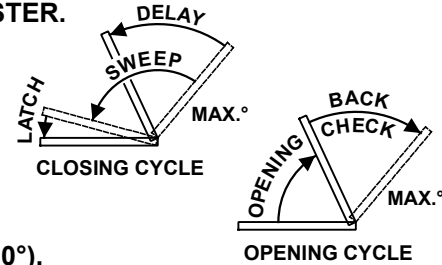
- ADJUST SPRING POWER:
- 1. Use 4 mm hex key provided to adjust to size on chart. Clockwise (CW) turns increase spring power (+). Counter-clockwise (CCW) turns decrease spring power (-).

3101 Series closers can be adjusted to meet ADA Barrier Free (BF) applications. Compliance with ADA/BF requirements may result with door not fully closing and latching. Check with local AHJ. Closer size may vary due to site conditions.

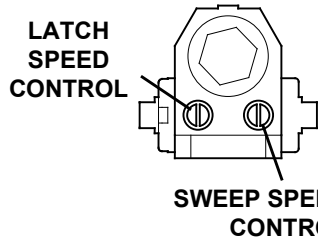
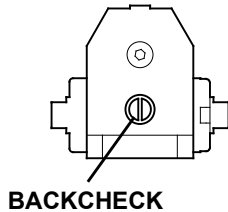


SIZE	DOOR WIDTH		APPROX. 360° TURNS	
	INTERIOR	EXTERIOR	3100	3101
BF	BF ON 36"	--	--	-16 (CCW)
1	28" [711.2]	--	--	-11 (CCW)
2	32" [812.8]	28" [711.2]	--	-6 (CCW)
3	36" [914.4]	32" [812.8]	0 (PRESET)	0 (PRESET)
4	42" [1066.8]	36" [914.4]	+5 (CW)	+5 (CW)
5	48" [1219.2]	42" [1066.8]	+9 (CW)	--
6	54" [1317.6]	48" [1219.2]	+12 (CW)	--

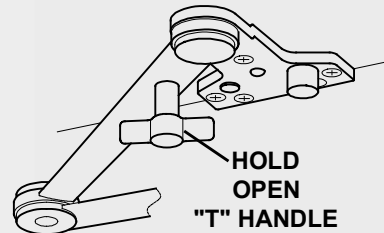
- CONTROL ADJUSTMENTS:
- Closing time of 3-7 seconds is typical. More time may be needed for ADA/BF access.
- Clockwise (CW) = SLOWER.
- Counter-clockwise (CCW) = FASTER.
- DO NOT REMOVE VALVES



- 1. Use hex key provided.
- 2. Adjust SWEEP (closing max.° - 10°).
- 3. Adjust LATCH (closing 10° - 0°).
- 4. Adjust BACKCHECK resistance (opening 70° - max.°). DO NOT COMPLETELY CLOSE VALVE
- 5. Adjust (optional) DELAYED ACTION (closing max.° - 70°); Provides additional hesitation for access (ADA/BF) through door.



- OPTIONAL HOLD OPEN:
- 1. DSHO arm has an optional thumb turn "T" handle.
- 2. A 1/4 rotation of "T" engages or disengages hold open.
- 3. Door can also be manually pulled in and out of hold open without rotating the "T" handle.
- 4. Greasing detent ball is recommended to prevent wear.

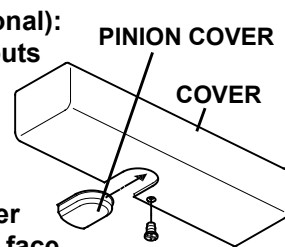


- INSTALL DUST CAP:
- 1. Press dust cap over bottom closer pinion.



INSTALL COVER (Optional):

- 1. Orient cover so cutouts align with closer pinion.
- 2. Slide pinion cover into bottom cutout.
- 3. Slip cover over closer until flush with door face.
- 4. Secure with screw provided.



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