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INSTALLATION INSTRUCTIONS FOR 70/71 SERIES CVR WOOD DOOR CONCEALED

Advantex®

Concealed Vertical Rod Exit Device 70 / F70 / 71 / F71 Series for Medium to Wide Stile Wood / Composite door applications Drawing No. 105280

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U.S. PATENT NUMBERS 6009732 6205825 6532777

Device Parts Breakdown View

5

9

(10)

3

8

15

(16)

4

7

(6)

* Note:

Parts listed will vary according to product configuration. Mortise cylinder available as an option. Standard Yale type cam required. See Mortise cylinder installation page.

Your particular part or configuration may not be shown: Contact Detex technical support at 800-729-3839 (option 2)



Device Parts Breakdown Part Numbers				
TEM	PART #	DESCRIPTION		
1KIT	105500-X	S&R CVR Centercase/Pushpad Assy		
1A -	104111-13	Centercase, CVR, Wide, RHR		
	104111-14	Centercase, CVR, Wide, LHR		
2	104171-1	Mounting plate, Wide, CVR, BP11 (Use with 08/09 lever trim)		
	104171-2	Mounting plate, Wide, CVR, BP13 (Use with 03 trim)		
3	105257-2	Top strike kit		
4	105246	CVR strike shim		
5	105235-1	CVR top strike pocket		
6	105236-1	CVR top strike insert		
7	105985-1	Top latch mounting bracket RHR		
7	105985-2	Top latch mounting bracket LHR		
0	106340-1	Top latch (Panic)		
8	106340-2	Top latch (Fire)		
0	104187	Outer top rod, 7' thru 8'		
9	105097	Outer top rod, 8'-1" thru 10'		
10	104172-1	Inner top rod, 7' thru 8'		
10	104172-2	Inner top rod, 8'-1" thru 10'		
4.4	105990-1	Center lift mechanism assembly, Top & Bottom		
11	105990-2	Center lift mechanism assembly, Top ONLY		
12	105098	CVR bottom rod		
13	106330	Bottom bolt case assembly		
14	105257-3	Bottom strike kit		
15	105296	Spring pin 3/16 x 13/16		
16	103423	Spring pin 3/16 x 1/2		
105982-1 Bottom bolt mounting bracket, RHR				
17	105982-2	Bottom bolt mounting bracket, LHR		
		Spring pin		
19	103536-1	Bottom bolt		
	101642-9	Endcap, EC1 (ramped) Stainless Steel 630		
20	104304-9	Endcap, EC2 (flush) Stainless Steel 630		
	104612-1	Endcap, EC2 (flush) Aluminum 628		
	100147	Endcap bracket for EC1 (ramped) endcap w/o battery holder		
04	101093	Endcap bracket for EC1 (ramped) endcap w/ battery holder		
21	104303	Endcap bracket for EC2 (flush) endcap w/o battery holder		
	104636	Endcap bracket for EC2 (flush) endcap w/ battery holder		
	100860-54	Fillerplate Subassembly, S&R, Hex Dogging, HD, 630		
22	100860-49	Fillerplate Subassembly, S&R, Cylinder Dogging, CD, 630		
	102353-9	Centercase Cover, Stainless Steel, Wide 630		
23	104640-9	Centercase Cover, Aluminum, Wide, 628		
24	100450	Hex Key (for Hex Dogging)		
25	100783	Cylinder Nut (for Cylinder Dogging)		
	102216-2 Hex Dogging Assembly			
26	102216	Cylinder Dogging Assembly		

Your particular part or configuration may not be shown: Contact Detex technical support at 800-729-3839 (option 2)

Hardware Table for BASIC device mounting. Additional hardware is provided per the device configuration in kit form and is addressed on the appropriate pages as required.

Device Mounting Hardware			
	#14 x 1" PPHSMS P/N: PP-5183-108	Used to install backplate & endcap bracket to door. Drill Bit - 3/16 pilot hole x 1" deep	
	1/4-20 x 1" PPHMS P/N: 100980	Used with sex bolts or lever trim (1-3/4 door). Drill Bit - #7 or 13/64"	
	1/4-20 x 1-1/2" PPHMS P/N: 100954	ALTERNATE SCREW Used with sex bolts or lever trim (2" plus door) Drill Bit - #7 or 13/64"	
	10-24 x 1/4" PPHMS P/N: PP-5304-104	Used to install device centercase to backplate	
	10-24 x 3/4" PFHMS P/N: 100112-110	Used to install centerlift mechansim to backplate	
	10-32 x 5/16" PFHUMS P/N: 101632-2	Used to install endcap to endcap bracket. (Multiple finishes included)	
	6-32 x 3/8" PFHUMS P/N: 100162-106	Used to install centercase cover to backplate (Multiple finishes included)	
ĨŢŢ	#14 Lockwasher P/N: PP-5067-25	Lockwashers	

Sex nuts, if ordered. Sex nuts are used with screws in device hardware kit.



1/4-20 x 1.60 Sex nut P/Ns: 105274-9 (Stainless Steel) 105274-2 (Brushed Brass) 105274-20 (Oil Rub Bronze)

Used to install backplate and endcap bracket to door **If using sex nuts with TRIM:** Drill 9/32 hole through interior door face. Drill 1/2 hole through exterior door face. **If using sex nuts without TRIM:** Drill 3/8 hole through exterior door face.

Strike Mounting Hardware			
Juunuuu te	#10 x 1" PFHU P/N: 100109	Used to install bottom strike to floor. (Used with anchors, two styles of anchors included)	
	10-24 x 1/2" PFHUMS P/N: 100112-108	Used to install bottom strike to floor (alternate)	
	10-32 x 1/2" PFHMS P/N: PP-5802-308	Used to install top strike pocket to header and strike insert to top strike pocket	
Latch Mounting Hardware			
	10-24 x 5/16" PFHMS P/N: 100112-105	Used to install bracket to bottom assembly and top latch	
	10-32 x 1/2" PPHMS P/N: 12403-1	Used to install top latch to top of door (For FIRE RATED)	
#10 x 3/4" PPHSMS P/N: PP-5183-66		Used to install bottom assembly to bottom of door & top latch to top of door (For NON-FIRE RATED)	

Tools Required

Power Drill	Hammer	Drill Bit Set		Safety Glasses	Hack Saw (Chopsaw preferred)
Level	Pencil	Pliers		Tape Measure	Tap Wrench/ Hex Wrench - 5/64
Screw Drivers	Center Punch	104	4948	Page 4	Masonary Bits - 3/16", 5/16" & 1"

!!!CHECK BEFORE STARTING!!!



NOTE: LOCAL CODES MAY REQUIRE THROUGH BOLTING. SEX NUTS ARE NOT INCLUDED WITH THIS DEVICE. SEX NUTS CAN BE PURCHASED SEPARATELY.

STEP 1: DOOR / OPENING MEASUREMENTS

Measure per figure below:

*These dimensions will be needed during rod length adjustment. Measure door before removing.



STEP 2: VERIFY DOOR & INSTALL WRAP

FOR F70 & F71 FIRE RATED APPLICATIONS ONLY. FOR NON-FIRE, SKIP TO STEP 3









STEP 5: BOTTOM ROD / LATCH ASSEMBLY & ADJUSTMENT

5a

(Disregard if TRO device is being installed)

5a. Using DIM A as measured in step 1, use chart to determine pinning location.

If **DIM A** is **less** than 37-1/4" from finished floor, a new pin hole must be drilled through 105098 rod. Subtract the centerline dimension from 38" and measure up this distance from hole V. Mark and drill .189 diameter hole (#12 drill).

If DIM A is more than 41-1/2", from floor, call customer service at 1-800-729-3839 for assistance.

Align rod holes with bottom latch (round **DIM A** to nearest value shown) DIM A Bottom Rod (device C at p/n: 105098 distance from floor) use HOLE 38' V 39' W 40" Х 40-3/8 Y 40-3/4" Ζ ROD

NOTE: SLOTS MUST BE IN

POSITION SHOWN

P/N 105098

Note: If hole V or W is used (or if new hole is drilled closer to threaded end), trim off UNTHREADED end of rod as needed to allow rod to slide into bottom bolt far enough to pin.

5b. DIM C is the target length.

For no threshold or threshold 1/2" or less: **DIM C =** measured **DIM A** minus 8". For threshold greater than 1/2":

DIM C = measured DIM A minus 8" minus threshold height





STEP 6: VISUAL ALIGNMENT CHECK:

- **6a.** Lay internal latch components onto door for trial fit. Take care to protect door finish.
- 6b. Ensure top latch is in retracted position. Hold top rod in place and push top latch case towards device **φ** until latchbolt is fully retracted.
- 6c. Mounting holes for centerlift should line up with mounting holes in door, and top and bottom latches should be in position shown. If not, go back to steps 3 & 4 and verify rod length dimensions.



STEP 7: ATTACH TOP LATCH MOUNTING BRACKETS



STEP 9: SECURE ROD / LATCH / CENTERLIFT ASSEMBLY TO DOOR

9a. Attach top latch to door with three screws (six for fire rated doors).

(Disregard steps 9b & 9c if TRO device is being installed) **9b.** Attach bottom mounting bracket to bottom latch assembly with three screws.

9c. Attach bottom mounting bracket assembly to door with three screws.

9d. Attach back plate to centerlift mechanism with two screws - DO NOT OVERTIGHTEN. Assembly hint: Assemble one screw loosely without backplate, then add second screw through backplate. Remove first screw, align backplate and then re-install first screw.



STEP 10: VERIFY CENTERLIFT MECHANISM OPERATION



If it is, **then bottom rod is too long.** Go back to STEP 5 and correct.

10e. Upon completion, retract latches before proceeding to Step 11.

STEP 11: HANG DOOR / ASSEMBLE DEVICE TO DOOR



Check for device and door frame clearance. If no cut-off needed, proceed to the next page.

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baseplate extrusion and slide extrusion out, reverse, & slide back in. Tighten setscrew.

11g) INSTALL ENDCAP BRACKET



INSTALL bracket with (2) lockwashers & screws **OR** screws & sex bolts

LEVEL device before installing endcap bracket

ENSURE that device does not require cutting (see Step 11g on next page).

TEST device fuction after installation of endcap is complete by depressing & releasing pushpad. Action should be smooth with full return of pushpad and latch travel.

Recommended: Drill 3/16 pilot hole x 1" deep



* If using sexnuts, install SN3 kit here.

Drill 9/32 interior door face







Follow steps "a" through "g" for CD installations

- a. Remove endcap and endcap mounting bracket.
- b. Remove fillerplate.
- c. Remove and discard shipping insert and nut. Loosen (2) screws from dogging assembly.
- d. Install mortise cylinder (sold separately) with large hex nut provided.
- e. Trial fit dogging assembly. If cylinder is too short, remove spacers as necessary and reattach them under the (2) screw heads. Fasten the (2) screws to the rest of the assembly.

NOTE: The key should easily turn in both directions.

- f. Rotate key counterclockwise
- g. Assembly complete. Continue with Panic Hardware instruction.

STEP 12: TOP STRIKE INSTALLATION



STEP 13: BOTTOM STRIKE INSTALLATION

(Disregard if TRO device is being installed)



STEP 14: FINE LATCH ADJUSTMENT

14a. Ensure that latches are fully retracted. Gently close door. Latches should extend when door is closed.

14b. Depress pushpad and open door. Top latch should clear top strike & bottom bolt should not drag. Latches should remain in retracted position with pushpad released.

FINE LATCH ADJUSTMENT (if needed)

(± 3/8" adjustment possible on both top & bottom rods independently. See diagram below.)

- **14c.** Top strike fine adjustment: Adjust strike engagement by either retaining or removing shim. Adjust door tightness by moving insert to desired position. Note that strike pocket can be flipped around to achieve additional adjustment (see step 11).
- **14d: TOP LATCH ADJUSTMENT:** With latches extended, turn CCW until the top latchbolt projection begins to visually decrease, then turn CW until latchbolt projects fully. Rotate CW one additional full turn.



14f. Check device operation. Reference STEP 14a & 14b.

DEVICE OPERATION TROUBLESHOOTING			
SYMPTOM	POSSIBLE CAUSE	SOLUTION	
Device not latching	Bottom bolt is not properly aligned with bottom strike hole.	Modify bottom strike hole for fit.	
when door closes	Top strike insert is not installed or not correctly aligned with the holdback.	Install and/or position strike insert per instructions.	
	Through fasteners for trim (if applicable) are interfering with internal centerlift assembly.	Loosen and re-position through screws to clear.	
	Rods improperly adjusted	Adjust rods per instructions.	
	······	Remove device and re-install per instructions.	
Latches release, but pushpad will not fully depress	Device centercase lift finger not inserted properly into centerlift assembly.	Remove device from backplate and re-install with lift finger correctly inserted.	
	Top adjustment screw is adjusted too far in the retracted direction (CCW).	Rotate top adjustment screw in the extended direction (CW) per FINE LATCH ADJUSTMENT procedure.	
Latches are not releasing when pushpad is fully depressed	Device centercase lift finger not inserted properly into centerlift assembly.	Remove device from backplate and re-install with lift finger correctly inserted.	
	Top adjustment screw is adjusted too far in the extended direction (CW).	Rotate top adjustment screw in the retracted direction (CCW) per FINE LATCH ADJUSTMENT procedure.	
	Bottom adjustment screw is adjusted too far in the extended direction (CCW).	Rotate bottom adjustment screw in the retracted direction (CW) per FINE LATCH ADJUSTMENT procedure.	

EXTENSION

STEP 15: COVER INSTALLATIONS



STEP 16: INSTALL AUXILIARY FIRE BOLT (F71 ONLY)

See Auxiliary Bolt instructions (p/n 104934) included with kit



Optional Accessories



Tamper Kit (Security Kit)

Catalog No: SSK1 (p/n 101233 for top & bottom rod applications) SSK1 (p/n 101233 for top rod only applications)





Security Screws

Security Pin TORX® Bits provided

Cylinder nut socket p/n: 103779

