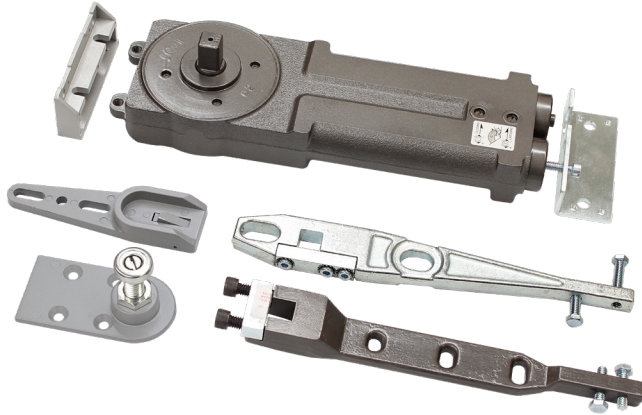


# 88 SERIES

ANSI A156.4 Grade 1, Concealed Overhead Door Closers  
with Fixed and Adjustable Power Spring



## FEATURES



- **Power Adjustable 1-4 ( Grade 1 )**
- **Meets both 5 and 8.5 lbs opening force for ADA**
- **Replacement for International, Calibre, and CR Laurence**

- ANSI A156.4 **Grade 1**: UL Listed
- Cal-Royal's finest concealed overhead door closer series meeting the highest industry standards **Grade 1**.
- UL Listed for **fixed** size door closers. ( **Grade 1** )  
UL Listed 10c for **adjustable** door closers. ( **Grade 1** )
- **Center Hung Door Application**: Double or Single Acting ( applied door stop renders unit Single Acting ). Adjustable "S" type side loading or "A" type, "K" type, and "PT" type end loading arms are available for center pivoted door applications.
- **Offset Hung Door Application**: Single Acting Offset "JO" and "VO" type top arms are available for butt hung or offset pivoted applications.
- Available with 1/2", 3/4" long, and 7/8" extended spindles.

## FUNCTIONS

- Built-in positive Back Stop and Hold-Open positions are available:

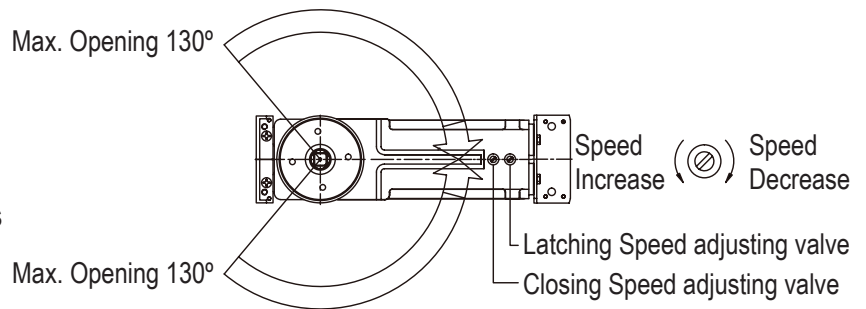
- 105° Back Stop with Hold-Open
- 105° Back Stop - no Hold-Open
- 90° Back Stop with Hold-Open
- 90° Back Stop - no Hold-Open

- Handicap (ADA) adjustable spring tensions available for use on center pivoted door applications:



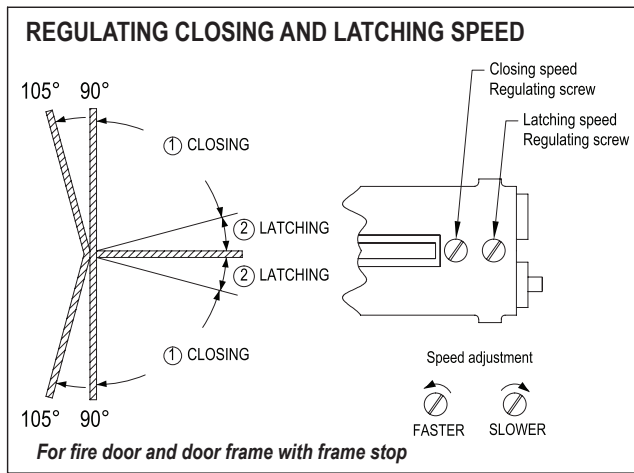
- 5.0 lb. Opening Force (Center Hung Door)
- 8.5 lb. Opening Force (Center Hung Door)

- Available also in **light, medium, heavy** standard Fixed Spring Tensions.

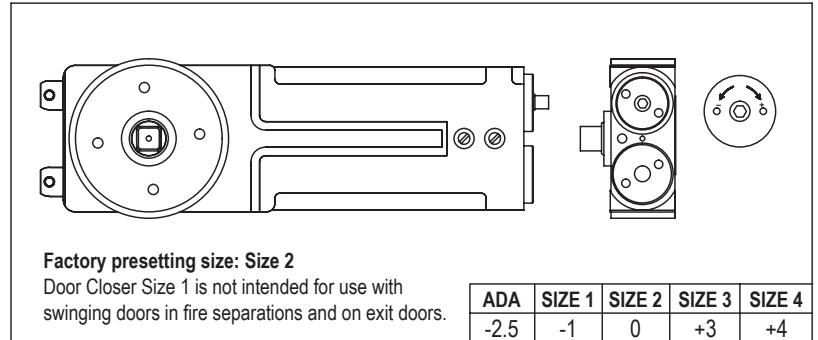


POWER SIZE	1	2	3	4
Max Door width [inches (mm)]	31 1/2 (800)	35 7/16 (900)	39 3/8 (1000)	43 5/16 (1100)
Max Door weight [lbs (kg)]	220 (100)			

## FEATURES



## POWER ADJUSTMENT



- **Dual Speed Control Valves:** Closing and Latching speeds controlled by separate regulating valves, fully adjustable after installation.
- Universal application. Non-handed for left or right door application.
- Adjustable dual purpose radial ball-bearing bottom pivot set is provided for floor or threshold mounted ( Side or End Loading ) center pivoted installation. Bottom pivot sets are optional, and must be ordered separately.
- Installs in an aluminum storefront header or transom as small as 1-3/4" x 4".
- Positive centering for alignment and to hold door closed against normal wind or draft conditions.

## Center Hung Doors

- Arm package complete units come standard with top arm assembly "S" ( side loading arm ) or "A", "K", and "PT" ( end loading arm ), adjustable dual purpose bottom pivot set, and anchor set with all fasteners ( 88-PV ).
- "JO" or "VO" type offset arms are optional, but must be specified. Specify finish ALUM or DURO.
- For optional pivots, suffix arm type ( "S", "A", "K" or "PT" ) and pivot type ( "88-G" or "88-GE" ) after **body part #** ( eg. **8840S + G** ) otherwise, shipped with adjustable dual purpose bottom pivot set, and anchor set with all fasteners ( 88-PV ).


## Offset Hung Doors

- Offset hung doors are single acting. Offset "JO" and "VO" type top arms are available for butt hinge or offset pivot applications.
- Offset pivots or Butt hinges not included.

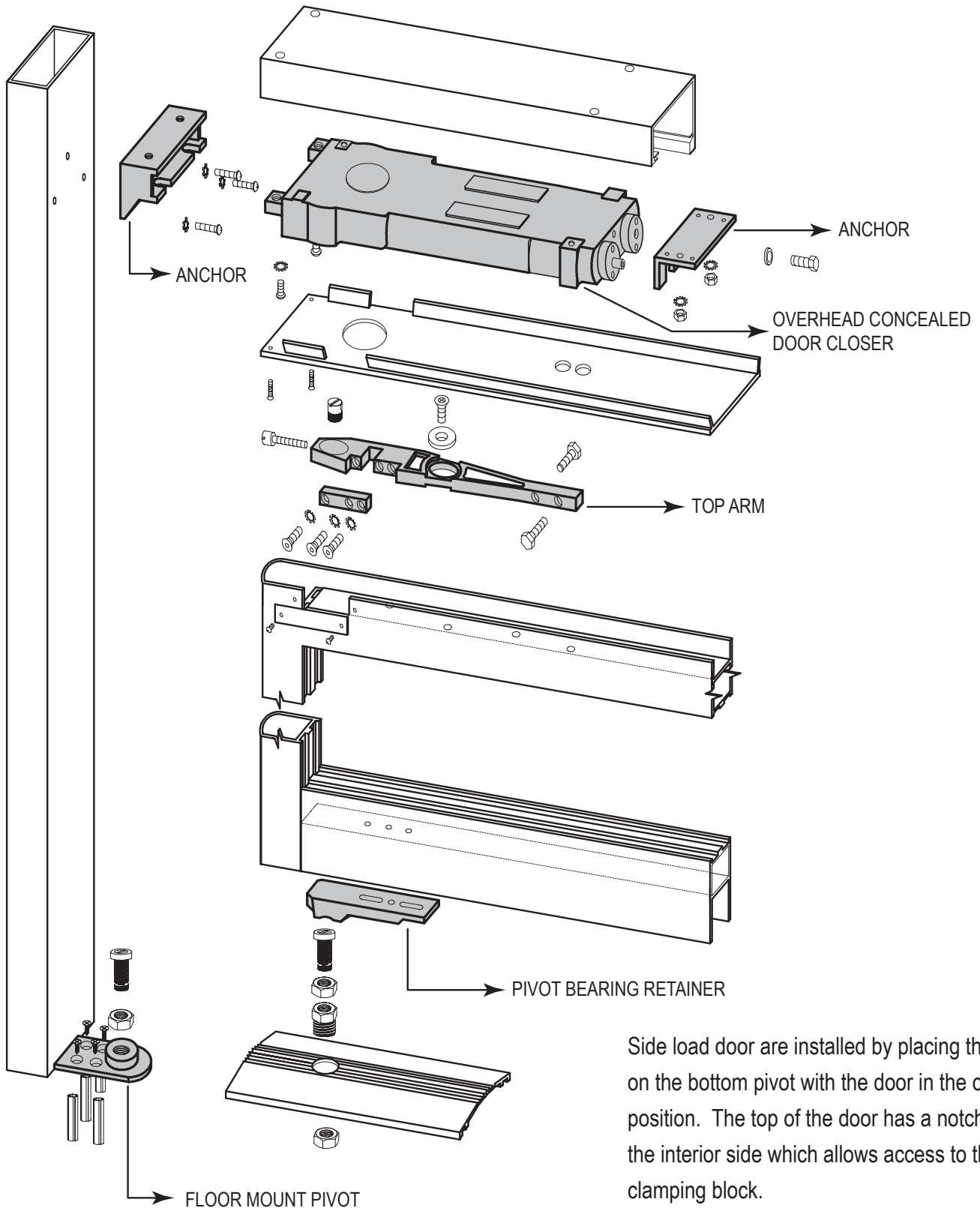
## 88 SERIES: OVERVIEW INSTALLATION (TOP AND BOTTOM)

- Arm package complete units come standard with top arm assembly “S” side loading arm or “A”, “K”, and “PT” end loading arm, adjustable dual purpose bottom pivot set and anchor set with all fasteners.
- “JO” or “VO” type offset arms are optional, but must be specified. Specify finish **ALUM** or **DURO**.
- For optional pivots, suffix arm type ( “S”, “A”, “K” or “PT” ) and pivot type ( “88-G” or “88-GE” ) after **body part #** ( eg. **8840S + G** ) otherwise, shipped with adjustable dual purpose bottom pivot set and anchor set with all fasteners ( **88-PV** ).

**STOCK ITEMS IN BOLD**  
NON-STOCK ITEMS AVAILABLE WITH FACTORY LEAD TIME AND SUBJECT TO MINIMUM ORDER.

DOOR SIZE	POWER SIZE	SPINDLE	HO / NHO	OPENING	BODY ONLY	ARMS Center Hung - Side Load		ARMS Center Hung - End Load		ARMS Offset Hung		
						1/2" Depth ("S" Type)	1" Depth ("A" Type)	5/8" Depth ("K" Type)	7/8" Depth ("PT" Type)	9/16" Depth ("JO" Arm)	7/8" Depth ("VO" Arm)	
From 36" to 48" x 96"	Adjustable 1 - 4 ADA 5 lbs ( Interior ) ADA 8.5 lbs ( Exterior ) 	1/2"	HO	90°	<b>8840</b>	<b>8840S</b>	<b>8840A</b>	<b>8840K</b>	<b>8840PT</b>	NA		
				105°	<b>8850</b>	<b>8850S</b>	<b>8850A</b>	<b>8850K</b>	<b>8850PT</b>			
			NHO	90°	<b>8820</b>	<b>8820S</b>	<b>8820A</b>	<b>8820K</b>	<b>8820PT</b>			
				105°	<b>8830</b>	<b>8830S</b>	<b>8830A</b>	<b>8830K</b>	<b>8830PT</b>			
			3/4"	HO	90°	<b>8809</b>	<b>8809S</b>	<b>8809A</b>	<b>8809K</b>			<b>8809PT</b>
					105°	<b>8810</b>	<b>8810S</b>	<b>8810A</b>	<b>8810K</b>			<b>8810PT</b>
		NHO	90°	8811	8811S	8811A	8811K	8811PT				
			105°	8812	8812S	8812A	8812K	8812PT				
		7/8"	HO	90°	<b>8800</b>	<b>8800S</b>	<b>8800A</b>	<b>8800K</b>	<b>8800PT</b>			
				105°	8801	8801S	8801A	8801K	8801PT			
			NHO	90°	8802	8802S	8802A	8802K	8802PT			
				105°	8803	8803S	8803A	8803K	8803PT			
Up to 30" x 96"	Light	1/2"	HO	90°	8855	8855S	8855A	8855K	8855PT	8855JO	8855VO	
				105°	8856	8856S	8856A	8856K	8856PT	8856JO	8856VO	
			NHO	90°	8857	8857S	8857A	8857K	8857PT	8857JO	8857VO	
				105°	8858	8858S	8858A	8858K	8858PT	8858JO	8858VO	
31" to 41" x 96"	Medium		HO	90°	8859	8859S	8859A	8859K	8859PT	8859JO	8859VO	
				105°	<b>8860</b>	<b>8860S</b>	<b>8860A</b>	<b>8860K</b>	<b>8860PT</b>	<b>8860JO</b>	<b>8860VO</b>	
			NHO	90°	8861	8861S	8861A	8861K	8861PT	8861JO	8861VO	
				105°	8862	8862S	8862A	8862K	8862PT	8862JO	8862VO	
42" to 48" x 96"	Heavy	HO	90°	8863	8863S	8863A	8863K	8863PT	8863JO	8863VO		
			105°	8864	8864S	8864A	8864K	8864PT	8864JO	8864VO		
		NHO	90°	8865	8865S	8865A	8865K	8865PT	8865JO	8865VO		
			105°	8866	8866S	8866A	8866K	8866PT	8866JO	8866VO		

## 88 SERIES : EXPLODED VIEW



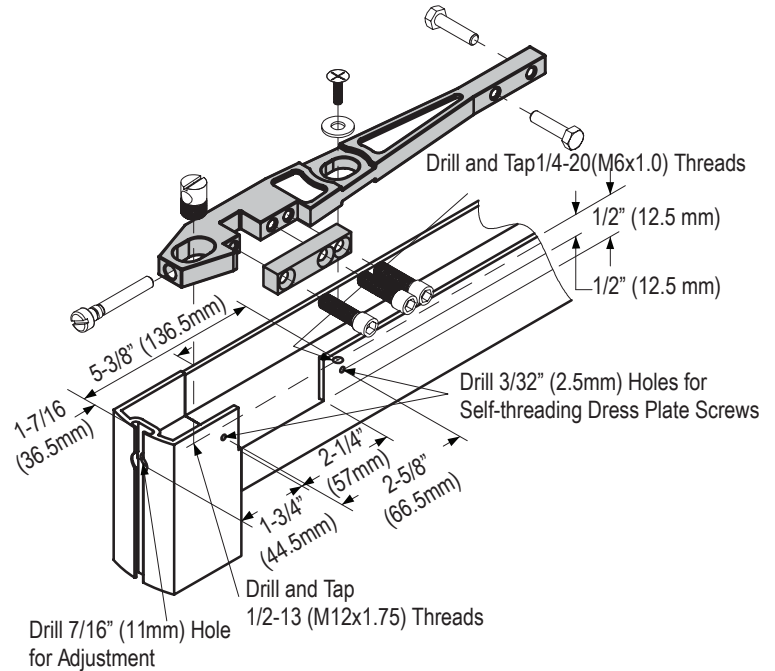
Side load doors are installed by placing the door on the bottom pivot with the door in the closed position. The top of the door has a notch on the interior side which allows access to the clamping block.

## 88 SERIES : ARM INSTALLATION FOR CENTER HUNG DOORS

### TOP DOOR RAIL

#### “S” Type Side Loading Arm

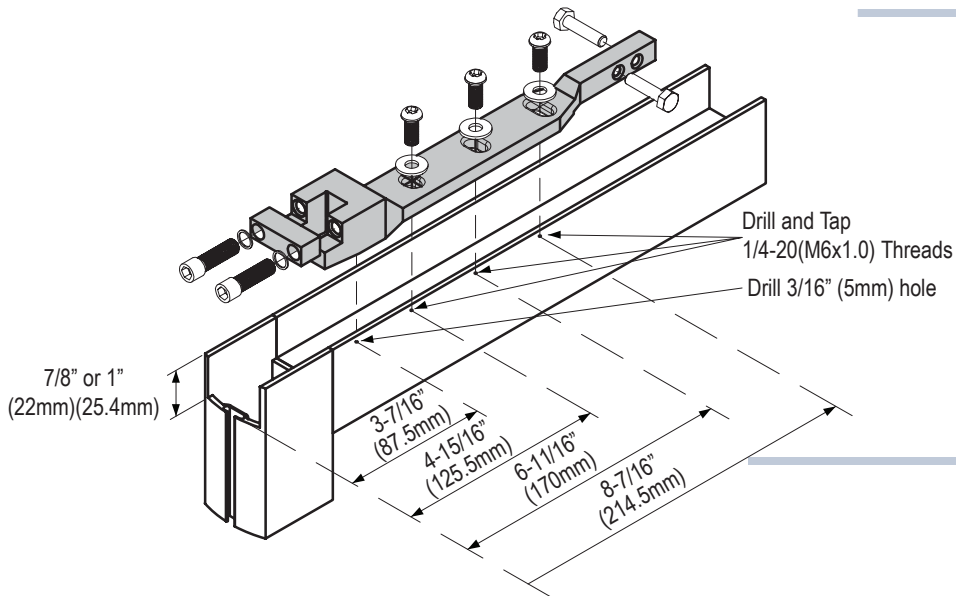
- Require minimal 1/2" depth top door rail.
- Used with center hung doors.
- For center pivot applications.



### TOP DOOR RAIL

#### “A” and “PT” Type End Loading Arm

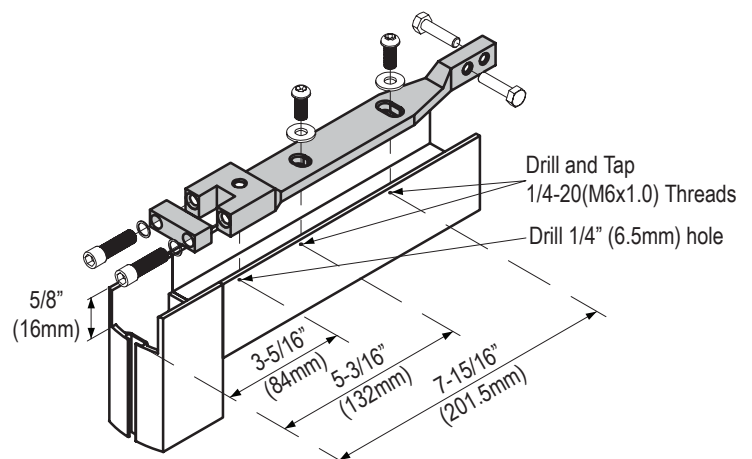
- “A” Type requires minimal 1" depth top door rail
- “PT” Type requires minimal 7/8" depth top door rail
- Used with center hung doors
- For center pivot applications



### TOP DOOR RAIL

#### “K” Type End Loading Arm

- Require minimal 5/8" depth top door rail
- Used with center hung doors
- For center pivot applications



## 88 SERIES : ARM INSTALLATION FOR OFFSET HUNG DOORS

