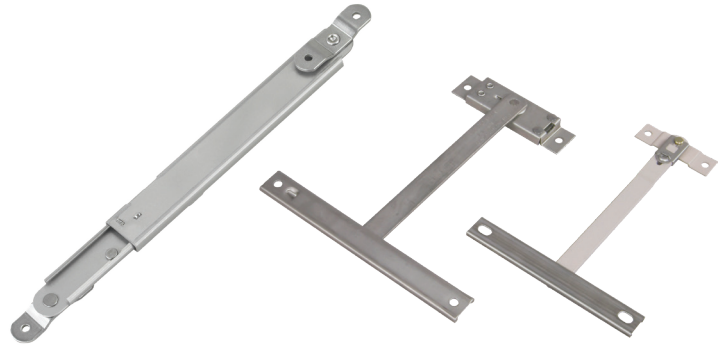


**FRICITION ADJUSTORS:**

Friction Adjustors are used either as a limit device or for additional friction in conjunction with certain types of hinging on projected windows. By tightening a screw in the sliding brass shoe, a homeowner can easily adjust the tension required to open and close the window. When used as a Limit Device the hardware is designed to restrict the opening on projected or casement windows. This mechanism automatically stops the vent at a safety position as required by the user, or required by law. For cleaning and ease of window assembly, a key may be used to release the window to its maximum opening. See Models#37.26 through #37.34.

**LIMIT DEVICES:**

Two different varieties of Limit Devices are available. When properly installed and operated, the Limit Device will help prevent damage to casement and awning windows under high winds in high-rise applications. Two different methods of disconnecting the Limit Device from the sash for cleaning purposes - either by inserting a key, or by operating the detach clip. A variety of track and arm lengths are available for this product. Consult the attached drawings to determine the correct length that will be required for the window based on the application of this product. Must be used in pairs to avoid glazing damage to window.

SUPPORT ARMS:

Designed for use on top-hung windows. Support Arm opens to full extension and automatically locks into place for ventilation or window maintenance. The vent can then be locked open at this position by manually engaging a locking lever. The locking lever feature securely locks the window in the open position for maintenance and to prevent sudden closing during wind gusts. To unlock either Support Arm from its maximum-open position, simply lift the sash slightly before closing. Must be used in pairs to avoid glazing damage to window.

MATERIAL:

Friction Adjustor is non-magnetic stainless steel with nylon friction block encased in a sliding brass shoe. #99 Limit Devices are plated steel arms with stainless steel track and detach clip - or a non-magnetic stainless steel model is also available Support Arms are non-magnetic stainless steel.

ORDERING INFORMATION:**Friction Adjustor**

1. Order 2 friction adjustors per vent
1. From the information available on the following drawings – specify the correct arm and track length that will be required for your window. Reference numbers in table on next page.
2. All Heavy Duty Friction Adjustors come equipped with a .235” (5.9 mm) bracket unless otherwise specified –see Dimension A in Figure 2. Optional brackets not available for Standard Duty Friction Adjustors.

ORDERING INFORMATION (CONTINUED):

Limit Device

1. Order 2 devices per vent.
2. Specify product by part number -refer to drawings for specific information.
3. Limit Device Key (#24492.1) sold separately — only required for #37.26 through #37.34.

Support Arms

1. Order 2 arms per vent.
2. Specify product by part number (length of hardware is measured in extended position).
3. Order shims Part No. 24493.1 (.089" 2.2mm thick) as needed for application.
4. These Support Arms provided with .089" brackets. If taller brackets are required, please consult the tables within Support Arm drawings for the optional bracket shims which can be added during installation.

RECOMMENDED SCREWS:

Types of screws required determined by material of profile used. Refer to drawings for complete information on screw type and quantity needed (sold separately).

AMESBURYTRUTH TIPS:

1. AmesburyTruth recommends that a Friction Adjustor/Limit Device be used in any application over two stories to protect the window and hardware from excessive wind loads in the near fully open position. The degree of friction and limited opening depends on anticipated wind loads.
2. Friction Adjustors can be used either as a hold-open device or for additional friction in conjunction with some types of hinging on projected or casement sashes. The manufacturer determines for himself the placement of the unit and the correct track and arm length required to obtain whatever amount of opening is desired.
3. For accurate hardware placement in vinyl or metal applications, pre-drilling of the window profile is recommended.
4. For vinyl window applications, mounting screws should pass through two PVC walls, or one PVC wall and one insert wall. For this reason, it may be necessary to use a longer screw than is recommended.
5. For metal window profiles AmesburyTruth recommends machine screws however, in most applications sheet metal screws will provide adequate holding power.
6. Support Arms should be mounted as low as possible on the sash and frame for maximum strength. The window manufacturer must determine the placement of the hardware dependent upon the amount of opening.

INCLUDE AMESBURYTRUTH SPECS ON YOUR NEXT WINDOW PROJECT

Sash control devices as required by "life safety" codes. Friction adjustment features to be provided which allow fine tuning of sash motion.

Sash control devices of 37/99 series, as manufactured by AmesburyTruth Hardware.



FIG. 1 APPLICATION OF AMESBURYTRUTH FRICTION ADJUSTORS

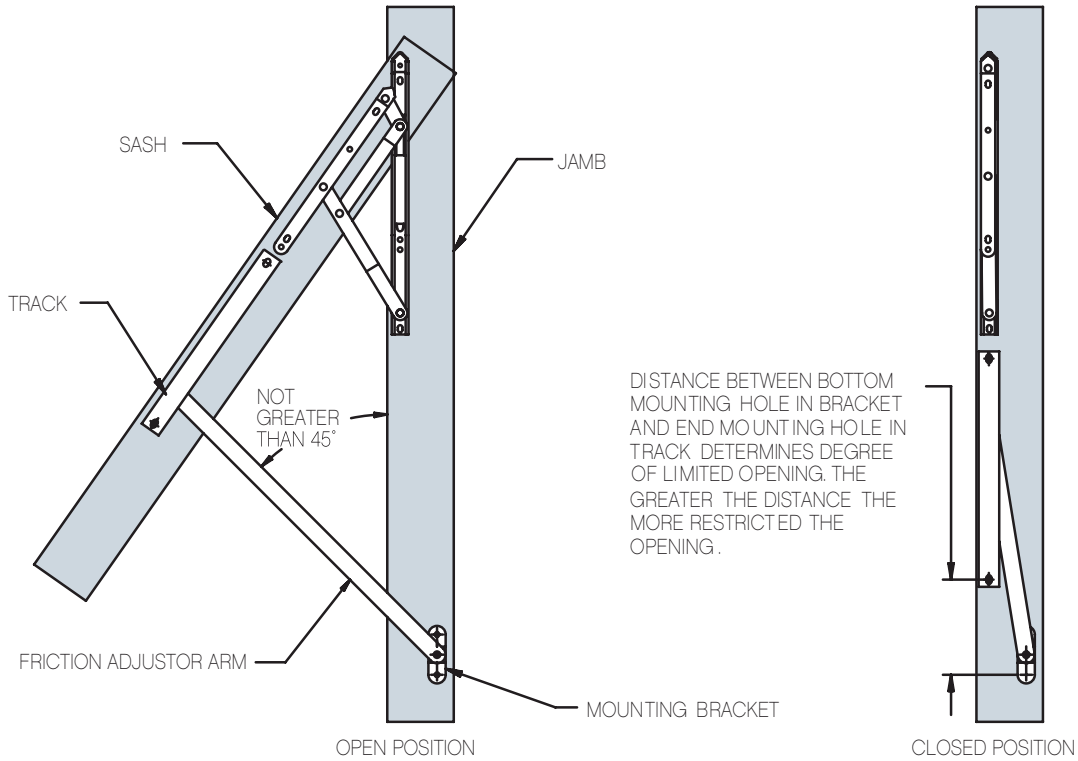
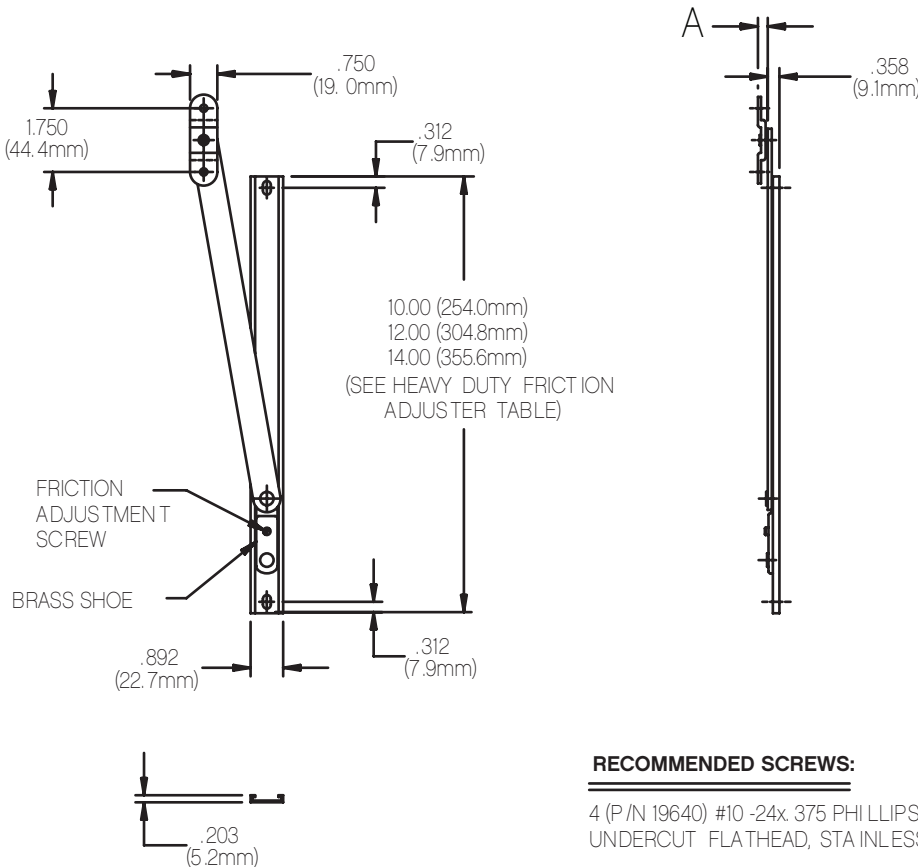


FIG. 2 HEAVY DUTY FRICTION ADJUSTORS



HEAVY DUTY FRICTION ADJUSTORS (See Fig. 2)	
PART NUMBER	TRACK LENGTH*
37.41	10" (254.0mm)
37.42	12" (304.8mm)
37.43	14" (355.6mm)

*Bar length is always 2" shorter than Track length.

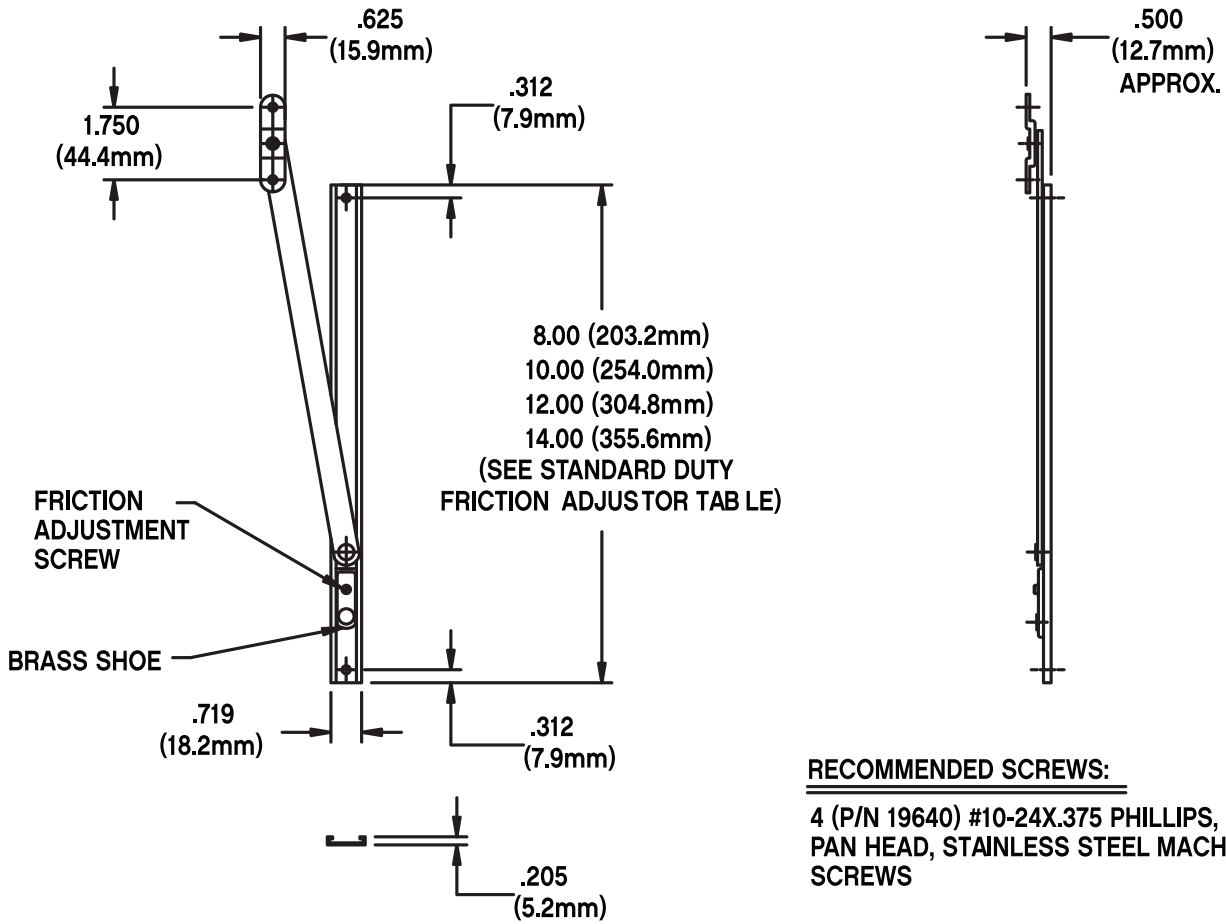
AVAILABLE BRACKET HEIGHT "A"	STACK HEIGHT
.110(2.8mm)	.468(11.9mm)
*.235(6.0mm)	.593(15.1mm)

*STANDARD.

RECOMMENDED SCREWS:

4 (P/N 19640) #10 -24x.375 PHILIPPS UNDERCUT FLATHEAD, STAINLESS STEEL MACHINE SCREWS.

FIG. 3 TRUTH STANDARD DUTY FRICTION ADJUSTORS (Anderberg FA22SS Series)

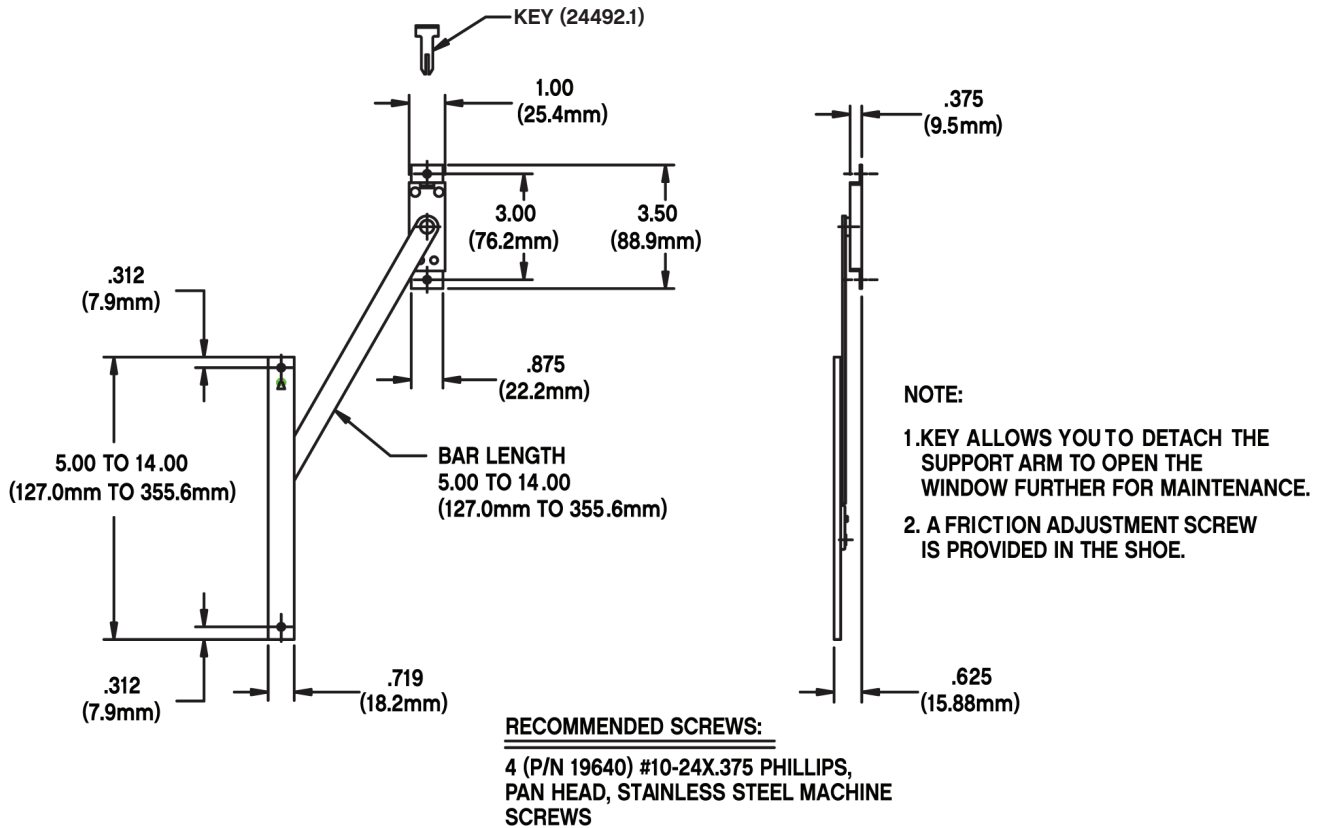


STANDARD DUTY FRICTION ADJUSTORS (See Fig. 3)	
PART NUMBER	TRACK LENGTH*
37.35	8" (203.2mm)
37.36	10" (254.0mm)
37.37	12" (304.8mm)
37.38	14" (355.6mm)

*Bar length is always 2" shorter than Track length.



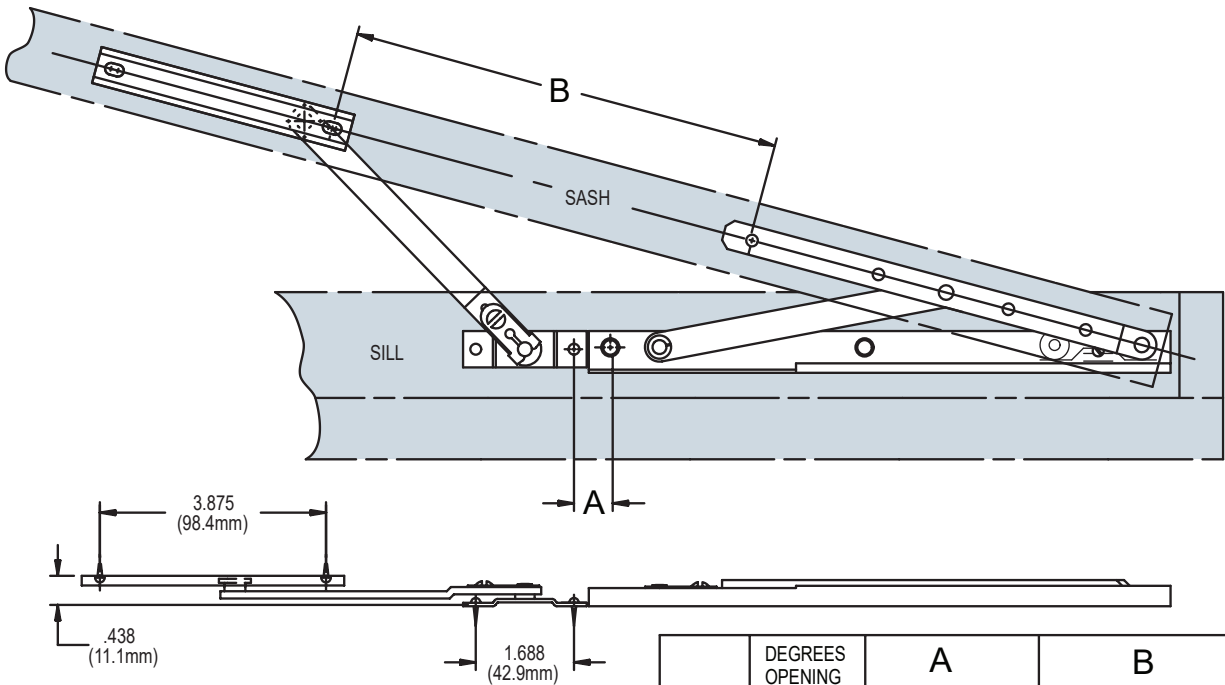
**FIG. 4 AMESBURYTRUTH LIMIT DEVICE WITH KEY RELEASE
(Anderberg FA220SS Series)**



LIMIT DEVICE WITH THE KEY RELEASE FEATURE (See Fig. 4)		
PART NUMBER	TRACK LENGTH*	ARM LENGTH
37.26	5" (127.0mm)	5" (127.0mm)
37.27	6" (152.4mm)	6" (152.4mm)
37.28	7" (177.8mm)	7" (177.8mm)
37.29	8" (203.2mm)	8" (203.2mm)
37.31	10" (254.0mm)	10" (254.0mm)
37.33	12" (304.8mm)	12" (304.8mm)
37.34	14" (355.6mm)	14" (355.6mm)

1. The Heavy Duty Friction Adjustor is the only one of these products that has the option of different bracket heights. If a bracket is not specified it comes with the standard .235 (6.0mm) bracket. For other available brackets see the table in figure 2.
2. The accompanying tables show the options available to you in the selection of the limit device or friction adjustors required for your specific application.

FIG. 5 APPLICATION OF THE AMESBURYTRUTH LIMIT DEVICE
(When used with concealed casement 2 bar hinges)

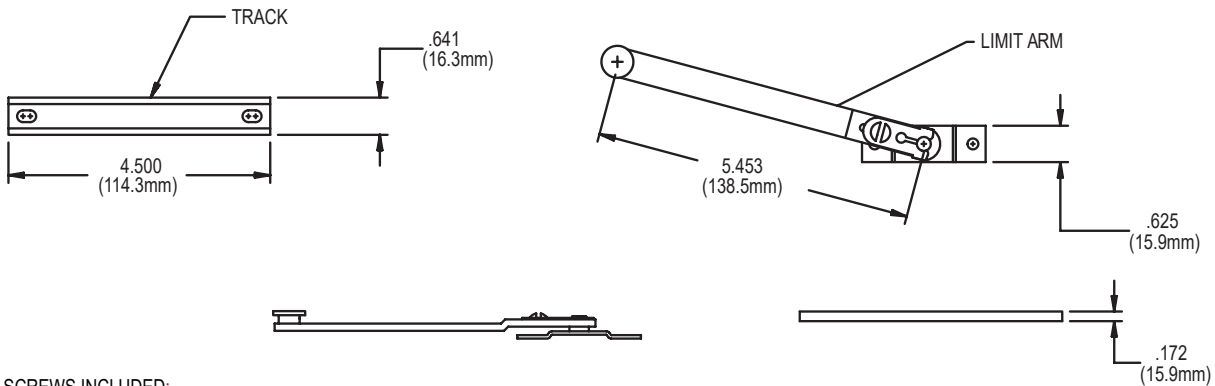


NOTE: MOUNTING DIMENSIONS MAY VARY WHEN USED WITH OTHER TYPES OF HINGES.

ADDITIONAL TYPES OF LIMIT DEVICES ARE AVAILABLE FROM TRUTH

HINGE	DEGREES OPENING	A	B
	10"	5	6.125 (155.6mm)
10		.625 (15.9mm)	8.375 (212.7mm)
15		.625 (15.9mm)	7.656 (194.5mm)
20		.625 (15.9mm)	6.625 (168.3mm)
13"	DEGREES OPENING	A	B
	5	6.125 (155.6mm)	14.250 (362.0mm)
	10	.625 (15.9mm)	11.344 (288.1mm)
	15	.625 (15.9mm)	10.156 (258.0mm)
20	.625 (15.9mm)	8.313 (211.2mm)	

FIG 6. 99.20 LIMIT DEVICE (Optional SST 99.24)



SCREWS INCLUDED:

2 (P/N 19090.92) #7 X .750 PHILLIPS, PAN HEAD, STEEL SHEET METAL SCREWS (BKT) - SUPPLIED WITH PRODUCT

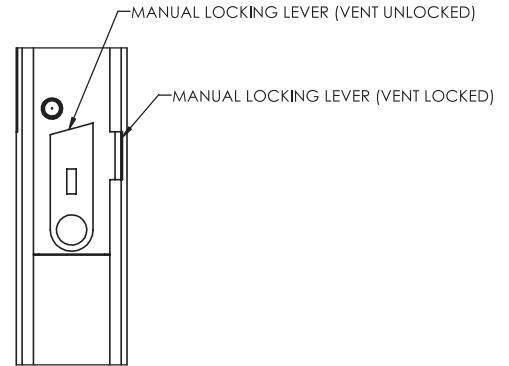
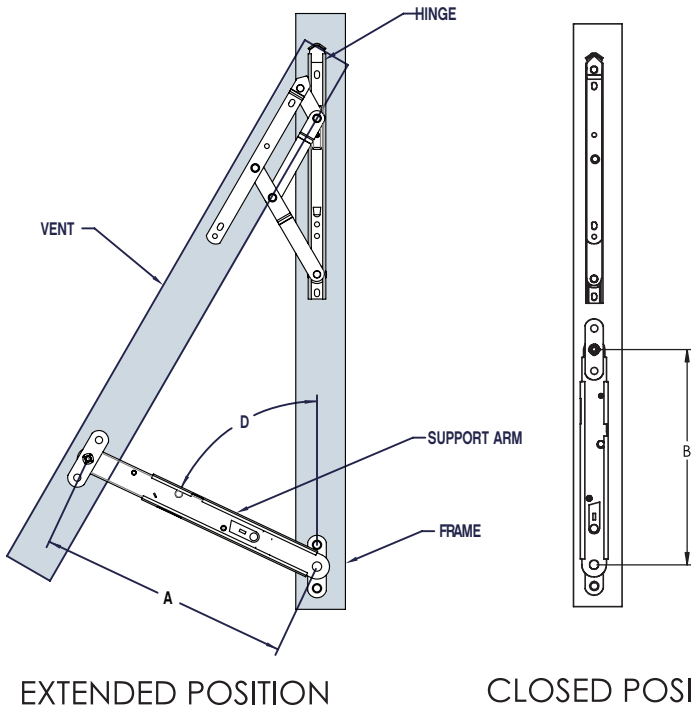
2 (P/N 19091.92) #7 X .750 PHILLIPS, PAN HEAD, STAINLESS STEEL SHEET METAL SCREWS (TRACK) - SUPPLIED WITH PRODUCT



Pushing the vent open to the full extent of the support arms will automatically engage the arms. The vent should **ALWAYS** be secured in the open and latched position by engaging the lock levers on each arm. To reclose the vent from the secured position, rotate the locking levers on both arms to the unlocked position, then push the vent outward to disengage the support arm latches. Even pressure applied to the vent will ensure that both arms disengage together.

Support Arm Application Rules:

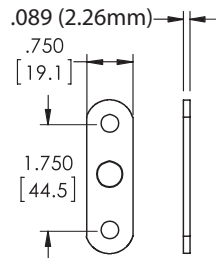
- Truth support arms **must** be used with vent "balancing" style hinges.
- The bottom bracket of the support arm **must** be mounted as low on the window frame as possible to minimize loading.
- The open support arm angle "D" **must** be greater than 35 degrees.
- Vent must be securely locked when left in the closed position.



LOCKING LEVER DETAIL

PART NUMBER	AVAILABLE LENGTHS	
	A EXTENDED POSITION	B CLOSED POSITION
37.10	10 (254.0mm)	7 (177.8mm)
37.11	12 (304.8mm)	8 (203.2mm)
37.12	14 (355.6mm)	9 (228.6mm)
37.13	16 (406.4mm)	10 (254.0mm)
37.14	18 (457.2mm)	11 (279.4mm)
37.15	20 (508.0mm)	12 (304.8mm)
37.16	22 (558.8mm)	13 (330.2mm)
37.17	24 (609.6mm)	14 (355.6mm)
37.18	26 (660.4mm)	15 (381.0mm)
37.19	28 (711.2mm)	16 (406.4mm)

C BRACKET HEIGHT	
.089 (2.2mm)	STANDARD
.178 (4.6mm)	1 SHIM
.267 (6.78mm)	2 SHIMS
.356 (9.0mm)	3 SHIMS



.089 THICK SHIM PN 24493.1

RECOMMENDED SCREWS

FOR STANDARD BRACKET: 4 (P/N 19640) #10-24 X .375 PHILLIPS UNDERCUT FLATHEAD STAINLESS STEEL MACHINE SCREWS. (SCREW LENGTHS WILL CHANGE WITH SHIMS USED.)

