



Designed for face-mount applications on single vent awning windows, this operator's unique pivot shoe design allows approximately 10" of opening. The double arm design also helps achieve corner pull-in and sash stability of ventilator. Acetal pivot shoes slide smoothly in the track assuring positive operation and creating a self-cleaning action. Available in both front-mount and rear-mount styles. Also incorporating an adjustable stabilizing tab (optional), which helps reduce flexing of window frame during operation.

**LOGO OPTIONS:** Have you considered *personalizing* your window with your company name or logo? All of Truth's operator handles are capable of accepting your own "signature". Contact Truth for further details.

**WARRANTY:** Protected under the terms of the Truth Warranty for Window and Door Manufacturers and Authorized Distributors. Refer to Truth's Terms and Conditions for further details.

**MATERIAL:** High-pressure die-cast zinc case, crank handle and knob. Hardened steel worm and gear arm. Acetal pivot shoe. Non-magnetic stainless steel track. Optional stainless steel arms.

**CORROSION PROTECTION:** Truth's E-Gard® Hardware has a multi-stage coating process that produces a superior physical and aesthetic finish. Plus, it is resistant to a wider range of corrosive materials, including industrial cleaning materials and environmental pollutants. This proprietary process has been tested to be approximately three times better than common zinc plated finishes.

*For the severe conditions associated with coastal areas, Truth has stainless steel hardware. See Tech Note #7 for further information about corrosion protection and these special hardware options.*

**FINISH:** Electrostatically applied, durable coatings that provide excellent resistance to chipping, scratching and corrosion while maintaining color stability for years in direct sunlight. Please refer to Truth's Color Chart for examples of Truth's most popular finish options. Truth also offers a wide range of decorative "plated" finishes - contact Truth for additional information on availability of these finishes on specific product lines.



### ORDERING INFORMATION & OPTIONS:

1. Choose Operator style desired - specify by part number. See table within drawings for details.
2. Specify finish number.
3. Select mounting hardware (sold separately):

#11454 - Contour Handle (painted) or #10579 - Roto Gear Operator Handle - shown above (painted).

**Optional handle styles**, such as Truth's *Folding Handle*, are also available.

Order Track separately - specify by part number. See table within drawings for details (2 per operator).

#12789 - Stabilizing Tab Kit.

#20947 - Backing Plate (2 per operator).

#20189 - Backing Grommet (optional).

#21306 - Protective red plastic spline cap (optional).

#30171 - Rubber-cork adhesive backed gasket (optional).

### 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). For additional information regarding screw selection - see Truth Tips and Tech Note #11.

### TRUTH TIPS:

1. Operator mounting screws must pass through one PVC wall and Truth Backing Plates #20947 or one PVC wall and one insert wall. Track mounting screws must pass through two PVC walls or one PVC wall and one insert wall. For this reason, it is necessary to use a longer screw than is recommended.
2. When selecting mounting screws for Truth hardware, coating compatibility is one of the most important criteria. For best corrosion resistance the coating on the screws should be the same as the coating on the hardware. For more information see Tech Note #11.

3. This operator is intended for single vent applications only, and should not be used on multi-vent applications.

4. For accurate hardware replacement, pre-drilling is recommended.

5. Truth recommends that Backing Plates (#20947) and/or a Stability Tab (#12789) be used for added support to the operator in an effort to reduce the amount of flex experienced in many PVC Profile Systems.

6. For metal window profiles, Truth recommends machine screws.

However, in most applications, sheet metal screws will provide adequate holding power.

7. Butt Hinges can be used with the pivot shoe operator, however, some degree of sash chatter will usually occur. Chatter is caused by the weight of the window pushing the operator closed rather than the operator pulling the window closed.

8. A window operator alone provides poor forced entry resistance and must always be used in conjunction with sash locks when forced entry resistance is required.

9. The Pivot Shoe Operator can be used with all Truth 13 Series Awning and 4-Bar Hinges. To insure maximum operator efficiency, it is important that operator, hinge, and sash height is properly matched. Consult sash size table found in the Hinge section of the catalog.

### INCLUDE TRUTH SPECS ON YOUR NEXT WINDOW PROJECT

Window operators shall be provided which allow easy adjustment of window position. The mechanism should be crank operated and provide wide range of open positions. Connection to the movable sash should use pivoting slide shoes and stainless steel guide tracks.

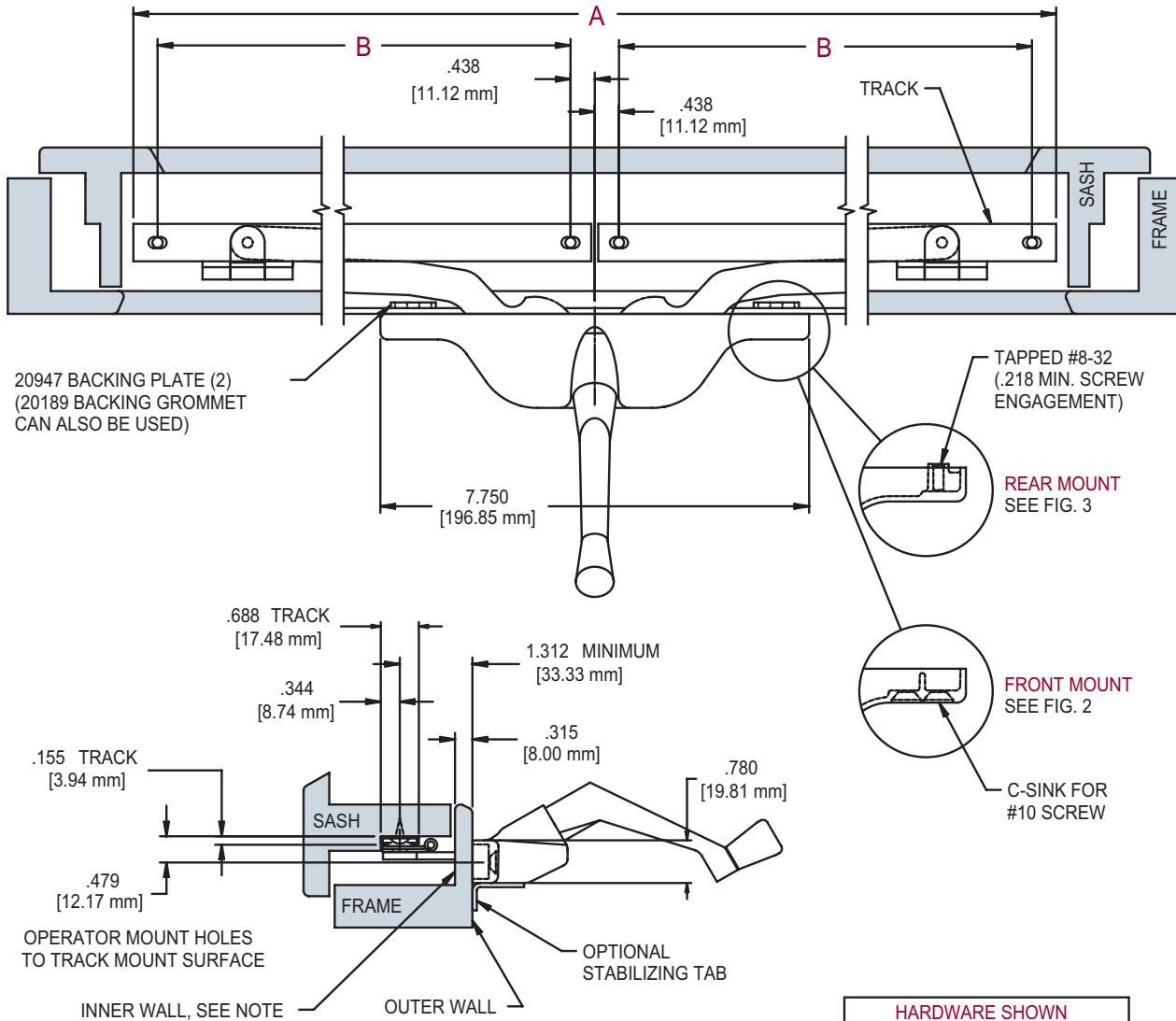
# 22 PIVOT SHOE OPERATOR

Window operators will be of twin push arm design driven by hand crank. The operator must be constructed of E-Gard® components, hardened steel

worm and gear arms and high pressure zinc alloy die castings. Stainless steel shoe guide tracks.

Window Operators shall be 22 series Pivot Shoe Operator as manufactured by Truth Hardware, Owatonna, MN.

FIG. 1 APPLICATION OF 22 SERIES PIVOT SHOE OPERATOR

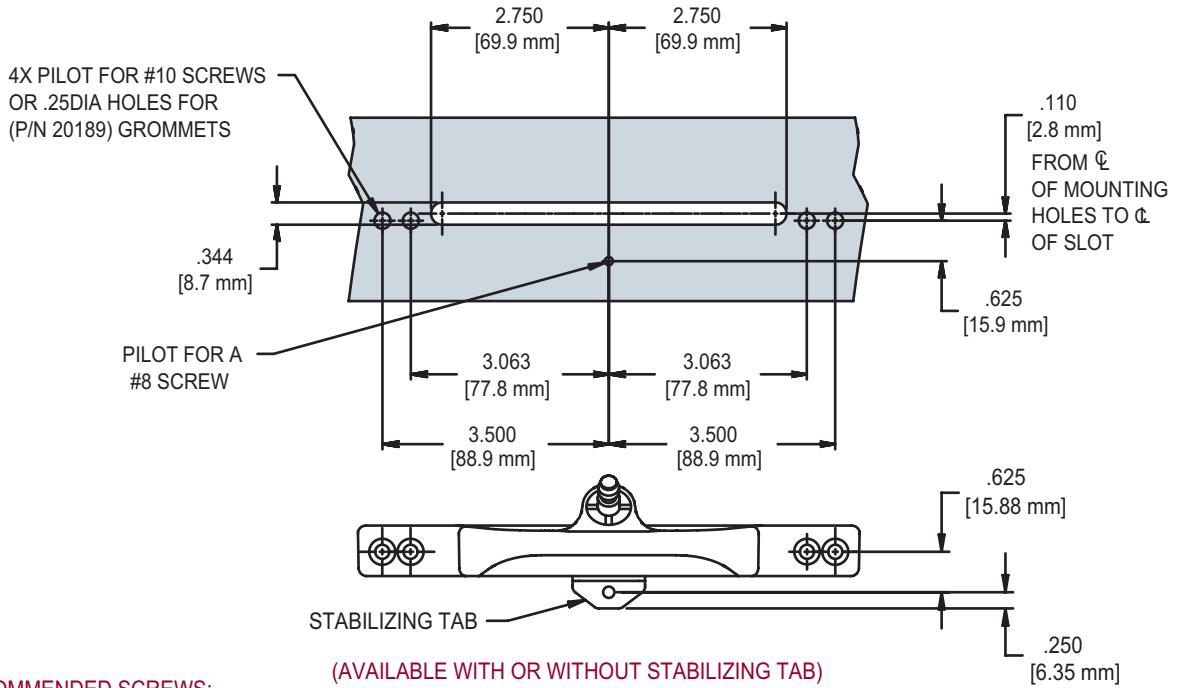


NOTE:  
INNER WALL MAY BE RELIEVED TO ALLOW SUFFICIENT ARM CLEARANCE IN THE CLOSED POSITION. RELIEF REQUIRED FOR CLEARANCE WILL VARY DEPENDING ON THE TRACK MOUNTING POSITION RELATIVE TO THE OPERATOR.

HARDWARE SHOWN	
22.10	OPERATOR
30169	TRACK (2)
10579	HANDLE
20947	BACKING PLATE (2)

OPERATOR PART No.	ARM LENGTH	OVERALL LENGTH A	MOUNTING STYLE	STABILIZING TAB TO ORDER	RECOMMENDED TRACK	TRACK LENGTH B
22.10	11.00 (279.4mm)	27.75 (704.9mm)	FRONT	PART No. 12789	30169	13.00 (330.2mm)
22.17	5.50 (139.7mm)	16.75 (425.5mm)			31594	7.50 (190.5mm)
22.18	9.00 (228.6mm)	25.75 (654.1mm)			31322	12.00 (304.8mm)
22.19	11.00 (279.4mm)	27.75 (704.9mm)	REAR		30169	13.00 (330.2mm)

FIG. 2 FRONT MOUNT CUT OUT DETAILS



RECOMMENDED SCREWS:

OPERATORS:

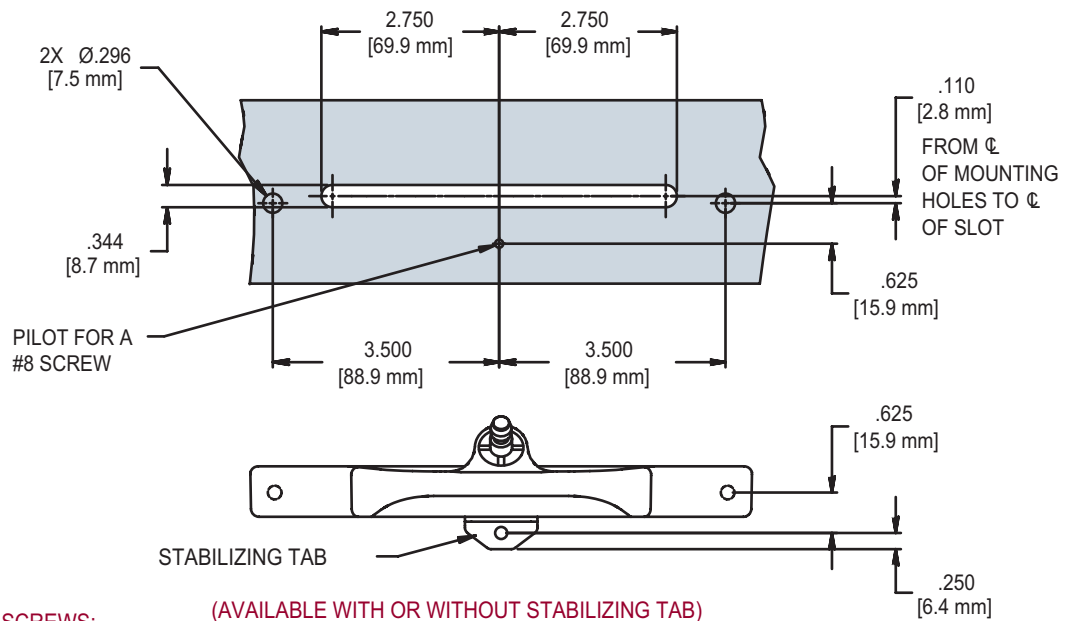
FRONT MOUNT: 4 (P/N 19700.XX) #10-24 X .688 PHILLIPS, FLAT HEAD, STEEL SHEET METAL SCREWS

1 STABILIZING TAB UNIT PACK (P/N 12789)

1 (P/N 19215.92) #8 X .750 PHILLIPS, PAN HEAD, STEEL, SHEET METAL SCREW (STABILITY TAB)

NOTE: SCREW LENGTH AND THREAD TYPE WILL BE DETERMINED BY PROFILE.

FIG. 3 REAR MOUNT CUT OUT DETAILS



RECOMMENDED SCREWS:

OPERATORS:

REAR MOUNT: 2 (P/N 19535.XX) #8-32 X .312 PHILLIPS, TRUSS HEAD, STEEL, MACHINE SCREWS

1 STABILIZING TAB UNIT PACK (P/N 12789)

1 (P/N 19215.92) #8 X .750 PHILLIPS, PAN HEAD, STEEL, SHEET METAL SCREW (STABILITY TAB)

NOTE: SCREW LENGTH AND THREAD TYPE WILL BE DETERMINED BY PROFILE.

FIG. 4 GASKET 30171

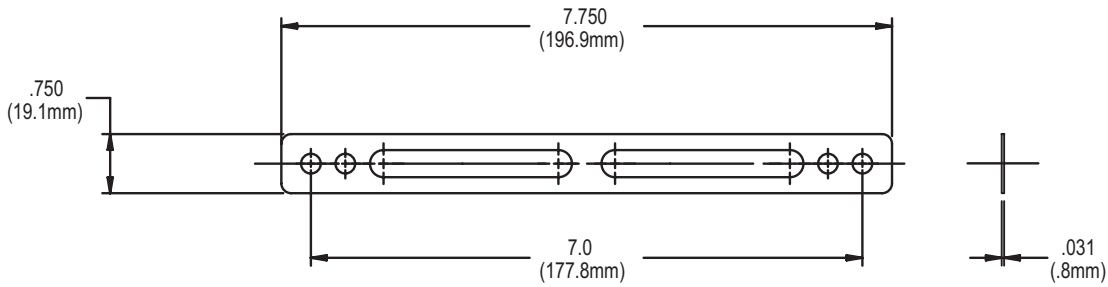
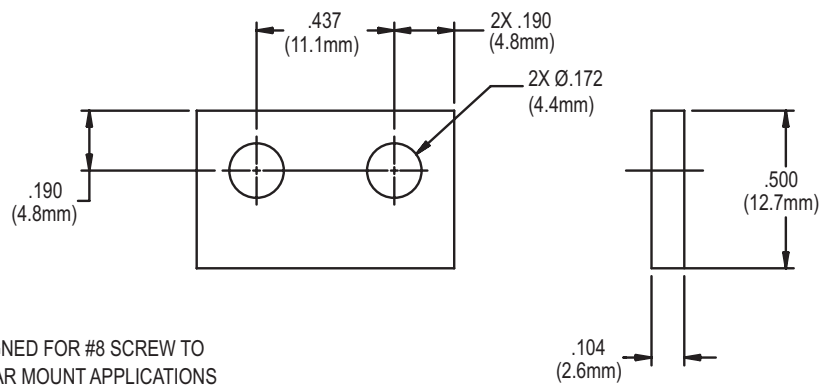


FIG. 5 BACKING PLATE 20947.XX



NOTES:  
 BACKING PLATE IS DESIGNED FOR #8 SCREW TO PASS THROUGH FOR REAR MOUNT APPLICATIONS AND FOR A #10 SCREW TO TAP INTO IT FOR A FRONT MOUNT APPLICATIONS.

FIG. 6 BACKING GROMMET 20189

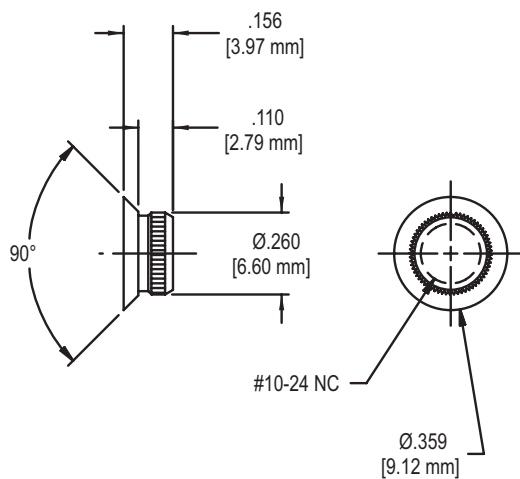
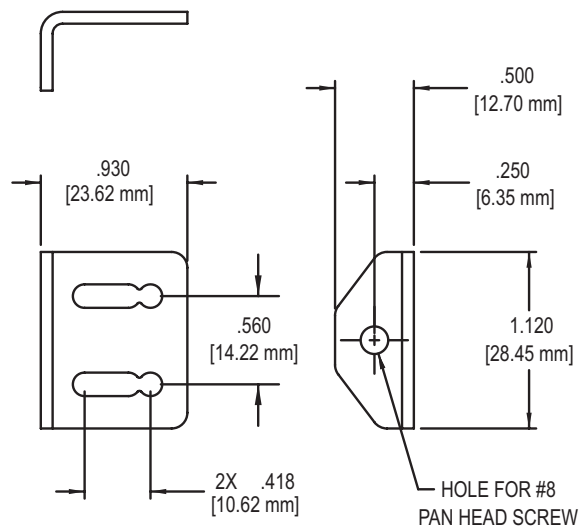


FIG. 7 STABILIZING TAB 12789



NOTE:  
 INCLUDES TWO SCREWS FOR ATTACHMENT TO OPERATOR.