

# Double-Hinge & Single-Hinge Frame

## FOR DESIGNERS AND SPECIFIERS

The **Double-Hinge** and **Single-Hinge** Frames, together with several options of interchangeable parts and accessories, offer a system with which a number of design solutions can be made where hinged faces are desired for easy internal access. These frames allow the designer to use either **flexible faces** or **rigid plastic faces**, for medium size signs, up to approximately 80 square feet or more, depending upon their aspect ratio. The Double-Hinge Frame is wide enough to allow up to 4-1/2" pipes to pass through with little or no shadow. (see Easy Sheet 4)

The flexible face system is especially good for building continuous fascia signs. The **Hinge Frame Flex Joint** can be used for hinging sections of the fascia, with no visible frame between face sections and very little shadowing when careful attention is given to lamp placement near the joints and corners as illustrated.

NOTE: The Small Flex Joint can also be used for abutting flexible faces, and also to turn corners with no visible frame. These parts are illustrated in Easy Sheet #12, or call for detail drawings for their proper use.

## CENTERFOLD ILLUSTRATIONS:

**Illustration 1** shows the **F-Saddle** on the **Single** or **Double Hinge Frame** as used for flexible faces and shown with **Reveal Trim**.

Any brand of flexible substrate may be used with ABC's time-proven **tensioning hardware**, normally used on 12" centers. (See Easy Sheet #1)

The **Single Hinge** illustration also shows how **Strut Gussets** are used to attach vertical tube or angle struts to support the tension and wind-load on the flexible faces. Struts are used approx. four feet on center. (See Easy Sheet 9)

**Illustration 2** shows the **Heavy Duty R-Saddle** and **2" E-Z Retainer** as used on the **Hinge Frames** for rigid plastic faces up to 80 square feet. The **Heavy Duty R-Saddle** is designed for using **ABC's gas-cylinder struts**, which holds the face open for hands-free service work. (See side-bar illustration).

## BACK PAGE ILLUSTRATIONS:

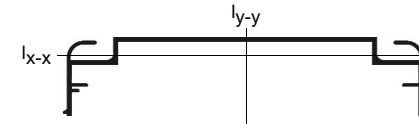
**Illustration 3** shows the **Outside R-Hinge** and **Outside R-Saddle** as they are used for signs which must have an outer security face and an inner face, with semi-permanent copy, yet with provision for change, by removing an end piece of R-Saddle to slide the faces out.

The **Outside R-Hinge** is a "self-hinge", used only on the top of the sign, with the **Outside R-Saddle** used on the sides and bottom, secured with metal screws. The **Outside R-Saddle** can also be used with a piano hinge if that method is preferred.

**Illustration 4** shows the **R-Saddle** and the **Reveal Trim**, used with the **Single Hinge Frame** or **Double Hinge Frame** for building small to medium size signs with formed or flat rigid plastic faces up to 5' X 12' maximum. A piano hinge is used at the top of the sign. Metal screws are used on the sides and bottom.

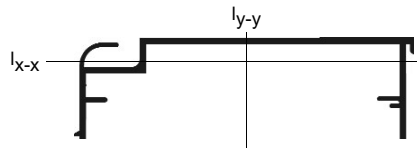
## 1/2 size sectional views

### Engineering



The neutral axes for the Double-Hinge Frame are shown above.

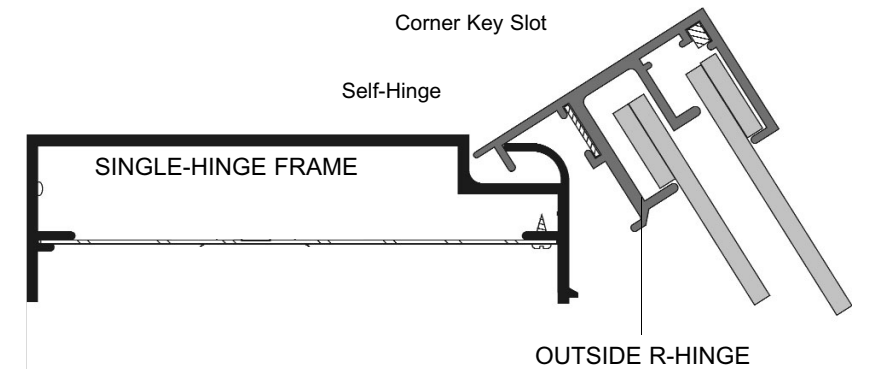
Cross sectional area (A) is 1.229 in<sup>2</sup>. Moments of inertia about the neutral axes are I<sub>x-x</sub> = .277 in<sup>4</sup> and I<sub>y-y</sub> = 8.944 in<sup>4</sup>.



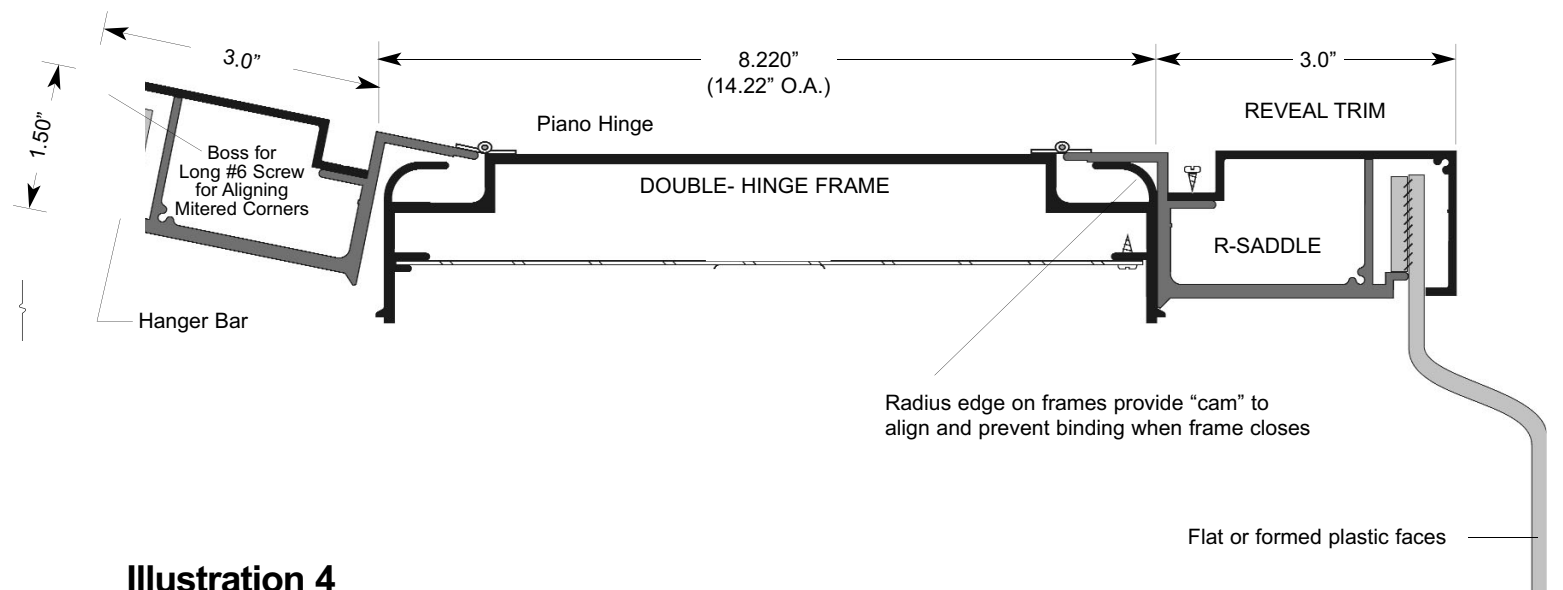
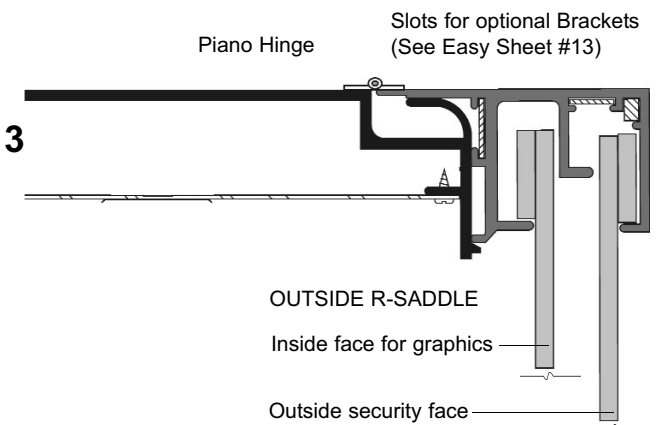
The neutral axes for the Single-Hinge Frame are shown above.

Cross sectional area (A) is .976 in<sup>2</sup>. Moments of inertia about the neutral axes are I<sub>x-x</sub> = .250 in<sup>4</sup> and I<sub>y-y</sub> = 4.323 in<sup>4</sup>.

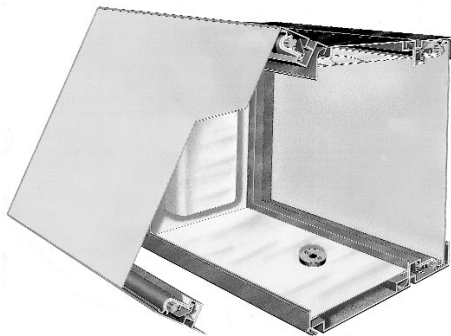
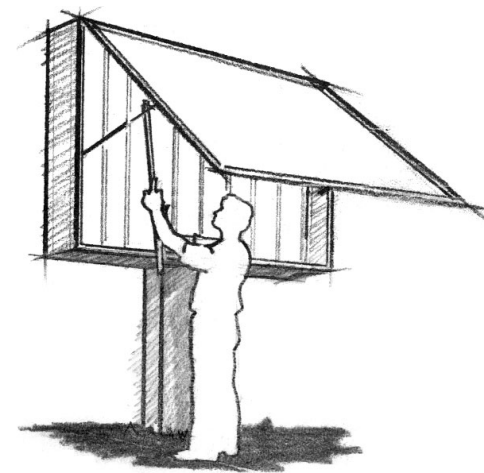
All ABC extrusions are produced in 6063 alloy, T6 temper, in standard 26' length.



## Illustration 3



## Illustration 4



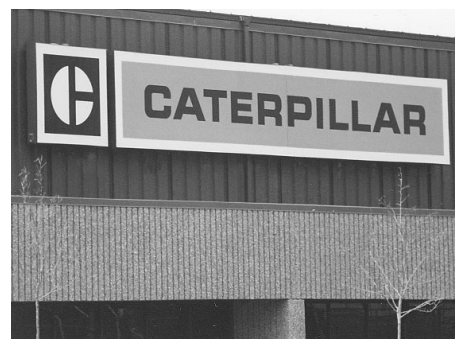
Cutaway of flexible face application



Gordon Sign Co., Denver, CO



Continuous Panaflex® with shadow-free corner



R-Saddle with Rigid Plastic face



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1/2 size sectional views

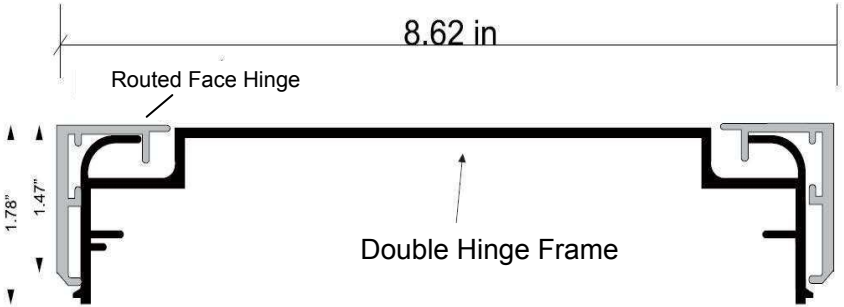
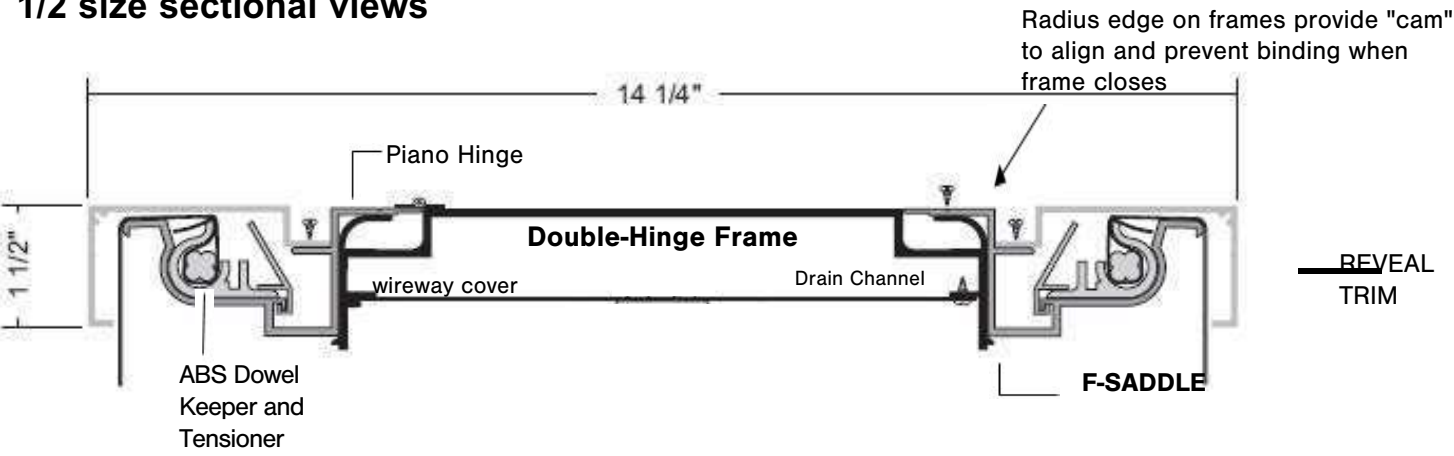


Illustration 1

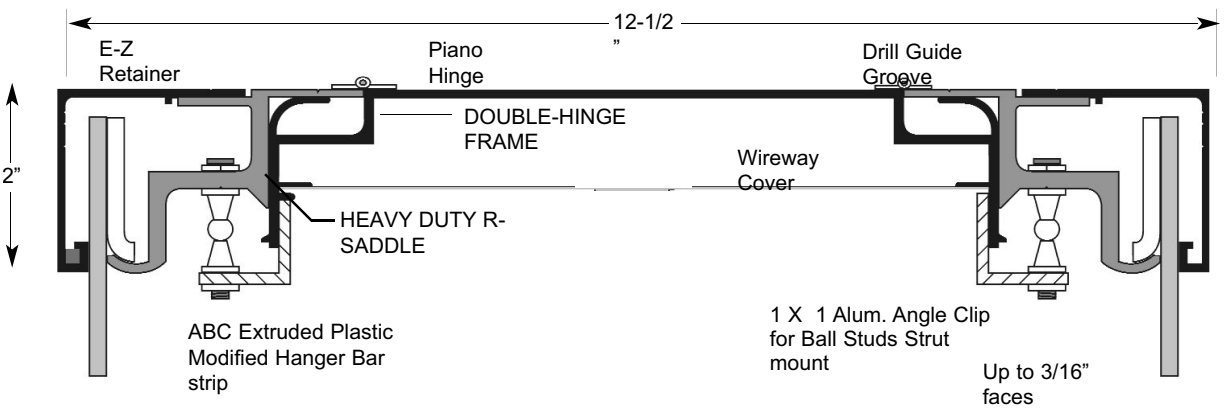
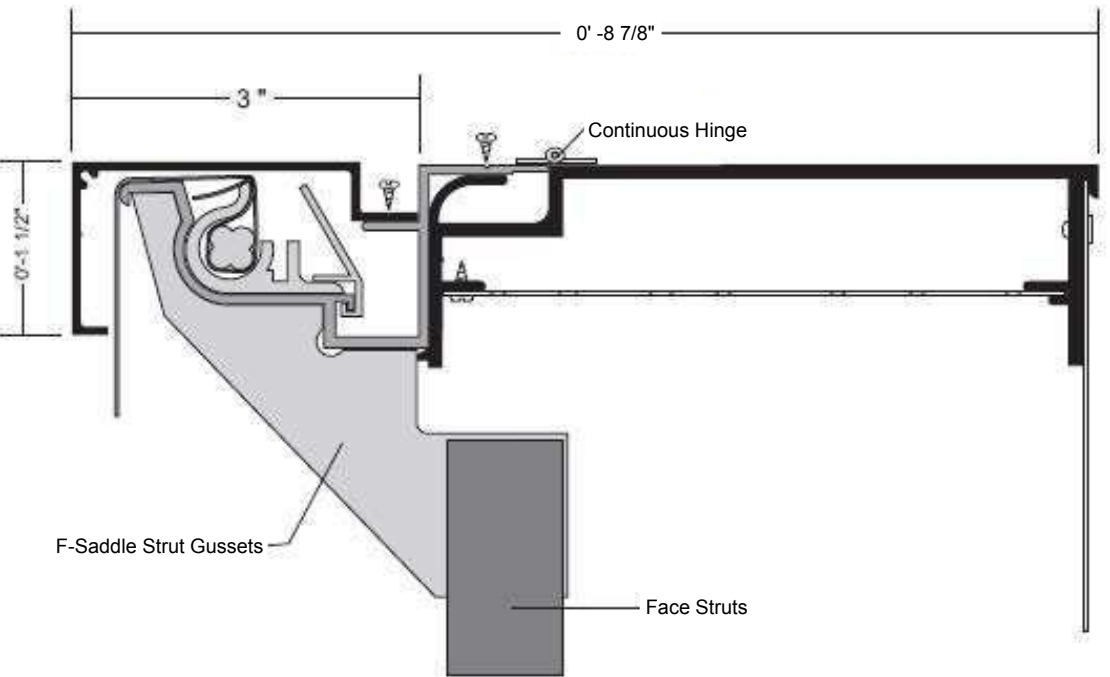
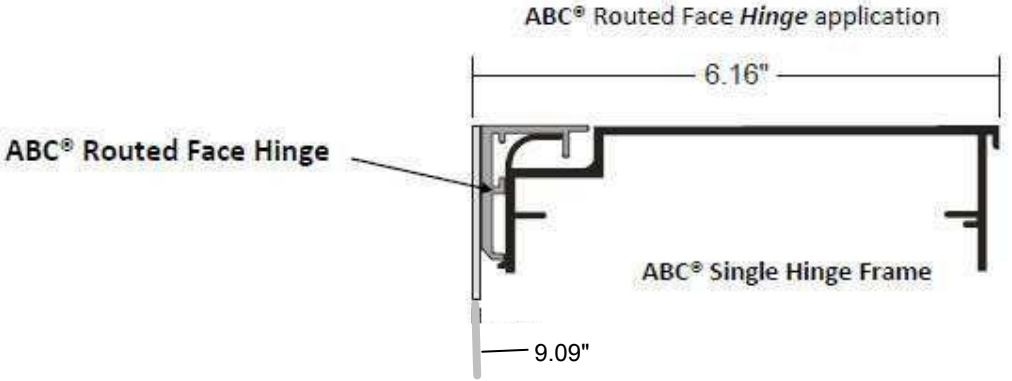
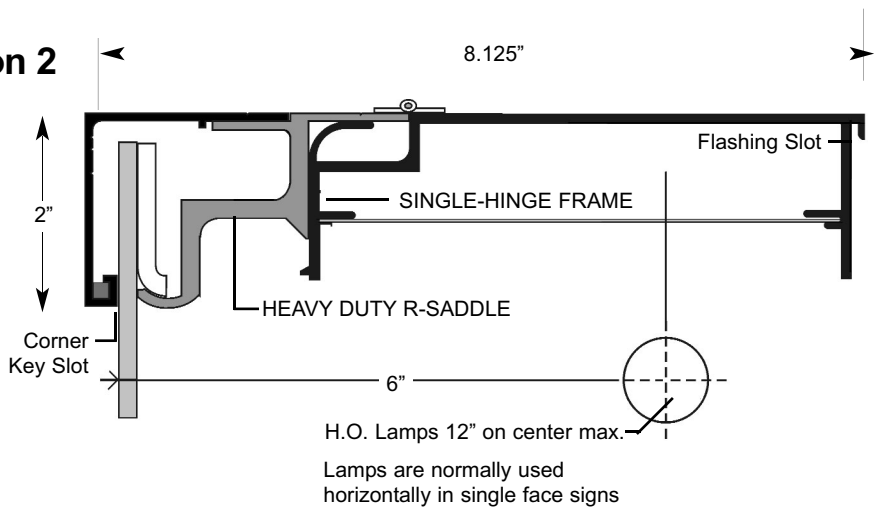
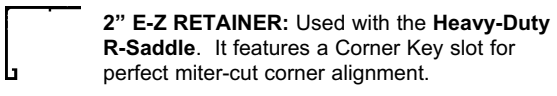
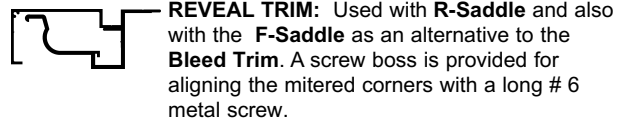


Illustration 2



Retainers



Outer Frame Parts

