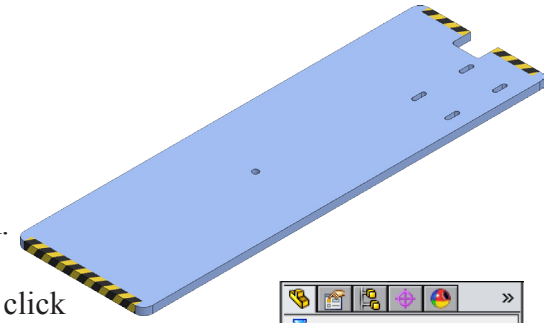
JSS

Chassis



A. Chassis.

Step 1. Click File Menu > New, click **Part Metric** and OK.

Step 2. Click **Right Plane** in the Feature Manager and click **Sketch** from the Content toolbar, **Fig. 1**.

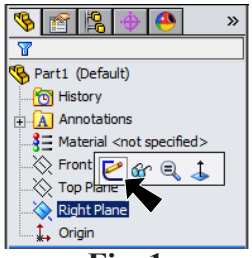


Fig. 1

Step 3. Click **Corner Rectangle** **(S)** on the Sketch toolbar.

Step 4. Draw a rectangle starting at the Origin , **Fig. 2**.

Step 5. Click **Smart Dimension** (Smart Dimension) **(S)** on the Sketch toolbar.

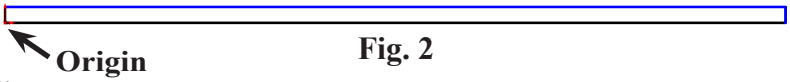


Fig. 2

Step 6. Dimension **4.5 by 230** as shown in **Fig. 3**. To Smart dimension, click the line then move the cursor out away from the line and click. Key-in the dimension and press ENTER. Arrange the dimensions as shown in **Fig. 3**.

Step 7. Click Zoom to Fit **(F)** on the View toolbar.

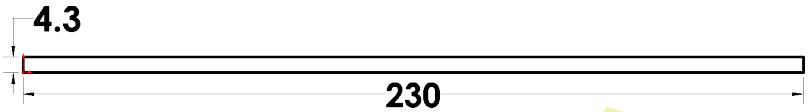


Fig. 3

Step 8. Click **Features** (Features) on the Command Manager toolbar.

Step 9. Click **Extruded Boss/Base** (Extruded Boss/Base) on the Features toolbar.

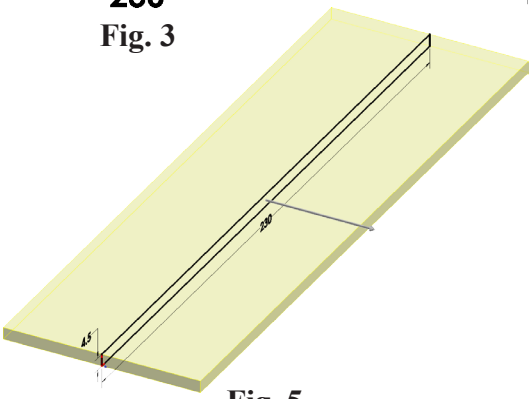


Fig. 5

Step 10. In the Property Manager set:

under Direction 1, **Fig. 4**

End Condition **Mid Plane**

Depth D1 **73**

click OK .

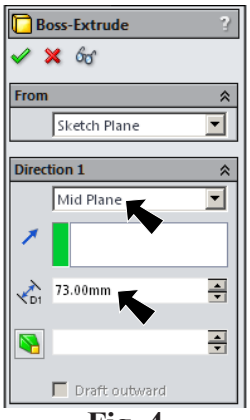


Fig. 4

B. Save as "CHASSIS".

Step 1. Click File Menu > Save As.

Step 2. Key-in **CHASSIS** for filename and press ENTER.

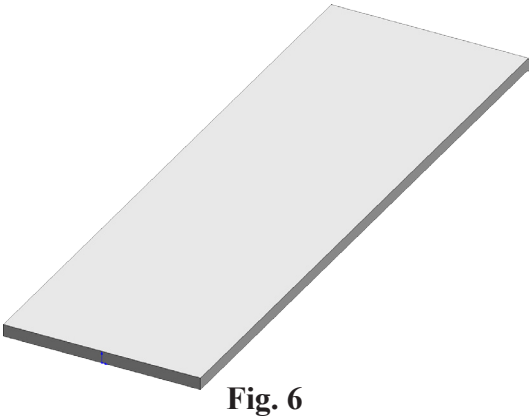


Fig. 6

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C. Switch Cutout.

Step 1. Click the **top face** and click **Sketch** on the Context toolbar, **Fig. 7**.

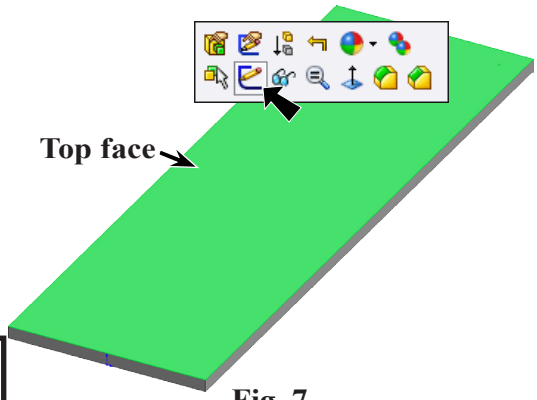


Fig. 7

Step 2. Click **Normal To** on the Standard Views toolbar. **(Ctrl-8)**

Step 3. Zoom in around the rear of Chassis, **Fig. 8**. To zoom, place the cursor over the rear of the Chassis and spin the wheel on mouse back. While spinning the wheel keep cursor on rear of the Chassis area.

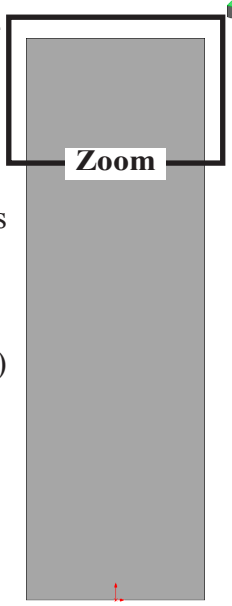


Fig. 8

Step 4. Click **Center Rectangle** **(S)** in the **Rectangle flyout** on the Sketch toolbar.

Step 5. Draw a center rectangle starting at **Midpoint** **of rear edge**, **Fig. 9**.

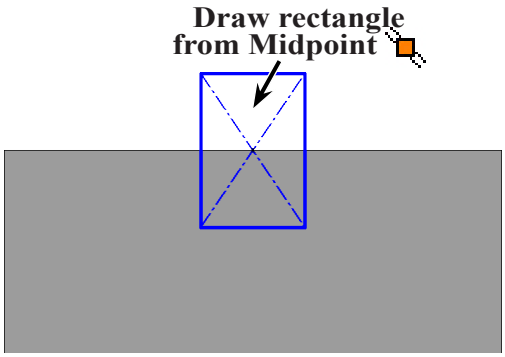


Fig. 9

Step 6. Click **Smart Dimension** **(S)** on the Sketch toolbar.

Step 7. Dimension rectangle **22.6** by **15.3**, **Fig. 10**.

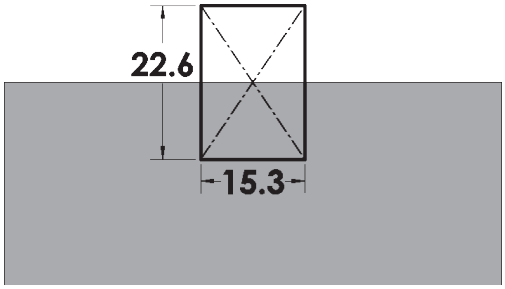


Fig. 10

D. Sketch Fillet.

Step 1. Click **Sketch Fillet** on the Sketch toolbar.

Step 2. In the Sketch Fillet Property Manager set:

Radius **1.5**, **Fig. 11**
click **bottom corners**, **Fig. 12**
click OK **twice** .

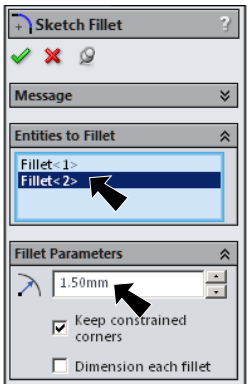


Fig. 11

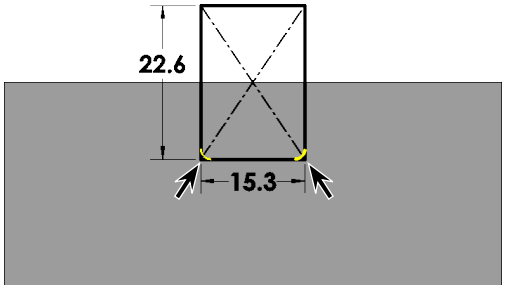


Fig. 12

Step 3. Save. Use **Ctrl-S**.

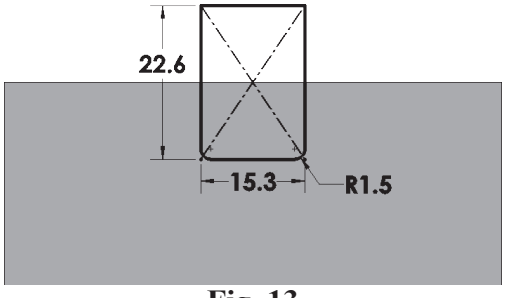


Fig. 13

E. Extruded Cut.

Step 1. Click **Features** Features on the Command Manager toolbar.

Step 2. Click **Extruded Cut** Extruded Cut on the Features toolbar.

Step 3. In the Cut-Extrude Property Manager set:
under Direction 1, **Fig. 14**
End Condition
Through All
click OK ✔.

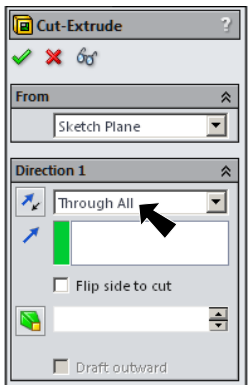


Fig. 14

Fig. 15

F. Hole Wizard Slot Sketch.

Step 1. Click the **top face** and click **Sketch** on the Context toolbar, **Fig. 16**.

Step 2. Click **Corner Rectangle** **(S)** in the **Rectangle flyout** on the Sketch toolbar.

Step 3. Draw a rectangle in **top right corner**, **Fig. 17**.

Step 4. Click **Smart Dimension** Smart Dimension **(S)** on the Sketch toolbar.

Step 5. Dimension as shown in **Fig. 18**.

Step 6. Click **Exit Sketch** Exit Sketch on the Sketch toolbar.

Step 7. Save. Use **Ctrl-S**.

Fig. 16

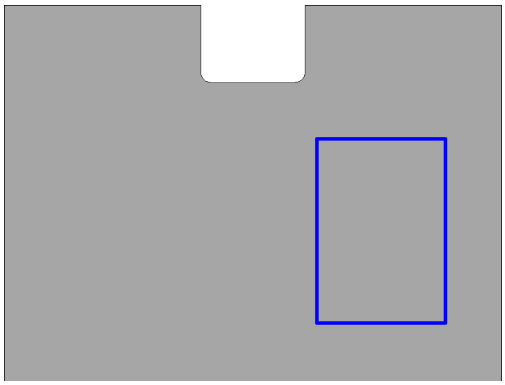


Fig. 17

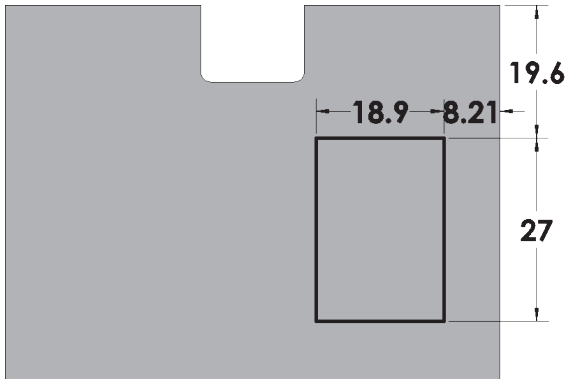


Fig. 18

G. Hole Wizard Slot.

Step 1. Click **Hole Wizard**

on the Features toolbar.

Step 2. In the Property Manager, on the Type tab set:
under Hole Type, **Fig. 19**
click **Slot**
under Standard:
select **ANSI Inch**
under Type:
select **Screw Clearances**
under Size:
select **#2**
uncheck **Show custom sizing**
Slot length: **.3**
under End Condition
End Condition **Through All**

click **Positions tab**

at top of the Property Manager.

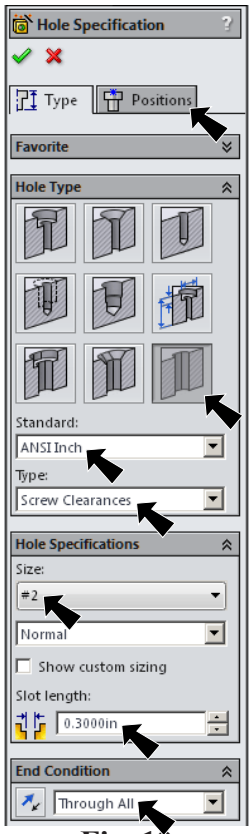


Fig. 19

Step 3. Click the top face of Chassis **one time** as face to locate slots, **Fig. 20**.

Step 4. Click **each corner of rectangle** in the sketch, **Fig. 20**.

Step 5. **Right click graphics area and click Select** from menu to unselect Point tool.

Step 6. Click **construction line** of a slot and click **Make Vertical** on the Context toolbar, **Fig. 21** and **Fig. 22**.

Step 7. Click OK in the Hole Wizard Property Manager.

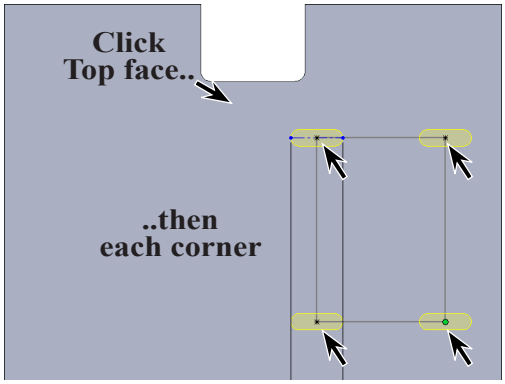


Fig. 20

Step 8. Save.
Ctrl-S.

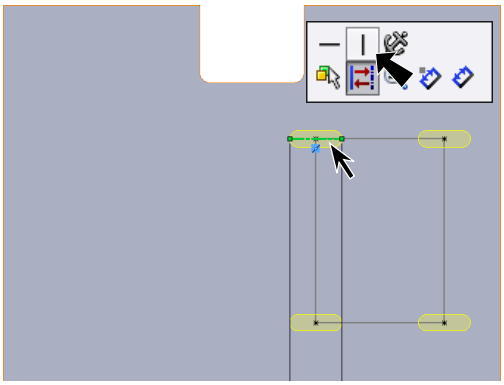


Fig. 21

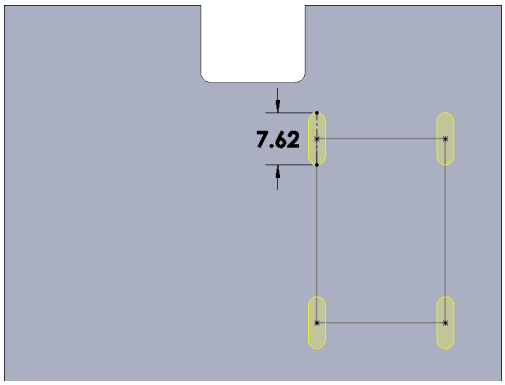


Fig. 22

H. Hole Wizard Panel Mount Hole.

Step 1. **Hide Sketch3**. To hide, click **Sketch3** in Feature Manager and **Hide** on the Context toolbar, **Fig. 23**.

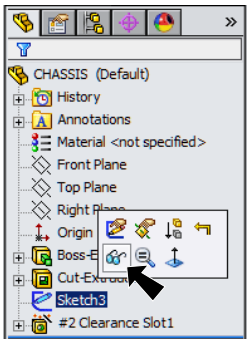


Fig. 23

Step 2. Click Zoom to Fit **(F)** on the View toolbar.

Step 3. Click **Hole Wizard** on the Features toolbar.

Step 4. In the Property Manager, on the Type tab set:
under Hole Type, **Fig. 24**
click **Hole**
under Standard:
select **ANSI Inch**
under Type:
select **Screw Clearances**
under Size:
select **#5**
under End Condition
End Condition **Through All**

click **Positions tab** Positions at top.

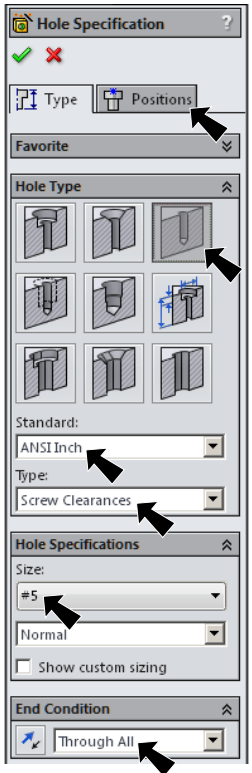


Fig. 24

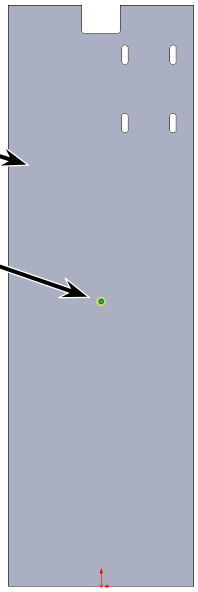


Fig. 25

Step 5. Click the top face of Chassis **one time** as face to locate hole, **Fig. 25**.

Step 6. Click to **place hole approximately as shown in Fig. 25**.

Step 7. **Right click graphics area and click Select** from menu to unselect Point tool.

Step 8. **Ctrl click Point and Origin** to select both, **Fig. 26**. Release **Ctrl key** and click **Make Vertical** on the Content toolbar.

Step 9. Click **Smart Dimension** **(S)** on the Sketch toolbar.

Step 10. Dimension Point to **Origin** **100**, **Fig. 27**.

Step 11. Click OK in the Hole Wizard Property Manager.

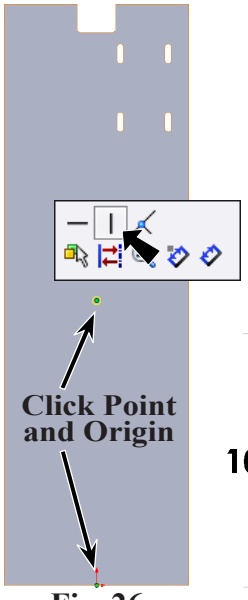


Fig. 26

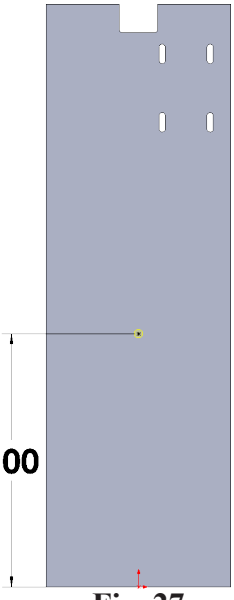


Fig. 27

I. Fillet.

Step 1. Click **Trimetric** on the Standard Views toolbar.

Step 2. Click **Fillet**

on the Features toolbar.

Step 3. In the Fillet Property Manager:
select **FilletXpert**, **Fig. 28**

Radius **5**
select **Full preview**

click **vertical edge on the 4 corners**, **Fig. 29**
click OK .

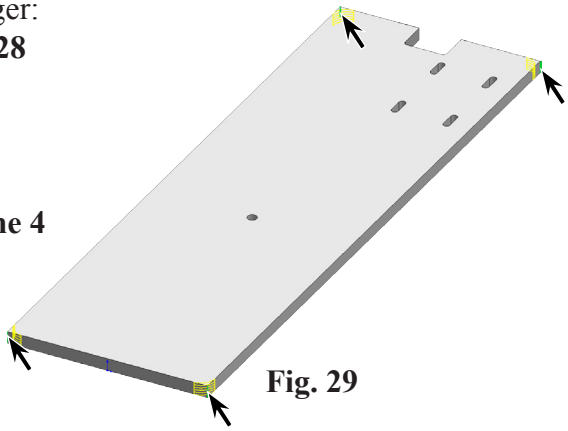


Fig. 29

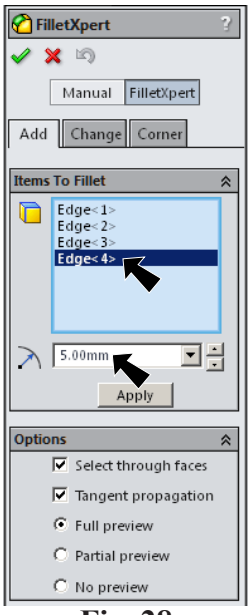


Fig. 28

Step 4. Save. Use **Ctrl-S**.

I. Mate Reference.

Step 1. Rotate view to view **bottom face**, hold down middle mouse button (wheel) and drag to rotate view, **Fig. 30**.

Step 2. Click **bottom face** to select it, **Fig. 30**.

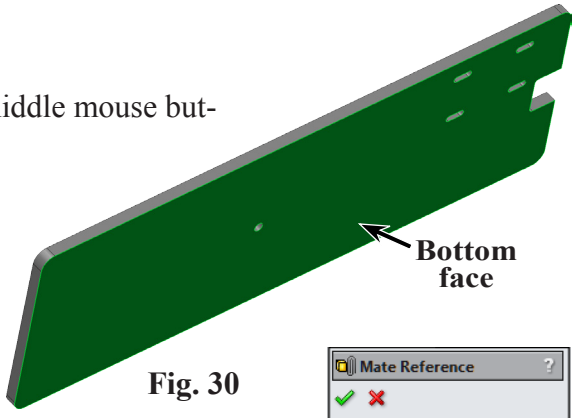
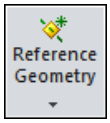


Fig. 30

Step 3. Click **Reference Geometry** 

on the Features toolbar and **Mate Reference** from the menu.

Step 4. In the Mate Reference Manager:
under **Primary** Reference Entity, **Fig. 31**

Mate Reference Type **Tangent**

Mate Reference Alignment **Anti-Aligned**

click OK .

Step 5. Save. Use **Ctrl-S**.

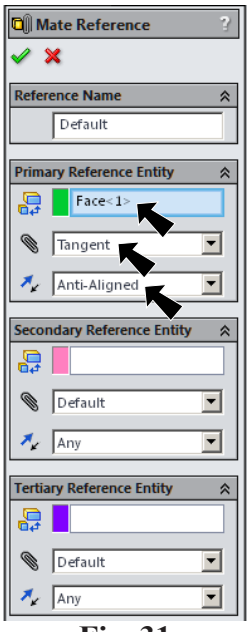


Fig. 31

J. Material PS HI (Polystyrene).

Step 1. Click **Trimetric** on the Standard Views toolbar.

Step 2. **Right click Material** in the Feature Manager and click **Edit Material**, **Fig. 32**.

Step 3. **Expand Plastics** (click +) in the material tree and select **PS HI**, **Fig. 33**. Click **Apply** and **Close**, **Fig. 34**.

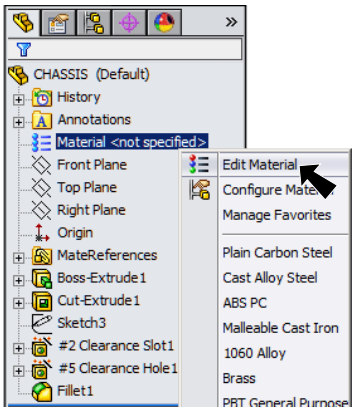


Fig. 32

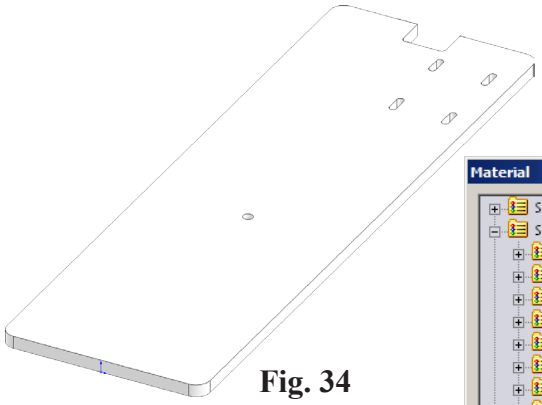


Fig. 34

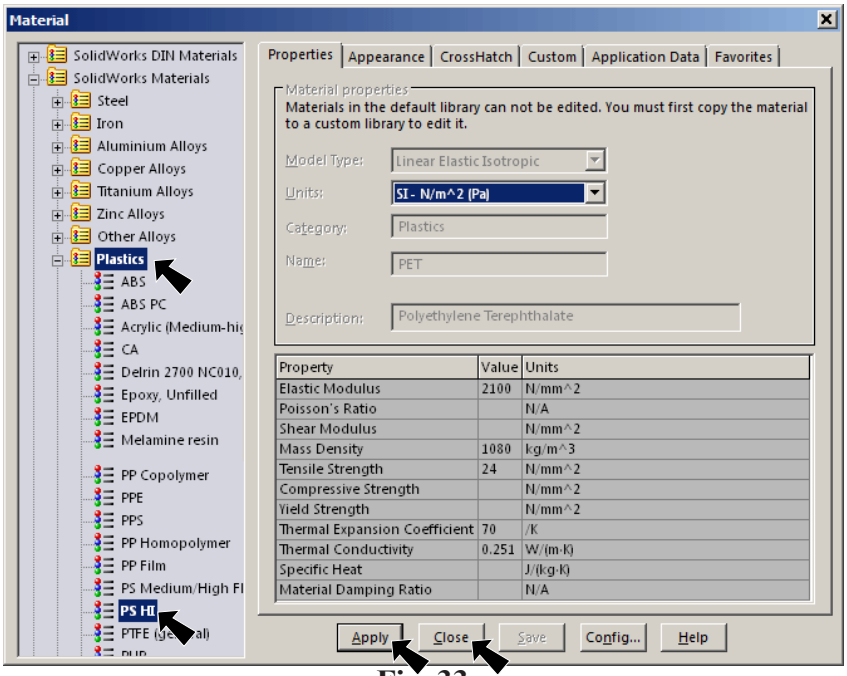


Fig. 33

K. Appearance Color.

Step 1. Click the Chassis, click **Appearance Callout** on the Context toolbar and click **CHASSIS**, **Fig. 35**.

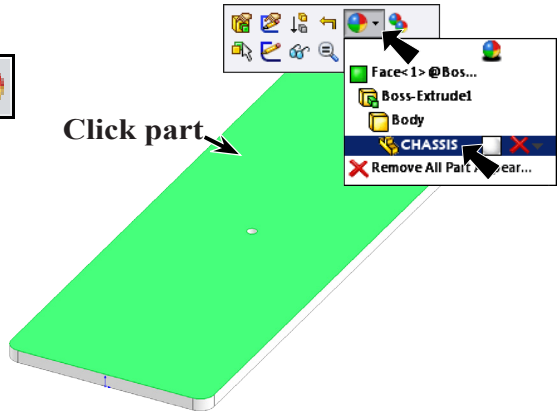


Fig. 35

Step 2. In the Appearances Property Manager
under Color, **Fig. 36**
set **RGB values**
R 167
G 197
B 255
click OK.

Step 3. Save. Use **Ctrl-S**.

L. Enable PhotoView 360.

Step 1. If necessary, turn on Photo-View 360, click the **flyout of Options** on the Standard toolbar and click **Add-Ins**.

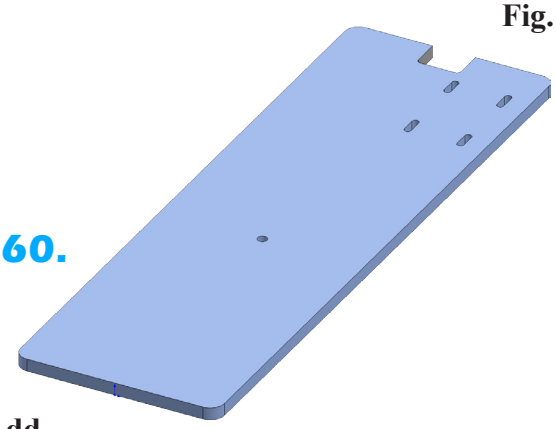


Fig. 37

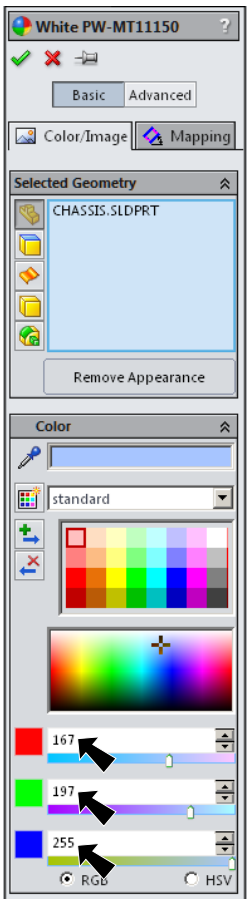


Fig. 36

Step 2. In the dialog box find **PhotoView 360** and place a check in the check box under **Active Add-Ins** and **Start-Up**, **Fig. 38**. Click OK.

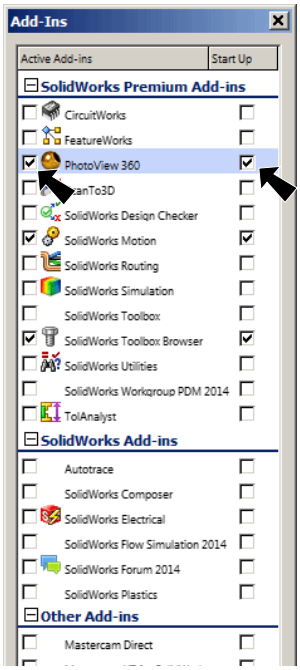


Fig. 38

M. Decal Front.

Step 1. Click PhotoView 360 Menu > Edit Decal.

Step 2. In the Decals Property Manager Image tab:
under Decal Preview
click **Browse** and **My Documents** buttons
open **caution630.png** **Fig. 39**

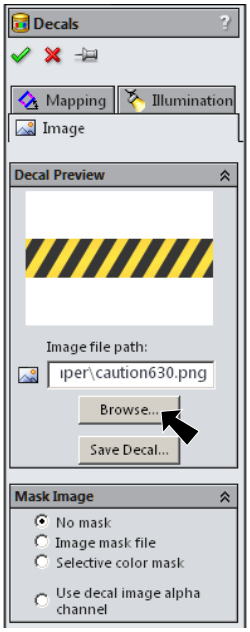


Fig. 39

Step 3. Click the **Mapping tab** Mapping at the top of the Decals Property Manager, **Fig. 40**
under Selected Geometry

unselect all except Select Faces
click **front face**, **Fig. 41**

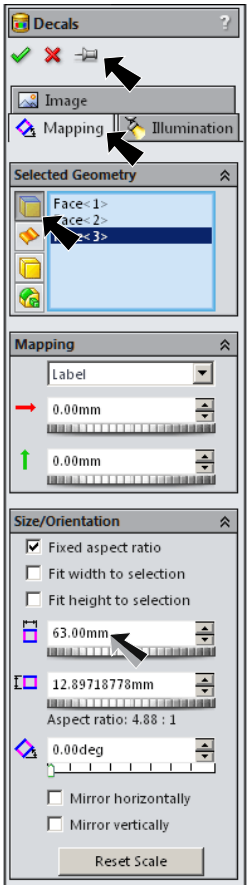


Fig. 40

under Mapping
Label

under Size/Orientation
Width **63**

click **top face**

use **Arrow up key 3 times** to rotate view to view bottom face
click **bottom face**, **Fig. 42**
click **Keep Visible** and OK , **Fig. 40**. The Push Pin on allows adding another Decal.

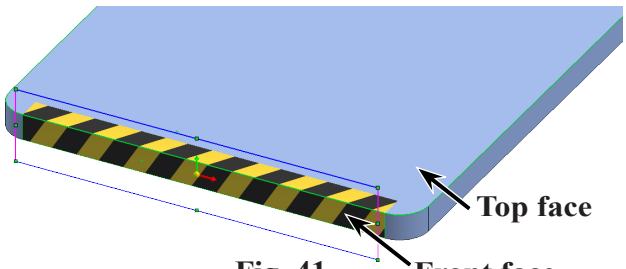


Fig. 41

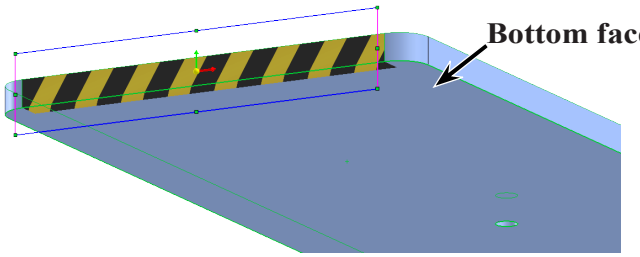


Fig. 42

N. Decal Rear.

Step 1. In the Decals Property Manager select the **Image tab**

under Decal Preview
Browse and open **caution630.png** **Fig. 43**

Step 2. Click the **Mapping tab**

at the top of the Decals Manager, **Fig. 44**
under Selected Geometry
unselect all except Select Faces

Rotate view to view **rear face**, hold down middle mouse button (wheel) and drag to rotate view, **Fig. 45**.

click **both front faces and top face**, **Fig. 45**

under Mapping
Label
Horizontal location → **-19.6**

under Size/Orientation
Width **63**
use **Arrow up key 3 times** to rotate view
click **bottom face**, **Fig. 46**
click OK and click Cancel .

Step 3. Save. Use **Ctrl-S**.

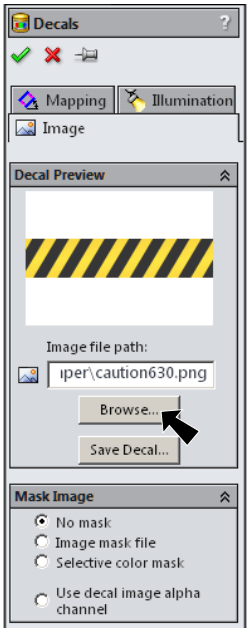


Fig. 43

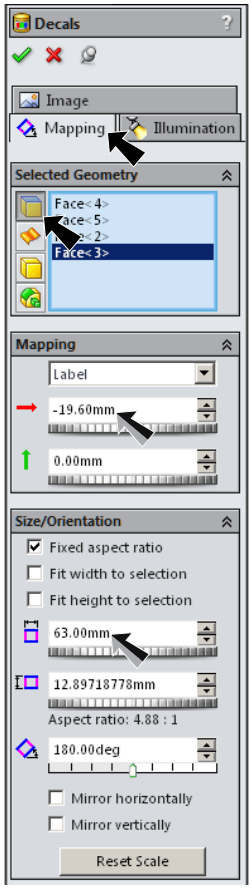


Fig. 44

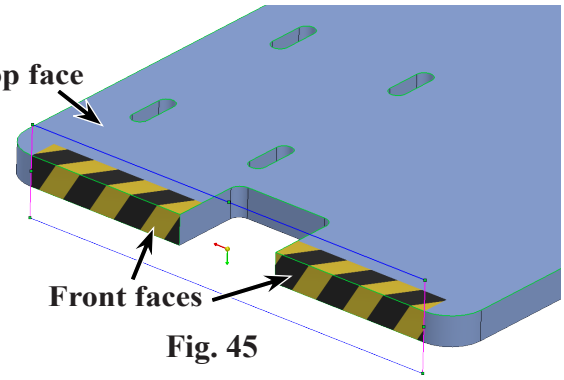


Fig. 45

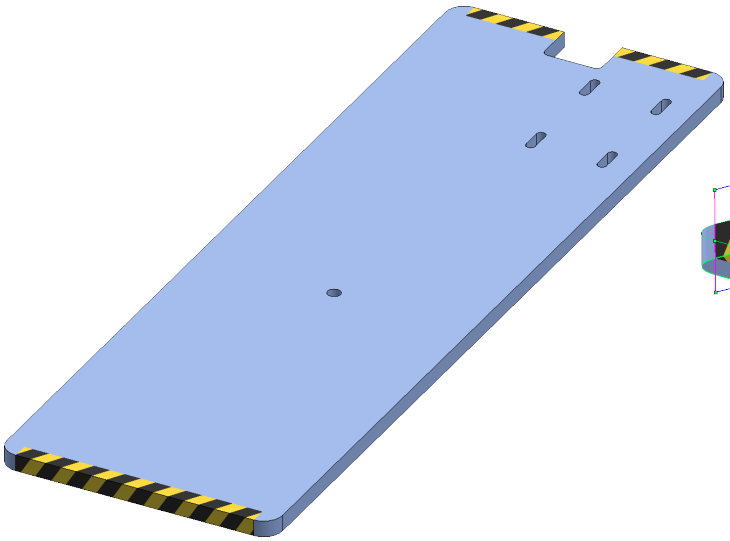


Fig. 47

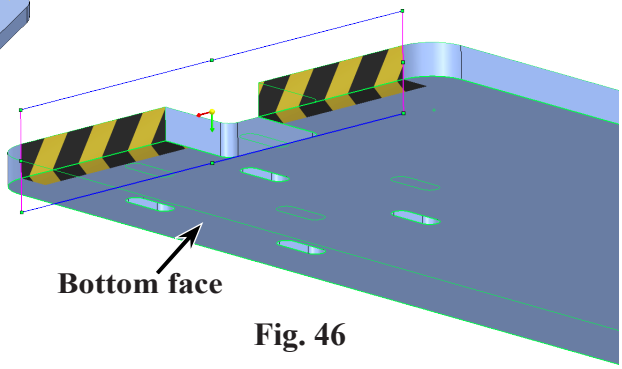


Fig. 46