NOT INTENDED FOR CONSUMER USE

NON-ENGINEERED DISPLAY MODEL FOR DISTRIBUTORS
The application and detail drawings in this manual are strictly for illustration purposes and may not be applicable to all building designs or product installations. Projects should conform to local building codes. Central States Manufacturing is not responsible for the performance of the material if it is not installed correctly.

Information contained in this booklet was in effect at the time of publication and is subject to change without notice.
IMPORTANT INFORMATION

This manual contains suggestions and guidelines on how to erect your Centra Series building. The drawings in this guide are for illustration purposes only and may not apply to all building designs or product applications. The installation details shown are proven methods of construction, but are not intended to cover all instances, building requirements, designs, or codes. It is the responsibility of the designer/installer to ensure that the details meet particular building requirements. The details may require changes or revisions due to each project’s conditions. It is the buyer’s responsibility to verify all applicable code requirements, check all measurements, and determine suitability of product for the job. Failure to comply with stated recommendations relieves the manufacturer of responsibility for any damage or deterioration of the product incurred and voids any applicable warranty. Central States Manufacturing reserves the right to modify, without notice, information in this guide.

SAFETY

Each job site presents different hazards; therefore it is the responsibility of the buyer/installer to determine the safest way to erect your Centra Series building based on the recommended instructions contained in this guide. Provide crew members working on the project with required safety railing, netting or safety lines. If you must walk on a metal roof, take great care. Metal panels can become slippery, so always wear shoes with nonslip soles. Avoid working on metal roofs during wet conditions when the panels can become extremely slippery. If you must walk on the roof, always walk on the purlins, never between. OSHA safety regulations should be complied with at all times.

CAUTION

Always wear heavy gloves when working with steel panels to avoid cuts from sharp edges. When power cutting or drilling steel panels, always wear safety glasses to prevent eye injury from flying metal fragments.
CARE AND HANDLING

STAGE
Galvalume® steel sheets have a good service life when exposed to normal weather conditions however, to protect the appearance of panels and trims from damage, there are a few simple precautions that can be taken. The steel sheets are subject to stain when water sits upon, or becomes trapped between the sheets. If the Galvalume® sheets are to be stored for any period of time, they should be stored only in a dry place, preferably under a roof. Stand panels on end and fan them out at the bottom to provide air circulation and moisture run off. If space does not allow this, the panels should be separated, blocked off of the floor at least 12 inches to allow air flow, and stored at an incline to encourage drainage. The panels should then be covered, yet still have good air flow through the sheets to prevent condensation. Do not use a plastic cover, as this may cause the panels to sweat or condensation to occur.

HANDLING
When unloading panels, extreme caution must be employed. Care needs to be used when unloading panels with a forklift. Panel edges and underside paint may become damaged if the forklift driver does not use caution. Once at the job site, care must be taken in order to protect the painted surface. When unbundling the panels, never drag them across the surface of one another. This may cause scratches across the underneath panels. It is recommended that the panels be “rolled” off the top of the bundle to prevent scratching. Never lift panels by the ends, instead lift the panels longitudinally and carry vertically.

Panel edges are very sharp, therefore, safety equipment should be worn by all workers handling the material.

DRILLING
Panels should not be drilled while stacked. This will cause shavings that will become imbedded in the paint surface.

INSTALLING WALL PANELS
Panels and trim are subject to staining and premature rusting in conditions where moisture accumulates causing the exposed panel edge to stand in water. This may happen at the wainscot, head trim, or rat guard due to improper installation. Contractors should leave 1/8” space between wainscot trim and upper wall panel to prevent rusting and discoloration.

Shavings created by saw cutting or drilling may cause the panel to rust and will void warranties in affected areas.
### Parts List Panels

<table>
<thead>
<tr>
<th>Assembly Part #</th>
<th>Manufacturer Part #</th>
<th>Description</th>
<th>Quantity</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANEL40</td>
<td>RL6(color)</td>
<td>Roof Panels</td>
<td>6</td>
<td>6' 5&quot;</td>
</tr>
<tr>
<td>PANEL41</td>
<td>RL6(color)</td>
<td>Wall Panels</td>
<td>10</td>
<td>3' 6&quot;</td>
</tr>
</tbody>
</table>

### Parts List Trim

<table>
<thead>
<tr>
<th>Assembly Part #</th>
<th>Manufacturer Part #</th>
<th>Description</th>
<th>Quantity</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIM2</td>
<td>RLFRC36</td>
<td>Ridge Cap Panels for Roof</td>
<td>3</td>
<td>3'</td>
</tr>
<tr>
<td>TRIM21</td>
<td>OU</td>
<td>Outside Corner Trim</td>
<td>2</td>
<td>10'2&quot;</td>
</tr>
<tr>
<td>TRIM32</td>
<td>HE</td>
<td>Head Trim</td>
<td>3</td>
<td>12' 3&quot;</td>
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</tbody>
</table>
## Parts List Plates

<table>
<thead>
<tr>
<th>Assembly Part #</th>
<th>Manufacturer Part #</th>
<th>Description</th>
<th>Quantity</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE35</td>
<td>GIRTCLIP</td>
<td>Girtclip</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>PLATE41</td>
<td>RFPEAK</td>
<td>Rigid Frame Peak Plate</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PLATE42</td>
<td>RFHAUNCH</td>
<td>Rigid Frame Haunch Plate</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PLATE43</td>
<td>RFBASE</td>
<td>Rigid Frame Base Plate</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PLATE44</td>
<td>EWPEAK</td>
<td>Peak Plate for Endwall Frame</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PLATE45</td>
<td>RFSPACER</td>
<td>Spacer Plate</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
## PARTS LIST PURLINS

<table>
<thead>
<tr>
<th>ASSEMBLY PART #</th>
<th>MANUFACTURER PART #</th>
<th>PART MARK</th>
<th>QUANTITY</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURLIN55</td>
<td>C82514R</td>
<td>DISPLAY SIDE COLUMN</td>
<td>4</td>
<td>6' 7.75&quot;</td>
</tr>
<tr>
<td>PURLIN57</td>
<td>C82514R</td>
<td>DISPLAY RAFTER</td>
<td>6</td>
<td>6' 1.125&quot;</td>
</tr>
<tr>
<td>PURLIN56</td>
<td>C83516R</td>
<td>DISPLAY END COLUMN</td>
<td>2</td>
<td>7' 6.125&quot;</td>
</tr>
<tr>
<td>PURLIN58</td>
<td>Z82516R</td>
<td>DISPLAY PURLIN</td>
<td>2</td>
<td>9' 2.75&quot;</td>
</tr>
<tr>
<td>PURLIN59</td>
<td>E84316LR</td>
<td>DISPLAY EAVE STRUT</td>
<td>2</td>
<td>9' 2.75&quot;</td>
</tr>
<tr>
<td>PURLIN60</td>
<td>C82516R</td>
<td>DISPLAY S-WALL</td>
<td>4</td>
<td>8' 7.3125&quot;</td>
</tr>
<tr>
<td>PURLIN61</td>
<td>C82516R</td>
<td>DISPLAY ENDWALL</td>
<td>2</td>
<td>10' 2.125&quot;</td>
</tr>
<tr>
<td>PURLIN62</td>
<td>B4216R</td>
<td>DISPLAY RAKE ANGLE</td>
<td>2</td>
<td>6' 3.75&quot;</td>
</tr>
<tr>
<td>ASSEMBLY PART #</td>
<td>MANUFACTURER PART #</td>
<td>DESCRIPTION</td>
<td>QUANTITY</td>
<td>NOTE</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------</td>
<td>-------------------------------------------</td>
<td>----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>FAST3</td>
<td>114(color)MM</td>
<td>Metal Screws in Roof color</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>FAST12</td>
<td>114(color)MM</td>
<td>Metal Screws in Wall color</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>FAST4</td>
<td>78(color)LAP</td>
<td>Lap Screws in Roof color</td>
<td>250</td>
<td>May have additional bags of 78LAP in multiple trim colors.</td>
</tr>
<tr>
<td>FAST23</td>
<td>78(color)LAP</td>
<td>Lap Screws in Trim color</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>FAST54</td>
<td>112A325</td>
<td>.5” x 1.5” A325 Bolt with Nuts, 50 per Box</td>
<td>150</td>
<td></td>
</tr>
</tbody>
</table>
THIS SECTION IS INTENDED FOR YOUR CONCRETE FOUNDATION SPECIALIST

ANCHOR BOLTPLAN
NOTE: All Base Plates at 100'-0" (U.N.)
1. The metal building manufacturer is responsible for the design of the anchor bolt diameter only to permit the transfer of forces between the base plate and the anchor bolt in shear, bearing and tension, but is not responsible for the anchor bolt embedment for transfer of forces to the foundation. The metal building manufacturer does not design and is not responsible for the design, material and construction of the foundation embedments. The end use customer should assure himself that adequate provisions are made in the foundation design for loads imposed by column reactions of the building, other imposed loads, and bearing capacity of the soil and other conditions of the building site. It is recommended that the anchorage and foundation of the professional engineer experienced in the design of such structures, (section a3 mbma 2006 metal building systems manual).

2. Bottom of all base plate are at the same elevation.
(Unless noted)
Completed Frame Structure
The above drawing shows the completed frame structure and columns labeled. The columns will be called out periodically throughout the instructions.
**Completed Structure**
The following instructions are to assemble the display model as shown above.
STEP 1

Note: To ensure building is square, do not fully tighten bolts until after STEP 11.

REQUIRED PARTS
(4) PURLIN55
(2) PLATE43
(2) PLATE45
(2) PLATE42
(4) PLATE35
FAST54

DIRECTIONS

Assemble Columns A and D

Note: Place level on all girt clips throughout installation to ensure level girts.

1. Layout (2) PURLIN55 sidewall columns for column A.
2. Attach (1) PLATE35 with (1) PLATE43 between columns as shown using FAST54.
3. Attach (1) PLATE35 with PLATE45 between columns as shown using FAST54.
4. Attach (1) PLATE42 using FAST54 as shown.
5. Repeat these steps for Column D, but both PLATE35 should be flipped so that when the columns are finished PLATE42 points towards the peak, and both PLATE35 faces inward toward the endwall.
6. Set assembled columns aside for later use.
STEP 2

1. Layout (1) PURLIN56 corner column for column B.
2. Attach (1) PLATE35 at bottom with (2) PLATE35 on both sides using FAST54.
3. Attach (2) PLATE35 at 3’7” using FAST54.
4. Repeat these steps for column C.
5. Set assembled columns aside for later use.

REQUIRED PARTS
(2) PURLIN56
(10) PLATE35
FAST54

DIRECTIONS
Assemble Columns B and C
1. Layout (1) PURLIN56 corner column for column B.
2. Attach (1) PLATE35 at bottom with (2) PLATE35 on both sides using FAST54.
3. Attach (2) PLATE35 at 3’7” using FAST54.
4. Repeat these steps for column C.
5. Set assembled columns aside for later use.
**STEP 3**

**DIRECTIONS**

**Stand and Anchor Columns A, B, C, and D**

*Note: Anchor bolts and nuts are not included in building package. Anchor bolts are placed by your foundation specialist when laying foundation and corresponding nuts will be provided by your foundation specialist.*
**DIRECTIONS**

**Attaching Cee Girts**

*Note: Do not overtighten bolts on wall girts until columns are vertically level. Then tighten bolts. This applies throughout installation.*

1. Attach PURLIN61 between columns B & C using FAST54 as shown.
STEP 5

REQUIRED PARTS
(4) PURLIN60
FAST54

DIRECTIONS

Attaching Cee Girts
1. Attach PURLIN60 between columns B and A and between columns C and D using FAST54 as shown.
DIY Alternate Method:
If lifting machinery is not being used, assemble center rafters, but do not attach PLATE41 until STEP 7.

**REQUIRED PARTS**
- (4) PURLIN57
- (1) PLATE41
- FAST54

**DIRECTIONS**

**Assemble Center Rafters**
1. Layout (2) PURLIN57 rafters.
2. Attach (1) PLATE41 peak plate using FAST54.
3. Attach (2) PURLIN57 rafters to opposite side of PLATE41 to complete center rafter assembly.
STEP 7

DIY Alternate Method:
If lifting machinery is not being used, stand center rafters and hold in place with 2x4 bracing. Then lift and install PLATE41. See instructional video for visualization.

DIRECTIONS

Stand and Install Endwall Rafter Assembly
Note: This step will require lifting machinery due to height and weight of components. Follow OSHA safety requirements for your area.
1. Lift full rafter assembly from the previous step over columns A and D.
2. Bolt endwall rafter to PLATE42 at top of columns A and D using FAST54.

REQUIRED PARTS
FAST54
DIRECTIONS

Assemble Endwall Rafter
1. Attach (1) PLATE44 to (2) PURLIN57 using FAST54.

REQUIRED PARTS
(2) PURLIN57
(2) PLATE44
FAST54
STEP 9

REQUIRED PARTS
FAST54

DIRECTIONS

Assemble and Install Endwall Rafters

Note: Keep PLATE44 facing interior of building.

1. Attach assembly from previous step to the top of columns B and C using FAST54.
STEP 10

DIRECTIONS

Install Eavestruts
1. Bolt PURLIN59 on top of column C and D using FAST54 as shown above.
2. Repeat this installation over columns B and A.

REQUIRED PARTS
(2) PURLIN59
FAST54
STEP 11

DIRECTIONS
Install Roof Purlins
Install (2) PURLIN58 between endwalls near the peak using FAST54 as shown above.

REQUIRED PARTS
(2) PURLIN58
FAST54
DIRECTIONS

Install Rake Angle

Install PURLIN62 above endwall rafter using FAST24 as shown above.
STEP 13

DIRECTIONS

Install Wall Sheeting

Note: Before installing, take note to which direction the prevailing winds come from at your location. You will want to begin installing panels on the end that is farthest away from the prevailing wind direction. This will allow the panel overlaps to not be exposed to the highest wind. (For example, if the strongest wind typically comes from the West, begin installing panels on the East end of your wall. Begin on the sidewall with the least amount of framed openings.)

1. Install one sheet of PANEL41 at the edge of your sidewall. Fasten PANEL41 to the cee girts using FAST12.
   Be careful to note the under lap and the overlap side of the panel.
2. Follow the diagram for fastener pattern at bottom of panel to the sidewall. Do not fasten the top of the panel.

REQUIRED PARTS

(1) PANEL41
FAST12
DIRECTIONS

Install Wall Sheeting

Also, some panels may be overlapped more than 1 rib to avoid cutting. If necessary, panel may be cut long ways at ending edge of sidewall.

1. Repeat STEP 13 for the 2 remaining panels of the sidewall, overlapping panels as shown in the diagram.
2. Use FAST12 to secure the panels to the purlins.
STEP 15

DIRECTIONS

Install Wall Sheeting

1. Cut (1) TRIM32 into two pieces, creating one head trim that is 3’ and one that is 9’.
2. Fasten the 3’ piece of TRIM32 at the bottom, covering the end of the panel. The longer side of the trim should face outward and the shorter leg behind the panel.
STEP 16

DIRECTIONS

Install Wall Sheeting
1. Use the 9’ piece of TRIM32 you created in the previous step to top of the panel, capping it off. The short leg should fall behind the panel. The end can be cut and folded down to make a clean edge. Fasten at the ends and panel laps.
2. Use FAST12 to secure the head trim and wall panels to the sidewall girts.
STEP 17

DIRECTIONS

Install Wall Sheeting
1. Repeat steps 15-18 for the other sidewall, capping the panel with TRIM32 as in previous steps.

REQUIRED PARTS
(3) PANEL41
(1) TRIM32
FAST12
**DIRECTIONS**

**Install Wall Sheeting**

1. Assemble the panels shown above for the end wall, capping the panel with TRIM32 as in previous steps.

**REQUIRED PARTS**

- (4) PANEL41
- (1) TRIM32
- FAST12
STEP 19

DIRECTIONS

Install TRIM21
Install two TRIM21 with FAST23 along the corners of the endwall panels. Place fasteners to match fastener line on wall panels (do not overtighten). The above diagram shows the fastener placement location. You can finish the trim by cutting the folding.
**DIRECTIONS**

**Begin Sheeting the Roof**

Note: Before sheeting the roof take note of the direction the prevailing winds come from. Start with the end that is opposite from your prevailing wind direction.

1. Use the above diagram for the fastener patterns when installing panels using FAST3.
2. Let the panel hang 3" over the eavestrut.
3. Do not fasten at the ridge. This will be fastened when installing the ridgecap.
STEP 21

DIRECTIONS

Finish Sheeting the Roof

1. Use FAST3 to secure panels to the purlins. Use FAST4 when securing the panels together.
2. Do not overlap roof panel more than one rib. PANEL40 has a 38” overall coverage, so three panels should fit perfectly on the roof.
3. Install all of one side then in the same direction, install the opposite side. Ensure every panel installed on the opposite side is directly across from an equal rib. This will allow the formed ridge cap to be easily installed.

REQUIRED PARTS

- (5) PANEL40
- ACC51
- FAST4
- FAST3

Fastener Pattern
DIRECTIONS

Install the Ridge Cap

1. Once all of the roof panels are installed then you may begin installing your roof formed ridge caps.
2. Fasten TRIM2 to roof panels and purlins using FAST3.

Tip: To locate the center of ridge on building, use two levels to meet in the middle to determine apex.
STEP 23

ENJOY YOUR COMPLETED DISPLAY

Your Centra Series display model is finished.