



Empire Printing

Instructions for Assembly of the HO scale kit

v1.1

Kit Contents:

91 ea. Laser cut .090" acrylic parts.
78 ea. Laser cut .060" acrylic parts.
8 ea. 1/8" tube cut to 5/8" length
5 ea. Pages printed window shades
5 ea. Acetate window glazing
Instructions with diagrams

Thank you for purchasing this kit. Please read these instructions completely before beginning and take your time. Allow parts to dry after painting or gluing and do not try to build this in one day.

Drawings of all the parts have been included for ease of part identification.

Practice gluing the acrylic together if you have never done it before.

It is a good idea to dry fit (test fit without glue) all the parts prior to assembly. Some of the parts fit behind others so the order of assembly is critical.

If by chance a part is missing or broken, please write (email: info@cmrtrain.com) us indicating the kit name and part number and we will send you a replacement.

Please note that parts of the kit have been painted gray in the assembly photos so that new parts can easily be seen and identified. This is only for ease of identifying parts and seeing them clearly in the photos. We recommend gluing all parts together prior to painting unless otherwise noted.

We recommend building up all of the units together to ensure each unit fits correctly together.

Pre-production models were used in these instructions, your parts may vary slightly.

You will need the following items to assemble your model: Hobby knife, fine sand paper, file, paint (see "Painting Your Model"), paint brushes, glue (see "Gluing Acrylic"), modeling putty.

About the Kit

Our kit is based on a reinforced concrete building that was built in the 1920's in the Art Deco style. The frieze running above the ground floor is influenced by Native American motifs. It was home to a large printing company but can be used for just about any industry.

Parts are labeled in the instructions inside parentheses. The letters refer to the unit and the number refers to the part in that unit. For example (C-5) would be part five in the center unit. This kit includes a center, left and a right unit. The left and right units are identical mirrored models with one minor detail difference on the back wall windows. Construction is shown for the right unit only with the left being the same, just mirrored.

Each unit has a base and top. The engraved letter on the base should always be facing up during construction.

Many parts have engraved details on them. Be sure that these are facing out when gluing the parts together. It is easy to install these backwards by mistake.

Adhesives

Gluing Acrylic

Always glue acrylic in a well-ventilated area, and read the glue manufacturer's label for instructions.

We recommend using Scalecoat brand "Probond", Plastruct brand "Bondene Solvent Cement" or "Plastic Weld Cement". Most hobby shops carry these products. Or they may be ordered directly from the manufacturer.

Acrylic must be glued together using a solvent that will melt the two edges and literally fuse them together. To do this, place the two pieces to be joined together and run a bead of solvent down the edge. Capillary action will suck the solvent into the joint and after several seconds the pieces will be fused. After only a few minutes the pieces will be strong enough to work with. The bond will be completely dry within twenty-four hours using the above-mentioned products. Solvent can be dispensed two ways.

Typically the solvent comes in a small bottle with a brush in the lid. The brush allows you to dispense a drop or two of solvent at a time.

You may want to use a polyethylene bottle or syringe with a blunt needle dispenser. This allows larger amounts of solvent to be dispensed quickly and cleanly. Be sure the bottle you are using is approved for the solvent you are using or you may melt through it. These bottles may be purchased from CMR.

Cyanoacrylate (CA) Super Glue

Parts that are not plastic or are painted prior to gluing must be glued together using a non solvent based glue. This means the parts are held together by the glue and not the process of fusing or welding them together with solvent. For this we recommend using CA where noted in the instructions.

Craft Glue

Some parts are easier to glue using craft glue such as “Sobo”. We use craft glue to stick previously painted parts together when we want a little working time.

Preparing Your Model for Painting

We recommend lightly sanding all parts to remove the raised edge created during the laser cutting process. In order to hide the seams we recommend using “hobbyist putty” such as Green Squadron modeling putty. Do this in a very well-ventilated area. Apply the putty over the seams and allow to dry overnight. Once the putty has dried, place a sheet of fine sandpaper on a flat surface and sand smooth. You may need to apply a second coat of putty and sand again.

Painting Your Model

After building each unit we primed our building with Krylon Gray spray paint. We also primed the window frames. For our building paint scheme, we used spray paints and acrylic hobby paints which are available in hobby stores. We painted the building Krylon “Camouflage Khaki” spray paint. The window frames were painted black.

We painted the built up balconies separately for ease of painting and left detached from the model until final assembly.

We used acrylic hobby paints to fill in the details of the model such as the brick and the roof. You may choose to airbrush sections of the model to give it a weathered look.

Note on Tabs

Sometimes it is necessary to sand or file the tabs slightly in order to get them to seat themselves into the slots. This is due to slight variations in acrylic thickness. If the tabs are not fitting into the slots properly you may need to file them back at an angle to fit properly.

Window assembly

There are printed window shades included with your kit. These are designed to be laminated with the included acetate sheets then glued to the acrylic window frames prior to installing in your model.

Prime and paint the window frames. Lightly spray glue the window shade pages on the printed side with spray mount and apply a sheet of acetate to them. Press in place. We used 3M Spray Mount part number 6065 which is available at craft and office supply stores. Glue these to the back of the window frames using super glue (CA). The engraved side of the acrylic window frames should be facing out.

It is recommended to lightly spray the back of the window shade pages with a clear sealer such as matte spray or laquer. This will keep the paper from buckling due to humidity changes.

See Figure 1.

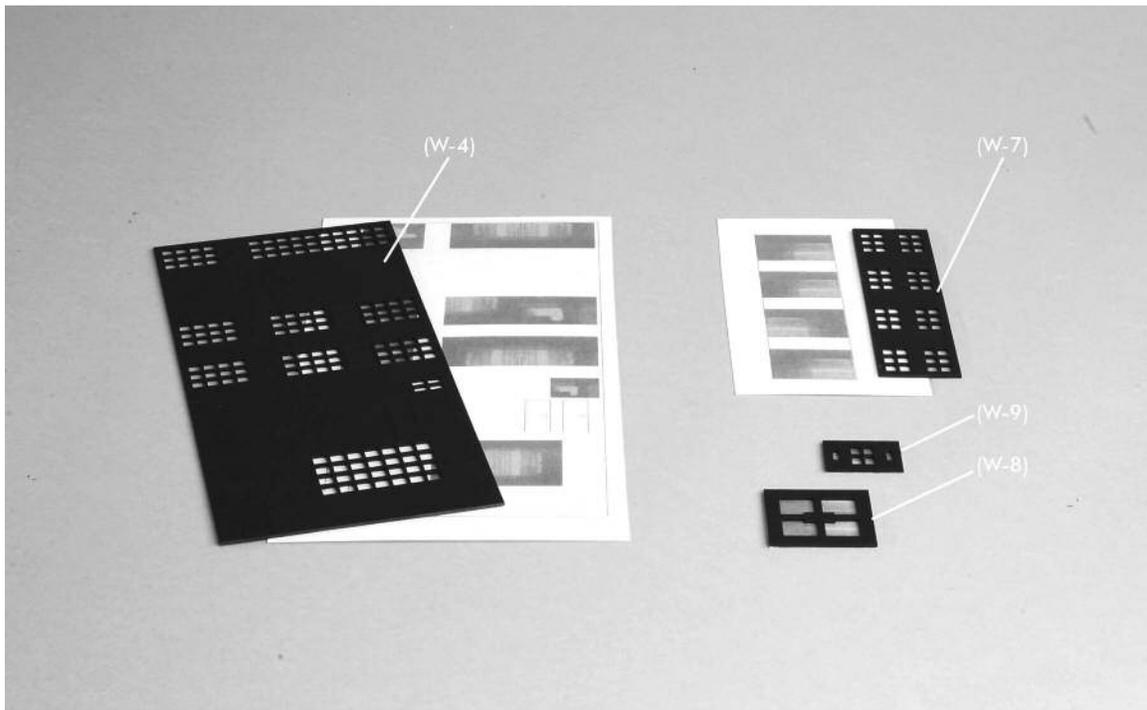


Figure 1

Center Unit

Begin by taking the base (C-1) and laying it flat on your work surface with the engraving facing up.

Insert the tabs of the walls (C-2), (C-3), (C-4) and (C-5) into the slots on part (C-1) and glue in place. Be sure the engraved sides of the wall parts are facing out.

Glue the walls together where they meet being sure that the edges are flush.

Dry fit the roof part (C-6) in place to be sure that the assembly is square. Glue the small back roof (C-7) and the back wall (C-8) into place. Remove part (C-6) and set aside. See Figures 2, 3 and 4.

Fill and sand the corners of the assembly if necessary. See “Preparing Your Model For Painting.”

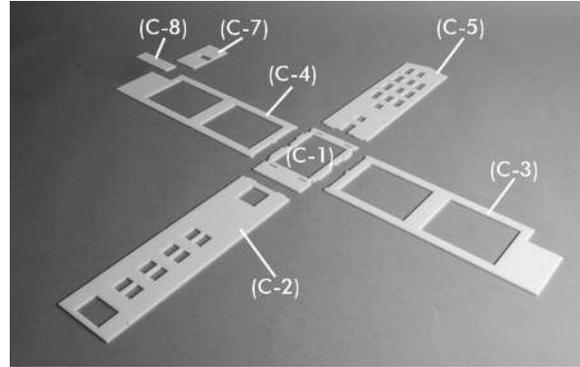


Figure 2

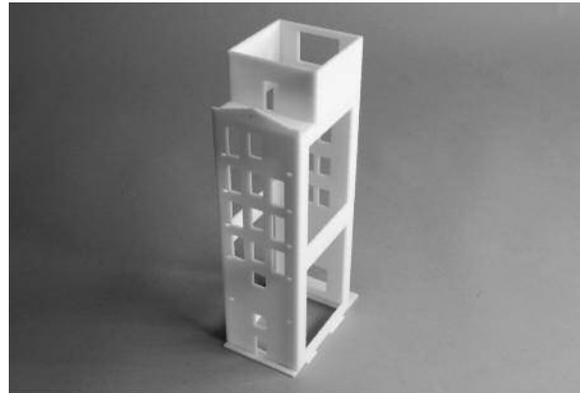


Figure 3

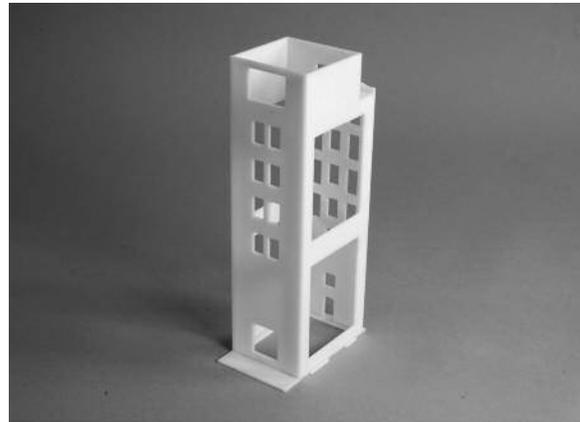


Figure 4

Details

Glue together the facade parts (C-9), and (C-10). (C-10) glues on top of (C-9). Be sure the edges are perfectly flush.

Next glue parts (C-11) and (C-12) to part (C-10) using the engraved lines on part (C-10) for alignment.

Glue parts (C-13) x2 onto parts (C-11) and (C-12). See Figures 5 and 6.

Glue the assembled facade to the front (C-2) of the center unit making sure to line up the window openings. See Figure 7.

Glue the front step parts (C-15), (C-16), and (C-17) to the center unit. See Figure 8.

Glue the column strips (C-14) x 2 to the rear of the models using the engraved lines for position. They will overhang the edges of the center units and hide the seam when you attach the side units. See Figure 9.

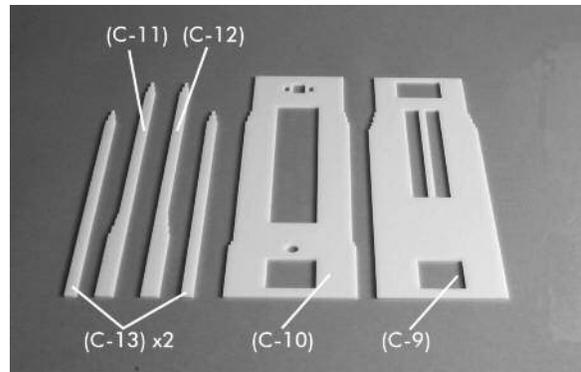


Figure 5

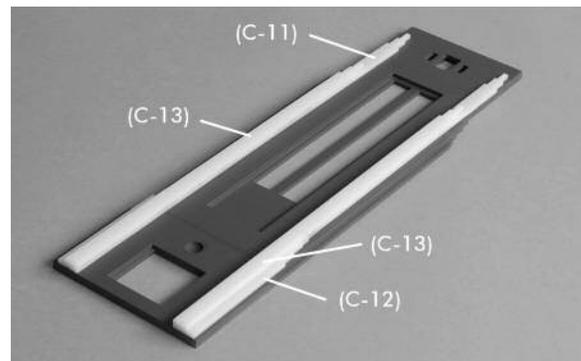


Figure 6



Figure 7

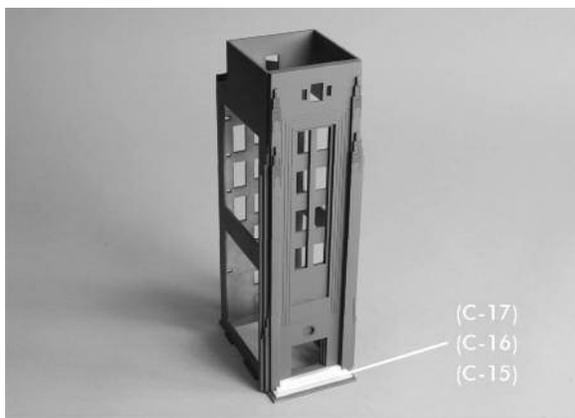


Figure 8

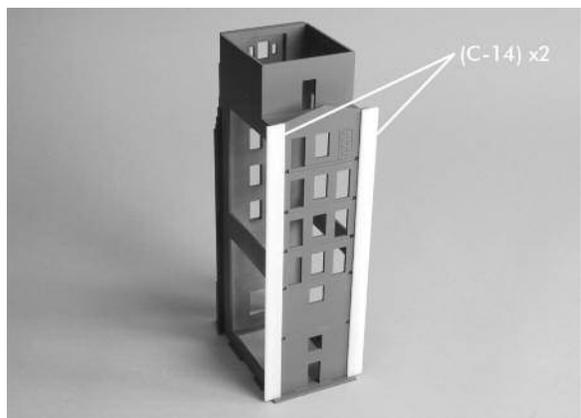


Figure 9

Roof

Place the roof (C-6) flat on your work surface with the engraved lettering facing up. Insert the tabs of the walls (C-18), (C-20) x2, and (C-19) into the slots on part (C-6) and glue in place. Glue roof part (C-21) atop of the assembly.

Build the next level by inserting the tabs of walls (C-23) x2, and (C-22) into the slots on part (C-21) and glue into place. Glue roof part (C-24) in place.

Glue the assembly to the unit making sure the base of the roof is flush to the rest of the model.

Glue part (C-26) on top of (C-25) and glue this assembly to the front of the roof section making sure that it is vertically aligned with the center of the unit below.

See Figures 10, 11, 12 and 13.

Fill and sand the corners of the assembly if necessary. See “Preparing Your Model For Painting.”

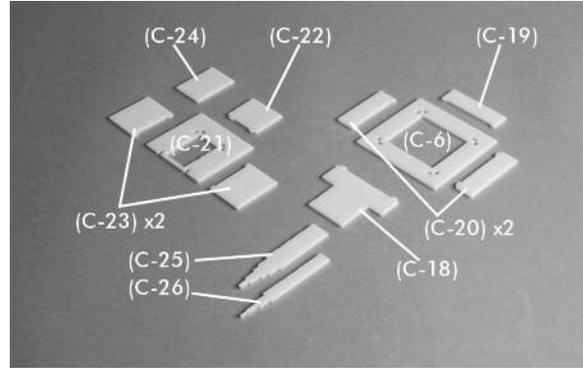


Figure 10

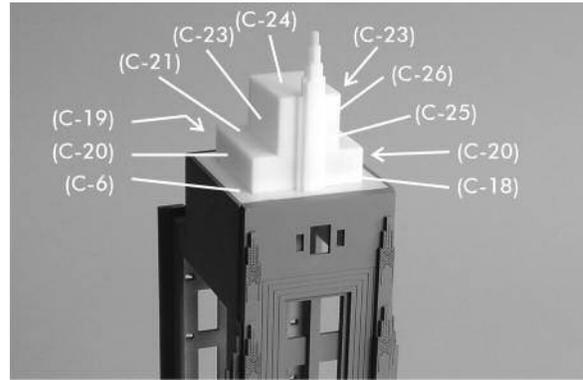


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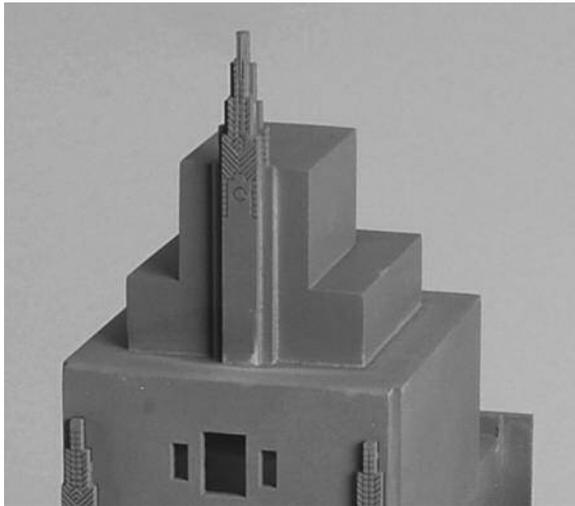


Figure 12



Figure 13

Right Unit

Begin by taking the base (R-1) and laying it flat on your work surface with the engraved letter facing up. Insert the tabs of the walls (R-2), (R-3), (R-4) and (R-5) into the slots on part (R-1) and glue in place. Be sure the engraved sides of the wall parts are facing out.

Dry fit the roof (R-6) in place to be sure that the assembly is square before glueing into place. The roof should be on the same plane as the small holes located in the top of the wall parts. This will leave a parapet about a quarter inch tall around three sides of the roof.

See Figures 14 and 15.

Fill and sand the corners of the assembly if necessary. See “Preparing Your Model For Painting

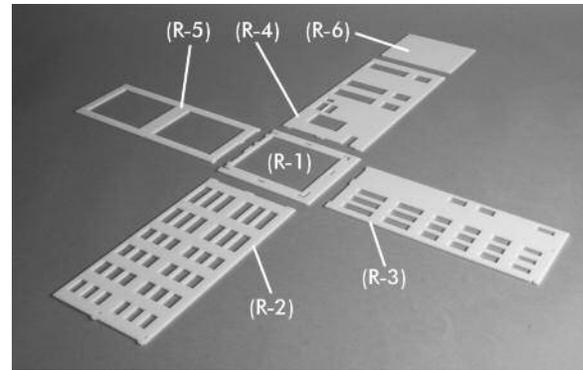


Figure 14

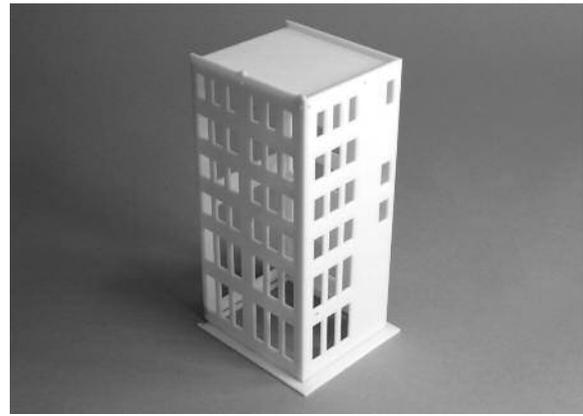


Figure 15

Details

Stack and glue together the front facade details parts (R-7), (R-8), and (R-9) x2 making sure the parts are flush and centered.

Stack and glue together the right side facade detail parts (R-10), (R-11), and (R-9) x2 making sure the parts are flush and centered.

Dry fit the assembled detail parts to the right unit to confirm alignment to window openings and a snug fit to the corners. Make any necessary adjustments before gluing to the unit.

See Figures 16, 17, and 18.

Fill and sand the corners of the assembly if necessary. See “Preparing Your Model For Painting.”

Left Unit

Use the same process as the right side to assemble the left unit. Use parts (L-1), (L-2), (L-3), (L-4), (L-5) and (L-6).

The left unit is an identical mirror image of the right unit. There is a minor detail difference in the window locations on the back wall (L-4) that does not affect the general assembly of the units.

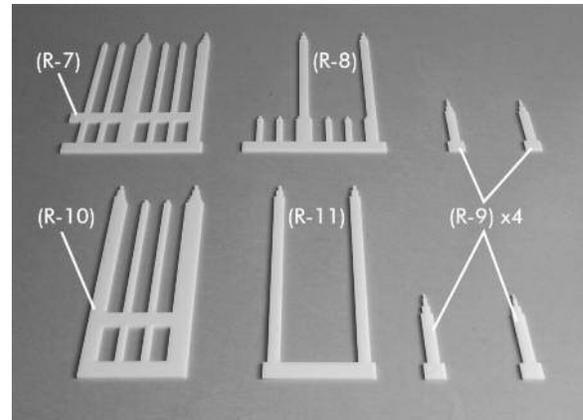


Figure 16



Figure 17



Figure 18

Left & Right Unit Final Details

Identify the placement markings on the units for the fine details.

Glue parts (D-1) x2 and (D-2) x2 to the marked locations. Note that (D-2) is slightly shorter than (D-1).

Glue the cylindrical details (D-3) x37 to the front and side facades in the marked locations. This is a really tedious task but will create a wonderful effect. Take your time and get all the parts located in precise rows and columns.

Glue the 1/8th inch x 5/8th inch tube (D-4) x8 into the holes along the roof line. See Figure 19.

Glue the column strips (R-11) to the rear of the models using the engraved lines for position. See Figure 20.

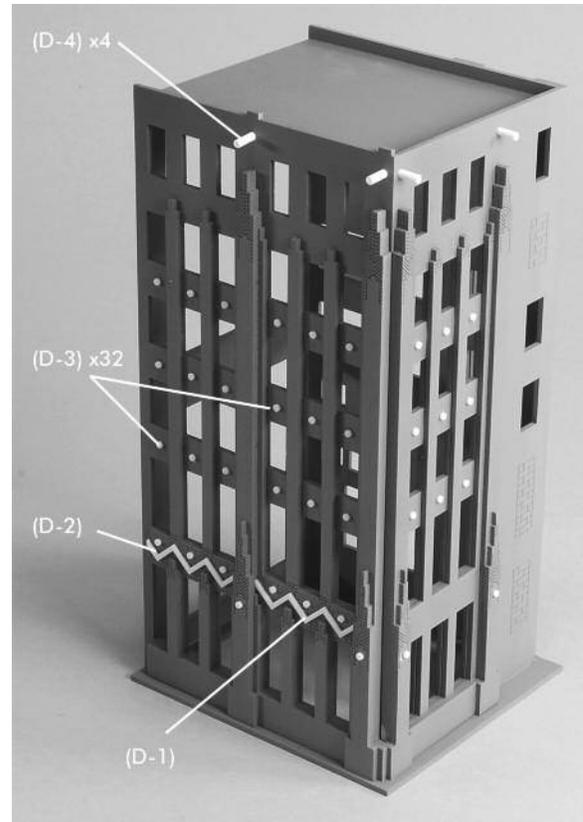


Figure 19

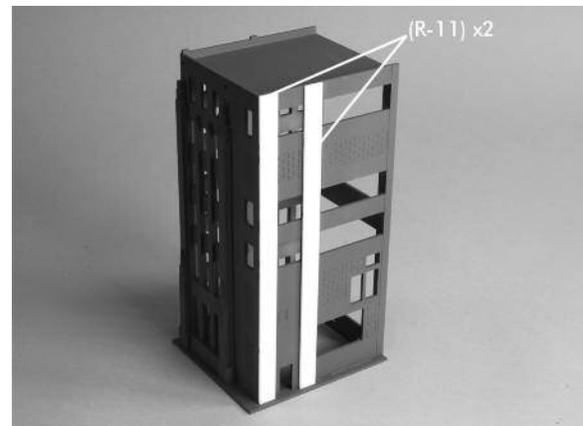


Figure 20

Balconies

The assembly for the short balconies and the long balcony is identical.

Place the base of the balcony (B-1) on a flat surface. Insert the tabs of the walls (B-2), (B-3), and (B-4) and glue into place.

Repeat for the rest of the short balconies. There are four short balconies.

Repeat for the long balcony using base (B-5) and front wall (B-6).

See Figures 21 and 22.

Fill and sand the corners of the assembly if necessary. See “Preparing Your Model For Painting.”

Paint the balconies separately from the rest of the model before gluing into place.

You have now completed the three units. As shown in Figures 22 & 23.

Final Assembly of the Building

Now that you have built all of the building units, windows, and balconies, it is time to assemble them.

Paint the units and balconies at this point. See “Preparing Your Model For Painting.”

After spraying the model concrete hand paint the brick. Leave the raised details concrete colored. You should also paint the cinder block on the back by hand using a darker gray color.

Attach the balconies to the back of the building.

Next weather the model with some dark gray streaking using an airbrush.

Hand paint the grills on the rear of the building black. Perhaps adding some rust and streaks.

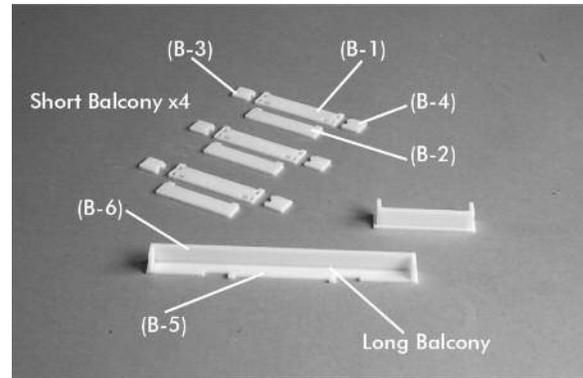


Figure 21



Figure 22



Figure 23

Paint the roof black, add some patches using thin styrene for added detail.

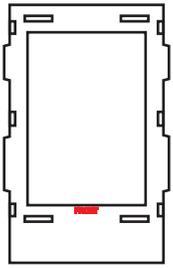
Install the assembled windows behind the walls using super glue (CA).

Glue the units together one at a time using super glue (CA) or craft glue and allow to dry before proceeding to the next unit. Once completed, touch up any glue and paint imperfections between connections.

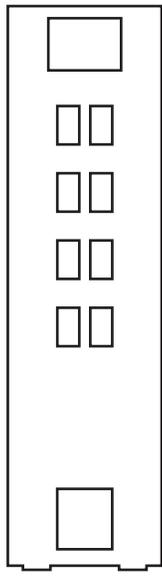
Your building is finished and ready to install on your layout. You may add lights and other details. We thank you for purchasing this kit from CMR and hope that you have enjoyed building it. Be sure to visit our website to see our other kits at cmrtrain.com.



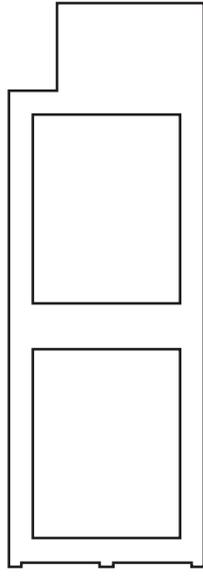




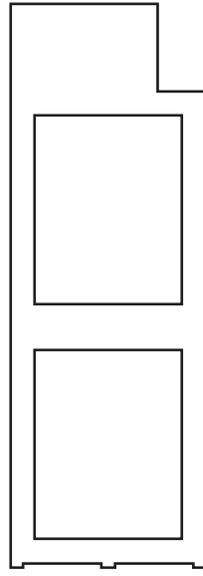
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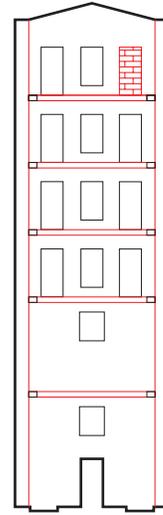
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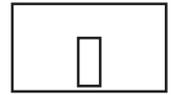
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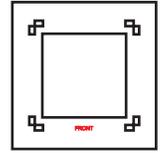
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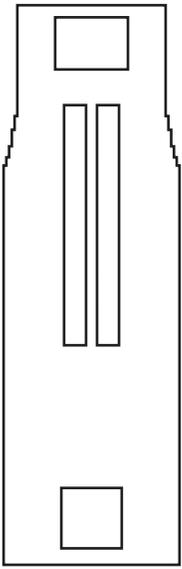
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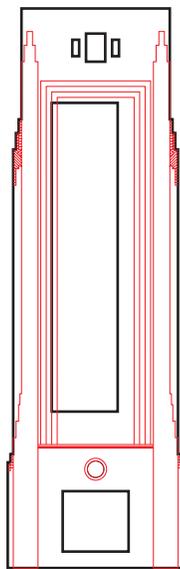
(C-8)



(C-6)



(C-9)



(C-10)



(C-11)



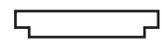
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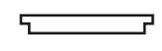
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(C-14) x2



(C-15)

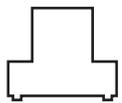


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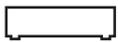


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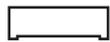
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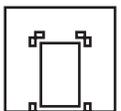
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(C-19)



(C-20) x2



(C-21)



(C-22)



(C-23) x2



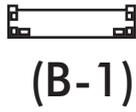
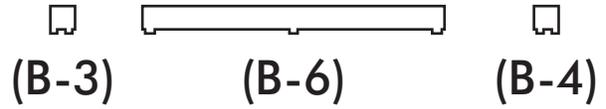
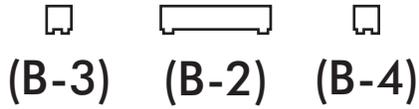
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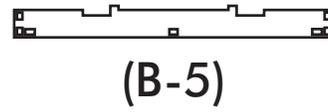
(C-25)



(C-26)

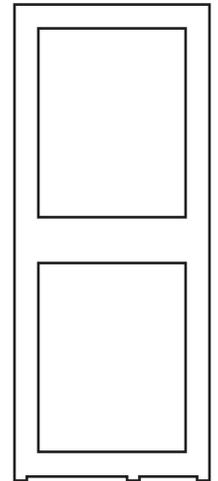
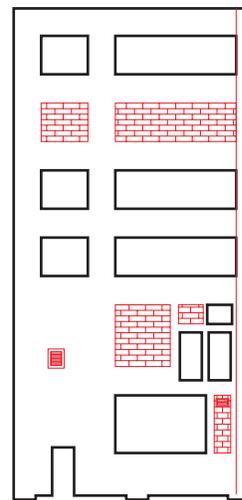
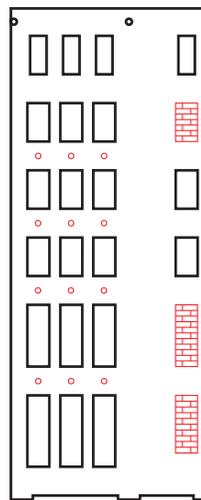
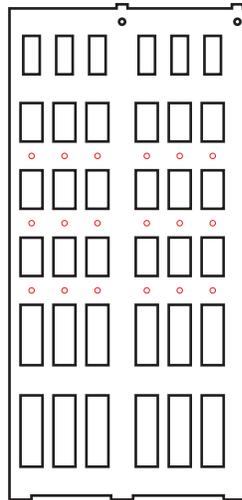
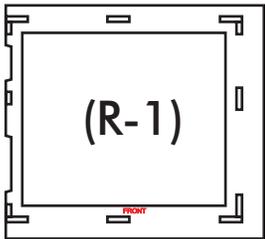
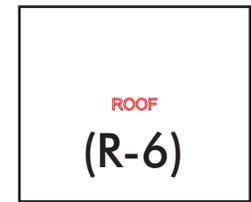


Short Balcony x4



Long Balcony

Right Unit Parts

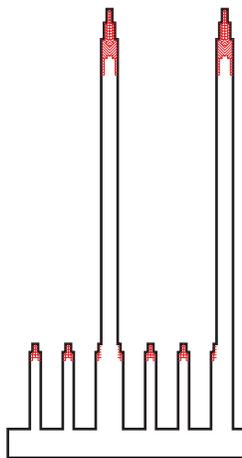
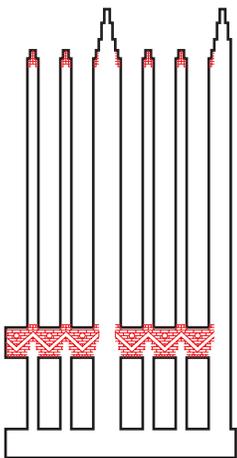


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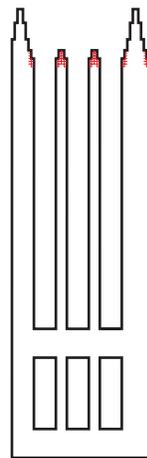
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(R-4)

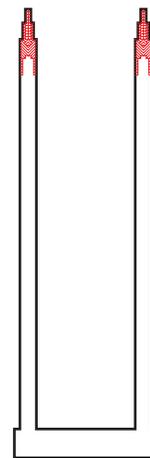
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(R-9) x4



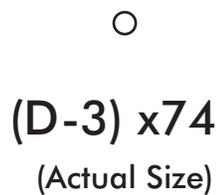
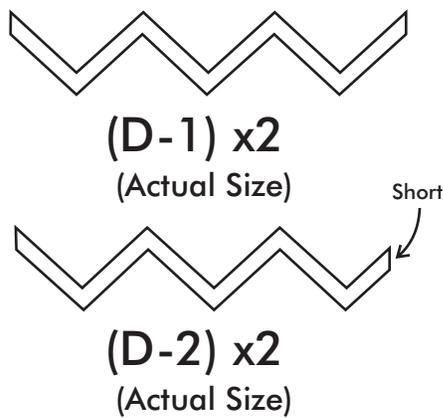
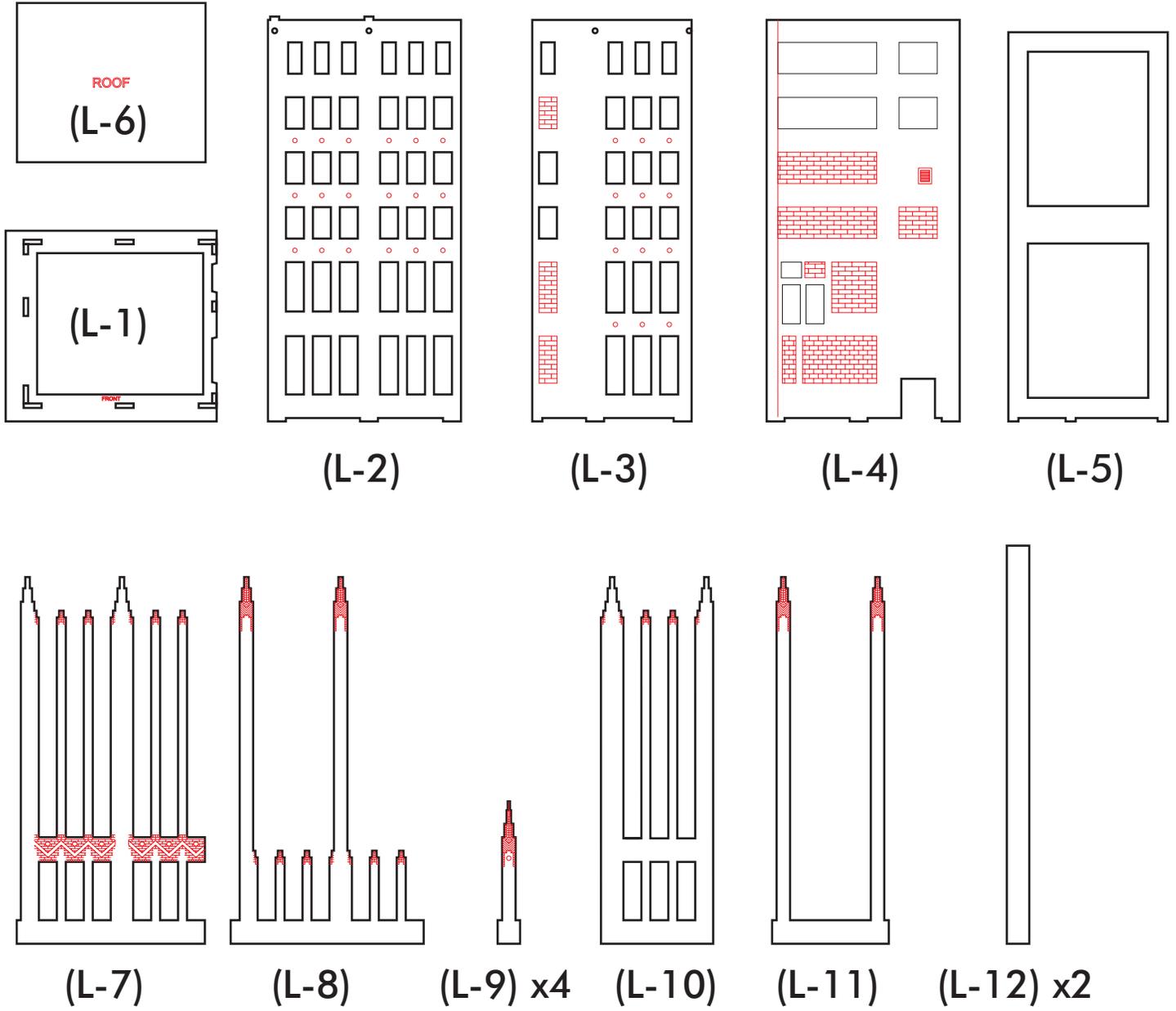
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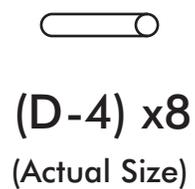
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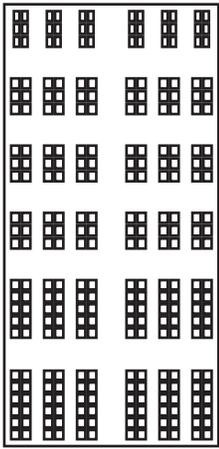


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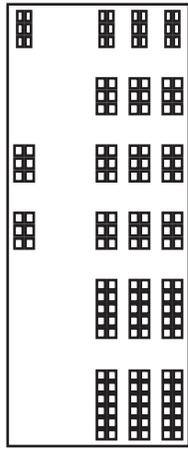


Left & Right Unit Detail Parts

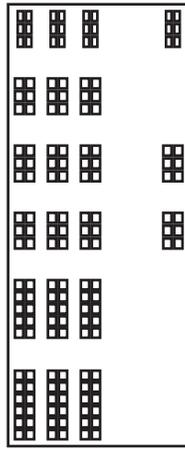




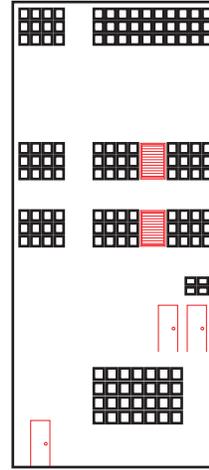
(W-1) x2



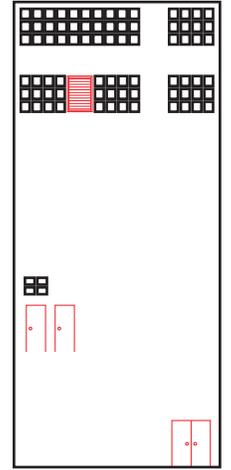
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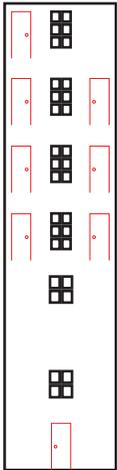
(W-3)



(W-4)



(W-5)



(W-6)



(W-7)



(W-8)



(W-9)



(W-10)