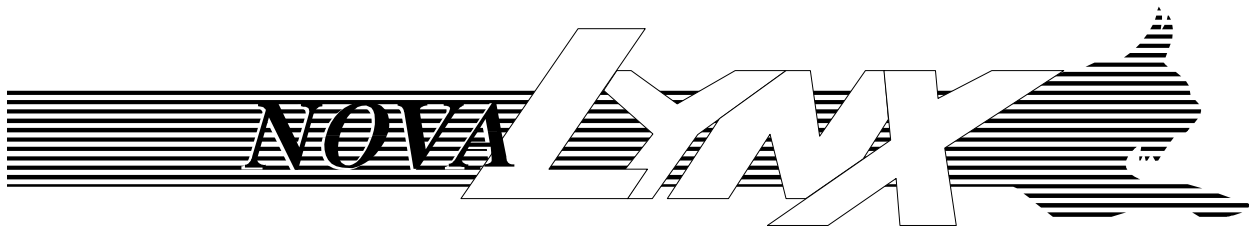


NOVALYNX CORPORATION

MODEL 380-605
LARGE INSTRUMENT SHELTER

INSTRUCTION MANUAL



REVISION DATE: JULY 1998

Receiving and Unpacking

Carefully unpack all components and compare to the packing list. Notify NovaLynx Corporation immediately concerning any discrepancy. Inspect equipment to detect any damage that may have occurred during shipment. In the event of damage, any claim for loss must be filed immediately with the carrier by the consignee. Damages to equipment sent via Parcel Post or UPS require the consignee to contact NovaLynx Corporation for instructions.

Returns

If equipment is to be returned to the factory for any reason, call NovaLynx between 8:00 a.m. and 4:00 p.m. Pacific Time to request a Return Authorization Number (RA#). Include with the returned equipment a description of the problem and the name, address, and daytime phone number of the sender. Carefully pack the equipment to prevent damage or additional damage during the return shipment. Call NovaLynx for packing instructions in the case of delicate or sensitive items. If packing facilities are not available take the equipment to the nearest Post Office, UPS, or other freight service and obtain assistance with the packaging. Please write the RA# on the outside of the box.

Warranty

NovaLynx Corporation warrants that its products are free from defects in material and workmanship under normal use and service for a period of one year from the date of shipment from the factory. NovaLynx Corporation's obligations under this warranty are limited to, at NovaLynx's option: (i) replacing; or (ii) repairing; any product determined to be defective. In no case shall NovaLynx Corporation's liability exceed product's original purchase price. This warranty does not apply to any equipment that has been repaired or altered, except by NovaLynx Corporation, or that has been subjected to misuse, negligence, or accident. It is expressly agreed that this warranty will be in lieu of all warranties of fitness and in lieu of the warranty of merchantability.

Address

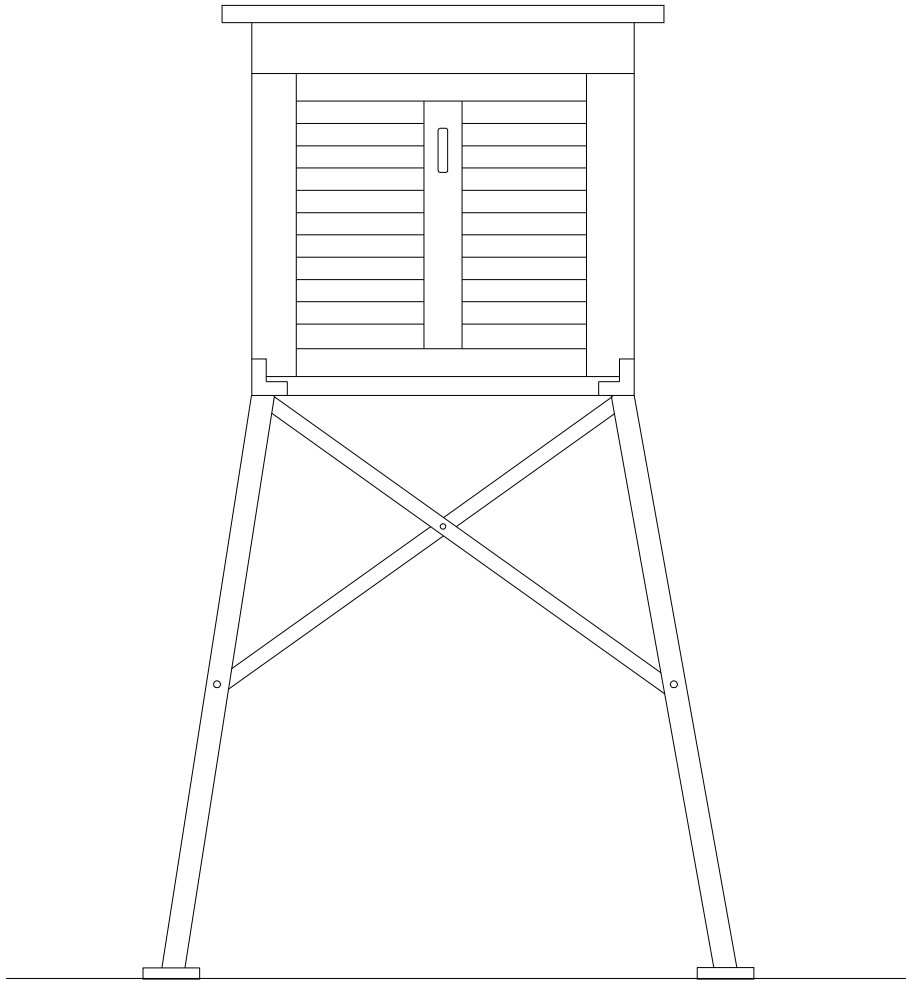
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**MODEL 380-605 AND 380-609
EQUIPMENT CONFIGURATION AND IDENTIFICATION**



COTTON REGION INSTRUMENT SHELTER
WITH METAL LEG ASSEMBLY

NovaLynx Corporation

Model 380-605 Large Instrument Shelter Instruction Manual

1.0 INTRODUCTION

1.1 General Description

The Model 380-605 Large Instrument Shelter is a louvered wooden enclosure designed to house weather instruments out of doors. The shelter is known as the “cotton region” style shelter due to its original use and is based upon U.S. Weather Bureau (now the U.S. National Weather Service) design criteria. The shelter provides protection for mechanical humidity and temperature measuring instruments against rain and sun effects. Direct contact of the instruments by rain may cause damage to the recording mechanisms and sunlight will cause errors in the temperature readings. A cotton region shelter provides a temperature insulation of approximately two to five degrees. Better results can be obtained with motor-aspirated instrument shields. The large instrument shelter is used primarily in areas where there is no power available.

The cotton region shelters are constructed of wood and are covered with a white latex paint. The wood helps prevent heat transfer into the shelter while the white surface helps reflect the sun's heat during the day. Louvered sides, a double walled roof, and a slotted bottom help provide movement of air through the enclosure giving the best results in the temperature and humidity measurements. There is a cross brace inside the shelter that also serves as a mounting point for glass thermometers or other small instruments. Electronic sensors may also be housed inside the shelter.

Legs are ordered separately using model numbers 380-608 for the wooden legs and 380-609 for the metal legs. The sets of legs are furnished with the necessary fasteners required for assembly. The legs are designed according to the original criteria to give the shelter a height above the ground of 48 inches. The metal legs are slightly longer allowing placement into cement for permanent installations. The extra length enables the metal legs to be set into the cement at least 12 inches for anchoring. There should still be enough length left in the metal legs to obtain the required 48 inch elevation above the ground after the legs have been set into the ground. The metal legs may also be used to increase the life of the shelter in areas that experience high snow or high water levels. The metal leg set design allows easy removal of the shelter from the legs for servicing and maintenance of the shelter paint and wooden structure.

1.2 Specifications

Material: Pine

Finish: Primer and white latex paint

Thermometer Mount: Interior cross board

Size:

Shelter: 31" wide, 20-3/4" deep, 32" high, outside dimensions

Metal legs: 60" long

Wood legs: 48" long

Weight/Shipping:

Shelter: 70 lbs/70 lbs (32kg/32kg)

Metal legs: 10 lbs/30 lbs (4.5kg/14kg)

Wood legs: 20 lbs/30 lbs (9kg/14kg)

Power requirements: None

1.3 Manual Contents

This manual contains the following items:

Table of Contents: 1 page

Instrument Configuration Drawing: 1 page

Text: 5 pages

940805 Large Shelter without Legs Drawing

940803 Metal Legs Assembly Drawing

940804 Wooden Legs Assembly Drawing

2.0 UNPACKING

The shelter is shipped partially assembled. Inspect the assembled sections to ensure that no damage has occurred during shipment. Check to ensure that all of the fasteners have been shipped and that the key and locking hasp work together. Notify NovaLynx if there are any missing pieces.

3.0 SITE SELECTION

The shelter site should be selected so that the shelter will be placed over a ground surface typical of the area. Short grass is the best surface to minimize reflected heat from the ground. The shelter door should face North, or away from the sun. For atmospheric temperature measurements, the shelter should be placed away from structures to avoid shadows and reflections that may cause errors in the measurements.

4.0 SHELTER ASSEMBLY

The shelter and legs are each assembled separately, then put together into the final configuration. All pieces are pre-cut and drilled with pilot holes to help with the assembly. Refer to the assembly drawing for assistance while reading the instructions that follow.

- 4.1 Attach the **Left Side** panel onto the **Front** panel. Use 5/16 x 2-1/2 inch lag bolts. Install the bolts into the top two holes leaving the bolt out of the bottom hole at this point. Finger tighten the bolts only at this time.
- 4.2 Attach the **Back** panel the **Left Side** panel using the same method as that used for the **Front** panel.
- 4.3 Slide the slotted floor panels into the assembly, between the **Front** and **Back** panels. Fasteners are not used for the floor panels. The ends of the panels may require sanding if the layers of paint interfere with the fit in the slots of the **Front** and **Back** panels.
- 4.4 Attach the **Right Side** panel onto the other panels. Use the six lag bolts to attach the panel.
- 4.5 Install the cross brace piece that serves as the thermometer mounting board. Use the notches that have been cut into the side panels. Fasteners are not required for the cross brace.
- 4.6 Slide the **Inner Roof** panel into place from the front side. Center the panel within the side panels and then attach it to the **Front** and **Back** panels. Use four nails to attach the roof panel.
- 4.7 Tighten all twelve of the lag bolts at this time.

CAUTION: Do not over tighten the lag bolts. Over tightening will cause the paint to crack causing rapid wood deterioration.

Should the paint crack, seal the cracks well using additional paint and wood sealers.

- 4.8 Place the **Outer Roof** panel onto the shelter assembly. Attach the roof to the **Side** panels using four nails.

5.0 METAL LEGS ASSEMBLY

- 5.1 Assemble the legs upon a flat surface such as the floor. Place two of the legs on the floor and set the ends with the holes that have a 1-5/16 inch spacing facing away from the assembler's position. Cross two of the long braces and attach them to the center hole in the legs using a 1/4-20 x 1/2 inch long bolt and hex nut. Place the legs so that the chamfered corners face to the outside edge. finger tighten the bolt only at this time.
- 5.2 Notice that the center hole in the legs is not at the same distance from each end. With the legs set so that the shorter sides of the braces are farther away from the assembler, attach the longer end to the center hole of each leg. Use the nuts and bolts furnished and check to ensure that the braces are along the inside surfaces of the legs.
- 5.3 Take one of the corner brackets and attach it onto the end of the leg furthest away. Place one hex bolt through the top hole of the bracket and through the hole in the leg. The bracket mounts onto the outside of the leg. Repeat this step for each of the legs.
- 5.4 Attach the cross-brace to the lower holes on the corner brackets and legs joints. Use a hex bolt and a nut at each joint. At this point the assembly of the front legs should be completed.
- 5.5 Upon completing the assembly of the legs, cross two of the short braces and attach them together through the center holes using a hex bolt and a nut. check to ensure that the chamfered corners are facing toward the outside edges.
- 5.6 Attach the longer ends of the brace assembly into the center holes of the front legs. The brace should fit to the inside of the leg. Repeat this step for the rear leg assembly.
- 5.7 Attach the shorter end of the brace into the lower hole of the corner bracket and leg joint for both the front and the rear legs. The top hole should have a hex bolt fastened to it immediately.
- 5.8 Repeat step these steps for the other side as well. As soon as both sides have been assembled, tighten the nuts and bolts using a wrench.
- 5.9 Attach the four feet brackets onto the legs. Use only one nut and one bolt for each foot bracket.
- 5.10 Stand the legs up and carefully place the shelter onto the corner brackets. It may be necessary to have help to keep the legs from moving during this step. Attach the shelter to the legs using the wood screws provided.

- 5.12 Place the legs and shelter onto or into the foundation and check the base of the shelter for a 48" distance to the ground level. If a cement foundation is to be used bolt the legs onto the cement or place the foot brackets into the cement while it is still wet and adjust the legs in the cement to obtain the correct height of the shelter. the legs must be anchored in some manner to prevent the shelter from tipping over during high or gusting winds.

6.0 WOOD LEGS ASSEMBLY

- 6.1 Wood legs may be used in place of the metal legs if necessary. Mount the two short braces across the top of the leg assemblies. Use the carriage bolts provided with the shelter.
- 6.2 Place the two medium length braces across the center of the leg assemblies. Use the lowest holes. Secure the pieces by using the carriage bolts.
- 6.3 Mount the longest braces diagonally across the leg assembly and fasten them using the carriage bolts. Notice that these braces have diagonal cuts at the ends.
- 6.4 Install the four remaining lag bolts into the bottom holes of the instrument shelter panels. Tighten the lag bolts carefully to avoid cracking the painted surfaces.
- 6.5 Place the shelter onto the wooden leg assembly and tighten all of the bolts, securely. Fasten the shelter to the leg assembly using the wood screws provided.

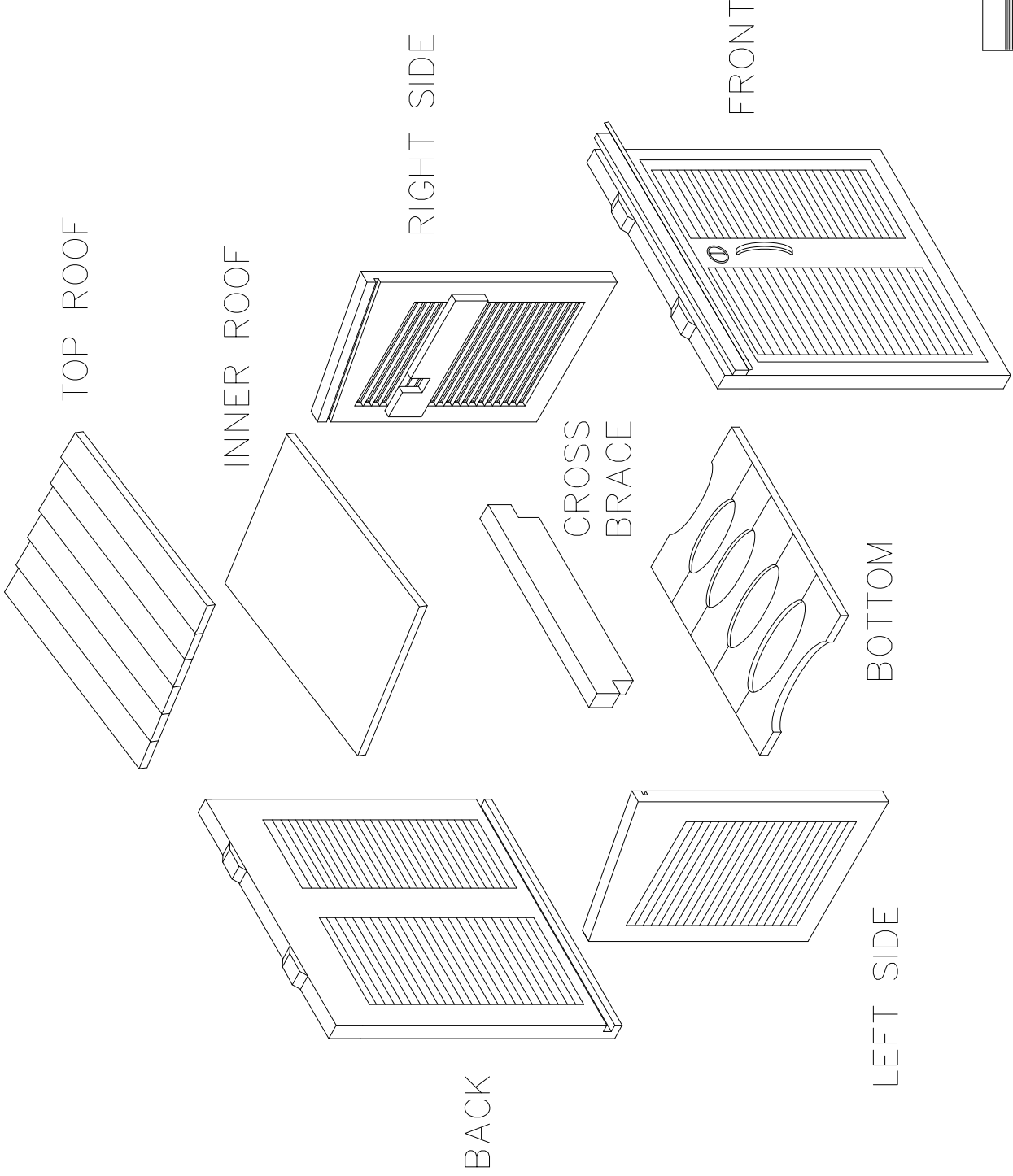
7.0 MAINTENANCE

The exterior surfaces of the shelter should be repainted as often as necessary to prevent rapid deterioration of the wood. Use a high gloss, white latex paint. Under severe conditions it may be necessary to remove the old paint before applying the new paint. Use a good primer to help seal the wood prior to applying the paint. Replace any pieces of wood that show signs of dry rot.

Check the lock and door hinges. Oil the parts regularly to prevent the rotating parts from rusting together. Use a light weight machine oil.

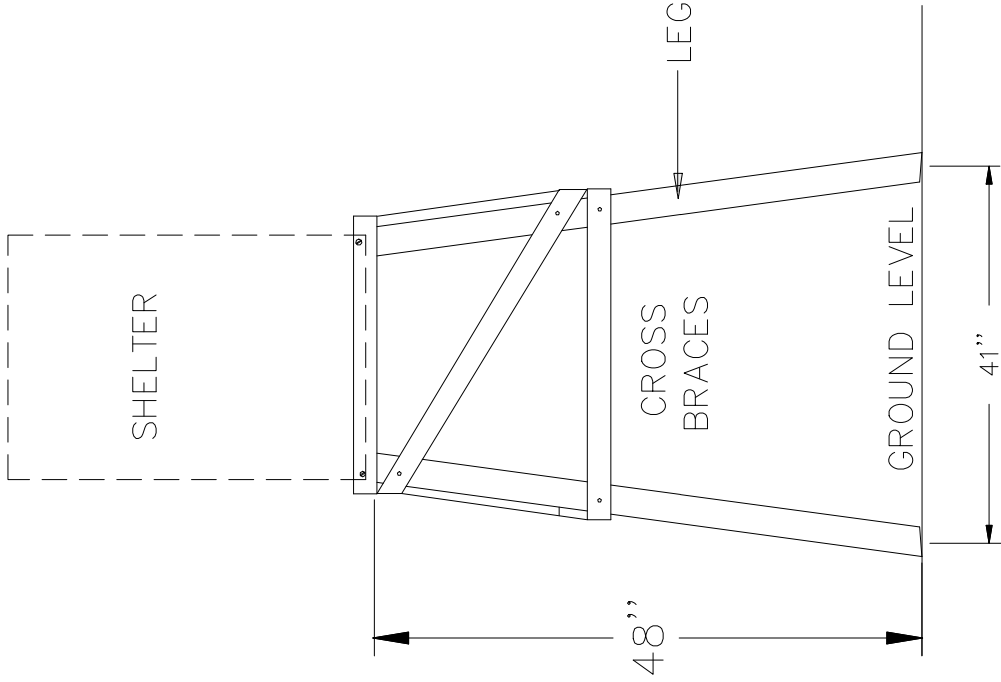
Each shelter has a lock and key that are matched and numbered. Record the key number in case a replacement needs to be ordered from NovaLynx.

KEY NUMBER _____

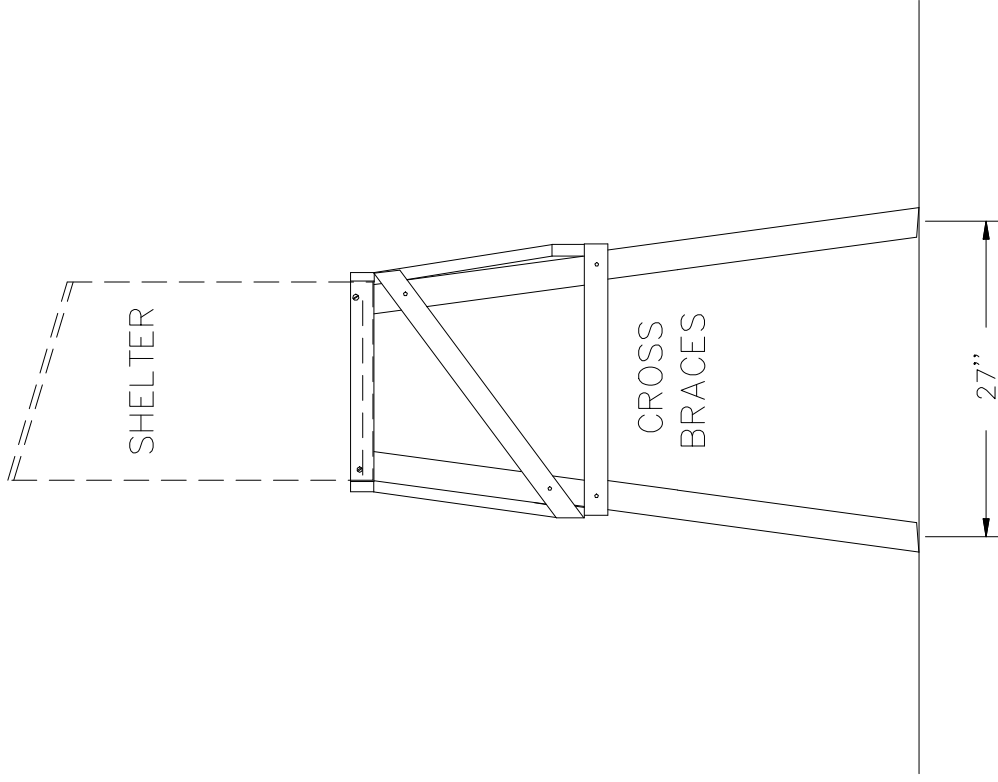


		SHEET 1 OF 1	
TITLE ASSEMBLY, LARGE SHELTER MODEL 380-605			
BY RGN	SCALE NONE	DWG. NO. 940805	DATE 8-3-94

SHELTER SHOWN WITHOUT LEGS



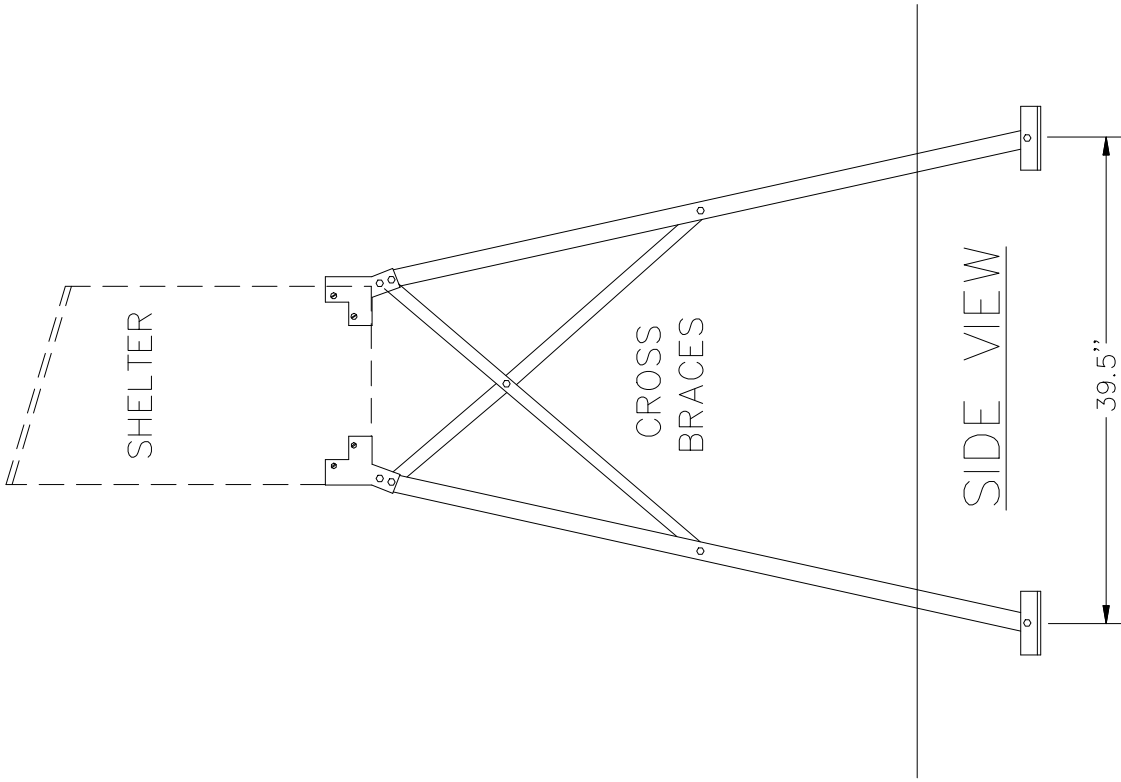
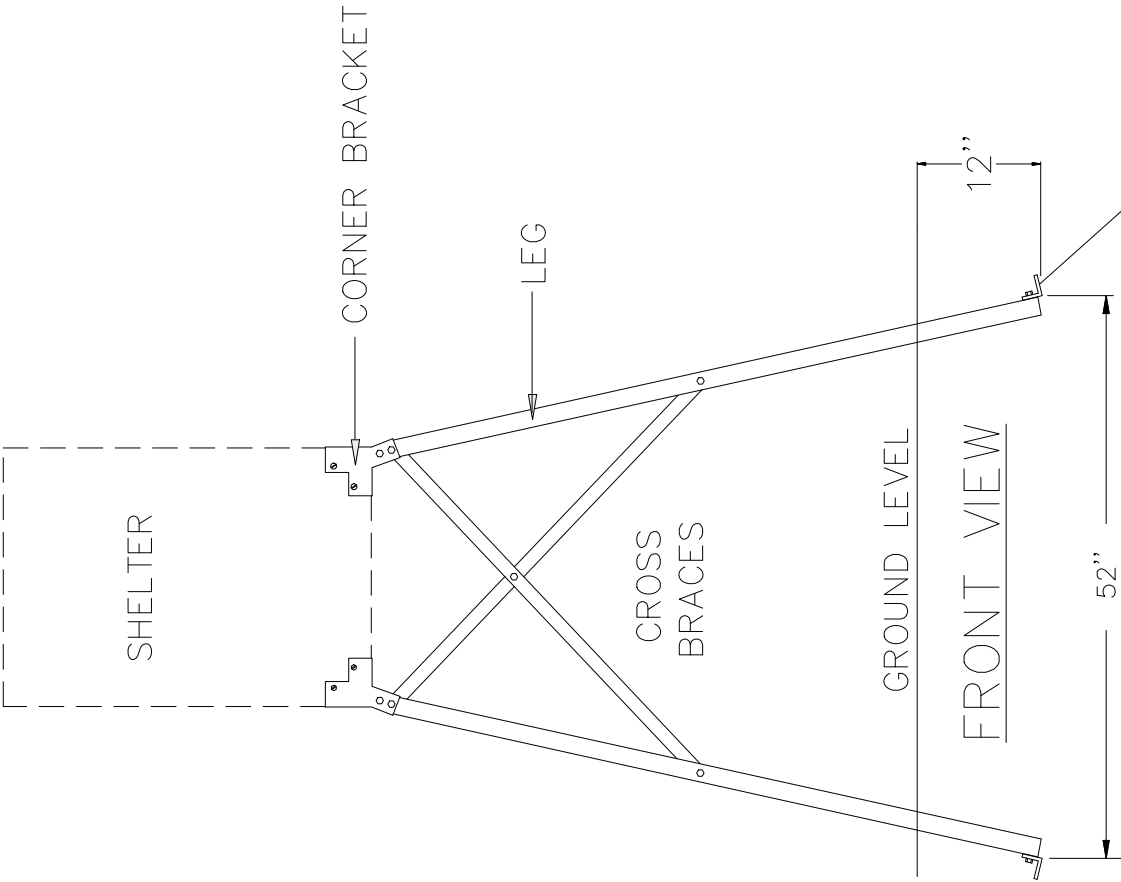
FRONT VIEW



SIDE VIEW

WOODEN LEGS ASSEMBLY

		C	
TITLE ASSEMBLY, WOODEN LEGS MODEL 380-608			
MODEL USAGE	380-606	SHEET 1	OF 1
BY	RGN	SCALE	DWG. NO.
DATE	8-3-94	NONE	940804



FOOT BRACKET
(CONCRETE ANCHOR)

METAL LEGS ASSEMBLY

		C	
TITLE ASSEMBLY, METAL LEGS MODEL 380-609			
MODEL USAGE 380-607	RGN	SCALE NONE	SHEET 1 OF 1
DATE 8-3-94	DWG. NO. 940803		