

Measurement and Design Guide

Bonus #1

Measurement and Design Guide

This guide is written as a supplement to the Wall Mounted Model Train Layout Plan. It is meant to give you some helpful measurement formulas and design tips to make your layout project easier and more enjoyable. We hope you find this guide helpful. Enjoy your layout and happy model railroading!

Formula to calculate board length

This formula will help you determine what lengths of board to purchase for the straight pieces that run between the corner pieces of your layout. An extra inch is added to allow for waste and fit.

Wall length – corner pieces + 1 inch

Example: Wall length = 124 inches

124 inches – 24 inches = 100 inches board length + 1 inch for waste = total 101 inches

Convert to feet: 101 inches / 12 inches = 8 feet 5 inches

Use this formula on each wall to get the total board length for the room.

Formula to calculate number of wall brackets needed for the project

The steps below can help you with calculating the total amount of wall brackets you may need for your job. This formula is designed for a rectangular shaped room without openings such as hallways or odd shaped walls.

Step #1

1. You will need 6 brackets per corner.
2. 6 brackets X 4 corners = 24 brackets.

Step #2

1. Your long wall length – 48 inches = length of wall that needs brackets.
My long wall length was 171in. – 48in. =123in. of length that needs brackets
2. 123in. divided by 48in. = 2.56 Brackets.
(I like installing brackets approximately every 48in.)
3. Round up 2.56 Brackets to 3 wall brackets total needed for one my long wall.

Step #3

1. Your short wall length – 48 inches = length of wall that needs brackets.
My short wall length was 136in. – 48in. =88in. of length that needs brackets

2. 88in. divided by 48in. = 1.83 Brackets
(I like installing brackets approximately every 48in.)
3. Round up 1.83 to 2 brackets total needed for short wall.

Step #4

1. Add the total amount of wall brackets in Step#2 and Step#3 together = 5 brackets
2. Take the 5 Brackets X 2 (for the two additional walls) = 10 wall brackets.

Step #5

3. Take the amount of wall Brackets in Step #4 which is 10 add the amount of brackets in step #1 which is 24 = 34 brackets needed for this job.

The break down is.

24 brackets for all 4 corners.

3 brackets for 1st of the long wall to fill in between the corner brackets.

3 brackets for 2nd of the long wall to fill in between the corner brackets.

2 brackets for 1st of the short wall to fill in between the corner brackets.

2 brackets for 2nd of the short wall to fill in between the corner brackets.

Which gives you a total of 34 wall brackets needed for my layout.

If you bought brackets that need paint or want to change the color of your brackets, you should prime and paint these prior to installing them on the wall. Use spray enamel paint. Make sure brackets are dirt and oil free prior to painting. Scuff up the finish to allow paint to adhere better.

Painting Tip

This method will allow you to paint multiple boards on both faces, allowing them to dry at the same time without taking up a lot of space.

1. Cut two thin strips of scrap lumber to approximately one foot in length each.
2. Clamp both strips together and drill holes through both strips at approximately 2.5 inch intervals.
3. Unclamp strips and set to the side.
4. Paint one side of the first board. Stand the board on edge. Fasten strips to unpainted edges or ends of board with drywall screws.
5. Paint the other side of the board.
6. Paint one side of the next board. Stand the board on edge. Fasten the strips to the unpainted edges or ends of the board with drywall screws at the next set of holes, with the unpainted side facing out.
7. Paint the unpainted side of the board.
8. Repeat this process until all of your boards are painted.
9. Touch up edges and ends with paint.
10. After board have dried, unscrew boards, turn them over, and paint unpainted edges. Touch up surfaces that were under strips.

You can use this process for up to four boards. This process will allow you to paint and let dry four boards at one time in the space that is normally taken up by one board.

Transformer and Wiring Tips

This tip is useful if your train will be mounted in a child's room and you do not want it to change speeds frequently. Purchase a remote wall switch. These are available at your local hardware store. You can plug your transformer into this switch, then turn the power on and off with the remote control. If you want to change the speed your train runs at, you will still need to do this on the transformer.

Secure long and loose wires out of the way using plastic wire clamps from your local hardware store. This will make your project look nice and neat.

Finishing and Decorating Tips

Put decorative ceiling mounted track lighting up to shine on your layout.

At Christmas time, attach lights or garland to the bottom of your layout platform. Do not use long nails or screws to do this, as they will go through your platform boards into your track!

If you are not interested in scale modeling, you may utilize collectible items as a part of your layout, such as Christmas Village porcelain houses, small model cars and airplanes, and small dolls. These items do not match the scale of most model trains, but could join two hobbies into one.