



M.E.2 Cable Tray Installation Guide

Wiremaid Product's M.E.2 Wire Basket Cable Tray is easy to install and efficient way to provide cable management and protection for communication and power cabling. The cable tray straight and junction sections are easily joined together using installer friendly Splice Washers, or time saving Splice Connection Loops. Straight trays can be cut to shorter lengths using an off-set blade bolt cutter tool. Vertical and horizontal bends are easily made at the installation site by cutting and removing wires. It is suggested that a cable tray run be started at a Junction location, and extend outward.

Applications

Communications Closets

Data Centers

Stadiums, Theaters & Convention Centers

Schools & Universities

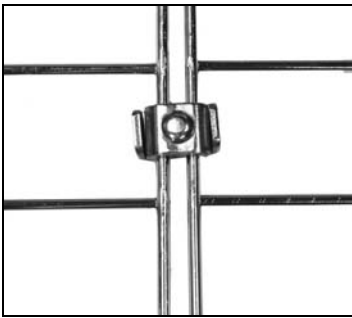
Medical Centers

Manufacturing Plants & Distribution Centers

Mines and Tunnels

Connection of Adjacent Tray Sections

Splice Washer Kit Installation Guide



Tray Bottom Splice Washer Shown

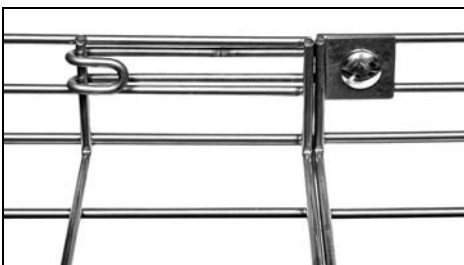
Position Splice Washers on the Tray Sides and Bottom As Shown

Position the Splice Washers on each tray side and bottom as shown with the 1/4-20 hex nut on the outside of the tray per recommended quantity shown in the Splice Washer Usage chart. Evenly space the Splice Washers along the tray bottom width.

Tray Splice Connection Loop Installation Guide

(Use Only For Tray Widths 12 in. or Less)

Splice Connection Loops are used to connect adjacent tray sections as time saving alternative to use of Splice Washers for cable trays 12 in. wide or less. Position one Splice Connect Loop on each side of the cable tray with hex nut on the outside of the tray as shown. Ensure that square washer fits inside of tray end wire. When the 5/16-18 carriage bolt and nut are securely tightened an electrical ground continuity is established between the adjacent tray sections.



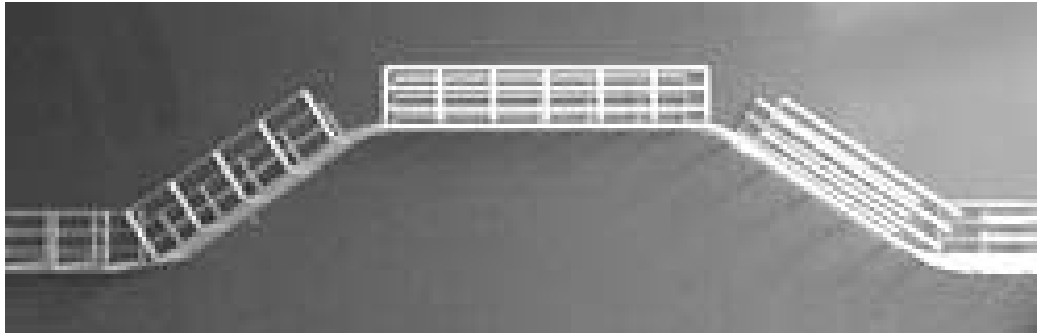


Guidelines for Cutting of Straight Tray Sections

When it is necessary to cut a tray sections to a shorter length on site, it is recommended to use a side action bolt cutter with off-set blades such as HK Porter Model #BC450. Cut the wire on an angle away from the new cut wire end to reduce cutting burrs. With the tray section placed with its open side down, cut each longitudinal wire at an approximately 45 degree angle as close as possible so that cut end does not extend past the new end cross wire. Remove any sharp burrs that might damage the cable insulation.

Elevation Changes

Elevation changes to create rises and drops to avoid obstacles in the routing of the M.E.2 trays can be easily accomplished at the installation site by cutting away all of the side wires from one grid section location where the desired bend is to be made as shown, and bend the straight tray to the desired radius. For more gradual bends, cut away alternate grid section side wires along the length of tray to be bent.



Horizontal Bends

Horizontal bends in tray routing can be accomplished by cutting out the side and bottom wires of alternating grid sections, while leaving the opposing side wires intact. Then bend the remaining side wires to the desired radius, and clamp together each remaining vertical cross wires with a Splice Washer.





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Grounding and Bonding

NEC Article 250 for power, and data communication applications requires cable trays to be grounded and bonded. It is recommended that a U.L. listed split bolt, such as a #2 connector, be used as a bonding jumper to connect a properly sized ground conductor to each tray section when required by code. Usage of either splice washer kits or connection loops to connect adjacent tray sections provides an electrical ground path connectivity.

Tray Mounting and Support Accessories

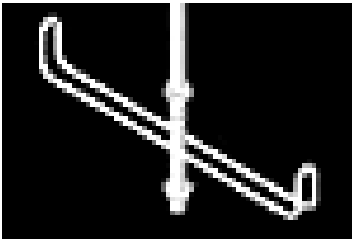
M.E.2 cable trays can be installed in buildings by multiple methods. It is recommended to position supports every 5 to 6 feet along the tray route, and within 2 feet of any splice connection. Secure tray sections to each support using one #05-2-500982 Hold Down Bracket and one CM72 5/16-18 x 1 1/4" carriage bolt and nut to be ordered separately.

**Hardware for securing of tray mounting supports brackets to the building structure is not included with the cable trays.*

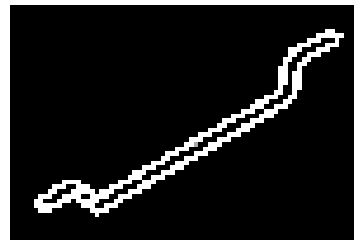
***Anchor to floor or wall using 3/8 inch bolt & washer. Anchor hardware not included.*

Overhead

Center and Trapeze supports are available when hanging the trays overhead using either a 3/8 inch or 1/4 inch diameter threaded rods which are to be supplied by the installer. At each overhead tray route turn or Junction, a Trapeze Support is recommended to be used, and also at the end of each tray run.



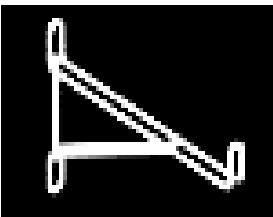
Center Support Kit CM50 or CM51



Trapeze Support Kit CM52 or CM53

Wall Mounted

The cable trays can be also mounted along the sides of walls using wall mount brackets.



Wall Support CM57

Raised Flooring

Applications for using M.E.2 cable tray under raised flooring are easily accomplished using free standing floor mount supports. The supports can be secured to the sub floor if necessary. Position the floor supports at 5 to 6 feet intervals under the M.E.2 cable tray sections. Secure tray sections to each floor support using one #05-2-500982 Hold Down Bracket and one #CM72 5/16-18 x 1 1/4" carriage bolt and nut.



Floor Support CM56

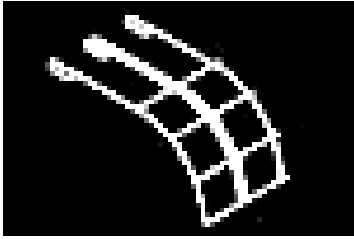


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Cable Drops

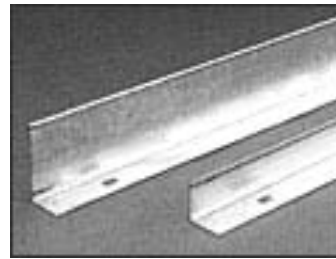
Routing of cable from the cable trays is accomplished with the usage of a 'Waterfall'. Waterfalls can be located either on the side or at the bottom of tray sections. Simply attach the steel wire waterfall by hooking its formed end wires over the wire on the tray location where the cable will exit.



Waterfall CM59

Dividers

Dividers are available for both 2 and 4 inch deep trays x 120 inches in length. Dividers provide an EMI barrier to separate power and communication cables in the same tray. Secure the divider to the tray section using two splice washer assemblies #05-2-500985, which include one 1/4 - 20 carriage bolt and nut and one splice washer to be mounted on the bottom of the tray opposite the divider. When using a divider with a Junction, cut the Divider strip to match the Junction length, and drill two 5/16 in. dia. holes in bottom flange for attachment to tray cross wires.



M.E.2 Cable Tray Weight, Load and Fill Chart

Tray Part No.	Dimensions D x W x L (In.)	Tray Weight (Lbs.)	*Max # of Cables @ 50% Fill Ratio	Load Capacity Over a 5 Ft. Span (Lbs./Ft.)	Load Capacity Over a 10 Ft. Span (Lbs./Ft.)
05-2-0627	2 x 6 x 84	6.94	130	27	14
05-2-0827	2 x 8 x 84	7.91	174	29	16
05-2-1227	2 x 12 x 84	9.85	260	34	19
05-2-1827	2 x 18 x 84	12.83	394	43	22
05-2-2427	2 x 24 x 84	15.74	527	52	23
05-2-06210	2 x 6 x 120	9.92	130	27	14
05-2-08210	2 x 8 x 120	11.12	174	29	16
05-2-12210	2 x 12 x 120	14.13	260	34	19
05-2-18210	2 x 18 x 120	18.33	394	43	22
05-2-24210	2 x 24 x 120	22.48	527	52	23
05-2-0647	4 x 6 x 84	7.59	253	35	17
05-2-0847	4 x 8 x 84	8.60	331	48	25
05-2-1247	4 x 12 x 84	10.57	496	52	28
05-2-1847	4 x 18 x 84	13.52	751	68	31
05-2-2447	4 x 24 x 84	16.41	998	69	36
05-2-06410	4 x 6 x 120	10.84	253	35	17
05-2-08410	4 x 8 x 120	12.28	331	48	25
05-2-12410	4 x 12 x 120	16.00	496	52	28
05-2-18410	4 x 18 x 120	19.31	751	68	31
05-2-24410	4 x 24 x 120	23.45	998	69	36

* Based on a 50% fill or 4 UTP Cat 6 cable (O.D. 21", @.033 lbs/ft.) as defined by NEC allowable fill. The total cable cross-sectional areas added together may not exceed 50% of the tray fill area (L x W x D).