**3M** Science.
Applied to Life.™

# 3M™ Clear Track Hallway Fiber Pathway for MDU Applications
## Installation Instructions

## Contents

## 1.0  System Overview

The 3M™ Clear Track Hallway Fiber Pathway is designed for installing a multi-fiber solution in Multi Dwelling Unit (MDU) hallways for use in FTTP (Fiber-to-the Premise) networks within brownfield or greenfield MDUs. The 3M Clear Track Hallway Fiber Pathway is a surface-mount, tape adhesive-backed pathway solution designed for indoor use only. Delivery of voice, data and video services to tenants using the 3M Clear Track Hallway Fiber Pathway offers a quick, reliable and aesthetically pleasing installation method.
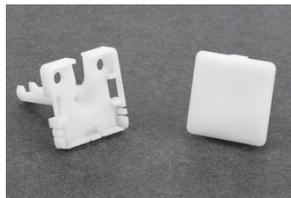
3M warranty for the Clear Track Hallway Fiber Pathway system is contingent upon:

- Installation completed by an appropriately trained installer
- Strict adherence to the instructions provided in this manual
- Product installation within 24 months of date of manufacture when stored between 40°F to 100°F (4°C to 38°C) and 0–95% relative humidity. The optimum storage conditions are 72°F (22°C) and 50% relative humidity.

3M's warranty does not extend to products that have been subjected to misuse, neglect, accident or improper installation/alteration.



3M™ Clear Track Fiber Pathway Point-of-Entry Wall Cover
80-6113-8214-6



3M™ Clear Track Micro Point-of-Entry Wall Cover
80-6114-9807-4



3M™ Clear Drop Cable Push-Tube
80-6114-8839-8



3M™ Clear Track Hallway Fiber Access Kit
80-6116-3506-3

## 2.0  Components and Accessories



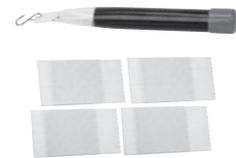3M™ Clear Track Hallway Fiber Pathway (track only) 125 ft spool
80-6116-2278-0



Scotch-Brite™ Easy Sweeper
XT005573271



3M™ Clear Track Fiber Pathway Installation Tool
80-6116-2308-5
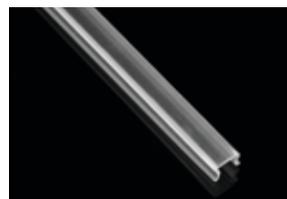
*Does not include test weight or strips*



3M™ Clear Track Wall Compatibility Test Kit
80-6116-2367-1



3M™ Clear Track 12-fiber Micro-module
80-6116-2279-8 (150'/45.7 m)
80-6116-2280-6 (300'/91.4 m)
80-6116-2281-4 (450'/137.1 m)
80-6116-2304-4 (600'/182.8 m)
80-6116-2305-1 (750'/228.6 m)
(unterminated)



3M™ Clear Track Hallway Small Point-of-Entry with Command™ Adhesive Strips (POE) Box
80-6116-2309-6



3M™ Clear Track Hallway Fiber Pathway Cover
80-6116-2307-7



3M™ Belt Clip Spool Holder
80-6116-2133-7

## 3.0 Installation Tools

3.1 Additional recommended tools (not included)



A. Drill
B. Splicer's Knife
C. Fiber Snips
D. ScotchBlue™ Painter's Tape
E. Level
F. Drill Bits — ⅜" (9.5 mm), ½" (13.0 mm)
G. Pen or pencil

## 4.0 Wall Surface Compatibility

The wall surface **MUST** be checked for compatibility with the tape adhesive-backed 3M™ Clear Track Hallway Fiber Pathway prior to installation.

This test must be conducted on the most challenging surface of the installation path (greasy, soiled, textured, etc.). All surfaces, if multiple, must be tested and all must pass.

*Note: The most challenging surface(s) tested must be wiped clean as you would normally when installing 3M Clear Track Hallway Fiber Pathway.*

**Incompatible surfaces include:**
- Highly textured walls
- Porous or unfinished/unpainted brick or concrete
- Fabric wall surfaces
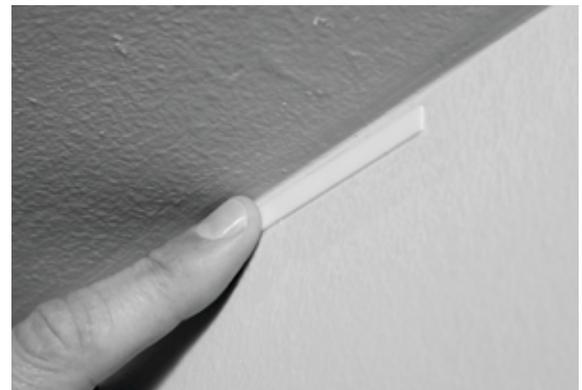- Surfaces with flaking/delaminating paint or wallpaper

*Note: The 3M Clear Track Hallway Fiber Pathway should not be installed on the incompatible surface types listed above.*

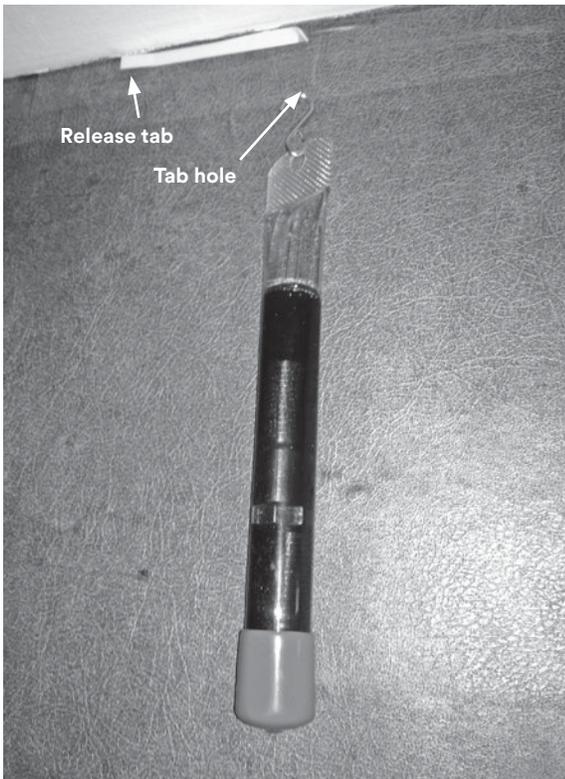**Wall Surface Compatibility Test Procedure**

4.1 Peel liner.



4.2 Press firmly onto wall. Pressing with fingers in tight spaces is acceptable.



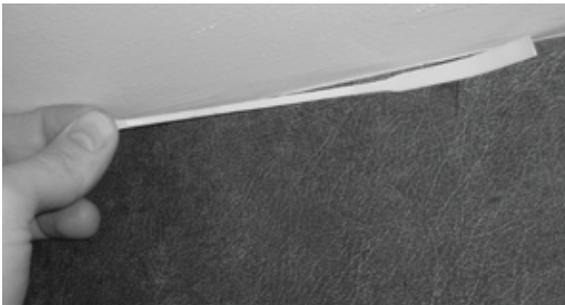4.3 Allow test strip to remain on wall for one minute.
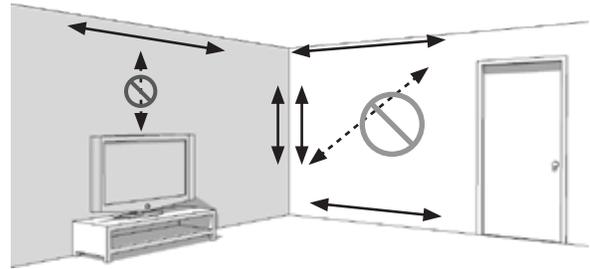
4.4    Hang weight from strip.



| Test Weight Hang Time | Result |
|---|---|
| > 60 seconds | PASS – Install |
| < 60 seconds | FAIL – Do not install |

4.5    Remove successful test strips by pulling on release tab.



## 5.0  Defining the Pathway Route



The path the track will follow MUST be clean and dry.

- When defining the pathway, consider the best possible location for the 3M™ Clear Track Hallway Fiber Pathway, taking into account route suitability, path obstruction and overall esthetic's desired.

- Clean all surfaces along the installation route with Scotch-Brite™ Easy Sweeper, or equivalent, prior to installation.

- Greasy, slick or soiled surfaces must be cleaned with isopropyl alcohol, or equivalent, along the installation path prior to installation.

- Recommended track and air temperature for installation is 40°F – 100°F (4°C – 38°C).

*Note: Carefully follow safety, health and environmental information given on the container label or the Safety Data Sheet for the isopropyl alcohol.*

- **The adhesive is permanent. Removing the track after installation may damage the installation surface.**

- Do not move or reposition the track once installed. If for some reason the track needs to be moved, add a new section of 3M Clear Track Hallway Fiber Pathway.

- The best location is near the ceiling, baseboards and interior corners. Avoid running track across open areas or diagonally across walls.

- Do not remove liner from track until applying to installation surface including when handling it while applying to wall surface.

- Do not contaminate adhesive with dirt or oils. Do not allow the adhesive to come into contact with anything except the installation surface as you remove the liner.

The 3M™ Clear Track Hallway Small Point of Entry (POE) Box and the 3M™ Surface-Mount Point-of-Entry Wall Cover assist in providing mechanical anchoring to the 3M™ Clear Track Hallway Fiber Pathway. Please use near the beginning and ends of the track run for additional support.
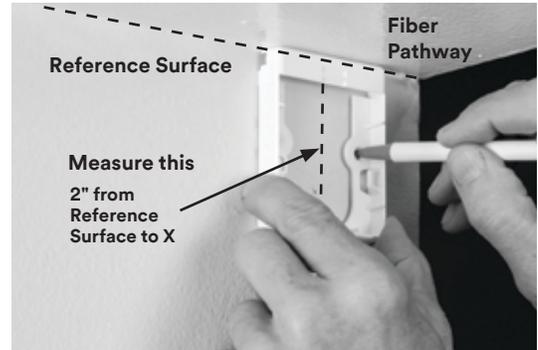
Avoid installing on or immediately above direct heat sources such as radiant heaters, steam pipes, stoves, etc.

Avoid installing in high humidity or water born environments. Area must be clean and dry at time of installation and minimum 72 hours following.

For best results, 3M recommends a curing time of 72 hours after installation of the 3M Clear Track Hallway Fiber Pathway before subjecting it to temperature extremes below 40°F – 100°F (4°C – 38°C).

## 6.0 3M™ Surface-Mount Point-of-Entry Wall Cover Preparation
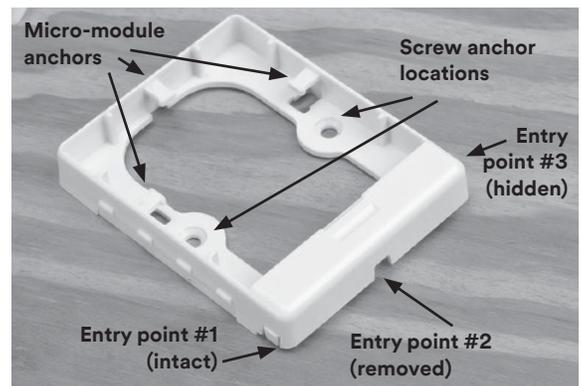
6.1    Remove cover and mark penetration location using base of surface-mount point-of-entry wall cover.



6.2    Drill 1" (25 mm) diameter hole at marked location.



6.3    Remove the tab at the entry point as needed. Entry point #2 is shown below as an example.

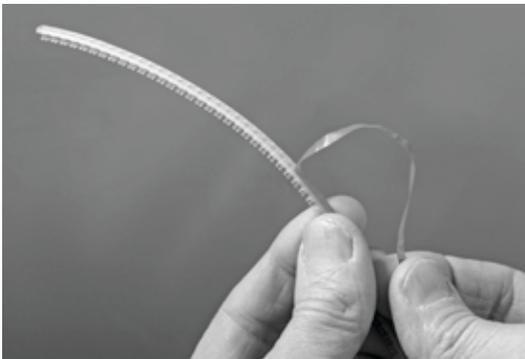## 7.0  3M™ Clear Track Hallway Fiber Pathway Installation

7.1   Put on the belt clip and the pathway track spool.



7.2   Make a small mark approximately ¹⁄₁₆" from reference surface (interior corner or edge) where the 3M Clear Track Hallway Fiber Pathway will begin to be adhered.



7.3   **HANDLING BY THE EDGES ONLY**, remove approximately 6" of the red liner and cover the ¹⁄₁₆" mark, with the bottom edge of the 3M Clear Track Hallway Fiber Pathway.



7.4   Use your finger or thumb to apply the first 6" of the 3M Clear Track Hallway Fiber Pathway, or until you can use the installation tool.



*Note: The installer should ensure sufficient pressure is used to activate the adhesive. Using a thumb or finger amounts to roughly 0.5 to 1 pound of pressure. In addition, 3M requires using the installation tool at all times where possible. If there is a region other than the beginning that is too tight for the installation tool to be used, the installer may use their thumb, finger or other tool with a smooth surface (e.g., the smooth side of a pen, etc. to protect your finger from abrasion) to apply firm pressure and slide along the top of the track. If the installer is pressing hard enough to deform the caps that grasp the fiber in the pathway, that portion of the pathway will need to be replaced.*

7.5   Continue using the installation tool, removing liner and applying 3M Clear Track Hallway Fiber Pathway until you reach the pathway destination.

7.6    Roll the 3M™ Clear Track Installation Tool around exterior corners.

*Note: Do not cut the track at an exterior corner point.*



1


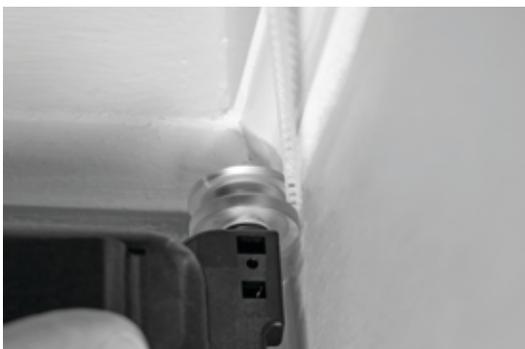
2



3

7.7    Roll the 3M Clear Track Installation Tool into and around interior corners.

*Note: The diameter of the installation tool wheel is the correct bend radius for interior corners. Do not cut the track at an interior corner point.*



7.8    Planar corners are built with the end of one 3M™ Clear Track Hallway Fiber Pathway meeting the side of the end of another 3M Clear Track Hallway Fiber Pathway. This is the only time there is a need to make a cut in the track during installation.

## 8.0 3M™ Clear Track 12-Fiber Micro-module Installation

8.1    Put on 3M Clear Track Fiber Pathway Belt Clip and 3M Clear Track 12-fiber Micro-module spool.



8.2    Remove and save the ziplok bag of shells from the pull eye prior to inserting through wall.

*Note: Install shells onto connectors prior to installing connectors into adapters.*



8.3    Insert 3M Clear Track 12-fiber Micro-module pull sock into the 3M Clear Track Clear Push Tube.



8.4    Push 3M Clear Track Clear Push Tube with Pull Sock through the wall securing enough fiber to allow for fiber termination and adequate slack storage.



*Note: Now, or after completion of the hallway you can attach 3M Clear Track 12-fiber Micro-module to wall of the telecom closet or equipment room using 3M Clear Track Hallway Fiber Pathway (as you would in the hallway) up to the fiber distribution unit.*

*Note: After connecting the SC adapters to the termination point, you can secure the 3M Clear Track 12-fiber Micro-module to the telecom closet wall.*

8.5    Insert (approx. 6") of 3M Clear Track 12-fiber Micro-module by hand into the pathway previously installed, then place the 3M Clear Track Installation Tool where the fiber insertion began by hand and continue fiber insertion by rolling down the existing pathway to install micro-module.
Note: colored fiber used to improve visibility.

8.6     Roll the 3M™ Clear Track Installation Tool around exterior corners to insert the micro-module.

*Note: Colored fiber used to improve visibility*



8.7     Roll the 3M™ Clear Track Installation Tool into and around interior corners to insert the Micromodule.



8.8     When inserting micro-module into planar corners use the tip of your index finger to create the bend radius.

*Note: Bend radius cannot be less than 5 mm.*





8.9     At each living unit, leave a slack loop of fiber per company practice.

*Note: Up to six feet of slack can be stored in the 3M™ Clear Track Hallway Small Point of Entry Box. Recommended slack loop is 36" (914 mm).*



8.10     Install cover.

## 9.0 3M™ Clear Track Hallway Small Point of Entry (POE) Box Installation

The 3M Clear Track Hallway Small Point of Entry (POE) Box enables fiber slack storage, provides access to the living unit and provides a test point without entering the customer living unit.

No tools are needed for installation.

**Items included:**
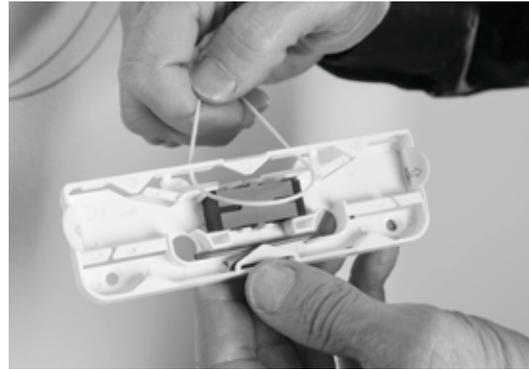Base, Lid, SC/APC adapter (installed), Command™ Strips (2) for mounting (installed), short section of straw for routing fiber

9.1    Confirm the location of the POE box  into the living unit and make any final adjustments to the slack loop as needed.

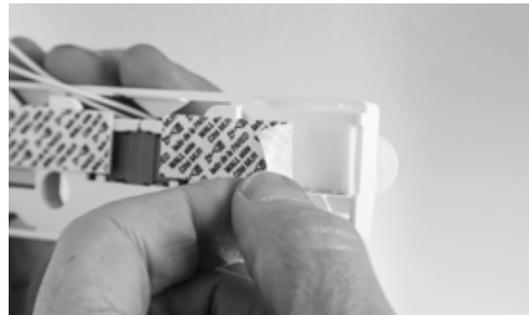*NOTE:  Reposition the slack loop as needed.*

9.2    Remove cover



9.3    Pass the slack loop of fiber through the back of the POE Box.



9.4    After passing the entire loop of slack through the opening, peel the liner from the Command™ Strips on the back of the POE box.
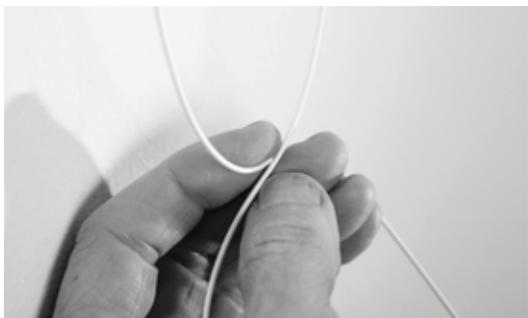


9.5    Center the exiting micro-module from both directions of the track within the center of the box. Align the box with the 3M™ Clear Track Hallway Fiber Pathway, placing it just below the track on the wall, as close to the track as possible.



9.6    Press POE box firmly into place.

9.7    If storing slack loop prior to accessing fibers, loop
       the fiber slack using a "Loop and Twist" method
       (as shown), and store in the 3M™ Clear Track
       Hallway Small Point of Entry (POE) Box.

**Note: If loop size does not fit easily into POE storage restart loop and twist method.**

9.8     Snap lid into place.



## 10.0  Access the fibers within the 3M™ Clear Track 12-fiber Micro-module.

10.1    Remove cover of 3M™ Clear Track Hallway Small Point of Entry Box and uncoil stored fiber.



10.2    Place fiber jacket slitter on flat surface such as the wall, with 3M™ Clear Track 12-fiber Micro-module underneath tool.
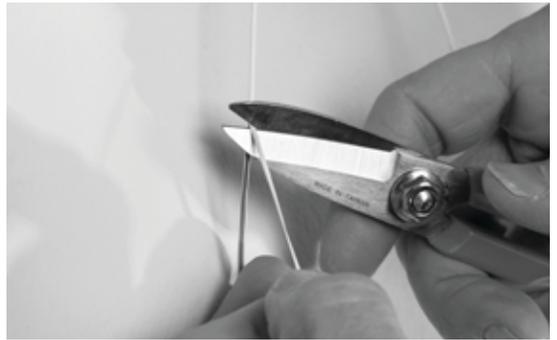


10.3    Using light pressure pull micro-module through the fiber jacket slitter to strip jacket.

**Note:  If tool snags, damages fibers, or will not pierce the micro-module, the tool should be replaced due to wear.**

**10.4    Trim jacket at ends**



**10.5    Cut correct fiber to install service.**

*Note:  Remember to check service loop orientation to cut the fiber on the correct side to utilize all of your slack; i.e., the end of the distribution side of your fiber will be on the same side as your feed direction.*
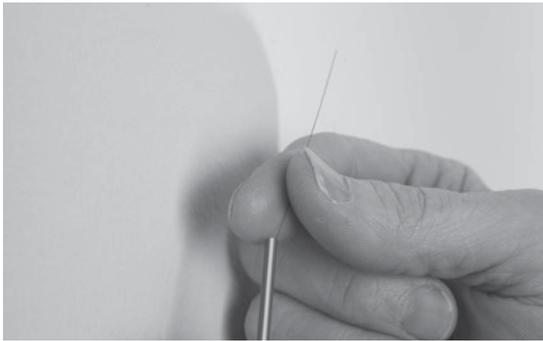
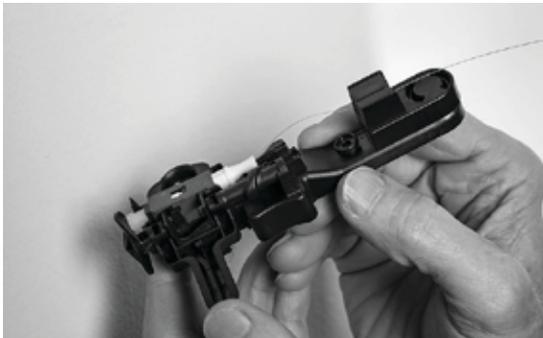10.6    Tape distribution fiber to wall with slack
        to protect it.



10.7    Loop the slack fibers using the "half-twist and
        double back" method, and store in the 3M™ Clear
        Track Hallway Small Point of Entry Box.

10.8    Remove distribution fiber from the wall and feed into straw.



10.9    Terminate the fiber with 3M™ Crimplok™+ Connector or 3M™ No Polish Connector (NPC).



10.10   Use short straw section to guide distribution fiber into and around slots in the fiber retention tabs.



10.11   Insert 3M Crimplok+ Connector or 3M No Polish Connector into fiber adapter.



10.12   Install cover.

## 11.0 Pull Sock Removal

*Note: Route 3M™ Clear Track 12-fiber Micro-module into FDT per company practice.*
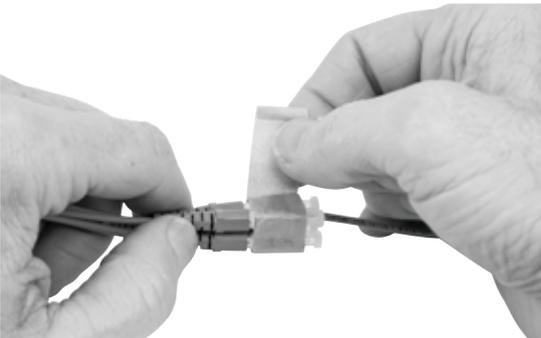
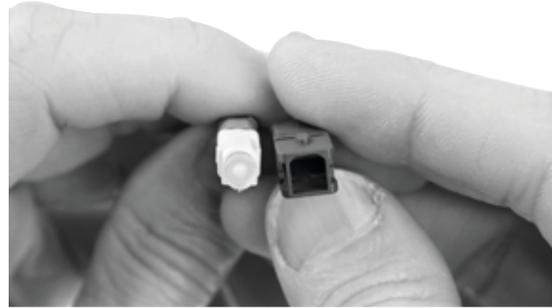11.1     Cut sock behind shrink tube.



11.2     Cut pull cord at other end next to heat shrink tube.
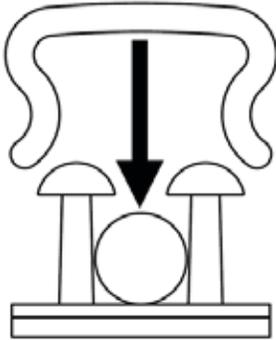


11.3     Remove tape from connector bundles.



11.4     Install shells onto SC/APC connectors matching the doghouse orientation of the SC/APC connector end.
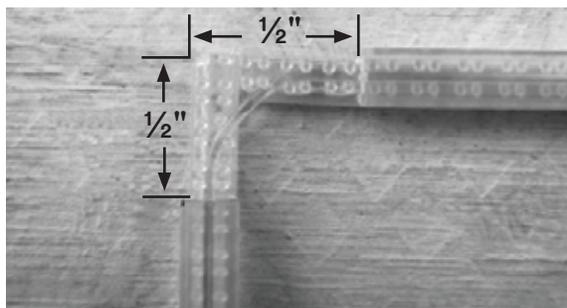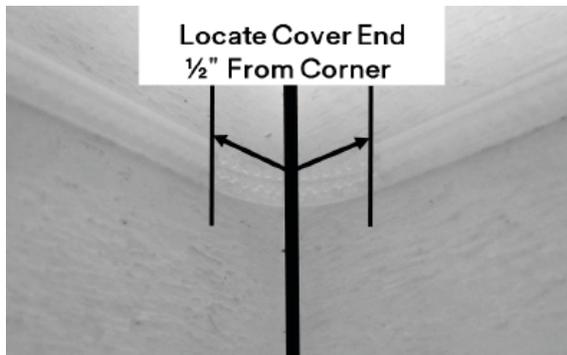
## 12.0  3M™ Clear Track Hallway Fiber Pathway Cover Installation

12.1    Align and press firmly to snap cover onto the 3M™ Clear Track Hallway Fiber Pathway. Cut covers with scissors or snips.



12.2    Leave a required ½" gap on internal and planar corners. No gap is required on outer corner.

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