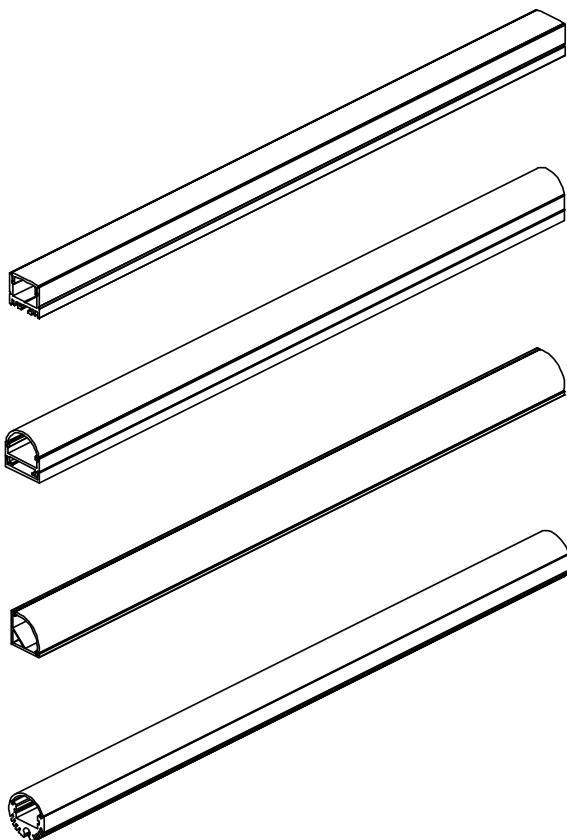


LITESTIX™

Ready-to-Assemble Aluminum Profiles



USER GUIDE

Congratulations on your purchase of LiteStix™!

About LiteStix

LiteStix are linear housings for the LiteRibbon® product line. They are made of extruded aluminum and include a white polycarbonate diffuser. At one meter long and with nineteen different profiles available, LiteStix formalize the installation of LED LiteRibbon. LiteStix are sold separately so you can choose the right LiteRibbon for your installation.

Installing LiteRibbon

When installing LiteRibbon, clean the surface of the LiteStix extrusion where the LiteRibbon will be applied. This ensures maximum adhesion of LiteRibbon. LiteGear™ recommends using denatured or isopropyl alcohol (included with LiteStix purchase).

Mounting LiteStix

There are multiple ways of mounting LiteStix. For a more permanent solution, LiteGear recommends screwing directly into your LiteStix and through the surface they are being mounted to; adding a countersink may be desired but is not always necessary. For a less permanent solution, LiteGear recommends using Velcro® or 3M™ VHB™ tape on the back of the LiteStix and/or on the surface they are being mounted to.

Cutting LiteStix

When cutting LiteStix, LiteGear recommends keeping the lens and extrusion together in most cases to ensure that everything fits properly after cutting. During the actual cutting process, wrap the lens and extrusion with paper tape at the point of the cut; this helps to keep the lens and extrusion together. To perform the cut, use a chop saw or miter saw with a sharp, fine-tooth blade, cut slowly, deburr the edges if necessary, and do not forget to account for the thickness of the blade when making the cut.

Coupling Multiple Extrusions

Depending on the application, there may be any number of ways of coupling LiteStix extrusions. When needing to create a single, long LiteStix extrusion, LiteGear recommends adhering a thin piece of flat stock aluminum with 3M™ VHB™ tape (strong double-sided adhesive) to the back of all the LiteStix being coupled (*Figure 1*). In the case of LiteStix that do not lay flat, use a thin piece of flat stock aluminum inside the channel to bridge multiple extrusions; LiteGear recommends screwing the aluminum into the channel as opposed to using adhesive as the adhesive adds extra height in the channel, which may be undesirable (*Figure 2*). In many cases, though, simply laying the LiteStix end-to-end achieves the appearance of physically coupling LiteStix and is enough to get the job done.



When cutting LiteStix, make sure the saw blade is sharp, and move the blade slowly! Consider deburring the edges of the LiteStix after cutting, when necessary. When using power tools, always wear eye protection!

Safety

When installing LiteRibbon, ensure that all solder joints are neat and that nothing is shorting out. Consider adding some ATG tape, LiteGear's VHO tape, or other double-sided adhesive underneath the copper solder pads at either end of the LiteRibbon to help prevent the solder pads from making contact with the aluminum LiteStix extrusion.



Before applying the end caps, also consider adding a small piece of heatshrink over the solder joint where the input lead meets the LiteRibbon. This will help to insulate the exposed copper solder pads from making contact with the aluminum LiteStix in addition to providing some strain relief for the LiteRibbon inside the channel. Adding a zip tie or two on the wire just inside the end cap also helps to act as a strain relief.



Surface Preparation for 3M™ VHB™ Tape Application

The following information is from the 3M™ VHB™ technical bulletin. To obtain optimum adhesion, the bonding surfaces must be well unified, clean, and dry. Firm application pressure develops better adhesive contact and helps improve bond strength. After application, the bond strength will increase as the adhesive flows onto the surface. At room temperature, approximately 50% of the ultimate strength will be achieved after 20 minutes, 90% after 24 hours and 100% after 72 hours.

Figure 1
Coupling Multiple Flat Base Extrusions with 3M™ VHB™ Tape and Flat Stock Aluminum.

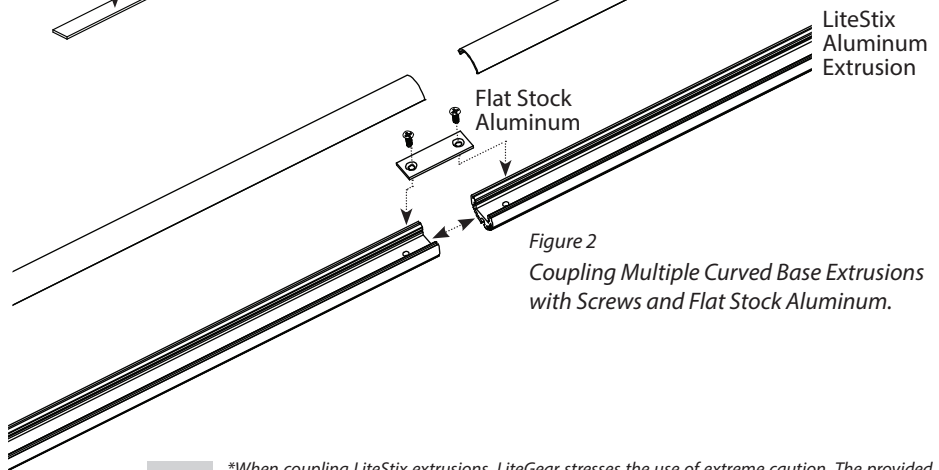
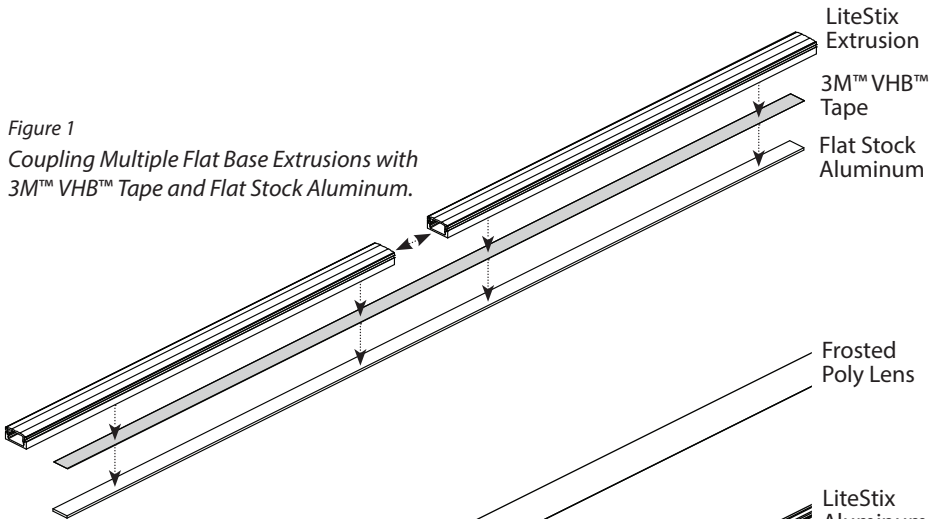
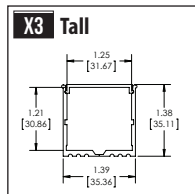
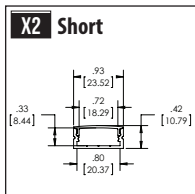
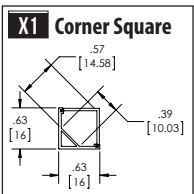
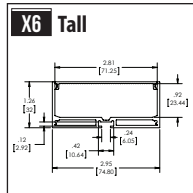
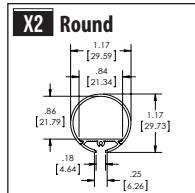
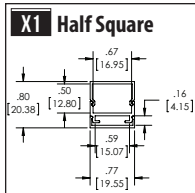
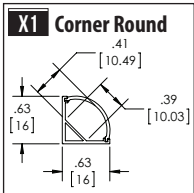
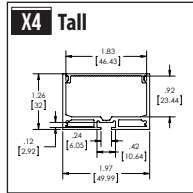
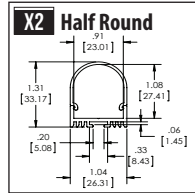
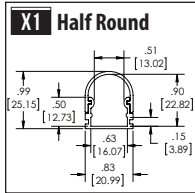
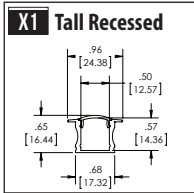
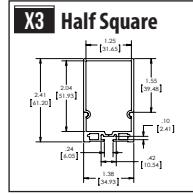
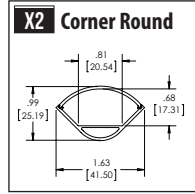
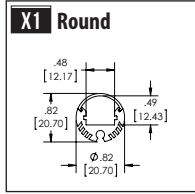
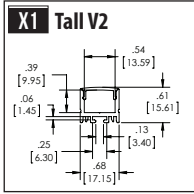
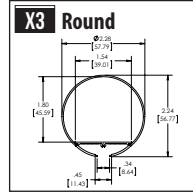
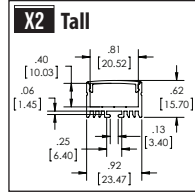
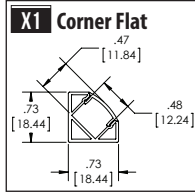
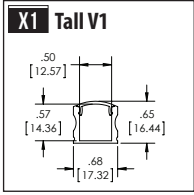


Figure 2
Coupling Multiple Curved Base Extrusions with Screws and Flat Stock Aluminum.



*When coupling LiteStix extrusions, LiteGear stresses the use of extreme caution. The provided examples of coupling are only two common ways of coupling extrusions out of many possibilities. Additionally, great care should be exercised when mounting coupled LiteStix. Especially when using flat stock aluminum, be aware of the propensity for the aluminum to bend.

Profiles and Dimensions of the LiteStix Family



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