



MOUNTING BASICS

In general, Velcro and clamps are the most inexpensive and versatile methods for securing devices. In most cases, Velcro and clamps require no tools or expertise to set up, making them the ideal option for busy teachers, parents, and therapists. We hope you find the following information helpful.

VELCRO

Velcro is a great way to attach two objects together without using nuts, bolts or clamps. Velcro is often used to mount a communicator or switch on a tabletop, wheelchair tray or mounting plate. There are two types of Velcro, standard nylon hook and loop Velcro and heavy duty “Duo-Lock” Velcro.

Standard Nylon Velcro

Standard nylon Velcro is suitable for light duty applications such as attaching a light switch to a flat surface. The hook side of Velcro feels coarse to the touch while the loop side feels soft. The small hooks catch on the small loops giving Velcro its bonding strength. Nylon Velcro has good shear strength, but it has low pull-off strength. In general, standard nylon Velcro is a more cost effective option than “Duo-Lock” Velcro for light duty applications.

Duo-Lock Velcro

“Duo-Lock” is suitable for applications where higher holding power is required such as mounting a communicator on a vertical surface. “Duo-Lock” or self-lock mushroom-head Velcro as it is sometimes known uses stronger mushroom shaped parts that interlock creating a stronger mechanical bond. “Duo-Lock” has very strong shear strength and it has greater pull-off strength than regular Velcro. Since “Duo-Lock” requires much more force to separate than standard Velcro, do not use it to attach small or delicate objects.

Tips for Using Velcro

When applying Velcro to a surface, it is important that the surface is clean and free from oil or waxy residue. Velcro sticks best to materials such as plastic or Formica that have a smooth non-porous surface. Velcro can stick to wood, but the bond will not be as strong. If you attach “Duo-Lock” Velcro to a painted surface such as a wall, the paint will sometimes come off because the strength of the adhesive exceeds the bond between the wall and the paint. Velcro achieves the greatest holding power when the mounting surfaces are flat. An uneven or round surface will drastically reduce holding power. Velcro is available in hook and loop strap form if you would like to hold onto a round surface.

“C” CLAMPS

Clamping is a good option when you are working with children or adults who tend to toss or move objects. “C” clamps are useful for holding a plate or object to a table or wheelchair tray.

Many of our products incorporate a small clamping area into the mold so that a clamp may be used directly on the product. See for example **Lighted Musical Tambourine (#896)**, **Five Function Activity Center (#510)**, the **Mini Dome (#72)**, and the **Learn and Dance Zoo (#3105)**.

When using a “C” clamp directly on one of our products, it is important that the clamp not be over-tightened. This can cause the plastic base to crack. A two or three inch “C” clamp is usually ideal for table clamping. A wheelchair tray may require a three inch clamp depending on the tray manufacturer.

A common practice is to mount a communicator or toy to a 1/8" or 1/4" plate using Velcro and then clamp the plate to a table top. The mounting plate can be made from plastic, wood or metal.

WALL MOUNTING

When mounting a communicator or busy box to a wall, there are some simple guidelines to follow that will make your job easier. Most walls are made of sheetrock with wooden 2" wide studs spaced 16" apart on center. A modern building may have metal studs behind the sheetrock to conform to the newer building codes. In either case, wall anchors are required to secure our products to a wall.

Basic Plastic Wall Anchors

Each of our wall mounted products comes with four plastic wall anchors and four metal screws. The first step in wall mounting is to hold your device in place where you want it on the wall, then mark the hole locations with a pencil. Once the hole locations are clearly marked, use a 1/8" drill to pre-drill the holes for the wall anchors. When drilling, do not go deeper than 1" into the wall to avoid accidentally drilling into an electrical line. The next step is to press the plastic wall anchor into the hole. You can do this by lightly tapping the back of the plastic anchor with a screwdriver handle until the anchor is flush with the wall. After installing the wall anchor, put your device in place, insert the screws, and tighten.

Zip-It Anchors

If the stock wall anchors back out of the wall, you may have to use a medium Zip-It type hollow wall anchor. You should be able to get Zip-It anchors from your local hardware store. This type of anchor does not need a pre-drilled hole, it simply screws into the sheetrock creating its own hole and locking securely in place.

Toggle Wing Anchor

If you are securing a very heavy device to the wall, you can also use a heavy duty Toggle Wing type of wall anchor. The Toggle Wing design will require you to drill a 3/8" hole, but it is the most secure way of mounting a device to the wall.