

–Velox Fiber System



Installation Techniques

Fiber installation requires a different approach than traditional copper based systems, in this installation manual we will examine the steps necessary to successfully install the Velox Fiber System.

Step 1: System Planning

Up front planning is much more important with fiber installations than with copper options. While the fiber cabling itself is reasonably robust the termination portion is a bit more fragile than the standard copper HDMI cable. Whenever possible during design process of your HDMI pathways spec in 2" conduit with wide radius turns, this is to allow the post construction installation of the Fiber. Spec'ing in a "Back Box" behind the display is also a very good idea, as this will give you room to coil the extra "service" length of fiber.

Step 2: Actual Installation

Here is where it really starts to get tricky, the fiber part of this equation is not that different from a low weight fishing line when it comes to tensile strength, however the termination portion is very fragile and must be handled with care. As mentioned above the best way to do this is through 2" conduit with wide turn radii and as few turns as possible. Listed below are the preferred ways of pulling the fiber. All of these processes assume that you are going through 2" conduit.

ALWAYS verify that the Fiber System Cable is being pulled in the correct operational manner (Do not put it in backwards).

1. Flat Wire Fish Tape: This is the best choice, the flat wire fish tape will spread the pull stress out over a wider surface area than any other process. Once you have fed the fish tape through the conduit overlap the tape and the Fiber cable by 8" use 4 separate wraps of standard 3M vinyl Electrical tape, one wrap on the terminal and the other 3 spaced out over the remaining Fiber portion to secure the cable to the Fish tape.
2. Round Fiberglass Fish Tape: This is still a good choice (and the most likely one) for the installer, care must be taken however when taping down the head shell due to the lower surface area of the tape. Once you have fed the fish tape through the conduit overlap the tape and the Fiber cable by 8" use 4 separate wraps of standard 3M vinyl Electrical tape, one wrap on the terminal and the other 3 spaced out over the remaining Fiber portion to secure the cable to the Fish tape.
3. Line or string: There is much less surface area for the tape to make contact with and spread to the pull torque. If you use this method it is advised that you wrap the line around the Fiber cable at a rate of 1 twist per inch, then use 4 separate wraps of standard 3M vinyl Electrical tape. Use one wrap on the terminal and the other 3 spaced out over the remaining Fiber portion to secure the cable to the Fish tape.

The reason for the 3M Electrical tape is due to its ease of removal after completion.

Notes: The bend Radius that you employ during the installation process is very important.

DO NOT EXCEED a bend radius of 10 MM.

DO NOT PULL Fiber around hard corners such as Trusses, Studs and Metal Plates.

Notes: Fiber pulling pressure, when you are pulling the Fiber Cable during the installation do not exceed 33 Lbs (15 Kgs) of pulling pressure.

Once you have done one of the above installation techniques it will be time to connect your Source and Display together. This is a very simple process with only a few steps involved.

Step 1: Without the USB Power Cable connected to the Velox Fiber Headshell, plug the Source Terminal into the Velox Fiber Dongle.

Step 2: Without the USB Power Cable connected to the Velox Fiber Headshell, plug the Sink Terminal into the Displays HDMI Input.

Step 3: At the Display side connect USB Cable to the Fiber Headshell and the USB Power Supply.

Step 4: At the Source side connect USB Cable to the Fiber Headshell and the USB Power Supply.

Step 5: Turn on your AV system and enjoy the Best signal quality currently available.

Step 6: If there is an issue with consistent picture sync, please install the Velox Fiber Dongle into the Display side HDMI port. This will resolve the vast majority of HDMI Fiber problems.

