Procedures for Installing New Guide Ferrules on Fiber Optic Guide Fibers

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Last modified on 2001-11-09 at 23:09:36

The proper method to install new guide ferrules (collars) on to existing guide fibers.

Cautionary Notes

Equipment Involved in this Procedure

Procedure

CAUTIONARY NOTES

You must be properly trained to accomplishing this procedure.

THIS PROCEDURE CAN BE ACCOMPLISHED BY ONE OR TWO PEOPLE.

VENTILATE TO INSURE LEVELS BELOW 500 PPM.

Three chemicals are used: Isopropanol, Loctite #680,, and acetone. Review all MSDS for any chemicals.

NEEDLES ARE USED IN THIS PROCEDURE. BE FAMILIAR WITH SAFETY PRACTICES AND USE CAUTION.

KEEP ANY TYP0E OF FLAME OR HEAT AWAY FROM THIS PROCEDURE.

Application of glue should be done with extreme care; do not allow contact with skin.

SAFETY WEAR: gloves, goggles

EQUIPMENT INVOLVED IN THIS PROCEDURE

Gluing Station Components; <u>Location</u>: southeast corner of Support building; <u>Appearance</u>: wooden box with lid and gluing accessories.

Plate #325; <u>Location</u>: southwest corner of Support building; <u>Appearance</u>: same as standard plug plate with attached collars and shims.0

Guide Ferrule Collars; <u>Location</u>: plastic bag stored in tool box; <u>Appearance</u>: hexagon-shaped aluminum tube.

Wrench; Location: tool box; Appearance: 1/4"

Chemicals; <u>Location</u>: in Support building; <u>Appearance</u>: medium-size, non-drip, labeled squirt bottles

Wipes and Q-tips

PROCEDURE

Set up gluing station conponents: Loctite #680, syringe #23GP, and needle 013x5.orange. See instruction booklet for operation.



Take Plate #325 and attach to plug station, tightening down outer ring.



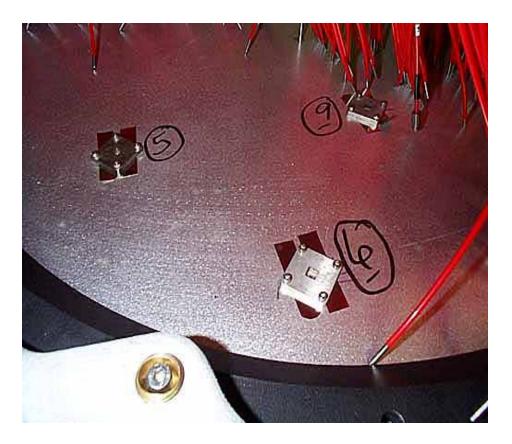
1. Clean all fiber optic guide ferrules with Isopropanol. Gude ferrule show in hand below.



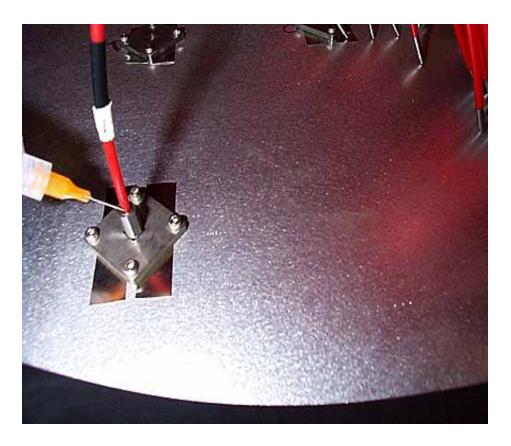
- 2. Clean all guide collars on plate with acetone. Disassemble the collar from the shims and clean inner and outer surfaces to remove any oils or dirt.
- 3. Clean all collar supports (shims) on the plate with Isopropanol.

Guide collars are marked to indicate which guide ferrule goes to which collart fixture.

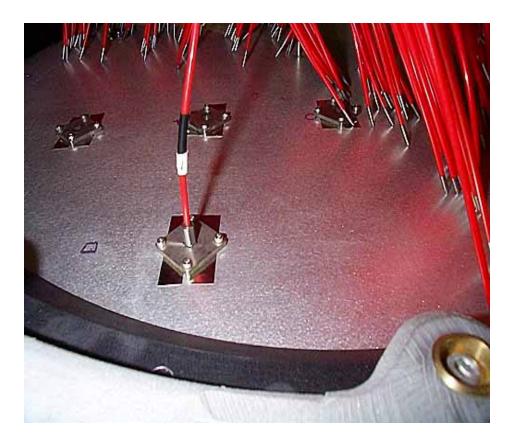
4. Install guide ferrule in guide collar. Make sure it slides in and out of guide collar without binding.



- 5. Be sure fiber optic guide fiber is oriented with natural curve pointing down. Push guide fiber half-way into guide collar.
- 6. Apply glue to top half of ferrule three small dots of glue is sufficient. Then push fiber and ferrule gently, but firmly, until it is flush with the underside of the plate. **IMPORTANT:** be certain that the ferrule and fiber are pushed all the way down. When applying glue, be care not to get any glue on guide fiber tip.



- 7. Clean guide fiber well with Isopropanol after each application is completed.
- 8. Tighten until snug the fiber ferrule with 1/4" wrench while it is in guide collar. DO NOT OVER TIGHTEN.



9. Repeat the above steps until all 11 guide fiber Ferrules are installed.

Allow to dry overnight before using for plate plugging.

Clean and replace covers to all gluing components, return to box, and put box in proper storage area. Return Plate #325 to storage.

END OF PROCEDURE