



Bulk System Materials

- QUAD-CURE[®] UV Resin
- Bulk KLTD8715 Fiberglass

EQUIPMENT CHECK LIST

- PipePatch UV Packer - size of pipe being repaired
- UV Packer Control Box
- PipePatch Push Rods
- UV PipePatch Air Regulator
- High Pressure Jetter
- Sewer Camera
- 110 V AC Power Supply
- Air Compressor
- Measuring Tape
- Wire Cutters
- Pull Cable
- Air Hose

INSTALLATION INSTRUCTIONS - *Read ALL Instructions Before Beginning!*

Step 1 Inspection & Preparation: Using a portable camera, visually inspect the pipe. Clean the pipe to remove roots and other debris. Inspect a second time to verify that the pipe is clear of debris and determine that the PipePatch is suitable for your specific application. On very smooth pipe, better patch adhesion is obtained by roughening the inner pipe wall at the point of repair before patch installation.

Step 2 Measuring: Working through the main, position the camera head in line with the area to be repaired. Once the camera head is centered at the point to be repaired, attach a piece of tape to the camera cable at the Point where it exits from the sewer pipe. This will serve as the distance to the center of the patch on the packer.

Step 3 Test your Equipment: Pre-inflate packer inside appropriate size pipe at 10 to 12 PSI. Inspect pressurized airlines for leaks. It is important to test the electrical systems of the UV Packer and its control box prior to patch installation. Note that the electrical line also serves as the packers rear pull cable, check cable to packer harness. **Protective eyewear must be worn when testing the packer's UV lighting system outside of a pipe.**

IMPORTANT: Tape all connections that do not have a locking mechanism to prevent accidental disconnection in the pipe.

Step 4 Prepare the Packer: The UV packer is designed to be reconfigured for multiple pipe I.D. Verify that the packer's metal end plates and wheel settings are correct for the diameter of pipe to be repaired. Sleeve the packer by first inserting it into the protective sleeve. With the packer centered in the sleeve, fold the edges of the sleeve around the packer. One sleeve edge being folded up and laid flat along the top of the packer while the opposite edge is folded down on the packer. Use the supplied electrical tape to secure the folded sleeve's ends to the packer. Start wrapping the electrical tape approximately 2 to 3 inches from the ends of the sleeve and continue to wrap past the ends of the sleeve and onto the packer. Once secured cut a small opening at both ends of the sleeve to allow trapped air between the packer and sleeve to escape.

Step 5 Perform a "Dry Run": Insert the packer without a patch, to the point to be repaired. This verifies that the packer can reach the damaged area. **DO NOT INFLATE!** Pull the packer back out using the pull cable.

Step 6 Recheck the Protective Sleeve: Once the packer has been removed from the pipe to be repaired, inspect the protective wrap for any rips or holes. If you find any damage to the sleeve, remove it and rewrap, repeat Step 4.

Step 7 Preparing the UV Patch: Put on both pairs of gloves. Layout plastic work surface in a well ventilated area away from direct sunlight or other UV light sources. Place the fiberglass patch on to the work surface . Using the supplied spatula, apply sufficient resin to thoroughly saturate the patch. Flip the fiberglass patch over and apply additional resin as needed to completely saturate the fiberglass. Measure the length and width of the outspread patch to verify which edge will be wrapped around the packer. Center the sleeved packer to the UV patch and tightly roll the wetted patch around the packer. Avoid trapping the edges of the patch under the folds in the packer sleeve during the wrapping process. Once the patch is fully wrapped around and centered on the packer, secure it to the packer using two bridged nylon zip-ties. The bridged nylon zip-ties should be located with one set at either end of the patch and a third at the mid-point on a 24-inch-long patch. When securing a 48-inch-long patch, additional zip-ties along the length of the patch are recommended. A light blocking material such as aluminum foil should be used to cover the patch during transfer to the manhole.

Step 8 Inflating the Packer: Remove the foil covering from the patch prior to insertion into the pipe. Connect the packer electrical cable with pull cable and push rod ensuring that all air connections are taped. Insert packer into the pipe and center the patch at the point in the pipe to be repaired. Use the regulator to slowly inflate the UV packer until it is making full contact with the inner wall of the pipe. Final inflate pressure can vary depending on conditions at the time of the installation, typically a required pressure of 10 to 12 psi. is needed. During inflation the nylon zip-ties will release allowing the wetted mat to be pressed against the inner surface of the pipe creating the repair.

Step 9 Ultra Violet Cure Time: The packer should be fully inflated for a minimum of 1 min. to allow the patch to conform to the interior surface of the pipe before activating the UV light system. Once set, using the, "UP", and ,"DOWN", arrow buttons, activate the UV lights with the, "ENTER START", button. **Always wear UV eye protection before looking at the illuminated UV packer.** Once activated the control box's timer will count down and turn off the light system when the programed time has elapsed.

Note: If the pipe is badly damaged then care must be taken when inflating the packer to avoid further damage to the pipe and possible packer failure. - Consult with Source One Environmental for any questions.

Step 10 Removing the Packer: With the UV packer's light system active, leave the packer in place under maintained pressure allowing the patch to cure, (10 Min.). Deflate UV packer and remove using the electrical line/pull cable harnessed to the packer. Inspect the point of the repair with the sewer camera.

*** Wheel rollers are recommended for all manholes to reduce the possibility of damaging coated cables.**

IMPORTANT NOTICE

- Installer must examine and determine whether the pipe is structurally sound for this product. Consult factory if necessary.
- If the damaged pipe is not cleaned of sharp edges the packer could be punctured.
- This is a tested and proven system, use ONLY Source 1 Environmental PipePatch UV System Components.
- 24/7 hazardous material information: Source 1 (Contract #MIS5484006)
1-800-255-3924
Noble Chemical # - (717) 291-9700



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