NETPEPPERS CFS-100 Optical Fusion Splicer User Guide

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Contents

Instructions

Turn on the splicer

- Press and hold the power button for at least two seconds.

Creating a splice mode

- Press the Main Menu button .
- Select the menu item splice mode .
- Select an empty slot and press to edit.
- Specify a fiber type by pressing Select AUTO if you want the device to set all parameters automatically.
- Press to return to the main menu.

Creating a heating mode

- Select heating mode from the main menu.
- Select one of the predefined modes which fits the length of your splice protection sleeve.
- Press to load the selected mode.
- Press to return to main menu, press again to switch to live view.

Preparing fibers

- Put on a shrink sleeve on to one of the fibers first.
- Prepare the fibers:
  - Use the Miller three-hole stripper (hole 1) to remove the outer cable jacket (2-3mm) to a length of at least 6 cm.
  - Cut the aramid fibers flush with the cable sheath.
  - Remove the secondary coating (900 µm) 3.5 cm with the Miller three-hole stripper (hole 2).
  - Use the Miller three-hole stripper (hole 3) to remove the primary coating (250 µm) on the exposed fiber piece.
- Clean the fiber with an alcohol-soaked, fusel-free cleaning cloth.
- Use the NetPeppers OFC-30 Cleaver to break the fiber so that at least 1.1 cm of fiber remains.

MAKE SURE THAT THE CLEAVED FIBER PIECE FALLS INTO THE RESIDUE CONTAINER OF THE OFC-30 CLEAVER TO AVOID INJURIES FROM EXPOSED FIBER PIECES!

- Repeat the above steps with fiber the second fiber.

Insert fibers

- Make sure that the fiber end faces do not come into contact with anything to avoid contamination!
- Open the protective cover above the splicing area on the device.
- Open the two universal fiber holders to the left and right of the illuminated electrodes.
- Insert the two fiber ends into the V-groove of the fiber holders. Make sure that the fibers are located between the V-grooves and the electrode tips (see picture on the right).

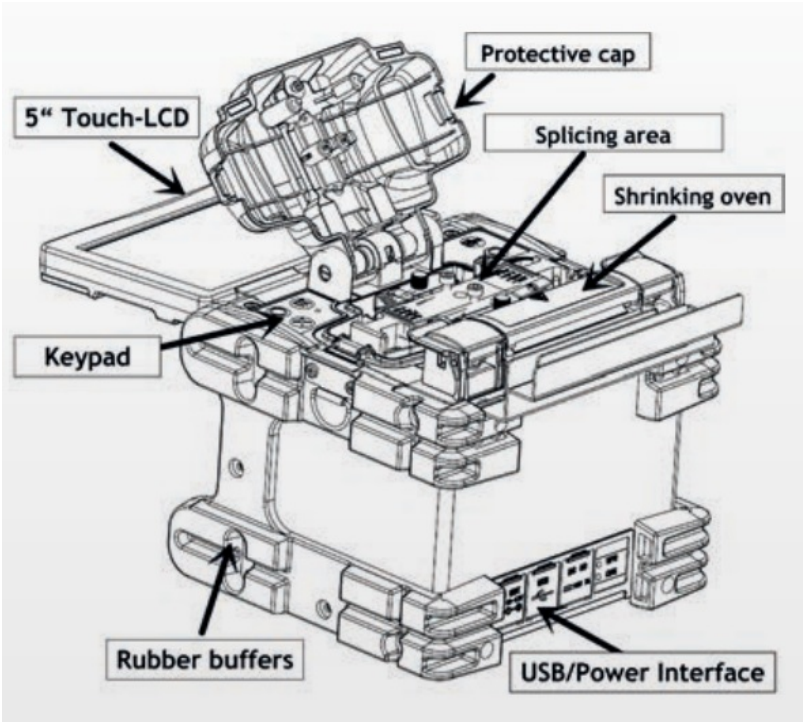
Splice fibers

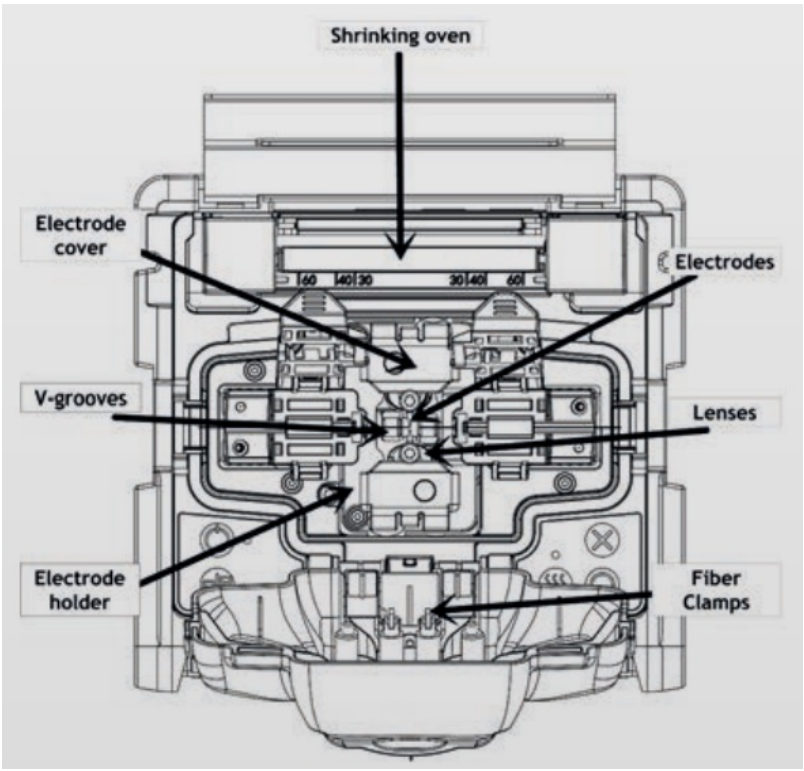
- Close the protective cover above the splicing area.
- Press to start the splicing process.

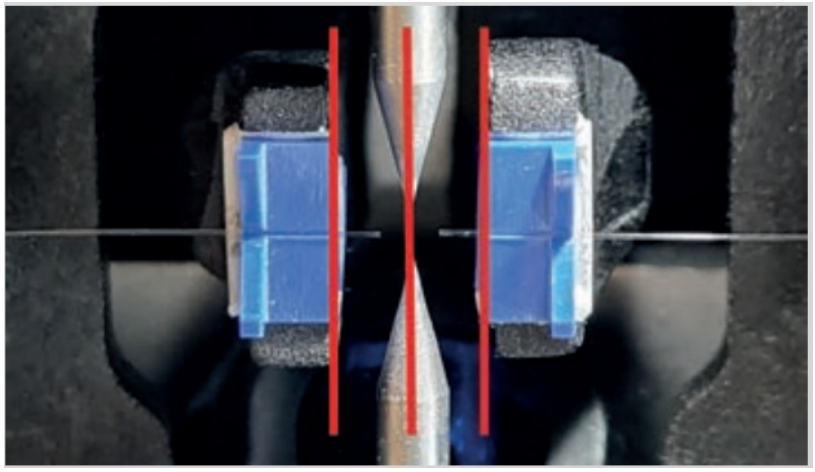
Shrink splice protection sleeve

- After splicing, open the protective cover and carefully open the fiber holders.
- Strip the shrink splice protection centrally over the exposed fiber.
- Insert the protective sleeve into the shrink furnace and press to start shrinking.

Overview







WARRANTY

NetPeppers GmbH guarantees for a period of 12 months from date of sale that the product, if used properly in accordance with the operating instructions is free of material and processing errors.

RECYCLING

 Do not place equipment and its accessories in the trash. Items must be properly disposed of in accordance with local regulations.

SPLICE ERRORS AND THEIR CAUSES

Splice	Phenomenon	Cause	Solution
	Axial offset of the fiber cor es	Dust or dirt on the V-groove or protective cover clamps	Cleaning of the V-groove and the protective cover c lamps

	Bending	Dust or dirt on the V-groove or protective cover clamps Irregular fracture pattern of the fiber end surfaces	Cleaning of the V-groove and the protective cover clamps Check the cleave quality of the fiber cleaver
	Core step displacement	Dust or dirt on the V-groove or protective cover clamps	Cleaning of the V-groove and the protective cover clamps
	Core Bending	Irregular fracture pattern of the fiber end surfaces Fiber types mismatch	Check the cleave quality of the fiber cleaver Increase the prefuse power and/or increase the prefuse time in selected splice mode
	Core fields do not match	Core fields do not match Fiber types mismatch Motor is not calibrated	Check that both fibers are of the same type Perform a motor calibration
	Dirt combustion	Irregular fracture pattern of the fiber end surfaces Insufficient fiber cleaning	Check the cleave quality of the fiber cleaver Clean the fiber thoroughly or increase the cleaning ARC ON time

	Blistering	Irregular fracture pattern o f the fiber end surfaces In sufficient arc power or spli cing time	Check the cleave quality o f the fiber cleaver Increase the prefuse pow er and/or increase the pre fuse time in selected splic e mode
	Separate fibers	Fiber overlap is too low E xcessive arc power	Increase fiber overlap in s elected splice mode Redu ce ARC power
	Thickened cladding	Fiber overlap is too large	Reduce fiber overlap and perform motor calibration
	Constricted cladding and core	Excessive arc power The fiber overlap is too low	Reduce the melting perfor mance, the pre-discharge time Increase fiber overla p
	Vertical	ARC power too low	Adjust [Prefuse power], [P refuse time], or [Fiber ove rlap

	Core artifacts	Insufficient ARC power or splicing time	Increase arc power or splicing time A slight shadow is normal, check splice loss

SPLICE NOTIFICATIONS

Message	Solution
Clean left fiber! Clear right fiber! Clear left&right fibers!	Clean the fiber(s) thoroughly and repeat the cleave process. Clean the V-grooves, the fiber holders of the protective cover and the lenses
Fiber push error!	Reinsert the fiber(s) and make sure that the fibers are in the V-grooves. Make sure that the fibers outside the device are not under tension
X Motor out of range! Y Motor out of range!	Reinsert the fiber(s) and make sure that the fibers are in the V-grooves. Perform a display calibration so that both fibers are fully displayed on the screen

Reset left fiber! Reset right fiber! Reset left&right fibers !	Reinsert the fiber(s) and make sure that the fibers are i n the V-grooves. Check the axis offset limit in your spli ce mode. Make sure that the fibers outside the device are not under tension.
Left fiber X/Y set error! Right fiber X/Y set error! Fiber X/Y set error!	Clean the fiber(s) thoroughly and repeat the cleave pro cess. Clean the V-slots, the fiber holders of the protective co ver and the lenses. Perform a motor calibration.
ARC center offset too large!	Perform an ARC calibration. Check the electrodes and replace them if necessary.
LENS offset too large!	Perform a „Screen adjust“ process to make the fibers f ully appear on the screen.
Please turn off the cover!	Close the protective cover. Check if something is prev enting the protective cover from closing completely. If t he message persists despite the cover being closed, p lease contact our support.
Please replace electrodes	Replace the electrodes and perform an “electrode stab ilization” in the maintenance menu.

Left fiber shape error! Right fiber shape error! L-R fiber s shape error!	Clean both fibers thoroughly and repeat the cleave pro cess. Clean the V-grooves and fiber holders of the spli ce protective cover. Check the cleave quality and, if ne cessary, turn the blade of the cleaver one notch further .
Left fiber angle error! Right fiber angle error! L-R fibers angle error!	Check the cleave quality and, if necessary, turn the bla de of the cleaver one notch further. Reduce the cleaning arc ON time.
Clear left v-groove Clear right v-groove	Clean the V-grooves. Clean the fiber(s) thoroughly and repeat the cleave process.

CUSTOMER SERVICE

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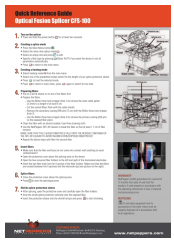
Documents / Resources

	NETPEPPERS CFS-100 Optical Fusion Splicer [pdf] User Guide CFS-100 Optical Fusion Splicer, CFS-100, Optical Fusion Splicer, Fusion Splicer, Splicer

References

- Netzwerk-Distributor | NetPeppers GmbH