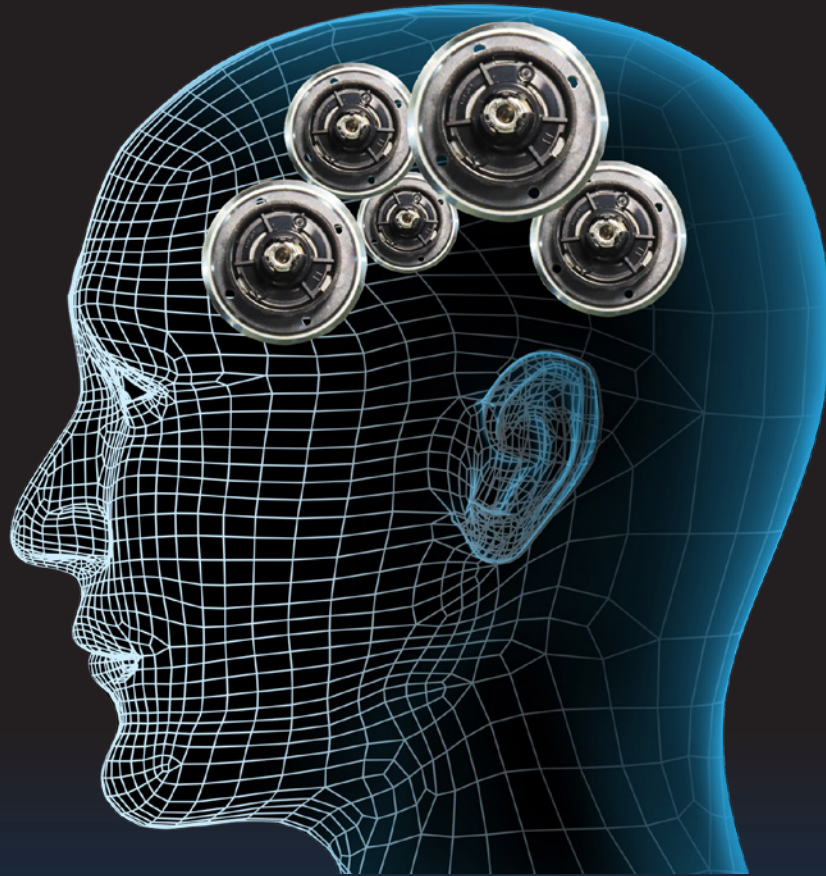


Active **Blade** Management Technology

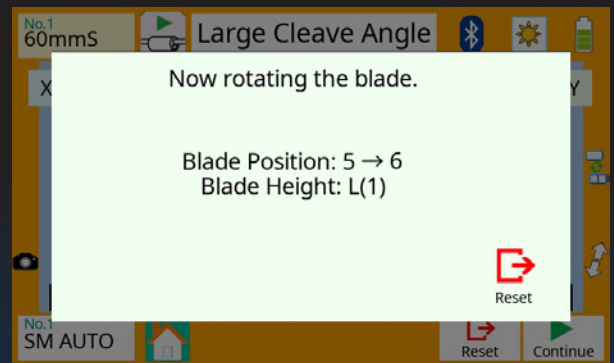
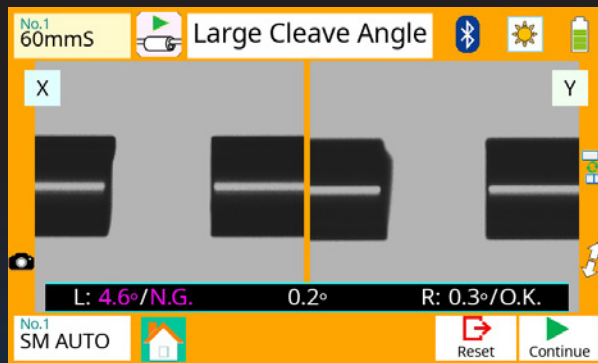


Cladding Alignment Splicer Kit
41S and CT50

Active Blade Management Technology

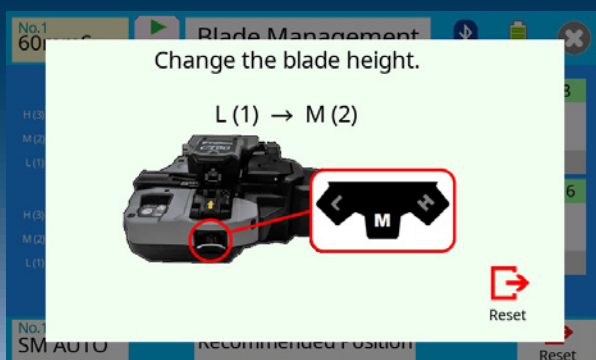
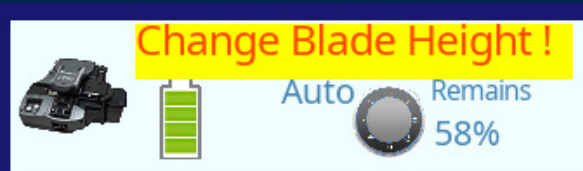
1. Automatic Blade Rotation

The 41S fusion splicer and CT50 fiber cleaver have wireless data connectivity. This capability allows automatic cleaver blade rotation when the splicer judges the blade is worn.



2. Blade Life Management

The 41S fusion splicer indicates the remaining blade life and also informs the user when a blade height change is required.



The screenshot shows the 'Blade Management' screen. It displays a table of blade life data for 16 blades. The current blade height is 'L(1)' and the recommended position is highlighted in green.

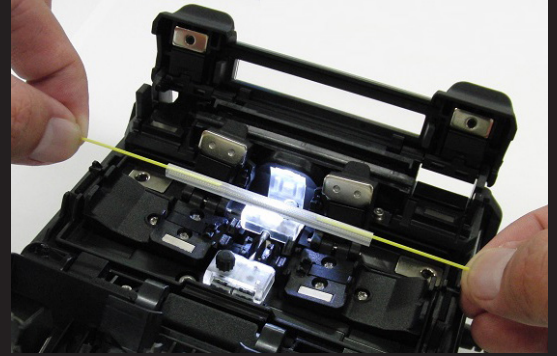
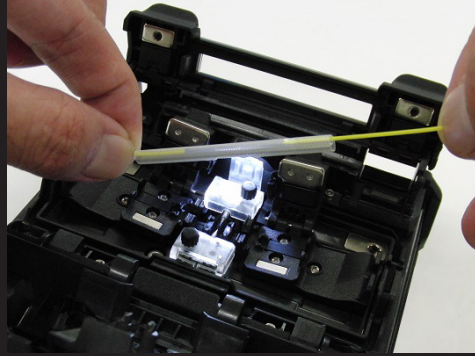
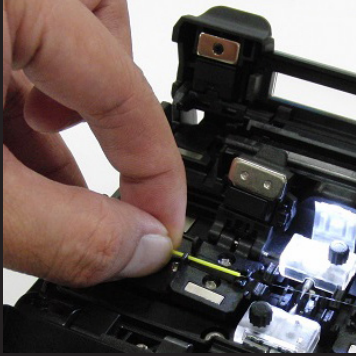
| | No.1 | No.2 | No.3 | No.4 | No.5 | No.6 | No.7 | No.8 |
|------|------|-------|-------|-------|-------|-------|-------|-------|
| H(3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| M(2) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| L(1) | 1014 | 1041 | 1175 | 1167 | 1522 | 1134 | 1530 | 1439 |
| | No.9 | No.10 | No.11 | No.12 | No.13 | No.14 | No.15 | No.16 |
| H(3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| M(2) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| L(1) | 1185 | 1218 | 1025 | 1407 | 1338 | 1484 | 1259 | 1060 |

Blade Height : L(1)
Recommended Position

Other Features

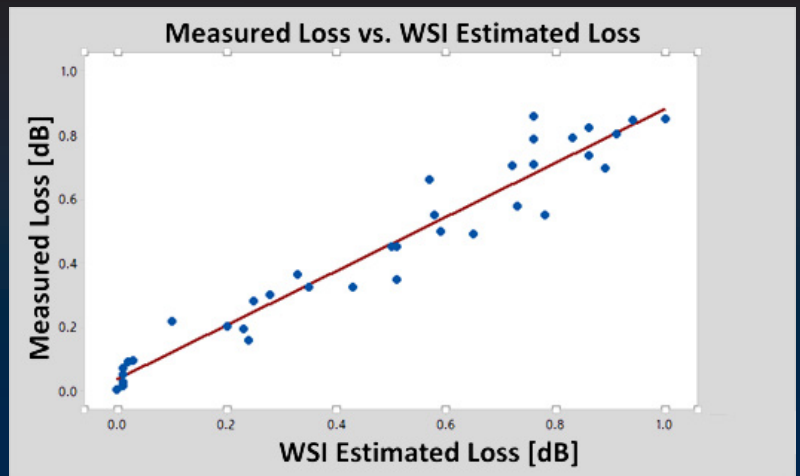
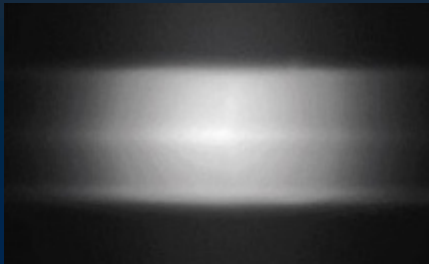
1. Easy Sleeve Positioning

The 41S fusion splicer has an easy position design for fiber protection sleeves. The sheath clamp outer edge is 30mm away from the splicing point. Gripping the fiber at the sheath clamp edge ensures the splice point is automatically centered when using 60mm sleeve.



2. Core Loss Estimate

The 41S fusion splicer analyzes the core dopant position when it's illuminated by the heating energy during a fusion splice.



3. Easy Maintenance

The CT50 fiber cleaver has a user replaceable blade and rubber clamps - there's no need to send the device to a service center for blade or clamp replacement.



User replaceable cleaver blade



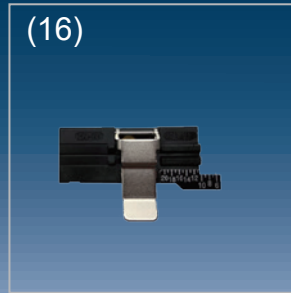
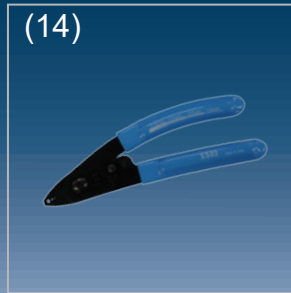
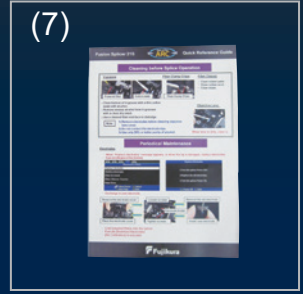
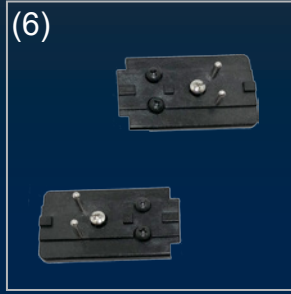
User replaceable rubber clamps

Standard Package



| Description | Model No. | Qty |
|----------------------------------|-----------|-------|
| (1) Fusion splicer | 41S | 1pc |
| (2) Battery pack* | BTR-11A | 1pc |
| (3) AC adapter | ADC-19A | 1pc |
| (4) AC power cord | ACC-XX | 1pc |
| (5) Spare electrodes | ELCT2-16B | 1pair |
| (6) Set plate | SP-01 | 1pc |
| (7) Quick reference guide | Q-41S-E | 1pc |
| (8) Carrying case | CC-36 | 1pc |
| (9) Work tray | | 1pc |
| (10) Strap | | 1pc |
| (11) Screw hole for tripod | 1/4-20UNC | 1pc |
| (12) USB cable | USB-01 | 1pc |
| (13) Alcohol pot | AP-02 | 1pc |
| (14) Single fiber stripper | SS03 | 1pc |
| (15) Fiber cleaver | CT50 | 1pc |
| (16) Fiber plate | AD-10-M24 | 1pc |
| (17) Fiber cleaver carrying case | CC-37 | 1pc |

*Installed inside main body



Specifications



41S Specifications

| Item | | Specifications |
|------------------------------|---------------------|--|
| Fiber alignment method | | Active cladding alignment |
| Fiber count can be spliced | | Single fiber |
| Applicable optical fiber | Fiber type | Single mode optical fiber Multi mode optical fiber |
| | Cladding dia. | Approx.125um |
| Applicable coating | Sheath clamp | Coating dia. : Max. 3000um |
| | | Cleave length : 5 to 16mm |
| Fiber splice performance | Splice loss*1 | ITU-T G.652 : Avg. 0.03dB |
| | | ITU-T G.651 : Avg. 0.01dB |
| | | ITU-T G.653 : Avg. 0.05dB |
| | | ITU-T G.655 : Avg. 0.05dB |
| | | ITU-T G.657 : Avg. 0.03dB |
| | Splicing time*2 | SM FAST mode : Avg. 6sec. AUTO mode : Avg. 9sec. |
| Applicable protection sleeve | Sleeve type | Heat shrinkable sleeve |
| | Sleeve length | Max. 66mm |
| | Sleeve dia. | Max. 6mm before shrinking |
| Sleeve heat performance | Heat time*3 | 60mm mode : Avg. 26sec. |
| Fiber tensile test force | | Approx. 2.0N |
| Electrode life*4 | | Approx. 5,000 splices |
| Physical description | Dimensions W | Approx.131mm without projection |
| | Dimensions D | Approx.201mm without projection |
| | Dimensions H | Approx.79mm without projection |
| | Weight | Approx. 1.3 kg including battery |
| Environmental condition | Temperature | Operate : -10 to 50 degreeC Storage : -40 to 80 degreeC |
| | | Humidity |
| | Altitude | |
| AC adaptor | Input | AC100 to 240V, 50/60Hz, Max. 1A |
| Battery pack | Type | Rechargeable Lithium Ion |
| | Output | Approx. DC14.4V, 3360mA |
| | Capacity *5 | Approx. 200 splice and heat cycles |
| | Temperature | Recharge : 0 to 40 degreeC Storage : -20 to 30 degreeC |
| | | Battery life *6 |
| Display | LCD monitor | TFT 5.0 inches with touch screen |
| | Magnification | 132 to 300x |
| Illumination | V-grooves | LED lamp |
| Interface | PC | USB2.0 MINI B type |
| | Wireless *7 | Bluetooth® 4.1 LE |
| Data storage | Splice mode | 100 splice modes |
| | Heat mode | 30 heat modes |
| | Splice result | 10,000 results |
| | Fiber image | 100 images |
| Screw hole for tripod | | 1/4-20UNC |
| Other features | Automatic functions | Fiber heat calibration |
| | Sheath clamp | Easy sleeve positioning |
| | Loss Estimate | Warm splice image estimation |
| | Electrode | Tool less replaceable electrode |

41S Options

| Item | Model Name | Remark |
|----------------|-------------|--|
| Fiber holder | FH-70-250 | 250um coating dia. |
| | FH-70-900 | 900um coating dia. |
| | FH-60-DC250 | 250um in drop wire cable |
| | FH-FC-20 | 900um in 2mm cable |
| | FH-FC-30 | 900um in 3mm cable |
| Sheath clamp | FH-60-LT900 | 900um loose buffer cable |
| | CLAMP-S31A | Normal clamp attached to 41S in standard package |
| | CLAMP-S31B | 900um loose buffer cable |
| Battery pack*8 | BTR-11A | Spare battery pack |
| Electrodes | ELCT2-16B | Spare electrodes |

Notes

- *1: Measured with a cut-back method relevant to ITU-T standard after splicing Fujikura identical fibers. The average splice loss changes depending on the environmental condition and fiber characteristics.
- *2: Measured at the room temperature. The average splice time changes depending on the environmental condition, fiber type and fiber characteristics.
- *3: Measured at the room temperature with the AC adapter. The average time changes depending on the environmental condition, sleeve type and battery pack condition.
- *4: The electrode life changes depending on the environmental condition, fiber type and splice modes.
- *5: The test condition was
 (1) Splice and heat time : 2 minutes cycle
 (2) Using the splicer power save settings
 (3) Using a not degraded battery pack
 (4) At the room temperature
 The number of cycles changes when the above conditions changes.
- *6: The battery capacity decreases to a half after approx. 500 recharge cycles. The battery life was shortened more by the out of storage temperature range, out of operating temperature range or complete discharge by storing a long time without recharge.
- *7: Bluetooth® mark and logos are the registered trademarks of Bluetooth SIG, Inc.
- *8: Please be ware the IATA regulation in case of shipping by air.

Specifications

SS01/03 specifications



| Item | SS01 | SS03 |
|----------------------------|------------------------|----------------|
| 1) Stripping coating dia. | 250um | 250um |
| Fiber dia. after stripping | 125um cladding | 125um cladding |
| 2) Stripping coating dia. | None | 900um |
| Fiber dia. after stripping | None | 250um coating |
| 3) Stripping coating dia. | None | 2000 to 3000um |
| Fiber dia. after stripping | None | 900um coating |
| Dimension | Approx. 164 x 45 x 5mm | |
| Weight | Approx. 100g | |

Fiber protection sleeve specifications



| Item | FP-03/FPS series | FP-04/05 series |
|-----------------------|-----------------------------------|-----------------|
| Outer tube material | Polyethylene | |
| Inner tube material | Ethylene-Vinyl Acetate | |
| Strength member | Stainless | Quartz glass |
| Heat shrink operation | Temperature: -10 to 50 degreeC | |
| | Humidity: 0 to 95% non-condensing | |
| Storage | Temperature: -40 to 60 degreeC | |
| | Humidity: 0 to 95% non-condensing | |

CT50 Specifications



| Item | Specifications | |
|-------------------------|----------------------------------|--|
| Applicable fiber | Fiber type | Single mode optical fiber Multi mode optical fiber |
| | Fiber count | Up to 12 fibers |
| | Cladding dia. | Approx. 125um |
| | Coating dia. | 160 to 900um |
| Cleave length | Fiber plate | AD-10-M24: 5 to 24mm AD-50: 10 to 20mm |
| | Fiber holder | Approx. 10mm |
| Cleave angle | Single fiber *1 | Avg. 0.3 to 0.9 degrees |
| | Fiber ribbon *1 | Avg. 0.3 to 1.2 degrees |
| Blade life *2 | Approx. 60,000 fibers | |
| Physical description | Dimension | Approx. W120 x D95 x H58mm when closing the lever |
| | Weight | Approx. 305g including battery and AD-10-M24 |
| Environmental condition | Temperature | Operate : -10 to 50 degreeC Storage : -40 to 80 degreeC |
| | Humidity | Operate : 0 to 95% non-condensing Storage : 0 to 95% non-condensing |
| Battery | 2 pieces of LR03/AAA dry battery | |
| Wireless interface *3 | Bluetooth® 4.1 LE | |
| Screw hole for tripod | 1/4-20UNC | |
| Other features | Blade rotation | Motorized rotation Manual rotation dial |
| | Consumable items | User blade replacement |
| | | User clamp and anvil replacement |

CT50 Options

| Item | Model Name | Remark |
|-----------------|--------------|-----------------------|
| Blade | CB-08 | Spare blade |
| Clamp and Anvil | ARM-CT50-01 | Spare clamp and anvil |
| Dust box | FDB-05 | Spare dust box |
| Side cover | SC-CT50-01 | |
| Fiber plate | AD-10-M24 | Coating 160 to 900um |
| | AD-50 | Coating 160 to 3000um |
| Fiber holder | FH-50 series | |
| | FH-60 series | |
| | FH-70 series | |

Notes

*1: The average cleave angle was measured with an interferometer, not with the splicer. And, a new blade was used to cleave both the single fiber and 12 fiber ribbon. The average cleave angle changes depending on the environmental condition, blade condition, operating method and cleanliness.

*2: The blade life changes depending on the environmental condition, operating method and the fiber type to be cleaved.

*3: Bluetooth® word mark and logos are the registered trademarks of Bluetooth SIG, Inc.



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