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Fujikura 90S





The 90S is a single fibre core alignment fusion splicer setting a new standard in the market for fusion splicing. The 90S is packed with a whole host of new and enhanced features specifically developed with the objective to enable the user to work faster with higher precision. Overall process time has been significantly improved against our previous model (70S+). This has been achieved with a combination of improvements to the reaction time of the automated wind protectors and automated heater, new fibre retention clamps, improved universal sheath clamps and a redesigned internal structure that matches the protection sleeve to the fusion splice point which enables splicing to be achieved without the need of the user to touch the 90S once the process has started.

FEATURES/BENEFITS

• Market leading high precision and accurate core alignment technology with advanced image processing technology

• Improved automatic wind protector design which reduces overall splice time but can also be used in manual style

- High capacity lithium-ion battery (up to 300 splices)
- Patented easy splice protector positioning system
- Universal sheath clamps for standard 250 um fibre but also 900 um loose tube fibre types.
- Fibre Retention clamps

• Enabled with Fujikura's unique "Active Blade Management Technology" with new capability to link up to 2 CT50 cleavers simultaneously.

- · A completely redesigned multi-function carry case and workstation
- Tool-less replaceable electrodes
- Touch screen

APPLICATIONS

- FTTx
- Telecom
- Data Centre
- Broadcast

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SPECIFICATIONS

| ITEM | SPECIFICATION | | |
|------------------------------|-----------------------------------|---|--|
| Fiber alignment method | | Active core alignment | |
| Fiber count can be spliced | | Single fiber | |
| | | Single mode optical fiber | |
| Applicable fiber | Fiber type | Multi mode optical fiber | |
| | Cladding dia. | 80 to 150µm | |
| | | Coating dia. : Max. 3,000µm | |
| Applicable coating | Sheath clamp | Cleave length : 5 to 16mm *1 | |
| | Splice loss *2 | ITU-T G.652 : Avg. 0.02dB | |
| | | ITU-T G.651 : Avg. 0.01dB | |
| | | ITU-T G.653 : Avg. 0.04dB | |
| Fiber splice performance | | ITU-T G.655 : Avg. 0.04dB | |
| | | ITU-T G.657 : Avg. 0.02dB | |
| | Calico timo *2 | SM FAST mode : Avg. 7 to 9sec. | |
| | Splice time *3 | AUTO mode : Avg. 14 to 16sec. | |
| | Sleeve type | Heat shrinkable sleeve | |
| Applicable protection sleeve | Sleeve length | Max. 66mm | |
| | Sleeve dia. | Max. 6.0mm before shrinking | |
| Cleave heat performance | Heat time *4 | 60mm slim mode : Avg. 9 to 10sec. | |
| Sleeve heat performance | Heat time *4 | 60mm mode : Avg. 13 to 15sec. | |
| Fib er tensile test force | | Approx. 2.0N | |
| Electrode life *5 | | Approx. 5,000 splices | |
| | Dimensions W | Approx.170mm without projection | |
| Physical description | Dimensions D | Approx.173mm without projection | |
| | Dimensions H | Approx.150mm without projection | |
| | Weight | Approx. 2.8kg including battery | |
| | Tomporaturo | Operate : -10 to 50 degreeC | |
| | Temperature | Storage : -40 to 80 degreeC | |
| Environmental condition | | Operate : 0 to 95%RH non-condensing | |
| | Humidity | Storage : 0 to 95%RH non-condensing | |
| | Altitude | Max. 5,000m | |
| AC adaptor | Input | AC100 to 240V, 50/60Hz, Max. 1.5A | |
| | Туре | Rechargeable Lithium Ion | |
| | Output | Approx. DC14.4V / 6,380mAh | |
| Battery pack | <u>Capacity *6</u> Temperature | Approx. 300 splice and heat cycles | |
| | | Recharge : 0 to 30 degreeC | |
| | | Storage : -20 to 30 degreeC | |
| | Battery life *7 | Approx. 500 recharge cycles | |
| Display | LCD monitor | TFT 5 inches with touch screen | |
| | Magnification | 200 to 320x | |
| Illumination | V-grooves | LED lamp | |
| | PC | USB2.0 Mini B type | |
| Interface | External LED lamp | USB2.0 A type Approx. DC5V, 500mA | |
| | Ribbon Stripper | Mini DIN 6pin DC12V, Max. 1A | |
| | Wireless *8 | Bluetooth 4.1 LE | |
| | Splice mode | 100 splice modes | |
| Data storage | Heat mode | 30 heat modes | |
| - | Splice result | 20,000 splices | |
| Carow halo far tripad | Splice image | 100 images 1/4-20UNC | |
| Screw hole for tripod | | | |
| | | Splice mode select by fiber type analysis | |
| | | Discharge power calibration | |
| | Automatic function | Wind protector : open/close sSheath clamp : open | |
| Other features | Automatic Tunction | · · · · | |
| Other features | | Heater lid : open/close | |
| | Deference quide | Heater clamp : open/close | |
| | Reference guide | Video and PDF file stored in splicer | |
| | Sheath clamp Electrode | Easy sleeve positioning clamp Replaceable without tool | |
| | Electione | | |

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Notes

*1: Cleave length range depending on fiber type

5 to 16mm : 125 μm cladding dia. / 250 μm coating dia.

10 to 16mm : 125 μ m cladding dia. / 400 or 900 μ m coating dia.

5 to 10mm : 80 μm cladding dia. / 160 μm coating dia.

*2: Measured with a cut-back method relevant to ITU-T and IEC standard after splicing Fujikura identical fibers. The average splice loss changes depending on the environmental condition and fiber characteristics.

*3: Measured at room temperature. The definition of splice time is from the fiber image appeared in LCD monitor to the estimated loss displayed. The average splice time changes depending on the environmental conditions, fiber type, and fiber characteristics.

*4: Measured at room temperature with the AC adapter. The heat time is defined from the start beep sound to the finish beep sound. The average heat time changes depending on the environmental conditions, sleeve type and battery pack condition.

*5: The electrode life changes depending on the environmental conditions, fiber type and splice modes. *6: Test condition

(1) Splice and heat time : 2 minutes cycle

(2) Using the splicer power save settings

(3) Using a not degraded battery

(4) At room temperature

The battery capacity changes when testing with different conditions from the above.

*7: The battery capacity decreases to a half after approx. 500 discharge and recharge cycles, The battery life is shortened further when using outside of the storage temperature range, operating temperature range, if completely discharged by storing for a long time without recharging.

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

*9: Please follow IATA regulation when shipping the battery by air.

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| ITEM | MODEL | REMARK |
|-------------------|-------------|--|
| Battery pack*9 | BTR-15 | Battery pack for replacement |
| Electrodes | ELCT2-16B | Electrodes for replacement |
| | FH-70-250 | 250μm coating diameter |
| | FH-70-900 | 900μm coating diameter |
| Fiber holder | FH-FC-20 | 900μm in 2mm diameter cable |
| | FH-FC-30 | 900μm in 3mm diameter cable |
| DC Adapter | DCA-03 | Connect AC adapter not through battery |
| | DCC-20 | Car cigar socket to BTR-15/DCA-03 |
| DC power cord | DCC-21 | Car battery to BTR-15/DCA-03 |
| Transfer Clamp | CLAMP-DC-12 | Transferring drop cable on work tray |
| | JP-10 | Attaching to splicer, not to work tray |
| J-Plate | JP-10-FC | JP-10 with fiber clamps |
| | FP-03 | 60mm Max. 900μm coating diameter |
| Protection sleeve | FP-03(L=40) | 40mm Max. 900μm coating diameter |
| | FP-03M | FP-03 with non-magnetic material |

| DESCRIPTION | MODEL NO. | QTY |
|-------------------------------|----------------------|-------|
| Core Alignment Fusion Splicer | 905 | 1pc |
| (1) Battery Pack* | BTR-15 | 1pc |
| (2) AC Adapter | ADC-20 | 1pc |
| (3) AC Power Cord | ACC-14, 15, 16 or 17 | 1pc |
| (4) USB Cable | USB-01 | 1pc |
| (5) Fusion Splicer Strap | ST-02 | 1pc |
| (6) Electrodes (spare) | ELCT2-16B | 1pair |
| (7) Fiber Holder Set Plate | SP-03 | 1pair |
| (8) Carrying Case | CC-39 | 1pc |
| (9) Work Tray Left | WT-09L | 1pc |
| (10) Work Tray Right | WT-09R | 1pc |
| (11) Work Tray J-Plate | JP-09 | 1pc |
| (12) Tripod Screw | TS-03 | 2pcs |
| (13) Carrying Case Strap | ST-03 | 1pc |
| (14) Alcohol Dispenser | AP-02 | 1pc |
| (15) Quick Reference Guide | QRG-02-E, C or J | 1pc |
| Single Fiber Stripper | SS03 or SS01 | 1pc |
| Optical Fiber Cleaver | CT50 | 1pc |
| (1) Fiber Scrap Collector | FDB-05 | 1pc |
| (2) Fiber Setting Plate | AD-10-M24 | 1pc |
| (3) Case (for Cleaver) | CC-37 | 1pc |
| (4) Hexagonal Wrench | HEX-01 | 1pc |

* Please follow IATA regulation when shipping the battery by air.



FURTHER INFORMATION

- For additional information please contact your sales representative
- To view the product 360 visit the product page (Scan the QR code or visit the link below)
 - Downloaded from https://www.fujikura-telecom.com/product/fujikura-90s
- Fujikura reserves the right to make changes in this datasheet at any time without notice
 - Information in this document is correct as of December 09, 2019

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