

## Installation Instructions for KD500 series (primary connector kit, filled with silicon grease) KD 500 - KD 500.6 primary connectors for screened (shielded) cable

### Important:

- A. Disconnect voltage supply and ground all circuits. FAA advisory circulars standards: latest AC150/5340-26 and AC150/5370-10. In case of non-compliance do not install.
- B. Check that all components are in the plastic bag as per figure 1A below.
- C. Check [www.efla.net](http://www.efla.net) for possible updates of installation instructions.

EFLA type (screened cable)	FAA L-823	Conductor size	Cable diameter
<b>KD500</b>	Style 3, style 10	6 mm <sup>2</sup> / AWG8 <sup>1)</sup>	10.0 – 14.5 mm
<b>KD500.1</b>	Style 3, style 10	6 mm <sup>2</sup> / AWG8 <sup>1)</sup>	14.0 – 18.5 mm
<b>KD500.3</b>	Style 3, style 10	6 mm <sup>2</sup> / AWG8 <sup>1)</sup>	18.0 – 22.0 mm
<b>KD500.6</b>	Style 3, style 10	6 mm <sup>2</sup> / AWG8 <sup>1)</sup>	8.5 – 11.5 mm
<b>KD500.2</b>	Style 3, style 10	10 mm <sup>2</sup> / AWG8 <sup>2)</sup>	14.0 – 18.5 mm
<b>KD500.4</b>	Style 3, style 10	10 mm <sup>2</sup> / AWG8 <sup>2)</sup>	18.0 – 22.0 mm
<b>KD500.5</b>	Style 3, style 10	10 mm <sup>2</sup> / AWG8 <sup>2)</sup>	10.0 – 14.5 mm

<sup>1)</sup> up to 19 strands

<sup>2)</sup> 16 mm<sup>2</sup> stranded

### Contents:

Silicon grease, installation instructions and the components labeled in figure 1A below.

1. Plug elastomer housing (male)
2. Receptacle elastomer housing (female)
3. Locking device
4. Socket
5. Guiding pin (plastic)
6. Metal pin
7. Screen conducting wire and ring (x2)
8. Screw type connector (6mm2)
9. Measure/Gauge
10. Measure to strip cable

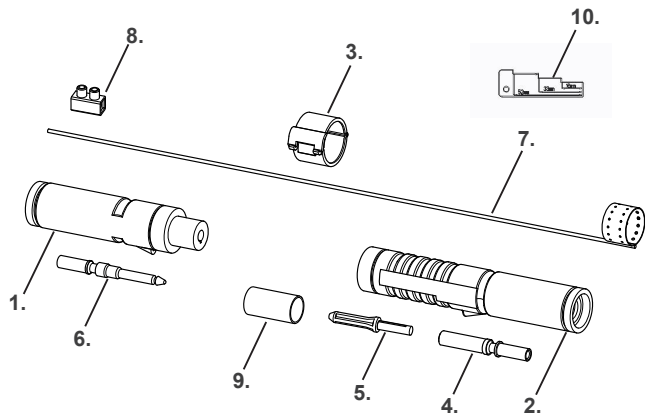


Figure 1A

### Step 1 - Preparing cable

Clean 20 cm of the cable end with aliphatic solvents, e.g. spirit or corresponding and let dry. Strip cable sheath according to pictures below or use measuring tool included in the package:

- Strip cable screen (shield) 33 (± 2) mm including optional semi-conducting layer. Make sure that no sharp edge of the screen defects the cable insulation
- Strip cable insulation 16 (± 2) mm.

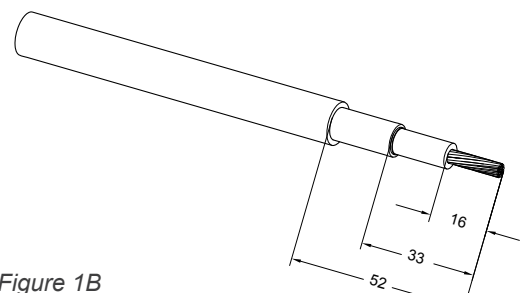


Figure 1B

**Liability for defects:** This product will perform within the recommended operational ratings when installed and operated in accordance with these instructions. EFLA Oy liability is limited to replacement of component parts designed and manufactured by EFLA Oy which are proved to be defective in design, workmanship or material. For further details see our conditions of sale downloadable at [www.efla.net](http://www.efla.net).

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## Step 2 - Screening

Place 1 screen conducting wire's ring around the cable shield area. Crimp it according to the stages shown at figure 2A.

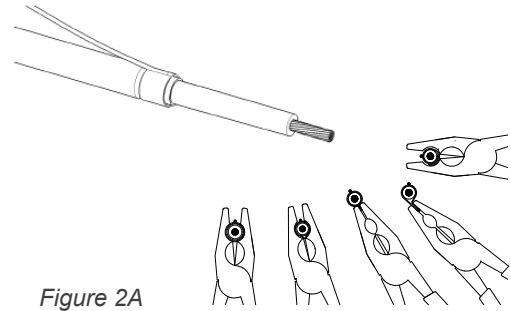


Figure 2A

## Step 3 - Crimping

Use tool e.g. Elpress 4099 and crimp the metal pin to the cable's core conductor with a proper crimping tool (listed below). Place assembled piece inside the plug elastomer housing and push the housing over the male pin and the cable so that the housing is positioned correctly. If the cable sticks in front of the elastomer housing, wrap electrical tape around the front edge of the sleeve of the screen continuity. Verify the nominal dimension 27 mm using the measuring tool, tolerance area 26,6 – 27,3 mm (see details at figure 2B).

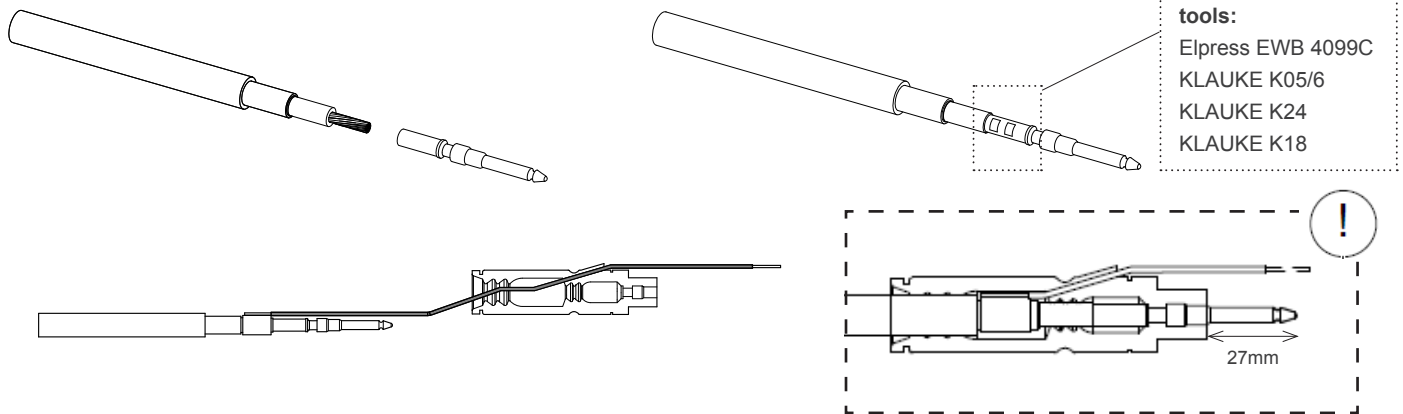


Figure 2B

## Step 4 - Assembling female connector

Repeat similar procedure of Steps 1 and 2 above for the other half of the cable. Afterwards, crimp the socket to the cable's core conductor (Step 3). Connect plastic guiding pin onto socket before placing assembled piece inside the receptacle elastomer housing. Socket shall be at same level as the bottom of the socket housing. Verify socket placement using the measuring tool (see details at figure 2C). Take plastic guiding pin away after assembling.

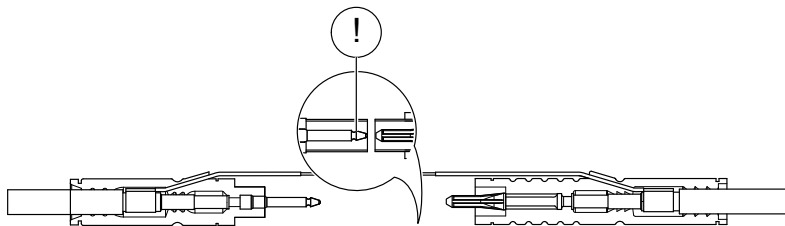


Figure 2C

## Step 5 - Crimping

Grease sealing surfaces of plug and receptacle lightly with silicone grease and clean off the contact surface (metal parts). Engage plug and receptacle and snub-on the plastic locking device over the connector to insure mechanical reliability of the joint. Connect the screen continuity wires together with included terminal block. Make sure that the joint will remain straight and cables do not bend it.

## Additional tape securing

After the connectors are plugged together and locking device installed make sure that the outer surface of connectors are clean and dry. Otherwise clean the outer surface of the connectors between male and female connectors min. 50 mm (2 inch) with aliphatic solvents (Spirit or equivalent). Wrap the joint where the connectors come together with at least one layer self-vulcanizing rubber tape (Scotch 23 or 130C) so that one half-lapped extends at least 30mm (1.2 inch) of each side of joint. Wrap at least one layer of PVC electrical tape (Scotch Super 33+ or equivalent) over the rubber tape.

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