



**CELLFLEX® Coaxial Cable
Connectors**

Installation Instruction

1000006016-04
LCF 158-50 Cables
OMNI FIT™ C02 Connectors

These instructions are written for qualified and experienced personnel. Please study them carefully before starting any work. Any liability or responsibility for the results of improper or unsafe installation practices is disclaimed. Please respect valid environmental regulations for assembly and waste disposal. Always make sure to use appropriate personal protection!

<p>SW 55 (2.3/16") Body Spring C-Ring SW 60 (2.3/8") 7-16 Interface Suitable for Poly Hook Spanner 60-90-5 Back-nut O-Ring Grease Sample picture of 716M-LCF158-C02 Instruction valid for complete C02 series</p>	<p>Measuring tool Tape Gloves Sealing material e.g. Tape, Sleeve etc.</p> <p>or</p> <p>Recommended with Straight line, smooth & fine-teeth saw 2 x PHS60-90-5</p> <p>Knife Brush Screwdriver Fine file</p> <p>min. 5mm (min 0,2") 55mm (2.3/16") 60mm (2.3/8")</p>	<p>Additionally recommended JSTRIP-158-2</p> <p>Optional Cutting Guide TRIM-CG-158 55 Nm (40.56 ft.-lb.) 60mm (2.3/8")</p>	<p>manual method</p>
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Safety precaution: Sharp blade => Protective gloves required !

1. Strip outer jacket: min. 50 mm (min. 2 in)

2. Strip shield: Cut off (on Top) max. two and a half pitches

3. Strip dielectric: 28.0 - 30.0 mm (1.10 - 1.18 in)

4. Strip center conductor: Top

5. Clean center conductor

6. Apply grease

7. Insert center conductor into body

8. Insert shield into body

9. Insert dielectric into body

10. Trim dielectric

11. Trim center conductor

12. Tighten back-nut

13. Tighten back-nut (continued)

14. Tighten back-nut (continued)

15. Tighten back-nut: ~ 55 Nm 40.56 ft.-lb.

16. Weatherproofing options

Additional weatherproofing must be used for Lite (Aluminium) cable types



Manual installation method with standard hand tools

Keep the cable end downwards in order to prevent particles from entering during preparation.

1. Straighten the cleaned cable front part in a length of min. 200mm (8"). Remove the jacket with a knife in the length as shown (it is recommended to use the stripping tool JSTRIP-158-2). Do not damage the outer conductor!
2. Cut off the cable on top of corrugation in a distance of max. two and a half pitches from the jacket. Make sure to cut in a right angle to cable axis!
3. Deburr inner and outer conductor both from in- and outside. Cut and remove the jacket in the distance as shown. Do not damage the outer conductor. Remove any particles.
4. Slide the O-Ring onto cable – position in the valley before jacket as shown. Wipe a light film of grease on the O-Ring.
5. Push back-nut onto cable and over the O-Ring until stop (first valley is free).
6. Put Spring C-Ring into first corrugation valley of the cable.
7. Push back-nut back to the front until stop - the Spring C-Ring is fully covered.
8. Keep pushing the back-nut to the front while running the tip of a screw driver (rounded edges) around the outer conductor to separate the foam and create an outer conductor flare. Flare diameter has to be evenly round and concentric to the cable axis.
9. The flared area (cone) has to be free of any dielectric material, if necessary bend the dielectric back to the centre.
10. Clean the cable end, remove any particles very carefully. Tip: tape can be used additionally to remove the finest particles.
11. Check the complete preparation. Careful preparation is the key for good VSWR and especially for PIM performance.
12. Wipe the back-nut O-Ring with a light film of grease.
13. Push connector front part onto prepared cable end; do never turn the front part!
14. Pay attention to straight position of connector parts while tightening the connector by turning the back-nut only (first by hand). Never turn the front part of the connector!
15. Keep the connector body steady and tighten the back-nut of the connector by the use of two Poly Hook Spanners (e.g. PHS60-90-5 or comparable ones) or Open end wrenches. Tighten the connector properly, recommended torque is 55Nm (40.56ft—lb).
Keep the interface clean, do not remove the protection cap until shortly before mating.

16. Weatherproofing

Important Remarks:

Additional weather protection is necessary when installed on Lite cable!

In general this is also recommended for Copper cables especially if installed outside.

Possible methods:

- E.g. with Sealing tape, Weatherproofing kit or Cold Shrink Sleeve
Clean cable and connector and continue according to the applicable installation instruction.
- With Heath shrink sleeve
Roughen the jacket with fine grained sandpaper (e.g. 180 grain) and clean the shrinking area e.g. with cable cleaner. Pre-heat the cable jacket to hand warm and the connector to approx. 60°C. Slide the heat shrink sleeve into place over the connector body as shown. Shrink the sleeve with a soft yellow flame if using a gas burner or go for hot air gun. Shrink the sleeve onto the connector by smoothly applying a constant flame (heat) with a circular motion until the sleeve will lay flat all around and the hot solvent adhesive discharged all around. Continue with an even circular motion proceeding in direction of the cable until it shrinks smoothly forming a weatherproof seal and the hot solvent adhesive discharged all around on both ends. Note: Do not overheat especially the jacket (max. temperature = 70°C, shrinking temperature is typically around 130°C, the temperature of the heat source is substantially higher).



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<p>SW 55 (2.3/16") Body Spring C-Ring SW 60 (2.3/8") Suitable for Poly Hook Spanner 60-90-5 O-Ring Grease 7-16 Interface Back-nut Sample picture of 716M-LCF158-C02 Instruction valid for complete C02 series</p>	<p>Measuring tool or Universal Trimming tool TRIM-SET-L158-C02</p> <p>Recommended with Straight line, smooth & fine-teeth saw Sealing material e.g. Tape, Sleeve etc. 55mm (2.3/16") 60mm (2.3/8") 2 x PHS60-90-5 or</p>	<p>Additionally recommended JSTRIP-158-2</p>	<p>Trimming tool method</p>
		<p>Optional 55 Nm (40.56 ft.-lb.) 60mm (2.3/8")</p>	

Safety precaution: Sharp blade => Protective gloves required !

1 Take care Sharp blades inside!

50 - 60 mm (1.9 - 2.4 in)

2 Check position of knife in control window

Position of collet guide

3 **4** **5** **6** **7**

min. 1 x 1mm

+ 3 x

8 **9** **10** **11** **12**

Top

28.0 - 30.0 mm (1.10 - 1.18 in)

13 **14** **15** **16** **17**

360° min.

18 **19** **20** **21**

~ 55 Nm
40.56 ft.-lb.

Weatherproofing options

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Installation method with Universal Trimming Tool

TRIM-SET-L158-C02

Consist of:



Body: TRIM-U-114-158
Flaring tool: TRIM-FL114-158
Insert: **TRIM-IL158-C02**
Insert consist of:
Blade holder: TRIM-IL158-C02
Collet: TRIM-IL158

Attention:

Trimming tool to be handled and used with great care, blades are extremely sharp!
It is recommended to use protective gloves. Do not use great force.

Please refer to the instruction of the Universal Trimming Tool in addition!

Keep the cable end downwards in order to prevent particles from entering during preparation.

1. Straighten the cleaned cable front part in a length of min. 200mm (8").
Remove the jacket with a knife in the length as shown, (it is recommended to use the stripping tool JSTRIP-158-2). Do not damage the outer conductor!
2. Open the Universal Trimming Tool by pressing the base and the top handle together and insert the cable as shown. Position of the collet guide of the insert in a corrugation close to the trimmed cable jacket. The cable fits properly to the complete collet segment of the tool. The main blade is located on the crest (top) of the fourth – fifth corrugation and the jacket knife is in a non dismantled area (see control window).
3. Keep the tool in the correct position; turn the hand wheel in order to tension the spring. Note: At least one gap should remain with a residual clearance of about 1mm (see sketch).
4. Rotate the Universal Trimming Tool around the cable in direction of the arrow shown on the tool until the outer conductor and the dielectric have been cut.
5. Re-adjust the hand wheel again as described in step 3 and shown in the sketch.
6. Rotate the Tool again in the same direction as before. Once the cable is completely cut after several turns, continue turning the tool min. 3 more times around the cable in order to make sure the jacket will be cut as well.
7. Unfasten the Tool by turning the hand wheel in opposite (counter clockwise) direction and remove the tool by pressing the handles together.
8. Deburr inner conductor. Carefully cut the jacket lengthwise with a knife, do not damage the outer conductor. Remove the jacket. Check trimming dimensions. If the inner conductor should be deformed (from cutting), insert the cable guide pin of the flaring tool and carefully form it back to round.
9. Slide the O-Ring onto cable – position in the valley before jacket as shown. Wipe a light film of grease on the O-Ring.
10. Push back-nut onto cable and over the O-Ring until stop (first valley is free).
11. Put Spring C-Ring into first corrugation valley of the cable.
12. Push back-nut back to the front until stop - the Spring C-Ring is fully covered.
13. Push a small part of dielectric to the centre in order to get a small free space for the flaring pin of the trimming tool. Insert cable guide pin (the bigger one) of the trimming tool into the cable inner conductor, make sure that the flaring pin is located between outer conductor and foam/dielectric. Keep pushing the back-nut to the front while turning and carefully pushing the trimming tool to flare the outer conductor. Flare diameter has to be evenly round and concentric to the cable axis.
14. The flared area (cone) has to be free of any dielectric material, if necessary bend the dielectric back to the centre.
15. Clean the cable end, remove any particles very carefully. Tip: tape can be used additionally to remove the finest particles).
16. Check the complete preparation. Careful preparation is the key for good VSWR and especially for PIM performance.
17. Wipe the back-nut O-Ring with a light film of grease.
18. Push connector front part onto prepared cable end; do never turn the front part!
19. Pay attention to straight position of connector parts while tightening the connector by turning the back-nut only (first by hand). Never turn the front part of the connector!
20. Keep the connector body steady and tighten the back-nut of the connector by the use of two Poly Hook Spanners (e.g. PHS60-90-5 or comparable ones) or Open end wrenches. Tighten the connector properly, recommended torque is 55Nm (40.56ft—lb). Keep the interface clean, do not remove the protection cap until shortly before mating.
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