



**CELLFLEX[®] Coaxial Cable
Connectors**

Installation Instruction

1000006017-04
SCF 12-50 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>Sample picture of 716M-SCF12-C02 Instruction valid for complete C02 series</p>	<p>Measuring tool</p> <p>Gloves</p> <p>Recommended with Straight line, smooth & fine- teeth saw blade</p> <p>Tape</p>	<p>Additionally recommended</p> <ul style="list-style-type: none"> 18mm (11/16") 25 Nm (18.43 ft.-lb) <p>Optional</p> <ul style="list-style-type: none"> Inner conductor cleaner/scraper CC200EUR <p>manual method</p>
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Safety precaution: Sharp blade => Protective gloves required !

1 min. 26 mm (min. 1.02 in)

2

3

4

5 3 mm (0.11 in)
2 - 3 mm (0.07 - 0.11 in)

6 Marking Position

7

8

9 Cut of outer conductor has to be flush with connector back part
6.5 - 7.5 mm (0.25 - 0.29 in)

10 0.5x45°

11

12

13

14 20 -25 Nm
15 - 18 ft.-lb.

15 50 -60°

16



Manual installation method with standard hand tools

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

1. Cut the straightened cable in a right angle to cable axis with a fine toothed hacksaw. Push the heat shrink sleeve onto the cleaned cable and fix it temporarily e.g. with tape – always keep the sleeve clean.
2. Remove the cable jacket with a knife in the length as shown; take care not to damage the outer conductor.
3. Remove all edges very carefully; rework the outer conductor if necessary in order to get the outer conductor as a passable thread. It is recommended to check easy turn ability with the back-nut of the connector. Remove back-nut after checking. Clean the cable end, remove all particles very carefully.
4. Place the threaded gasket on outer conductor as shown on picture 4 before screwing to the final position. Screw the threaded gasket onto the prepared outer conductor until reaching a gap of 2-3mm (0.07-0.11 in) to the jacket as shown at picture 5. Take care not to damage the gasket.
5. Apply a control marking onto cable jacket in a distance of 3mm (0.11 in).
6. Screw the back-nut onto the outer conductor and over the jacket until it reaches the marking made before.
7. Cut the outer conductor and the dielectric carefully with a stable knife, flush to the front of the connector back-nut and in a right angle to cable axis. Do not cut or damage the inner conductor surface.
8. Remove the cable jacket and outer conductor. Carefully cut the dielectric lengthwise and remove it.
9. Check the length of inner conductor, if necessary cut to the length as shown using a fine toothed hacksaw. Take care not to bend the inner conductor out of the straight line.
10. Make a chamfer on the inner conductor with a fine file.
11. **It is imperative to achieve a pure metallic contact surface on the protruding length of the inner conductor.** This may be realized by scrapping away completely all foam and adhesive (thin layer may appear transparent) from the inner conductor manually (fingernail) or with a dedicated tool (e.g. CC200EUR). Take care not to damage the copper cladding, also make sure not to bend the inner conductor out of the straight line.
12. Clean the prepared cable end; remove any particles very carefully with a brush. It is not recommended to use steel or similar hard brushes, because these can deeply press particles inside the dielectric. Adhesive tape can be used additionally for removing the finest particles.
Check the complete preparation (dimensions). Careful preparation is the key to good VSWR and especially to proper PIM performance!
13. Push and screw connector front part (body) onto prepared cable. Pay attention to align connector parts in one axis while tightening the connector by turning the front part only (first by hand). Do not turn the back-nut or the cable.
14. Keep the back-nut and the cable steady and tighten the front part (body) of the connector by use of open end wrenches. Tighten the connector properly; recommended torque is 20-25 Nm (15-18 ft-lb).
15. Roughen the jacket with fine grained sandpaper (e.g. 180 grain) and clean the shrinking area e.g. with cable cleaner or alcohol. 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 discharges all around (see picture 16). Continue with an even circular motion proceeding in the direction of the cable until it shrinks smoothly forming a weatherproof seal and the hot solvent adhesive discharges all around on both ends. Note: Do not overheat especially the jacket (max. temperature = 70°C, shrinking temperature is typically around 130°C).
16. Keep the interface clean; install the protection cap which was removed during installation of the heat shrink sleeve again if not making the mating immediately. This cap protects the interface against dust. For long term it is recommend to use screw able caps with O-Rings inside, these protect against dirt and humidity as well.



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<p>Sample picture of 716M-SCF12-C02 Instruction valid for complete C02 series</p>	<p>Measuring tool</p> <p>Gloves</p> <p>Recommended with straight line, smooth & fine-teeth saw blade</p>	<p>2 x 18mm (2 x 11/16")</p> <p>Pliers</p> <p>Knife</p> <p>Brush</p> <p>Fine file</p> <p>~ 3-5mm ~ 0.15"</p> <p>Tape</p>	<p>Additionally recommended</p> <p>18mm (11/16")</p> <p>25 Nm (18.43 ft.-lb)</p> <p>Optional</p> <p>Inner conductor cleaner/scrapper CC200EUR</p>	<p>Trimming tool method</p>
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Safety precaution: Sharp blade => Protective gloves required !

<p>1</p>	<p>2</p> <p>Blade housing</p> <p>Take care – Sharp blades inside !</p> <p>Inner stop</p>	<p>3</p>			
<p>4a</p>	<p>4b</p>	<p>4</p>	<p>5</p>	<p>6</p>	<p>7</p> <p>19.0 – 19.2 mm (0.75 – 0.76 in)</p> <p>0.5x45°</p> <p>6.5 – 7.5 mm (0.25 – 0.29 in)</p>
<p>8</p>	<p>9</p>	<p>9</p> <p>2 - 3 mm (0.07 – 0.11 in)</p>			
<p>10</p>	<p>Cut of outer conductor has to be flush with connector back part</p>	<p>11</p>	<p>12</p>		
<p>13</p> <p>20 - 25 Nm 15 - 18 ft.-lb.</p>	<p>14</p>	<p>50 - 60°</p>	<p>15</p>		



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Installation method with Universal Trimming Tool



TRIM-SET-S12-C02

Consist of:

Body:

Flaring tool:

Insert:

TRIM-U-14-78

TRIM-IS12-C02

Insert consist of:

Blade holder:

Collet:

TRIM-IS12-C02

TRIM-IS12

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. Cut the straightened cable in a right angle to cable axis with a fine toothed hacksaw. Push the heat shrink sleeve onto the cleaned cable and fix it temporarily e.g. with tape – always keep the sleeve clean.
2. Insert the cable into the Trimming Tool and push against the inner stop as shown. The cable fits properly to the complete insert (collet) of the tool. Close blade housing of the tool.
3. Slowly rotate the Trimming Tool with slight pressure on the blade housing in a clockwise direction as indicated by the arrow on the tool. Open blade housing and remove the cable.
4. Remove the cable jacket and outer conductor. Carefully cut the dielectric lengthwise and remove it.
It is imperative to achieve a pure metallic contact surface on the protruding length of the inner conductor. This may be realized by scrapping away completely all foam and adhesive (thin layer may appear transparent) from the inner conductor manually (fingernail) or with a dedicated tool (e.g. CC200EUR). Take care not to damage the copper cladding, also make sure not to bend the inner conductor out of the straight line.
5. Carefully cut the second part of jacket lengthwise by knife and remove it.
6. Insert the inner conductor into the hole of the chamfer tool, then slowly press and rotate the Trimming Tool clockwise several times to chamfer the inner conductor. Take care not to bend the inner conductor out of the straight line.
7. Double-check trimming dimensions.
8. Remove all edges very carefully; rework the outer conductor if necessary in order to get the outer conductor as a passable thread. It is recommended to check easy turn ability with the back-nut of the connector. Remove back-nut after checking. Clean the cable end, remove all particles very carefully.
9. Place the threaded gasket on outer conductor as shown on picture 4 before screwing to the final position. Screw the threaded gasket onto the prepared outer conductor until reaching a gap of 2-3mm (0.07-0.11 in) to the jacket as shown. Take care not to damage the gasket.
10. Screw the back-nut onto the outer conductor and over the jacket until the front of back-nut is flush with the cut outer conductor.
11. Clean the prepared cable end; remove any particles very carefully with a brush. It is not recommended to use steel or similar hard brushes, because these can deeply press particles inside the dielectric. Adhesive tape can be used additionally for removing the finest particles.

Check the complete preparation (dimensions). Careful preparation is the key to good VSWR and especially to proper PIM performance!

12. Push and screw connector front part (body) onto prepared cable. Pay attention to align connector parts in one axis while tightening the connector by turning the front part only (first by hand). Do not turn the back-nut or the cable.
13. Keep the back-nut and the cable steady and tighten the front part (body) of the connector by use of open end wrenches. Tighten the connector properly; recommended torque is 20-25 Nm (15-18 ft-lb).
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15. Keep the interface clean; install the protection cap which was removed during installation of the heat shrink sleeve again if not making the mating immediately. This cap protects the interface against dust. For long term it is recommend to use screw able caps with O-Rings inside, these protect against dirt and humidity as well.