<table>
<thead>
<tr>
<th>Machine Model</th>
<th>FC-100 Ferrule Crimper</th>
<th>Owners Manual</th>
</tr>
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<tbody>
<tr>
<td>PN</td>
<td>6-119933</td>
<td></td>
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<tr>
<td>Rev.</td>
<td>1.01</td>
<td>Date</td>
</tr>
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<td></td>
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<td>09 June 2017</td>
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SAFETY

Basic information
The basic condition for safe use and proper work of the FC-100 is the knowledge and attention of the safety information.

Important for your safety!

The following safety information must be observed by all persons who will work with the FC-100.
All rules and instructions on the working place must be observed, especially those for prevention of accidents.

Symbols
This instruction for use contains the following symbols:

⚠️ marks a possible danger of injury and accident or a possible damage of the FC-100.

❗️ marks using instructions.

Danger of machine
The FC-100 complies with the relevant safety standards and was subjected to a security check.
It provides safety equipment.
Danger can be caused in case of misuse for
- life and limb of the user,
- the machine.

The FC-100 must be used only
- for dedicated usage and
- in safe proper working condition.

All persons commissioning, maintaining and working with the FC-100 must be
- qualified and
- observe this manual for is correct use.
**Dedicated usage**

Use the FC-100 only for automatic stripping and crimping.

End sleeves with cross-sections ranging from 0.5 to 2.5 mm² and a strip length of 8 mm must be used.

Only the intended PVC insulated cables may be inserted into the funnel guide of the FC-100. Never insert solid metal parts or items. The stripping knives would be damaged.

Third party reconstruction and changes of the FC-100 beyond retooling are not allowed because of safety!

> Observing of all information in compliance with the working conditions belong to the dedicated application!

**Dangers**

Use the FC-100 only when the cover is closed.

Before carrying out any work at opened cover (e.g. retooling, maintenance work) disconnect the FC-100 from the mains supply.

Make sure that no strange objects are inside the case.

**Places for use**

Avoid operation and keeping at

- damp or dusty places,
- places exposed to high or low temperatures or direct sunlight (Operating temperature range: 15 °C to 35 °C).

Condensation can form when moving from a cold to a warm place.

Open cover to evaporate condensation before using the FC-100.

Do not spill any liquids over the FC-100.

Protect the FC-100 from heavy vibrations and jolts.
**Safety devices**
The FC-100 can be switched off through:

- the mains switch (0 off),
- pulling out the mains plug,
- sliding back the cover (by two micro switches).

The cover is built in for safety. It may not be changed, removed or by-passed by reconstructions.

A label points to existing dangers.

**Authorized user**
Only authorized and instructed users are allowed to work with the FC-100.

The user has a responsibility to other persons inside the FC-100 working place.

The customer must

- make the instruction for use accessible to the user and
- assure that the user has read and understood it.

**Warranty**
In general our common terms of sale and delivery are valid.

These are available by the customer latest at conclusion of contract.

Warranty for damages to property and personal injury is impossible if violation against the following points:

- Not dedicated usage of the FC-100.
- Improper places for use.
- Improper use and use beyond those described in the manual for use.
- Third party reconstruction of the FC-100.
- Continued use of the FC-100 when faults are recognised.
- Un-Authorised repairs.

❗️ **Only use original spare parts!**
DESCRIPTION
Extent of Delivery

Diagram 1

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>FC-100</td>
</tr>
<tr>
<td>2</td>
<td>Mains cable</td>
</tr>
<tr>
<td>3</td>
<td>Container for insulation scrap</td>
</tr>
<tr>
<td>4</td>
<td>Instruction for use in German and additionally one in the specific language at foreign delivery</td>
</tr>
<tr>
<td>5</td>
<td>Accessories box</td>
</tr>
<tr>
<td>6</td>
<td>Feeder blocks for end sleeves 0.5 to 2.5 mm²</td>
</tr>
<tr>
<td>7</td>
<td>Tool insert for 0.5 to 2.5 mm²</td>
</tr>
<tr>
<td>8</td>
<td>Locator (reserve)</td>
</tr>
<tr>
<td>9</td>
<td>Bolt, 6 mm in diameter</td>
</tr>
</tbody>
</table>

The parts 6, 7 and 8 have the same colour code as end sleeves complying with DIN.
Usage
The FC-100 is for fully automatic stripping of flexible PVC insulated cables and subsequent pressing on of insulated end sleeves on reels.

It uses end sleeves complying with DIN 46228 Part 4 with cross-sections ranging from 0.5 to 2.5 mm² with a stripping length of 8 mm. Due to the short cycle times (1.5 s) and simple changing of cross-sections (below 10 s) the FC-100 is not only suitable for use in workshops but also in complex cable production systems.

The following end sleeves can be used by the FC-100:

End sleeves bands inside the dispenser

<table>
<thead>
<tr>
<th>Cross-section mm²</th>
<th>length mm</th>
<th>DIN colour code</th>
<th>Packing unit pieces/roll</th>
<th>Typ</th>
<th>Art.-No.</th>
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<td>0.5</td>
<td>8</td>
<td>white</td>
<td>1000</td>
<td>A00555 K</td>
<td>005611</td>
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<tr>
<td>0.75</td>
<td>8</td>
<td>grey</td>
<td>1000</td>
<td>A00755 K</td>
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<td>1000</td>
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<td>005720</td>
</tr>
<tr>
<td>1.5</td>
<td>8</td>
<td>black</td>
<td>1000</td>
<td>A01555 K</td>
<td>005767</td>
</tr>
<tr>
<td>2.5</td>
<td>8</td>
<td>blue</td>
<td>500</td>
<td>A02555 K</td>
<td>005823</td>
</tr>
</tbody>
</table>
Standard components overview

Diagram 2

1 Grip
2 Funnel guide
3 Counter
4 Reset button
5 Tool insert
6 Bolt
7 Cover
8 End-sleeve feeder

9 Mains connection
10 Mains fuses
11 Mains switch
12 Transformer fuses
13 Reverse button
14 End-sleeve dispenser holder
15 Container
Standard components functions

1 Grip
For transport of the FC-100.

2 Funnel guide
The cable to be processed is inserted into the FC-100 through the funnel guide. Once it has been inserted, work commences automatically.

3 Counter (000000 to 999999)
The counter counts the number of end-sleeves used. The FC-100 performs automatically a reset to 0 at power-off.

4 Reset button
This button resets the counter to 0.

5 Tool insert (colour coded)
Positions the end sleeve and strips the cable. The appropriate tool insert must be installed for every cross-section.

6 Bolt
Secures the tool insert.

7 Cover
Protects the user from moving parts inside the FC-100. The FC-100 will only operate when the cover is properly closed.

8 End-sleeve feeder
The end-sleeve feeder positions the end sleeves. The appropriate end-sleeve feeder must be installed for every cross-section.

9 Mains connection
The mains cable must be connected to the input connector.

10 Mains fuses
Fine wire fuses integrated into the mains connection.

11 Mains switch
Switches the power supply to the FC-100 on (position I) or off (position 0).
12 Transformer fuses
One 4.0 A/T/250 V fine wire fuse for secondary device.

13 Reverse button
Pressing this button puts the FC-100 in the maintenance position. Pressing again will put the FC-100 in start position.

14 End-sleeve dispenser holder
Holds the end-sleeves reel dispenser.

15 Container
The container collects the insulation scrap. It must be emptied regularly.
COMMISSIONING

1. Chose the installation site

- The installation site of the FC-100 must be level and horizontal.

! Observe the working conditions in chapter safety, section places for use.

2. Prepare the dispenser

- Open the dispenser and tear-off the strap at the edge (1).
- Pull out the end-sleeves band (2) approximately 20 cm.

3. Prepare the end-sleeve feeder

- Take end-sleeve feeder with proper cross-section from the accessories box.

! Observe to the colour code of the end-sleeve feeder.

- Insert the end sleeves (1) in the guide sideways until the stop pin is reached.
- Pull the pin (2) upwards, move the end sleeves to the mark (3) and let the pin go.

! Check that the pin has clicked properly into place.
4. Fit the end-sleeve feeder

![Verify that the tool insert is not installed yet.]

- Slide the cover (1) back.
- Insert the end-sleeve feeder (2) sideways and place it on the bolts (3).

![Check that the end-sleeve feeder has clicked properly into place.]

5. Mount the dispenser

- Mount the dispenser (1) on the holder.

![Check that the dispenser has clicked properly into place.]

6. Mount the tool insert

- Take the tool insert with proper cross-section and bolt from the accessories box.

![Observe to the colour code of the tool insert.]

- Mount the tool insert (1) sideways.
- Fit the bolt (2) into the hole until it stops.
7. Place to operation mode

- Put the dispenser (1) in operation mode.
- Close the cover (2).

⚠️ **Be sure that the end-sleeves band is fed properly.**

- Connect the mains cable with the appropriate connectors (3,4) to the FC-100 and the mains supply.

The FC-100 is now ready for **operation**.
OPERATION

1. Prepare the cable
Before crimping cable must be aligned as straight as possible.

2. Cut the cable
- Cut the cable clean and straight.

! **Poor cut (Diagram 11)** frequently results in unsuccessful crimping.

3. Start the FC-100
- Check that the cover (1) is closed.
- Turn on (position I) the FC-100 with the mains switch (2).
- Check that counter (3) is at 0.

! **If the counter is not at 0 refer to chapter faults.**
4. Crimping cables

- Insert the cable (1) straight into the funnel guide until it stops.
- Crimping and stripping works automatically.
- Pull out the cable (2) straight when the FC-100 has stopped.

! **Refer to chapter faults when operating faults or unsuccessful crimping occurs.**
- Read counter (3) if required and set it to 0 with the reset button (4).

5. Stop operation

- Read counter (1) if required.
- Turn off (position 0) the FC-100 with the mains switch (2).

6. Daily maintenance

   ! **Disconnect the mains supply from the FC-100 and open cover.**
- Turn off (position 0) the FC-100 with mains switch (1).
- Disconnect mains cable (2).
- Slide the cover (3) back.
- Remove (4) insulation scraps inside the FC-100.
- Pull out the container (5).
- Dispose insulation scraps and insert container.
- Close the cover (6).
- Connect mains cable (7).
RETOOLING

1. Prepare the retooling

⚠ Disconnect the mains supply from the FC-100 and open cover.

- Read counter if required.
- Turn off the FC-100 with mains switch (1).
- Disconnect mains cable (2).
- Slide back the cover (3).
- Pull the pin (4) upwards and pull out the end sleeves (5).
- Remove the dispenser (6) and roll up the remaining end sleeves.
- Fold back the dispenser holder (7).

2. Remove the tool insert

- Pull out the bolt (1).
- The tool insert (2) must be removed sideways.
- Put the tool insert and the bolt into the accessories box.
3. Remove the end-sleeve feeder

- Pull the end-sleeve feeder (1) towards the rear and remove it sideways (2).
- Put the end-sleeve feeder into the accessories box.

Continue as described with **step 2 to 7 in chapter commissioning**.
When operating faults occur trouble-shooting depends on different fault conditions. After recognizing the fault condition trouble-shooting can be carried out by the following points.

**Fault condition 1**  
Cable cannot be inserted.

**Fault condition 2**  
Crimping has not been completed.

**Fault condition 3**  
Crimping is completed.  
Cable cannot be pulled out.

**Fault condition 4**  
Cable insulation is not completely removed.

**Fault condition 5**  
The end sleeve is not separated from band.

**Fault condition 6**  
Counter respectively FC-100 do not work.

**Fault condition 7**  
The FC-100 works too slow but counter works.

**Fault condition 8**  
Crimp stamp or crimp forging die is defective.
Fault condition 1
Cable cannot be inserted.

Cable can only be inserted in start position (front) and not in maintenance position (rear).
Press the reverse button (1) to move the FC-100 into start position.

Fault condition 2
Crimping has not been completed.

⚠ Disconnect the mains supply from the FC-100 and open cover.

1. Stop operation
- Read counter (1) if required.
- Turn off (position 0) the FC-100 with mains switch (2).
- Disconnect mains cable (3).
2. Remove the tool insert
- Slide back the cover (1).
- Pull out the bolt (2).
- Press lower stripping cutter (3) upwards and remove the tool insert (4) sideways.
- Remove end sleeve (5).
- Bend cable aside (6)

3. Remove the cable
- Pull the pin (1) upwards and pull out the end sleeves (2).
- Close the cover (3).
- Connect mains cable (4).
- Turn on (position I) the FC-100 with the mains switch (5).
- Press the reverse button (6) to move the FC-100 into start position.
- Pull out the cable (7).

After mounting the tool insert and insertion of the end sleeves the FC-100 is ready for operation.
Fault condition 3

Crimping is completed. Cable cannot be pulled out.

⚠ Disconnect the mains supply from the FC-100 and open cover.

1. Stop operation

- Read counter (1) if required.
- Press the reverse button (2) to move the FC-100 into start position.
- Turn off (position 0) the FC-100 with mains switch (3).
- Disconnect mains cable (4).

2. Remove the tool insert

- Slide back the cover (1).
- Pull out the bolt (2).
- Press lower stripping cutter (3) upwards and remove the tool insert (4) sideways.

⚠ If it is impossible to remove the tool insert then carry out step 4, else carry on with step 3.

- Remove end sleeve (5).
- Bend cable aside (6)
3. Remove the cable

- Pull the pin (1) upwards and pull out the end sleeves (2).
- Close the cover (3).
- Connect mains cable (4).
- Turn on (position I) the FC-100 with the mains switch (5).
- Press the reverse button (6) to move the FC-100 into start position.
- Pull out the cable (7).

After mounting the tool insert and insertion of the end sleeves the FC-100 is ready for operation.

4. Remove the cable

- Press the reverse button (2) and pull the cable (1) at the same time, the FC-100 moves into start position.
- Pull out the cable (3).
- Remove the tool insert (4).
- Remove end sleeve (5).

After mounting the tool insert the FC-100 is ready for operation.
Fault condition 4
Cable insulation is not completely removed.

⚠️ Disconnect the mains supply from the FC-100 and open cover.

1. Check the cross-section information
If stripping is faulty, check whether the selected cable cross-section corresponds to the cross-section size of the tool insert and the end-sleeve feeder block. The tool inserts must be adapted to the cable cross-section if the FC-100 has not been properly tooled. The cross-section of the cable must also be checked.

2. Check the stripping cutter
After checking the cross-section size remove the tool insert (see also chapter retooling) and check the stripping cutters (1).

Replace the stripping cutters of the tool insert if they are worn or damaged.

Remove the allen screw (2) at the bottom and insert new stripping cutters with the same cross-section. The corresponding article number is stated in chapter spare parts.

Diagram 27  Check the stripping cutter
Fault condition 5

The end sleeve is not separated from band.

⚠️ Open the cover and disconnect the FC-100 from mains supply!

If the cutter (1) is damaged or broken off, the cable crimped with the end sleeve will not be separated from the band.

In this case remove the tool insert (see also chapter retooling) and check the cutter (1). When the cutter (1) is defective, the end-sleeve locator (3) must be removed by unscrewing the cross-head screw (2) and a new locator for the corresponding cross section must be fitted.

The corresponding article number is stated in chapter spare parts.

Fault condition 6

Counter respectively FC-100 do not work.

1. Check mains connection

Check that the mains cable is connected with the appropriate connectors to the FC-100 and the mains supply. Make sure that you have supply to the plug socket is properly.

2. Check mains fuses

⚠️ Mains connection must be opened, disconnect the FC-100 from mains!

- Pull out mains plug (1).
- Pull out the fuse holder (2).
- Check the mains fuses (3).
- Replace defective mains fuses. The corresponding article number is stated in chapter spare parts.
- Put the mains fuses into fuse holder.
- Insert the fuse holder.

⚠️ Fuse holder must click into place.
Fault condition 7
The FC-100 works too slow but counter works.

⚠️ Remove mains fuses, disconnect the FC-100 from mains!

- Pull out mains plug (1).
- Unscrew the fuse holder (2).
- Check the device fuses (3).
- Replace defective device fuses. The corresponding article number is stated in chapter spare parts.
- Insert device fuses into the fuse holder.
- Insert the fuse holder.

Fault condition 8
Crimp stamp or crimp forging die is defective.

⚠️ Open the cover and disconnect the FC-100 from mains supply!

- Pull out mains plug (1).
- Remove tool insert and end-sleeves feeder (see also chapter retooling).
- Unscrew the allen screw (3) at defective crimp stamp (2) or crimp forging die (1).
- Press the ring (4) down and remove the hose.
- Replace the defective part.
  The corresponding article number is stated in chapter spare parts.

⚠️ Plastic parts must be clean and free of grease!
<table>
<thead>
<tr>
<th>Part</th>
<th>Cross Section</th>
<th>Art. No.</th>
<th>Packing unit</th>
</tr>
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<tbody>
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<td>Tool insert</td>
<td>0.5 mm²</td>
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</tr>
<tr>
<td></td>
<td>0.75 mm²</td>
<td>FC1-004944</td>
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<tr>
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<td>1.0 mm²</td>
<td>FC1-004945</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1.5 mm²</td>
<td>FC1-004946</td>
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</tr>
<tr>
<td></td>
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<td>FC1-004947</td>
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<td>FC1-006568</td>
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<td>2.5 mm²</td>
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<tr>
<td>Bolt</td>
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<td>ES-CS0006</td>
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<td>FC1-007059</td>
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<tr>
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<tr>
<td>centring fork top without tube</td>
<td></td>
<td>FC1-008305</td>
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Mains supply ................................................................................... 230 V/50 Hz(115 V/60 Hz)
Power consumption ................................................................. 80 VA
Working range ........................................................................ 0.5 - 2.5 mm²  20 - 14 AWG
End sleeves ........................................................................ In Bands acc. to DIN 46228 Part 4
Press form .............................................................................. Trapezium shaped
Cycle time ................................................................................. 1.5 s
Control system ....................................................................... Microprocessor supported curve control
Counter ..................................................................................... LCD-Display
Retooling ................................................................................ Below 10 s
Sizes (Width x Length x Height) ............................................. 165 x 270 x 320 mm
Weight ....................................................................................... approx. 12 kg
Acoustic pressure emissions $L_{pA}$ ..........................................< 70 dB (A)

**Type plate**

Manufacturer

Manufacturer Address

Machine type

Working range

Mains connection - Power consumption

Serial number

Year of construction

Producer country / CE symbol

Mains fuse
Manufacturer: GLW GmbH
Address: Steinbeisstraße 2
88353 Kisslegg
Germany

We herewith declare that the machine named in the following complies in its design and type and in
the equipment marketed by us with the relevant basic safety and health requirements of the
EC machine directive. This declaration becomes void if changes are made to the machine without our
permission.

Name of the machine: Automatic crimper for insulated end sleeves

Machine type: FC-100
FC-100 US (120 V)

Relevant EC directives:
EG- Low-voltage directive 2006/95/EG
EMV standard 2004/108/EG

Applied standards:
DIN EN ISO 12100:2010 and correction 1:2013-08
DIN EN ISO 13857:2008
DIN EN 349:2008-09 correction 1:2009-01

Place, date Kisslegg, 16. March 2016

Legally binding signature: 

Information about the signing person: Bruno Weiland

Responsible person for Documents: Bruno Weiland