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**1. Models described**

These repair instructions describe how to repair the following models:

Model	Order number
ASCD 12-150 W4	7 115 05 .. ..
ASCD 12-150 W8	7 115 04 .. ..



## 2. Technical data

### Technical data

All the technical data can be found in the operating instructions for the model.

### Tests

Up-to-date test data and test instructions after repair can be found on the FEIN Extranet (Customer Service → Repair Guides).

### Lubricants / Auxiliary substances

The lubricants or auxiliary substances and their container sizes available from FEIN can be found on the FEIN Extranet (Customer Service → Repair Guides).

### Lists of spare parts

Lists of spare parts and exploded views are available online at [www.fein.com](http://www.fein.com)



### 3. Notes and requirements

#### Please note

These instructions are only intended for persons with suitable technical training. It is assumed that the reader has mechanical and electrical training.

**Only use original FEIN spare parts.**

#### Provisions

Please note that power tools may only be repaired, maintained and checked by a trained electrician, as improper repair can result in serious risks to the user.

The provisions set out in **DIN VDE 0701-0702** should be observed after repairs.

The relevant accident prevention regulations of the employer's liability insurance associations are to be observed when commissioning.

The German Equipment and Product Safety Act [ProdSG] applies for correct use.

**Outside Germany, the regulations applicable in the relevant country must be observed.**



#### 4. Tools required

##### Standard tools

Circlip pliers  
 Slotted screwdriver  
 Blade  
 Vice  
 Torx T10; T15  
 Side-cutting pliers  
 Soldering station  
 Arbor press  
 Punch Dia. 3 mm; dia. 4 mm  
 Hacksaw  
 Sleeve 6 mm inner diameter  
 20 mm outer diameter

##### Special tools

Assembly aid 6 41 22 125 01 0  
 Extractor tool 6 41 14 037 00 0



## 5. Lubricants and auxiliary substances required

### Lubricants

Klübersynth GE 14-151	0,5 g	Gearbox
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## 6. Removal

Removing the sleeve [applies to: ASCD 12-150 W4]



1. Remove the circlip (1).
2. Remove the disc (2).
3. Remove the spiral spring (3).
4. Remove the sleeve (4).
5. Remove the ball (5).

### Tools:

- Circlip pliers
- Slotted screwdriver
- Magnet





## 6. Removal

### Removing the motor housing



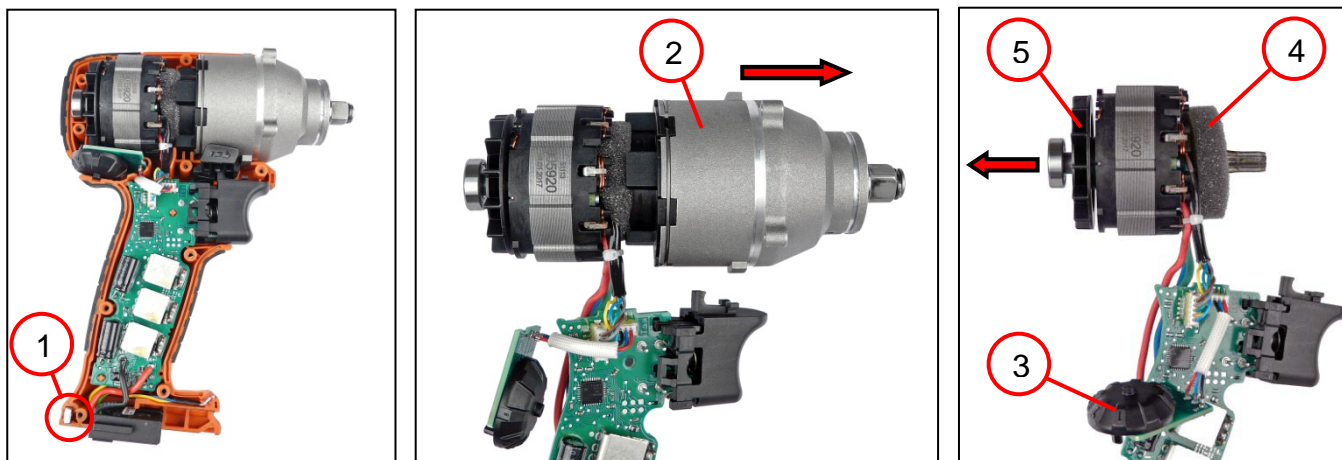
1. Cut through the type plate.
2. Remove the circlip (1).
3. Unscrew the four screws (2).
4. Remove the gearbox housing (3).
5. Unscrew the nine screws (4).
6. Remove the motor housing (5).
7. Remove the pressure piece (6).

#### Tools:

- Blade
- Torx T10

## 6. Removal

### Removing the motor housing

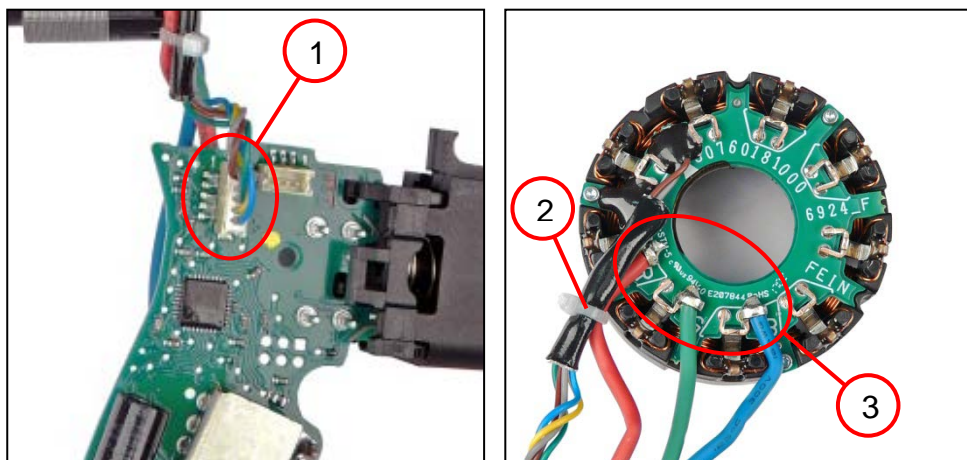


1. Remove the nut (1).
1. Remove all components from the motor housing.
2. Pull off the gearbox (2).
3. Pull off the speed setting switch (3).
4. Remove the insulating ring (4).
5. Pull out the rotor (5).



## 6. Removal

### Removing the motor housing



1. Pull off the plug (1).
2. Remove the cable tie (2).
3. Unsolder the three cables (3).

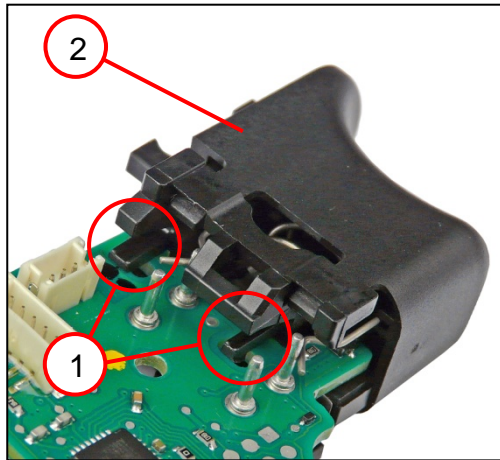
#### Tools:

- Side-cutting pliers
- Soldering station



## 6. Removal

### Removing the switch



1. Lift up the two hooks (1).
2. Pull off the switch (2).

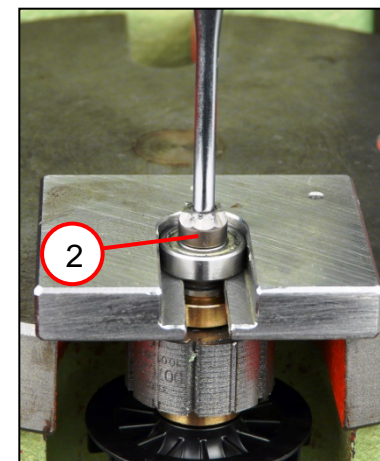
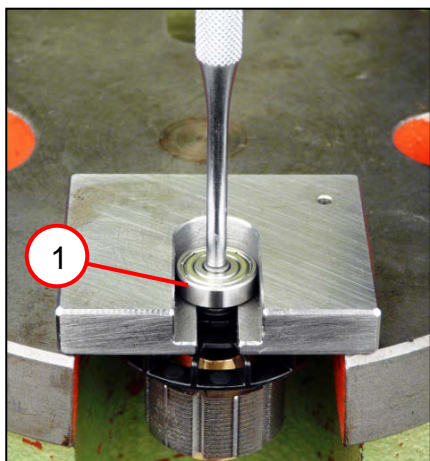
#### Tools:

- Slotted screwdriver



## 6. Removal

### Removing the stator



1. Press down on the grooved ball bearing (1).
2. Protect the rotor from metal swarf.
3. Saw the pinion to the correct size.
4. Remove the remaining pinion (2) together with the grooved ball bearing.

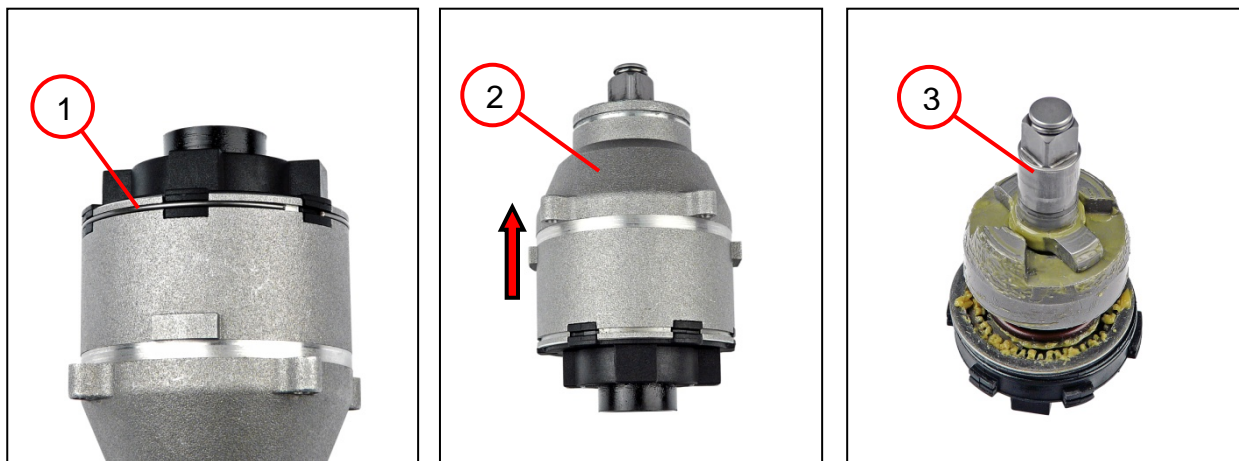
#### Tools:

- Arbor press
- Punch, dia. 3 mm
- Extractor tool
- Vice
- Hacksaw
- Punch, dia. 4 mm



## 6. Removal

### Removing the gearbox



1. Remove the circlip (1).
  2. Remove the gearbox housing (2).
  3. Remove the tool holder (3).
- ☞ The tool holder varies depending on the model.

#### Tools:

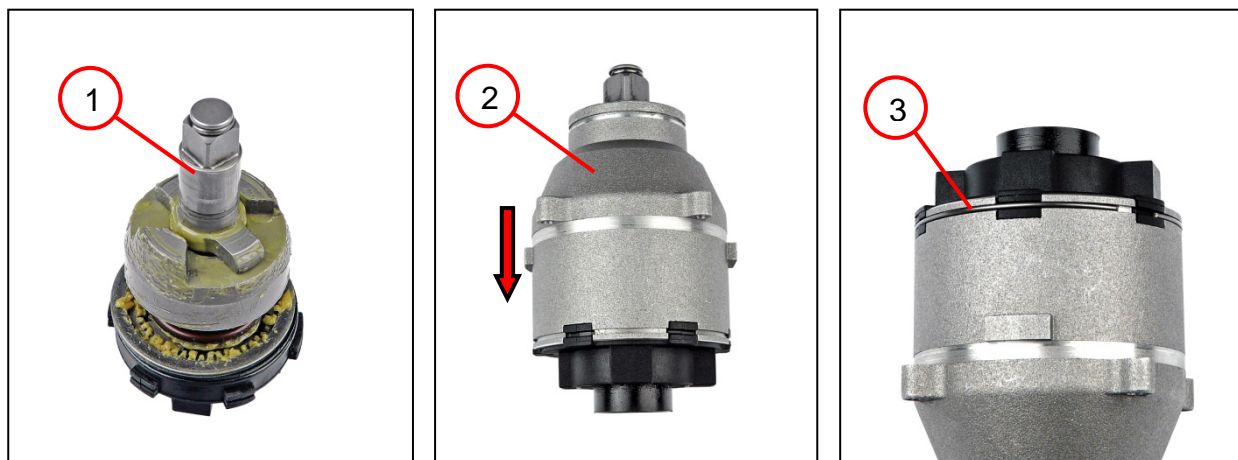
- Slotted screwdriver





## 7. Fitting

### Removing the gearbox



1. Grease the tool holder.
2. Position the tool holder (1).
3. Fit the gearbox housing (2) in the correct position.
4. Fit the circlip (3).

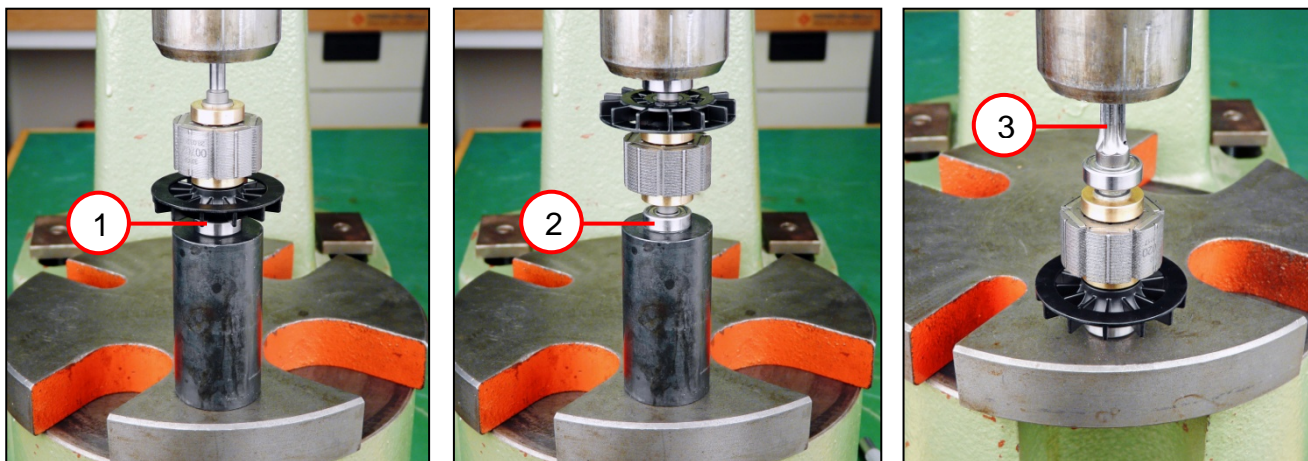
#### Tools:

- Slotted screwdriver



## 7. Fitting

### Fitting the rotor



1. Press on the grooved ball bearing (1).
2. Press on the grooved ball bearing (2).
3. Press on the pinion (3).

#### Tools:

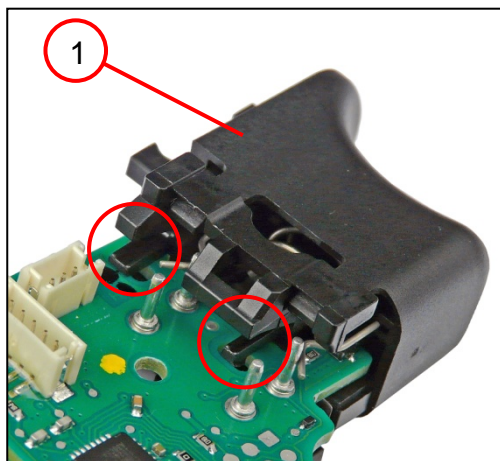
- Arbor press
- Sleeve  
6 mm inner diameter  
20 mm outer diameter





## 7. Fitting

### Fitting the switch

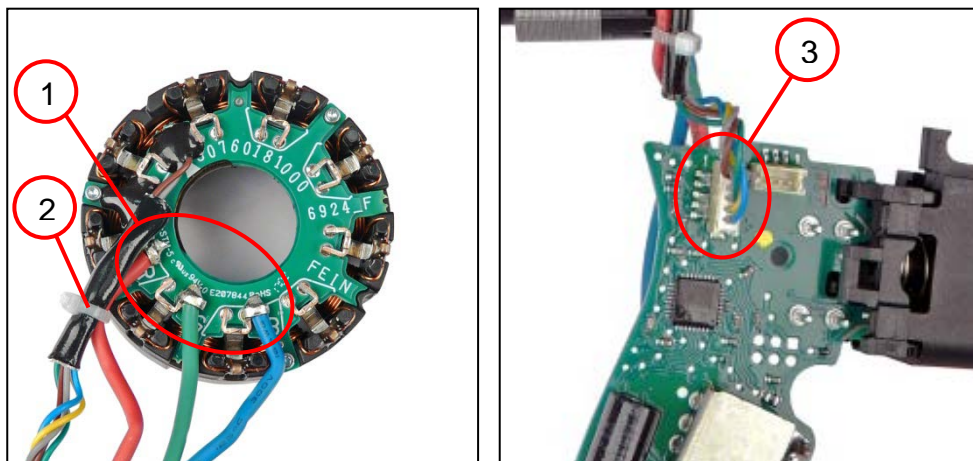


1. Position the switch (1).



## 7. Fitting

### Fitting the stator



1. Solder the three cables (1) as shown in the connection diagram.
2. Push the protective hose up to the soldering point.
3. Secure the cable harness to the red cable (2) with a cable tie.  
☞ Place the cable tie in the correct position as shown in the photograph.
4. Insert the cable (3).

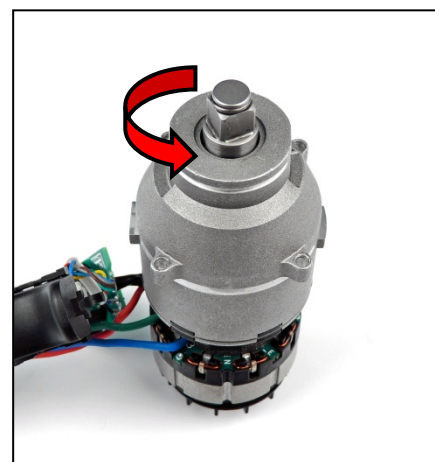
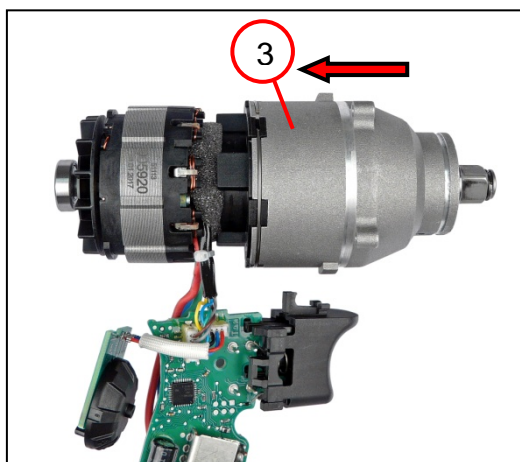
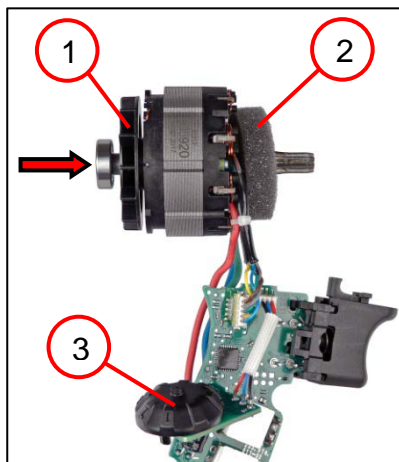
#### Tools:

- Soldering station
- Side-cutting pliers



## 7. Fitting

### Fitting the gearbox



#### Caution: Magnetic field!

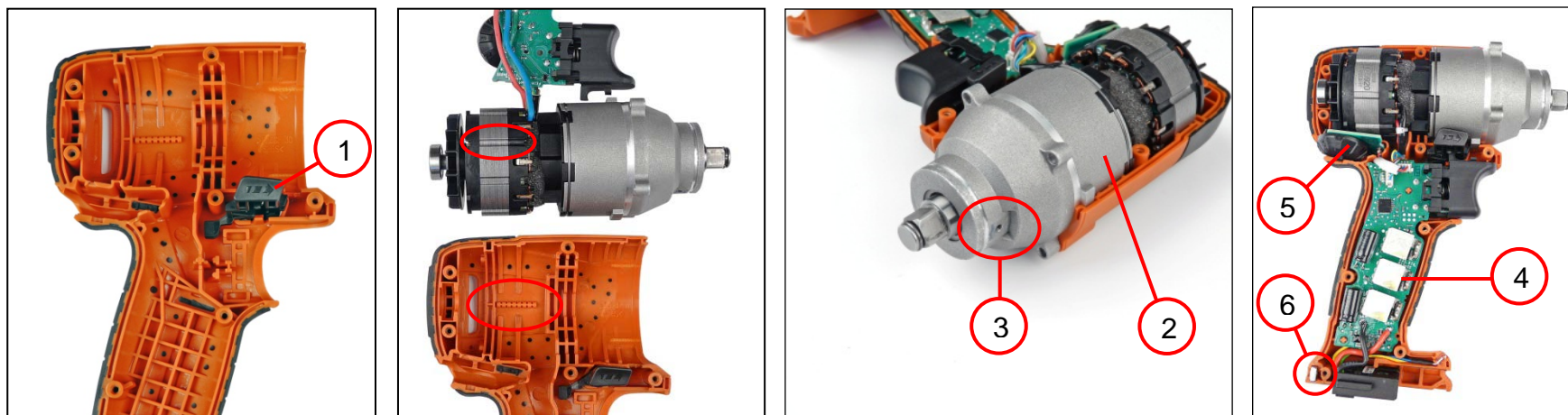
Damage caused by metal foreign bodies on the rotor.

☞ Clean the rotor before the housing is fitted.

1. Insert the rotor (1).
2. Position the insulating ring (2).
3. Insert the speed setting switch (3).
4. Fit the gearbox (3) in the correct position.
  - ☞ Insert the pinion into the centre of the gearbox.
5. Check that the gearbox runs true.
  - ☞ If the gearbox is not running true, reassemble the gearbox correctly.

## 7. Fitting

### Fitting the gearbox



1. Insert the toggle switch (1).
2. Insert the gearbox (2) in the correct position.  
 ☞ Align position (3) to point upwards.
3. Insert the electronics (4).
4. Insert the speed setting switch (5).
5. Insert the nut (6).



## 7. Fitting

### Fitting the housing



1. Place the pressure piece (1) in the correct position.
2. Position the motor housing (2).
3. Screw in the ten screws (3) [ $1.2 \text{ Nm} \pm 0.1 \text{ Nm}$ ].
4. Position the gearbox housing (4).
5. Fit the circlip (5).
6. Screw in the four screws (6).

#### Tools:

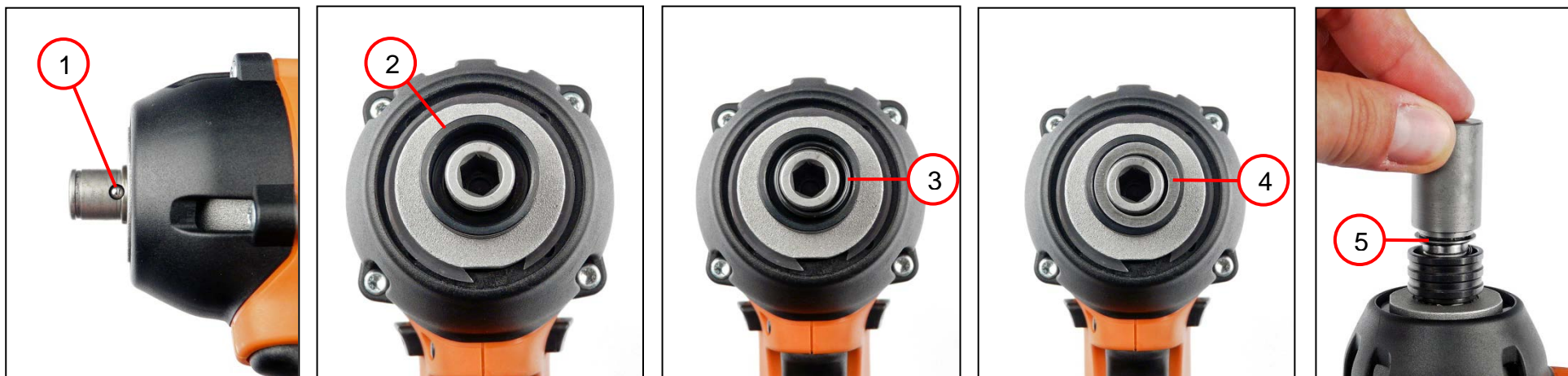
- Torx T10; T15
- Circlip pliers





## 7. Fitting

### Fitting the tool holder [applies to: ASCD 12-150 W4]



1. Grease the ball (1).
2. Insert the ball (1).
3. Position the sleeve (2).
4. Position the spiral spring (3).
5. Position the disc (4).
6. Fit the circlip (5).

#### Tools:

- Assembly aid

## 8. Troubleshooting



Currently unavailable.

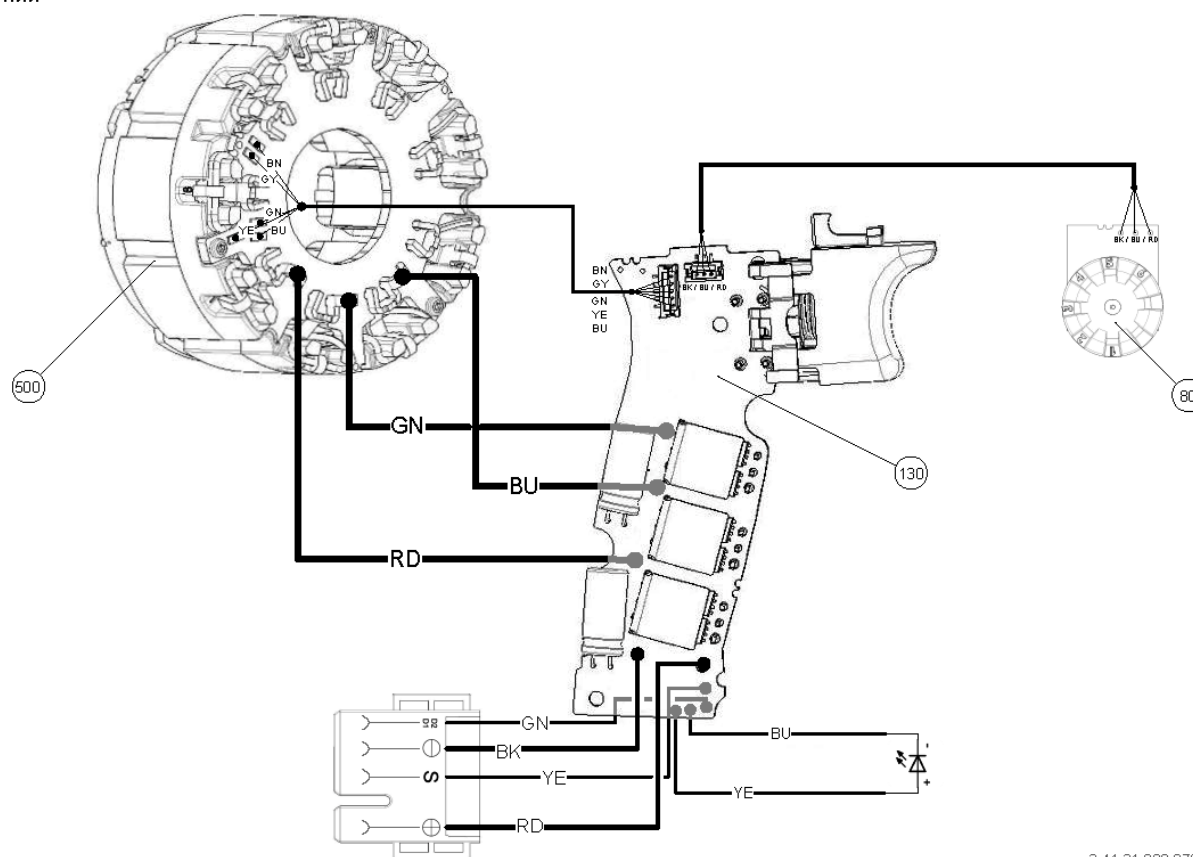


## 9. Connection diagram

### Anschlussplan

Connection diagram  
Esquemade conexiones  
Schémade connexion  
Схема соединений  
接线图

7 115 03 – ASCD12 /12V  
7 115 04 – ASCD12 /12V  
7 115 05 – ASCD12 /12V  
7 115 06 – ASCD18 /18V  
7 115 07 – ASCD18 /18V



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