

# Repair instructions

## AFMM 14





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## 1. Models described

These instructions describe how to repair the following models:

Model	Order no.
AFMM 14	712909



## 2. Technical data

### **Technical data**

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

### **Test data**

Up-to-date test data for all models can be found on the FEIN Extranet.

### **Lubricants**

A list of lubricants and container sizes available from FEIN can be found on the FEIN Extranet.

### **Lists of spare parts**

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



### 3. Provisions

#### 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.

**Only use original FEIN spare parts!**

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

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

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



## 4. Tools required

### Standard tools

Arbor press  
Torx 15 screwdriver  
Blade  
Cable hooks  
Flat nose pliers  
Punch  
Hot air gun  
Slide gauge

### Special tools

Extractor tool 6 41 14 033 000



Mandrel 6 41 22 117 000



Press-in fixture 6 41 22 108 00 0





# 5. Lubricants and auxiliary substances required

### Lubricants

Grease	0 40 101 0100 4	12 g
Finish spray wax	6 37 260 2501 0	



## 6. Disassembly



1. Press releasing button and pull out battery.



## 6. Disassembly



1. Drive out bolt.
2. Remove clamping lever and eccentric ring.
3. Unscrew locking spring.
4. Drive out bushes.

Tool:  
-Punch  
-Torx 15 screwdriver



## 6. Disassembly



Because of the specifications for the press-in force of the drive shaft, which cannot be guaranteed after repairs, the gearbox head is only replaced as a complete assembly and offered as a complete spare part.

The parts shown are available separately as spare parts.



## 6. Disassembly



1. Take off damping element.
2. Remove screws from gearbox head.
3. Remove screws from motor housing.
4. Cut through centre of type plate.
5. Remove upper section of housing.
6. Remove control rod and spring.
7. Remove electronics from motor housing together with motor and gearbox head.

Tool:

-Torx 15 screwdriver  
-Blade



## 6. Disassembly



Old electronics without cup



New electronics with cup



1. Pull off motor cable on electronics.

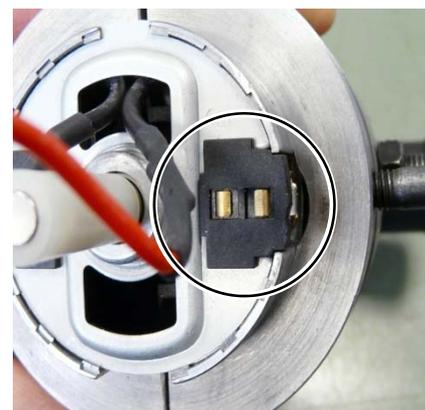
### NOTE

The cup on the new electronics prevents the motor's rotating magnet from damaging the motor cable.

Tool:  
-Flat nose pliers



## 6. Disassembly



1. Take off rubber ring.
2. Heat up gearbox housing (approx. 70 °C).
3. Attach extractor tool to motor.  
When attaching, the recesses in the extractor tool must be in line with the carbon holders in order to prevent damage to the carbon holders.
4. Tighten upper part of extractor tool.
5. Twist upper part of extractor tool against lower part and pull motor off gearbox head.

Tool:  
-Extractor tool 6 41 14 033 000  
-Hot air gun



## 6. Disassembly



The motor is only available as a spare part as shown in the right-hand photo.



## 7. Assembly



1. Rotate drive shaft so that forks are aligned centrally in the gearbox.
2. Insert gearbox head in press-in fixture.
3. Attach press-in mandrel to motor such that the carbon holders are not in contact with the mandrel.
4. Use press-in mandrel to press motor into gearbox housing.

### **WARNING**

**Motor damage.**

**The motor can only be pressed over the outer edge of the motor housing, otherwise the shaft will move and the motor will vibrate later on.**

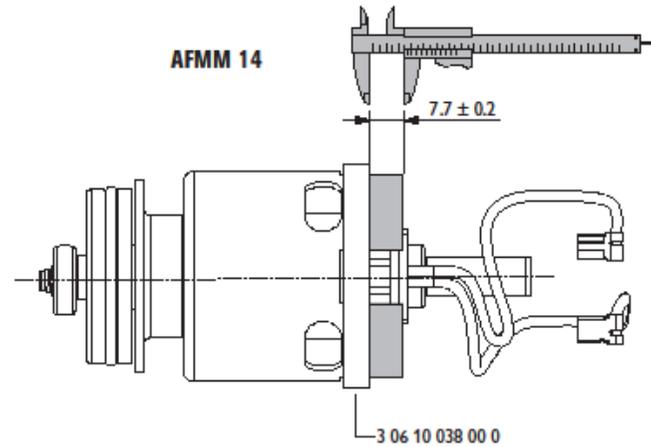
Tool:

-Press-in mandrel 6 41 22 117 000

-Press-in fixture 6 41 22 108 000



## 7. Assembly

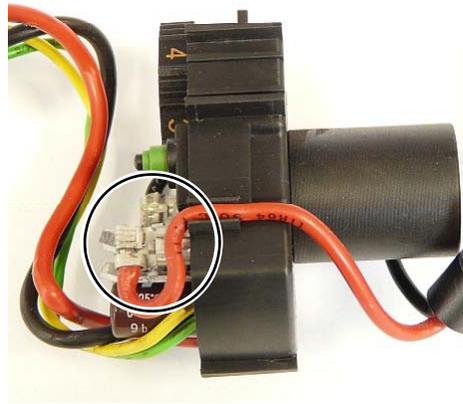
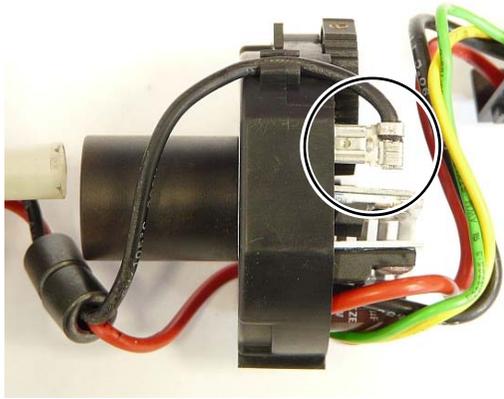


1. Slide rubber ring true to size onto motor.

Tool:  
-Slide gauge



## 7. Assembly



1. Connect motor cable on electronics.



## 7. Assembly



1. Insert pre-assembled motor/gearbox unit and electronics in bottom section of housing.

### **NOTE**

The recess on the motor must sit in the centring in the housing's bottom section.  
The electronics must sit flush in the recess in the housing's bottom section.



## 7. Assembly



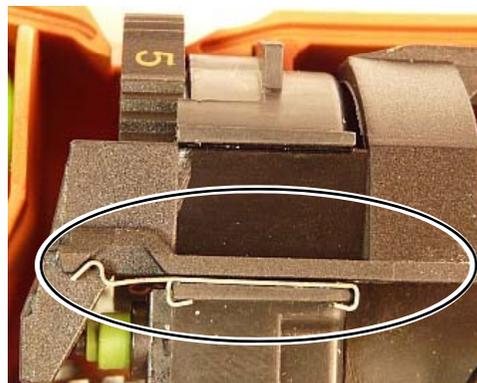
1. Screw down gearbox head with two screws on bottom section of housing.



## 7. Assembly



Switch position **OFF**



Switch position **ON**



1. Insert control rod.
2. Insert spring.



## 7. Assembly

Old motor without ferrite sleeves and old electronics



New motor with ferrite sleeves and old electronics



New motor with ferrite sleeves and new electronics with cup



1. Check cable routing.

If the old electronics without a cup are fitted, the motor cable must be at a sufficient distance from the rotating motor shaft.





## 7. Assembly



1. Attach upper section of housing.
2. Secure screws on motor housing.
3. Secure screws on gearbox head.
4. Insert damping element.

Tool:  
-Torx 15 screwdriver



## 7. Assembly

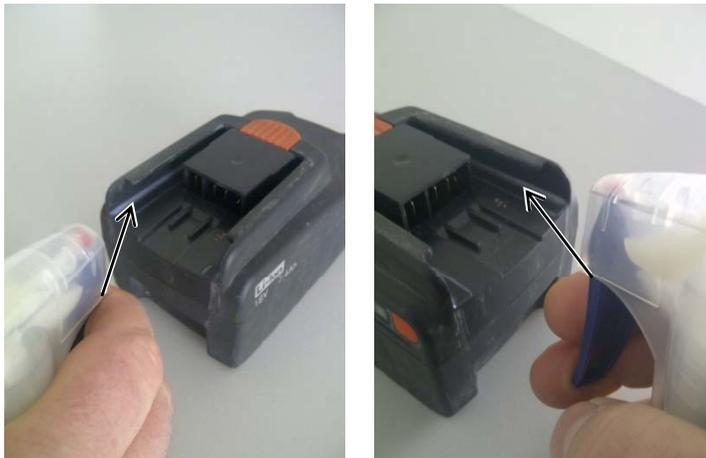


1. Drive bushes into hole.
2. Screw down locking spring.
3. Fit clamping lever and eccentric ring and drive bolt into place.

Tool:  
-Torx 15 screwdriver



## 7. Assembly



1. Spray both guides on battery with finish spray wax and leave to dry.
2. Perform function check.

Tool:

- Torx 15 screwdriver
- Finish spray wax  
6 37 26 025 010



## 8. Connection diagram

