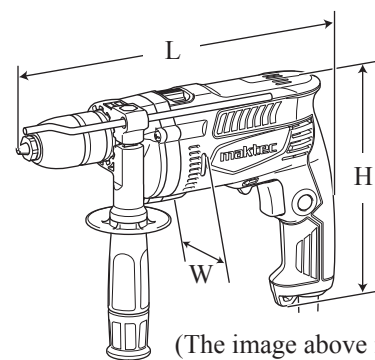


TECHNICAL INFORMATION

Model No. ▶ MT814, MT815

Description ▶ Hammer Drills 16mm (5/8")



(The image above is MT815.)

CONCEPT AND MAIN APPLICATIONS

Models MT814 and MT815 have been developed as the aesthetic change models of **maktec** hammer drill MT813, featuring:

- Industrial performance and durability at less expense
- Tool body ergonomically designed to;
 - provide comfortable grip and more control.
 - give maximum power thrust.

The specification difference between MT814 and MT815 is;

MT814: Keyed chuck model
MT815: Keyless chuck model

These models will be also available with:

- Plastic carrying case as "K models" (MT814K, MT815K)
- Tool box as "KSP models" (MT814KSP, MT815KSP)

Dimensions: mm (")		
Model No.	MT814	MT815
Length (L)	296 (11-5/8)	295 (11-5/8)
Width (W)	77 (3)	
Height (H)	202 (8)	

► Specification

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output (W)
			Input	Output	
110	6.8	50/60	710	420	630
120	6.2	50/60	---	420	630
220	3.4	50/60	710	420	630
230	3.3	50/60	710	420	630
240	3.1	50/60	710	420	630

Model No.	MT814	MT815
No load speed: min -1 = rpm	0 - 3,200	
Impacts per min.: min -1 = ipm	0 - 48,000	
Chuck type	Keyed	Keyless
Chuck capacity: mm (")	1.5 - 13 (1/16 - 1/2)	
Capacities: mm (")	Concrete	16 (5/8)
	Steel	13 (1/2)
	Wood	30 (1-3/16)
Variable speed control by trigger	Yes	
Reverse switch	Yes	
Protection against electric shock	Double insulation	
Power supply cord: m (ft)	2.0 (6.6)	
Weight according to EPTA-Procedure 01/2003*: kg (lbs)	2.1 (4.6)	2.0 (4.4)

* including Side grip

► Standard equipment

- Chuck key S-13 1 pc (MT814 only)
- Key holder 10 1 pc (MT814 only)
- Side grip 1 pc
- Depth gauge 1 pc
- Plastic carrying case 1 pc ("K models" only)
- Tool box 1 pc ("KSP models" only)

Note: The standard equipment for the tool shown above may vary by country.

► Optional accessories

TCT drill bits, etc.

► Repair

CAUTION: Repair the machine in accordance with “Instruction manual” or “Safety instructions”.

[1] NECESSARY REPAIRING TOOLS

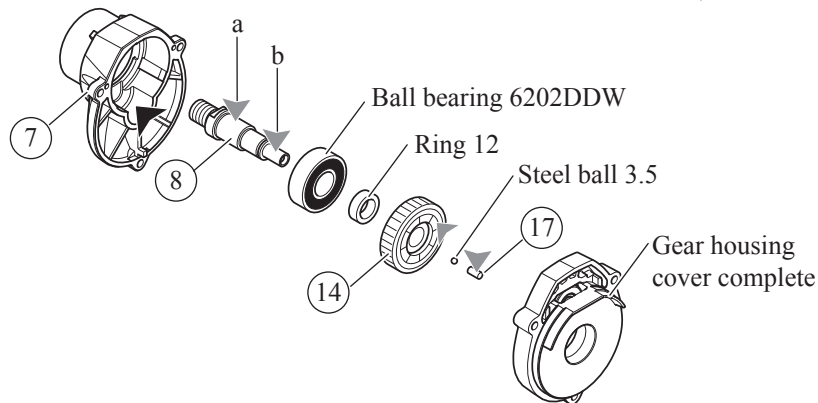
Code No.	Description	Use for
1R005	Description	Removing / Fitting Retaining ring R-35
1R026	Bearing setting pipe 16-8.2	Removing Helical gear 37
1R028	Bearing setting pipe 20-12.2	Assembling Helical gear 37 to Spindle
1R035	Bearing setting plate 15.2	Holding Spindle when assembling Helical gear 37
1R037	Bearing setting plate 15.2	Holding Gear housing when removing Spindle
1R045	Gear extractor	Removing Armature from Gear housing
1R139	Drill chuck extractor	Locking Spindle when removing Drill chuck
1R223	Torque wrench shaft 20-90 N.m	Removing / Assembling Drill chuck
1R224	Ratchet Head 12.7 for 1R223	
1R269	Bearing extractor	Removing Ball bearings from Armature
1R283	Round Bar for Arbor 9-50	Removing Spindle from Helical gear 37
1R298	Hex bar 10 with Square socket	Removing Drill chuck
781007-2	Wrench 14	Removing / Assembling Keyless drill chuck
781024-2	Wrench 43	Removing / Assembling Keyed drill chuck

[2] LUBRICATIONS

Apply the following lubricants to the specific portions to protect the parts and product from unusual abrasion.

Item No.	Description	Portion to lubricate	Lubricant	Amount
⑦	Gear housing	Gear room where Armature engages with ⑭	Makita grease N No.1 ▼	3g
⑧	Spindle	a. The portion where Ball bearing 6202DDW contacts	Molybdenum disulfide lubricant ▼	a little
		b. The portion which is inserted into Plane bearing 8 of Gear housing complete		
⑭	Helical gear 37	Cam portion		
⑰	Pin 4	Whole portion		

Fig. 1



► Repair

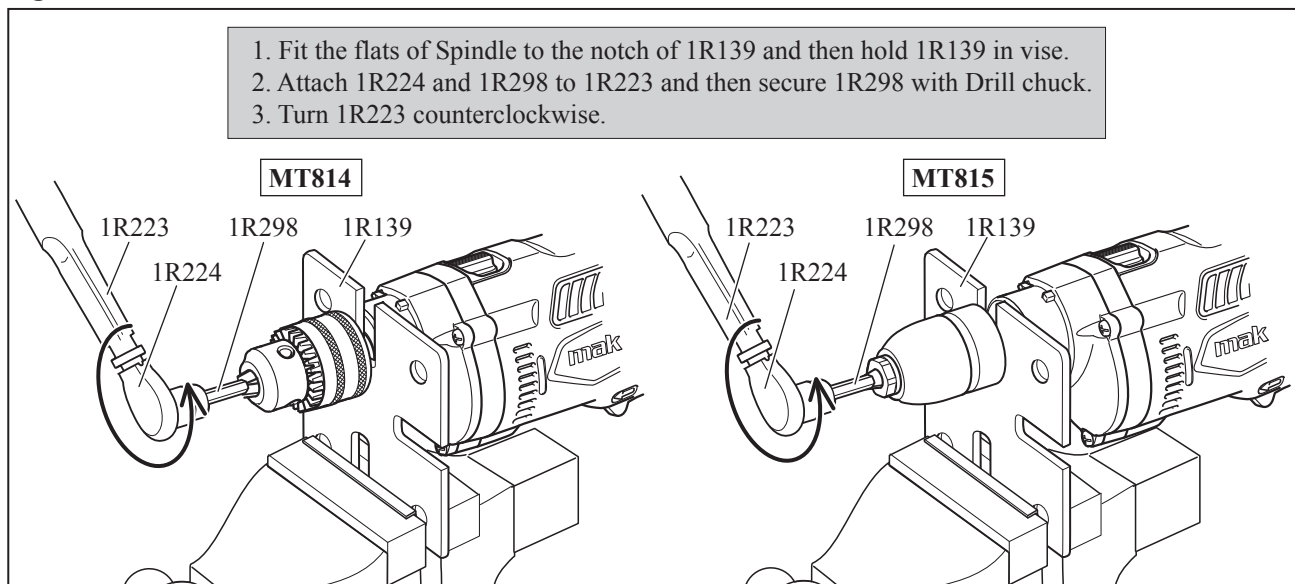
[3] DISASSEMBLY/ASSEMBLY

[3]-1. Drill chuck

DISASSEMBLING

Drill chuck can be removed as illustrated in **Fig. 2** when Drill chuck is not out of order.

Fig. 2



When removing a Drill bit is impossible, 1R298 can not be secured with the drill chuck. Therefore, remove the drill chuck from Spindle as illustrated in **Fig. 2A or 2B**.

Fig. 2A

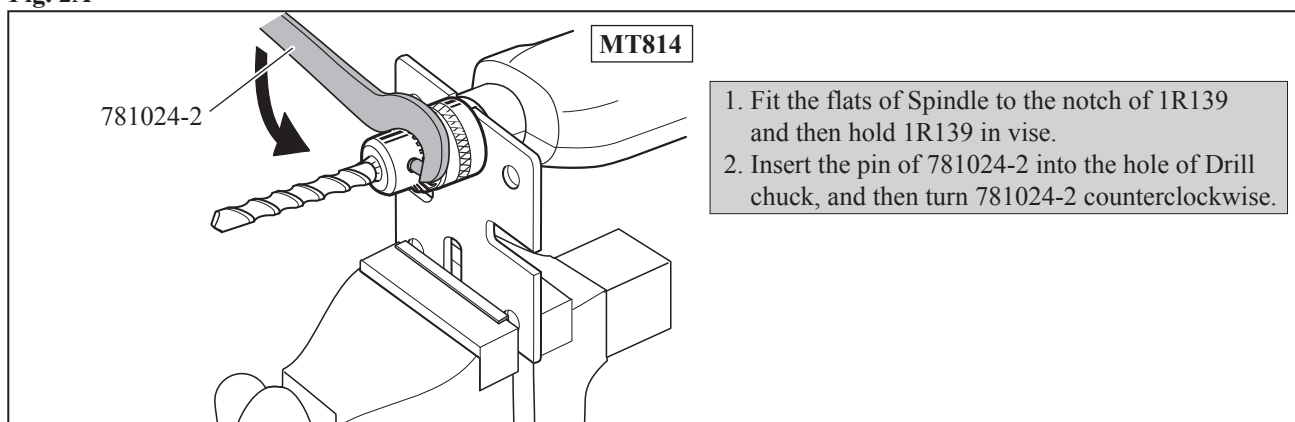
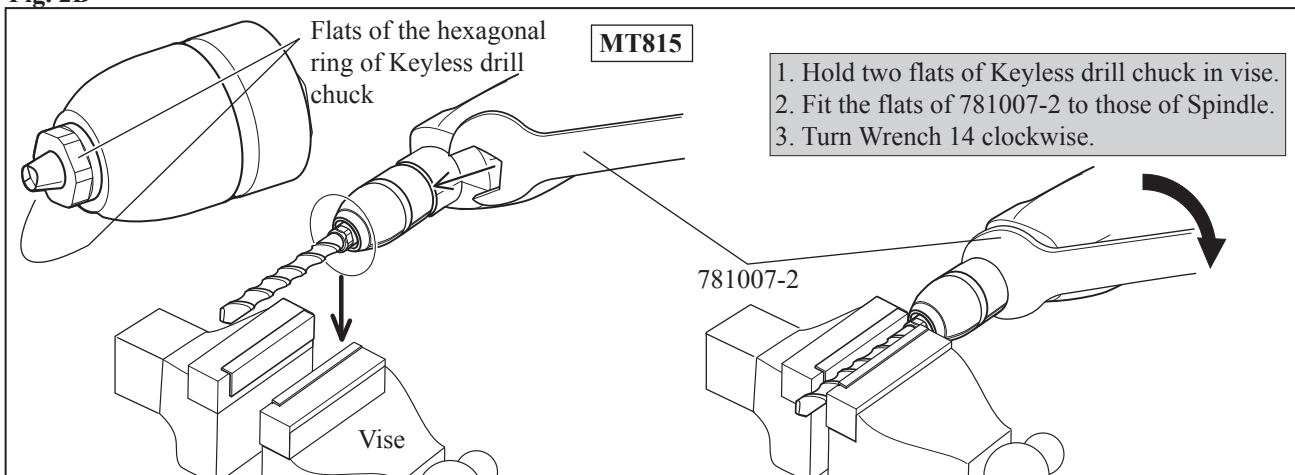


Fig. 2B



ASSEMBLING

Take the disassembling step in reverse.

Note: The fastening torque of 1R223 has to be 34.3N.m. up to 44.1N.m.

► **Repair**

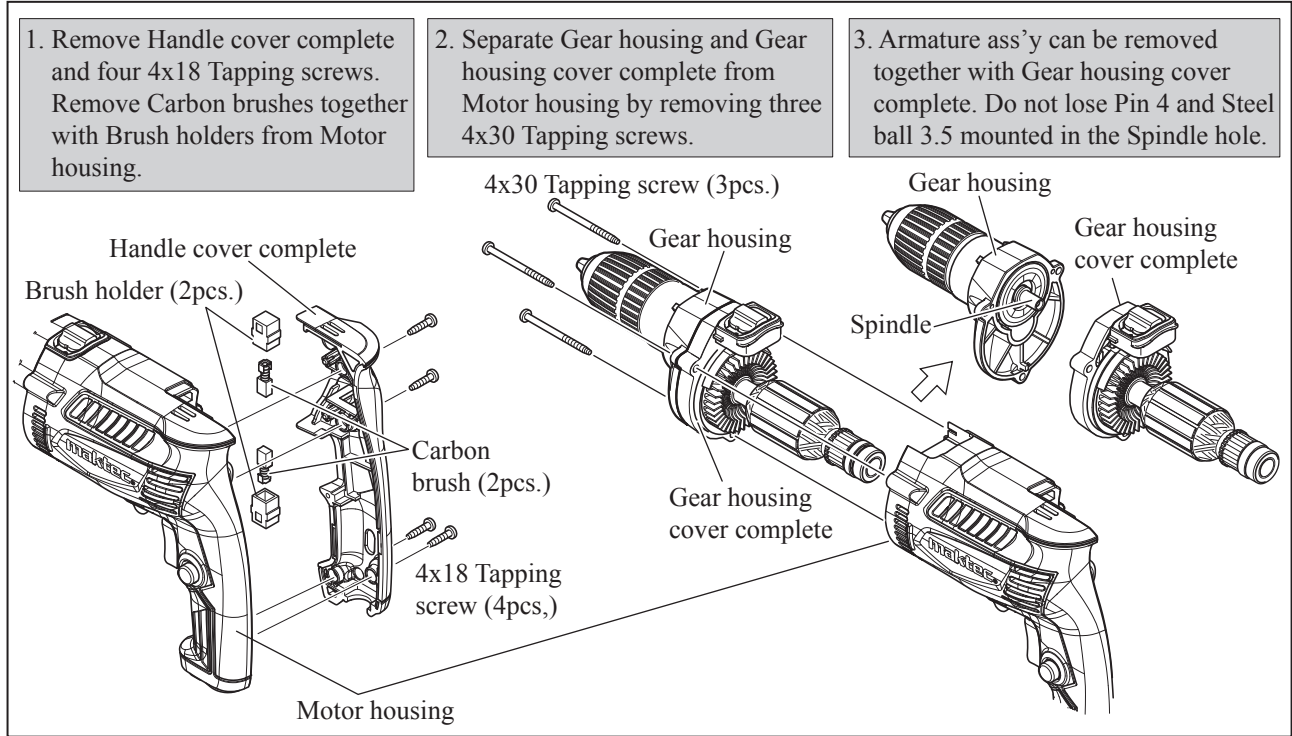
[3] DISASSEMBLY/ASSEMBLY

[3]-2. Armature

DISASSEMBLING

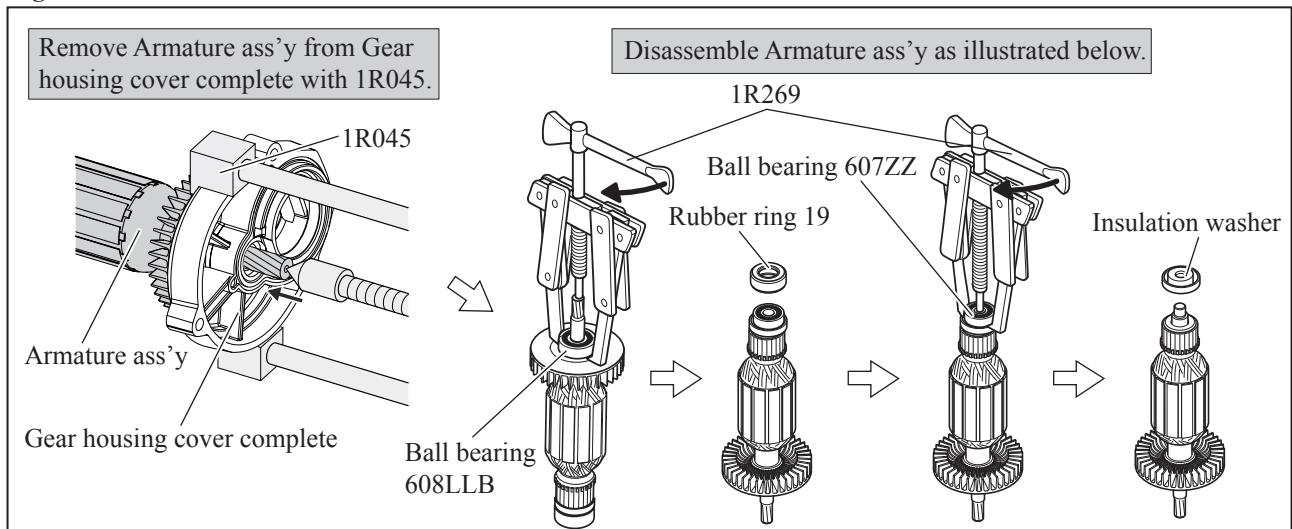
(1) Remove Armature from the machine as illustrated in **Fig. 3**.

Fig. 3



(2) Disassemble the Armature as illustrated in **Fig. 4**.

Fig. 4



► **Repair**

[3] DISASSEMBLY/ASSEMBLY

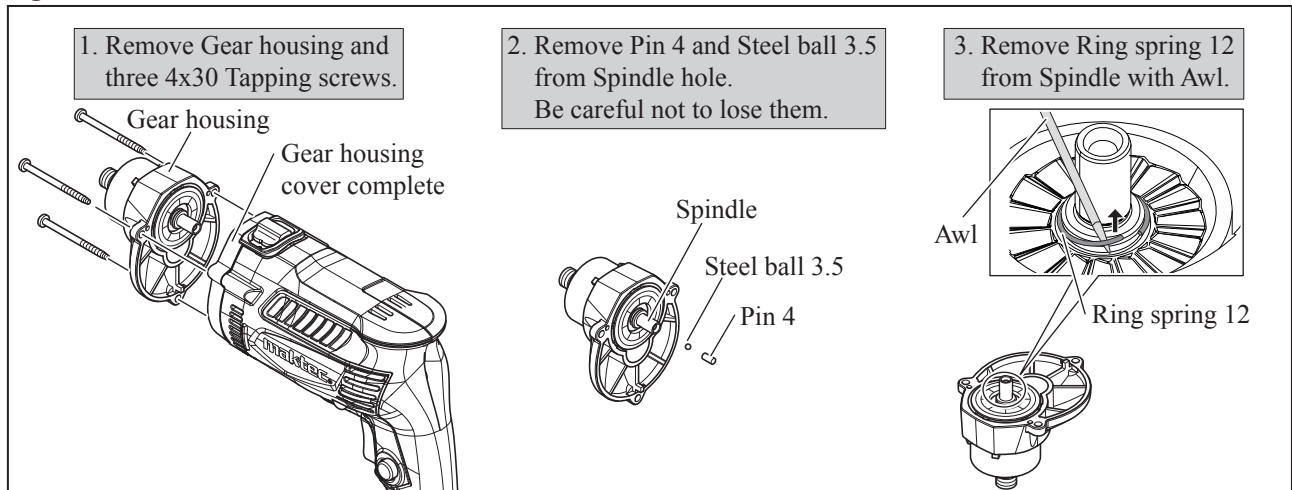
[3]-3. Helical gear 37, Ball bearing 6202DDW

DISASSEMBLING

(1) Remove Drill chuck as illustrated in Fig. 2.

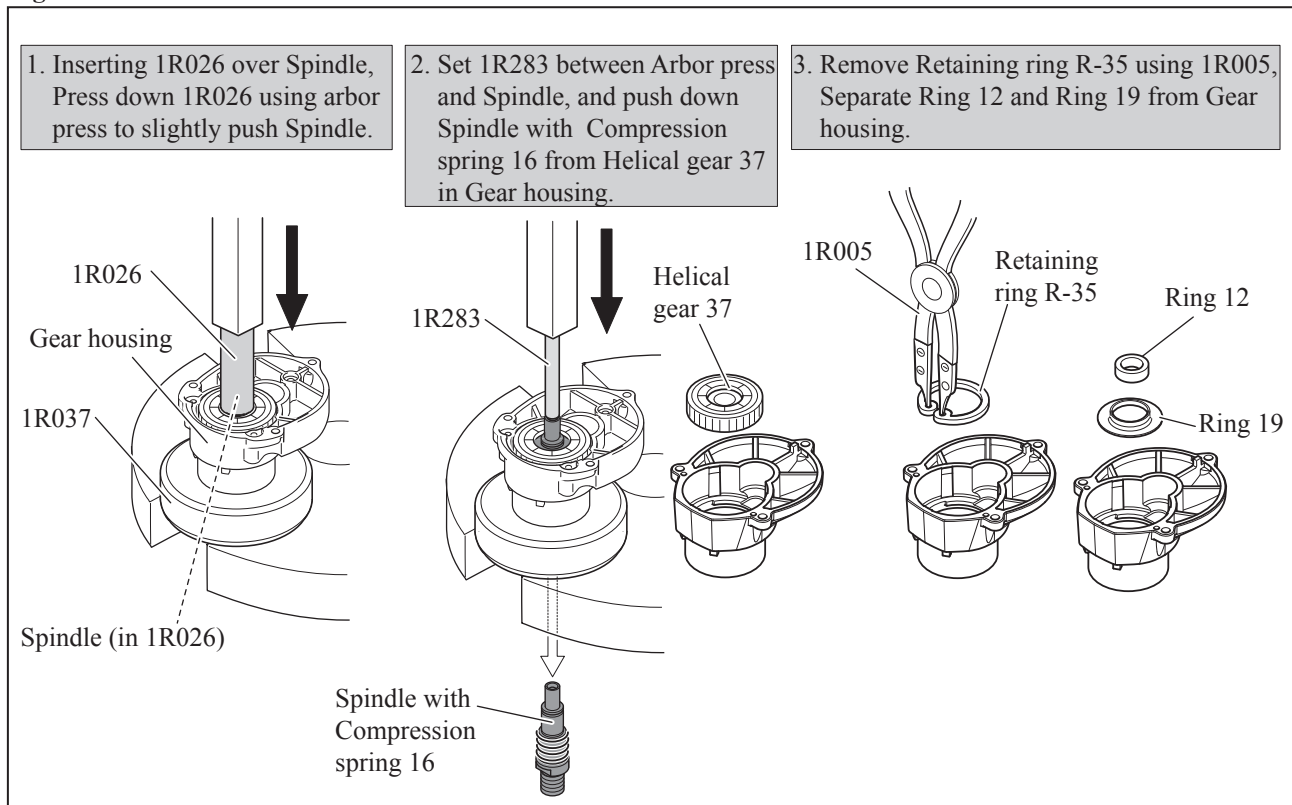
(2) Separating Gear housing, remove Pin 4, Steel ball 3.5 and Ring spring 12 from Spindle as illustrated in Fig. 5.

Fig. 5



(3) Disassemble Spindle and Helical gear 37 as illustrated in Fig. 6.

Fig. 6



► **Repair**

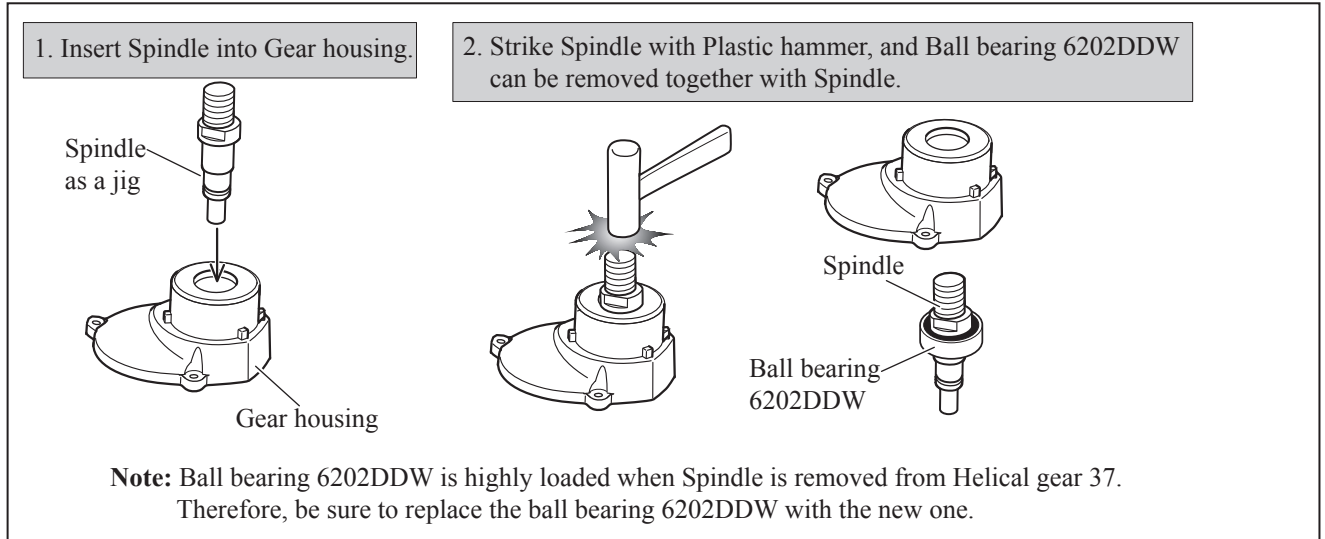
[3] DISASSEMBLY/ASSEMBLY

[3]-3. Helical gear 37, Ball bearing 6202DDW (cont.)

ASSEMBLING

(4) Remove Ball bearing 6202DDW as illustrated in **Fig. 7**. Use the removed Spindle as a jig.

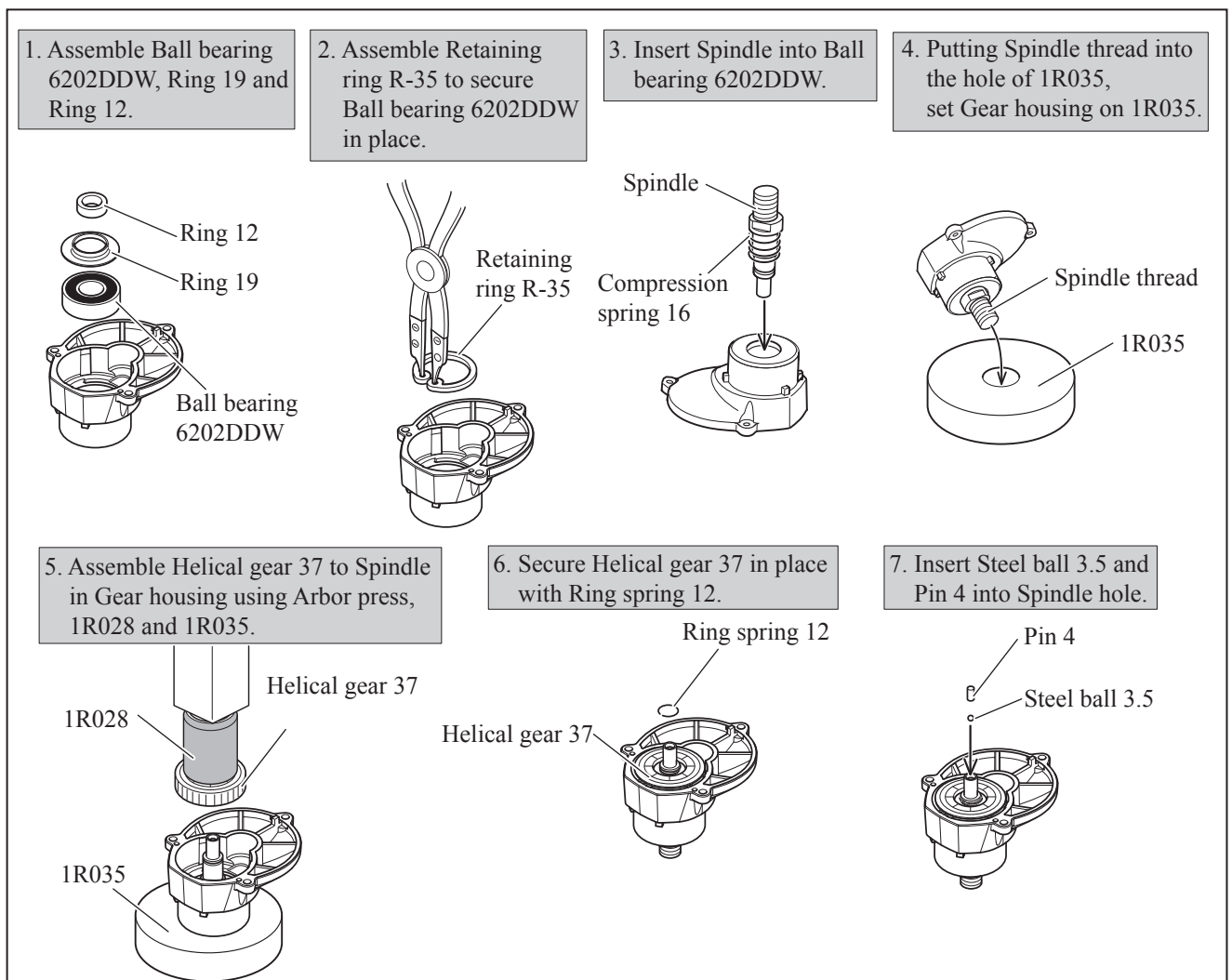
Fig. 7



ASSEMBLING

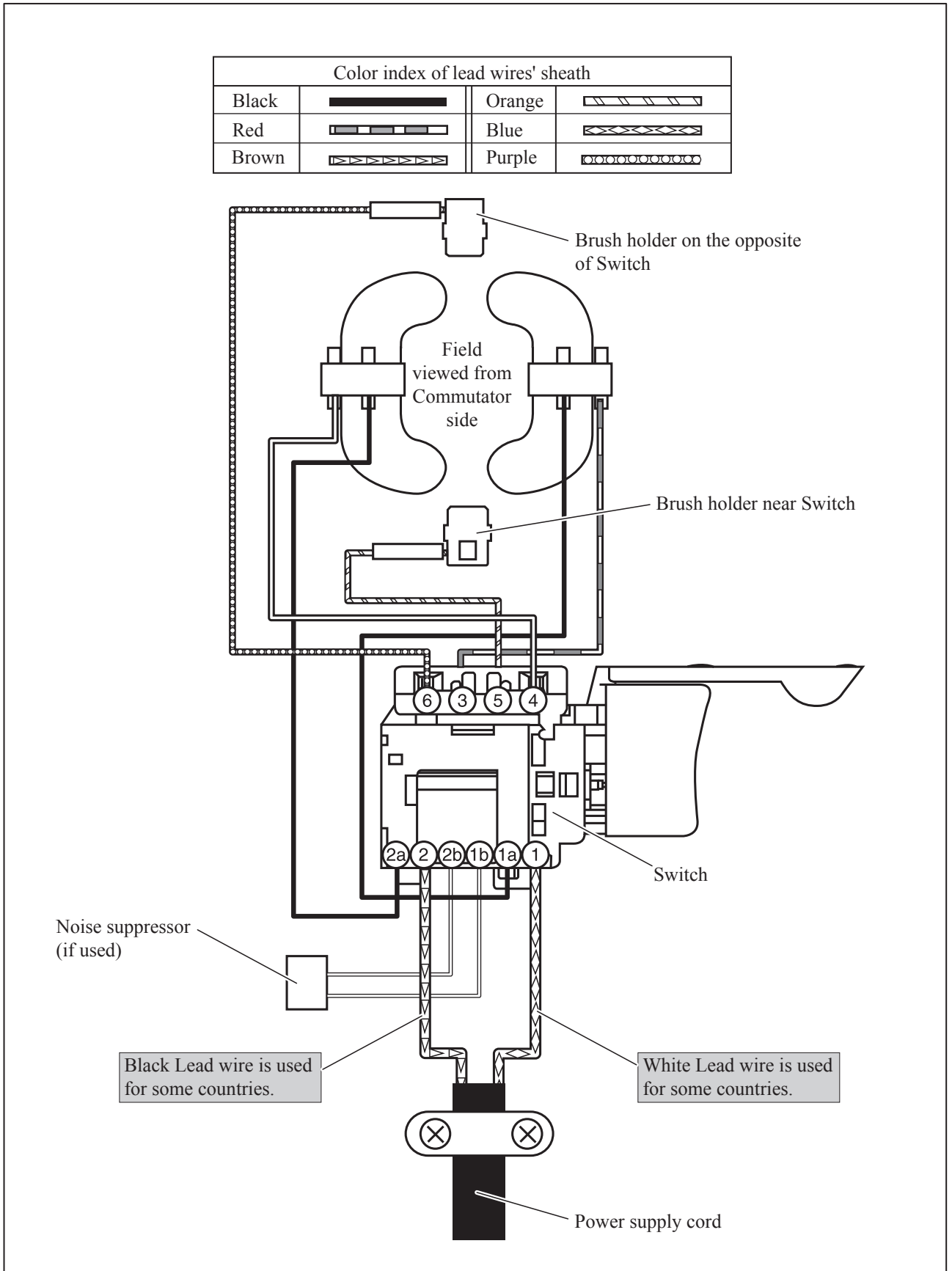
Assemble Ball bearing 6202DDW, Spindle and Helical gear 37 to Gear housing as illustrated in **Fig. 8**.

Fig. 8



► **Circuit diagram**

Fig. D-1



▶ Wiring diagram

Fig. D-2

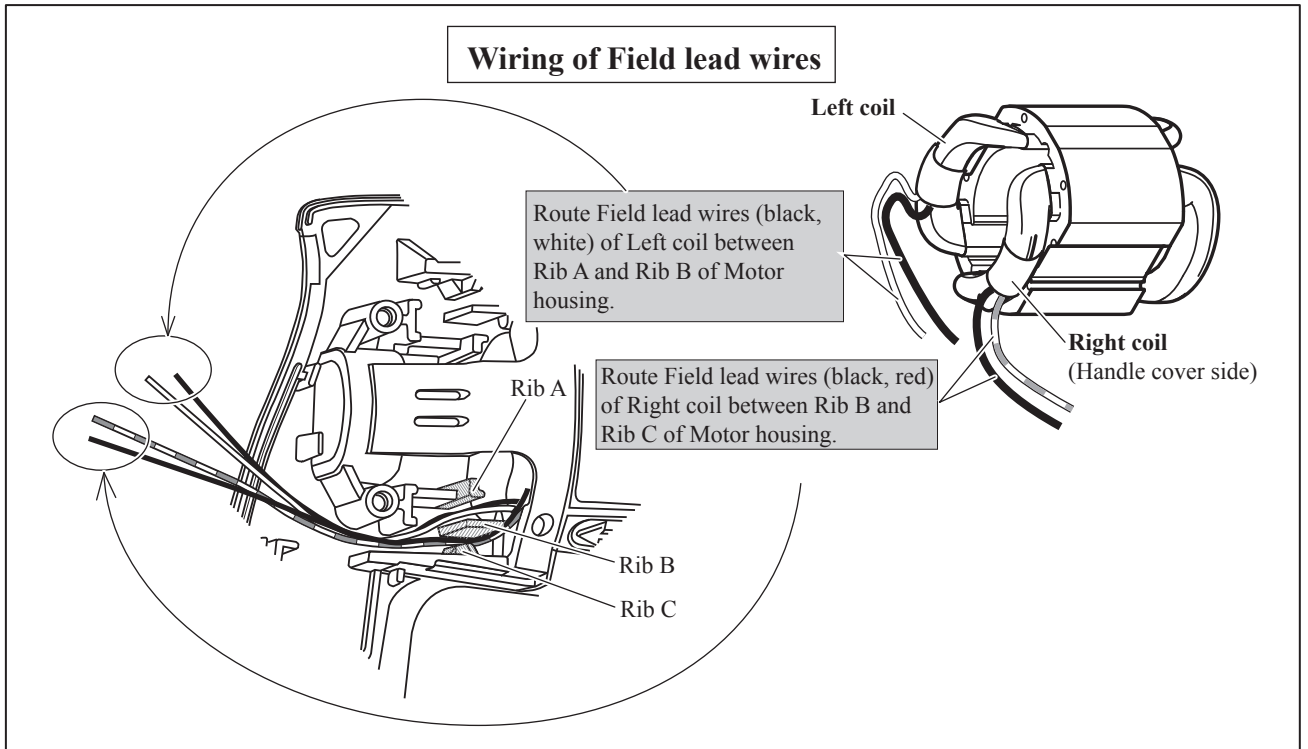


Fig. D-3

