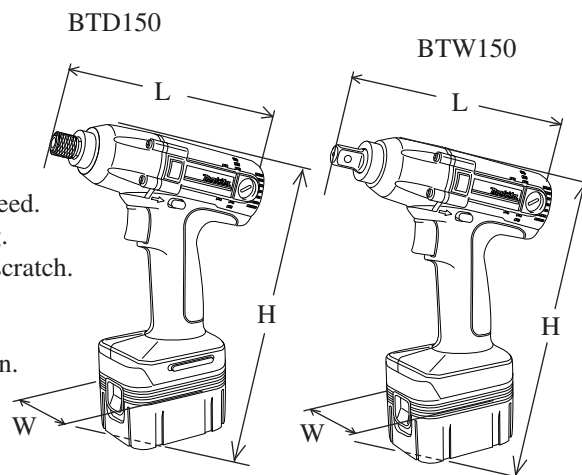


Models No.	▶	BTD150 BTW150
Description	▶	14.4V Cordless Impact Driver 14.4V Cordless Impact Wrench

CONCEPTION AND MAIN APPLICATIONS

The above models are equipped with newly developed battery.
The brief benefits and features are as mentioned below.

- BTD150 :** *Superior to Model 6916D or BTD120 in fastening speed.
*Slim designed grip for easy and comfortable gripping.
*Equipped with bumper to protect the materials from scratch.
- BTW150 :** *Same max. fastening torque, 150 N.m as Mod.6902D
but much more compact than Mod.6902D.
*Slim designed grip for easy and comfortable operation.
*Equipped with bumper to protect the materials from scratch.



Below listed standard type models are only available.

Model No.	Battery	Charger	Plastic case
BTD150SA	Ni-MH BH1420 / 14.4V / 2.0Ah	DC14SA	Yes
BTW150SA	Ni-MH BH1420 / 14.4V / 2.0Ah	DC14SA	Yes

Dimensions : mm (")		
Model No.	BTD150	BTW150
Length (L)	190 (7-1/2)	193 (7-5/8)
Height (H)	*253 (10)	*253 (10)
Width (W)	78 (3-1/16)	78 (3-1/16)

*253 (10) is the height with battery BH1420.

► Specification

Model No.		BTD150	BTW150
Voltage (V)		14.4	14.4
No load speed (min-1=rpm)		0 - 2,300	0 - 2,300
Impact per minute (min-1=bpm)		0 - 3,000	0 - 3,000
Driving shank : mm (")		Hex 6.35 (1/4)	Square 12.7 (1/2)
Capacities	Standard bolt		M10 - M16 (3/8 - 5/8)
	High Tensile bolt		M8 - M12 (5/16 - 1/2)
	Machine screw	M4 - M10 (5/32" - 3/8")	
	Self drilling screw	ø4 - ø6 x 13-45mm in length ø5/32" - ø1/4" x 1/2" - 1-3/4" in length	
	Course thread	22 - 150mm (7/8" - 5-7/8") in length	
Max. fastening torque		130N.m 1,330Kgf.cm 1,250in.lbs	150N.m 1,530Kgf.cm 1,330in.lbs
Electric brake		Yes	Yes
Variable speed control switch		Yes	Yes
Reverse switch		Yes	Yes
Net weight: kg (lbs)		1.8 (4.0) including battery BH1420	1.9 (4.2) including battery BH1420

► Standard equipment

For Model BTD150

- * Philips bit 2-65 1 pc.
- * Plastic case 1 pc.

(only for Model BTD150SA)

For Model BTW150

- * Socket 19-48 1 pc.
- * Pin 4 1 pc.
- * O ring 24 1 pc. (Except North American market)
- * Plastic case 1 pc. (only for Model BTW150SA)

< Note > The standard equipment for the tool shown may differ from country to country.

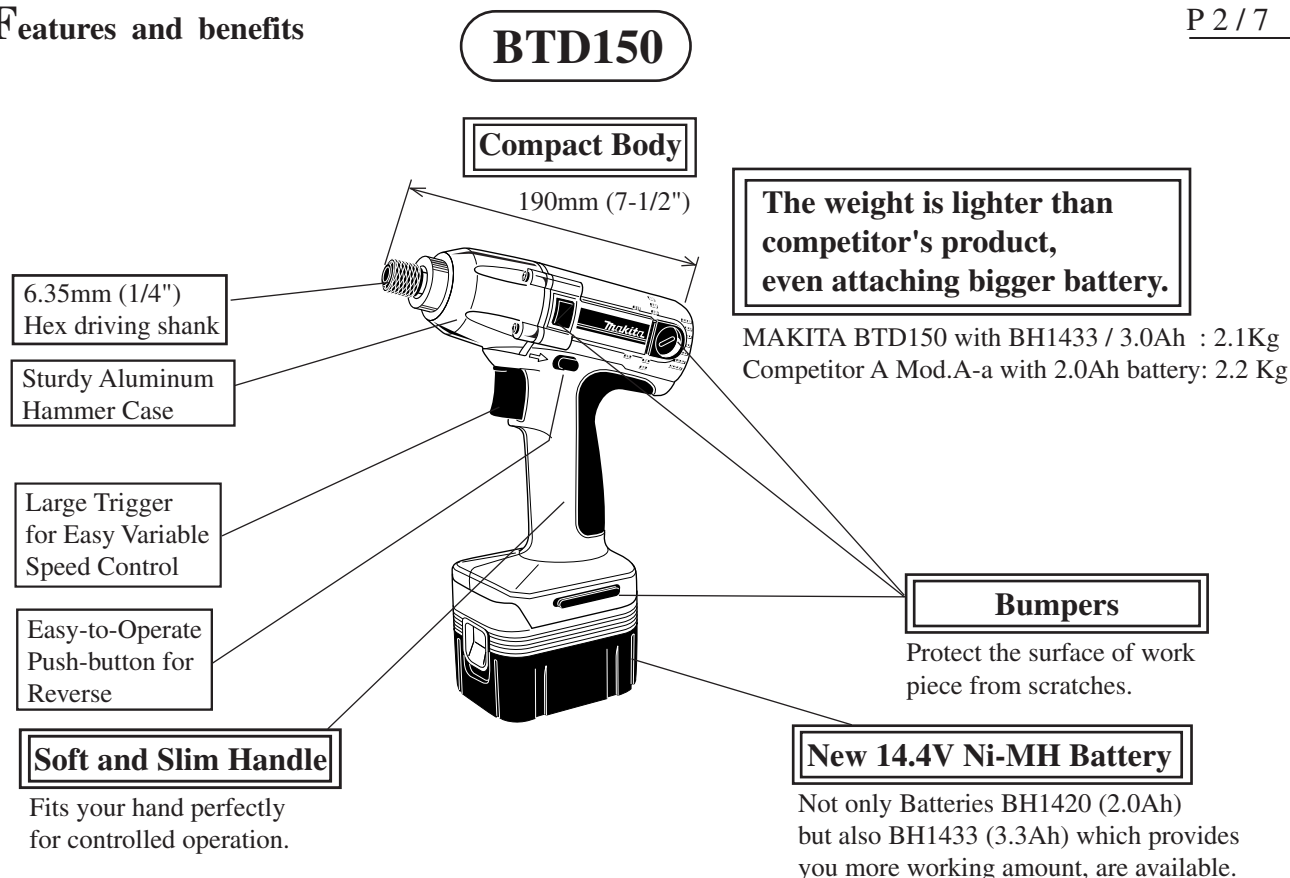
► Optional accessories

For Model BTD150

- * Various philips bit
- * Various socket bit
- * Various drill chuck set
- * Bit piece
- * Stopper for impact driver
- * Battery BH1420 (2.0Ah)
- * Battery BH1433 (3.3Ah)
- * Charger DC14SA

For Model BTW150

- * Various socket
- * Battery BH1420 (2.0Ah)
- * Battery BH1433 (3.3Ah)
- * Charger DC14SA

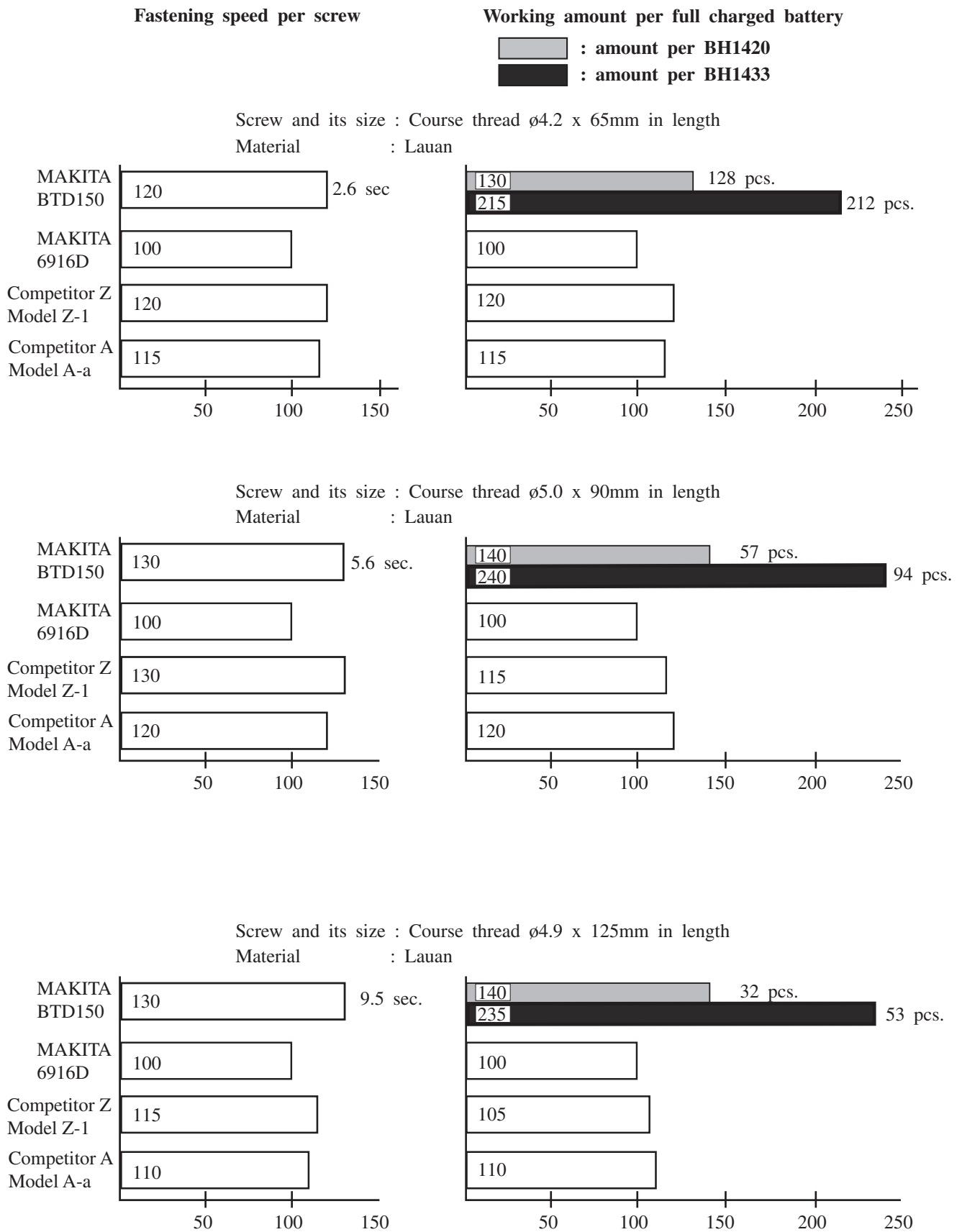


► **Comparison of products**

Model		Makita		Competitor A
		BTD150		A-a
Specifications	Cell	Ni-MH		Ni-Cd
	Type	BH1420	BH1433	Battery-X
Battery	Voltage (V)	14.4		14.4
	Current capacity (Ah)	2.0	3.3	2.0
	Energy Capacity (Wh)	28.8	47.5	28.8
Charging time (minute)		30	50	14
		with DC14SA		with Charger X (Japanese spec.)
No load speed (min-1=rpm)		0 - 2,300		0 - 2,300
Impacts per minute (min-1=ipm)		0 - 3,000		0 - 3,300
Fastening torque:N.m (kgf.cm)		130 (1,325)		127 (1,300)
Dimensions	Length : mm (")	190 (7-1/2)		221(8-3/4)
	Width : mm (")	78 (3-1/16)		78 (3-1/16)
	Height : mm (")	*253 (10)		238 (9-3/8)
Net weight: kg (lbs)		1.8 (4.0)	2.1 (4.6)	2.2 (4.9)
		(including battery)		(including battery)

*253 (10) : The height including battery 1420

Numbers in chart below are the relative values when setting 6916D (2.2Ah) 's capacity as 100.



► **Features and benefits**

BTW150

12.7mm (1/2") square drive

Compact Body
193mm (7-5/8")

The weight is same as competitor's product, even attaching bigger battery.

MAKITA BTW150 with BH1433 / 3.0Ah : 2.2Kg
Competitor A Mod.A-b with 2.0Ah battery : 2.2 Kg

Sturdy Aluminum Hammer Case

Large Trigger for Easy Variable Speed Control

Easy-to-Operate Push-button for Reverse

Soft and Slim Handle
Fits your hand perfectly for controlled operation.

Bumpers
Protect the surface of work piece from scratches.

New 14.4V Ni-MH Battery
Not only Batteries BH1420 (2.0Ah) but also BH1433 (3.3Ah) which provides you more working amount, are available.

► **Comparison of products**

Specifications		Makita		Competitor A
		BTW150		A-b
	Cell	Ni-MH		Ni-Cd
	Type	BH1420	BH1433	Battery X
Battery	Voltage (V)	14.4		14.4
	Current capacity (Ah)	2.0	3.3	2.0
	Energy Capacity (Wh)	28.8	47.5	28.8
Charging time (minute)		30	50	14
		with DC14SA		with Charger X (Japanese spec.)
No load speed (min-1=rpm)		0 - 2,300		0 - 2,300
Impacts per minute (min-1=ipm)		0 - 3,000		0 - 3,300
Fastening torque:N.m (kgf.cm)		150 (1,530)		147 (1,500)
Dimensions	Length : mm (")	193 (7-5/8)		221(8-3/4)
	Width : mm (")	78 (3-1/16)		78 (3-1/16)
	Height : mm (")	*253 (10)		238 (9-3/8)
Net weight: kg (lbs)		1.9 (4.2)	2.2 (4.9)	2.2 (4.9)
		(including battery)		(including battery)

*253 (10) : The height including battery 1420

< 1 > Disassembling housing R and L

Remove hammer case from housing R and L.

(In case of Model BTW150, anvil can be disassembled from the machine in this process.)

And then, housing R can be separated from housing L.

< 2 > Disassembling sleeve section (only for Model BTD150)

(1) Take off ring spring from the groove on anvil.

(2) Flat washer, compression spring, sleeve and 2 pcs. of steel ball 3.5 can be removed from anvil.

(3) Anvil can be removed from hammer case.

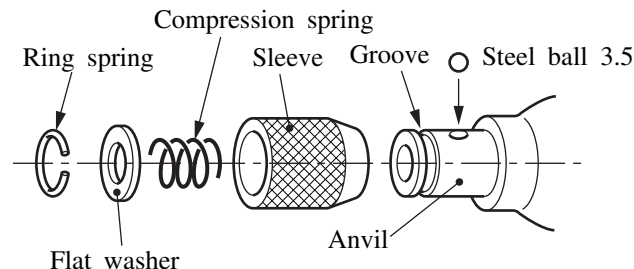


Fig. 1

(4) When assembling anvil to hammer case, put MAKITA grease N No.1 by approx.0.1g to the cylindric part of anvil.

< 3 > Disassembling hammer

(1) Press down hammer with 1R045: Large gear extractor by turning the handle.

(2) Adjust the opening for steel ball inserting to the cam groove top of spindle.

(3) Take off 2 pcs. of steel balls 5.6 from spindle.

< Note > 25 steel balls 3.5 are installed in hammer.
Check the quantity when assembling.

1R045 Large gear extractor

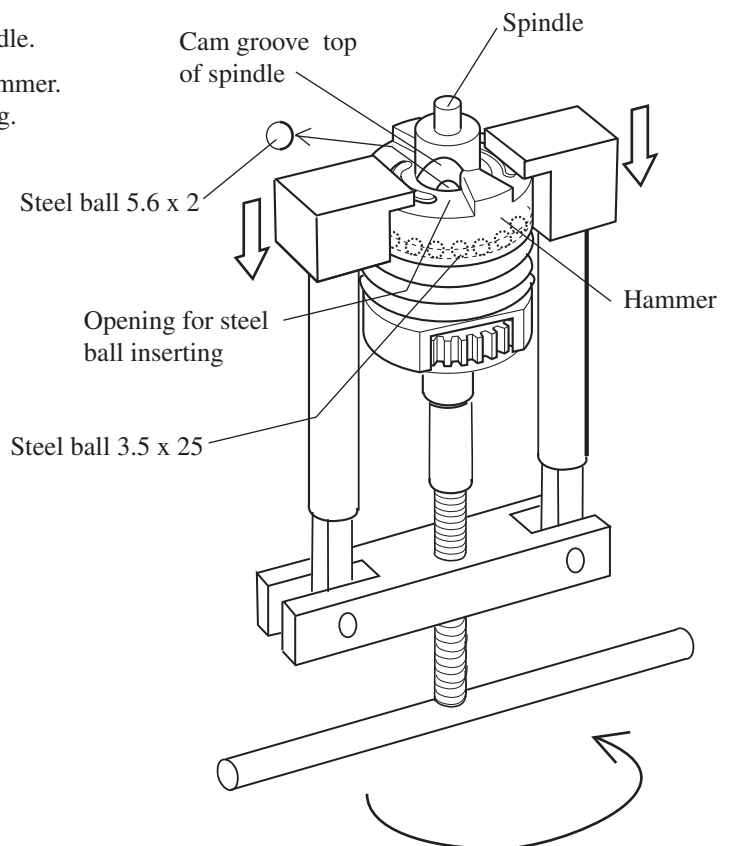
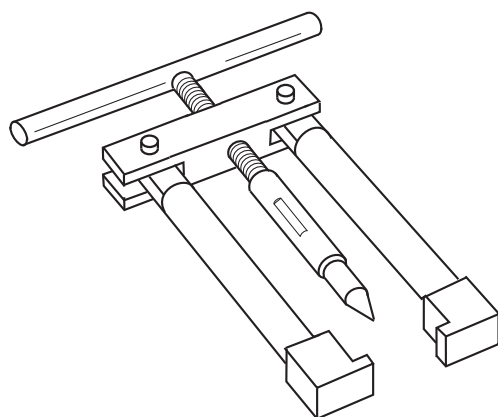
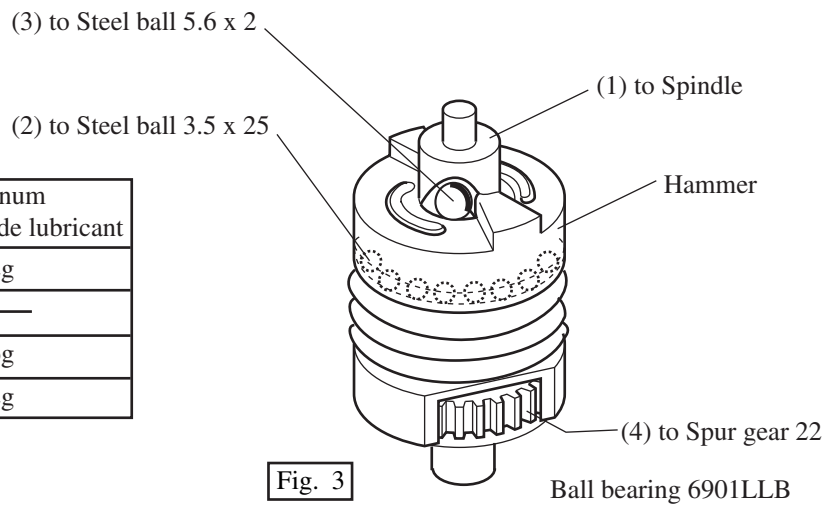


Fig. 2

(4) Apply grease to the position No. 1, 2, 3 and 4 as listed below, when assembling.

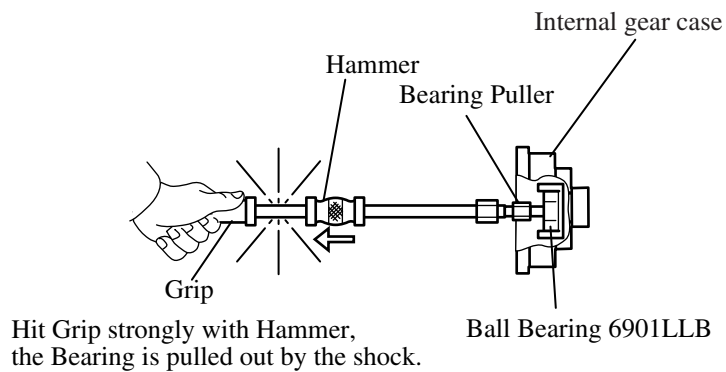
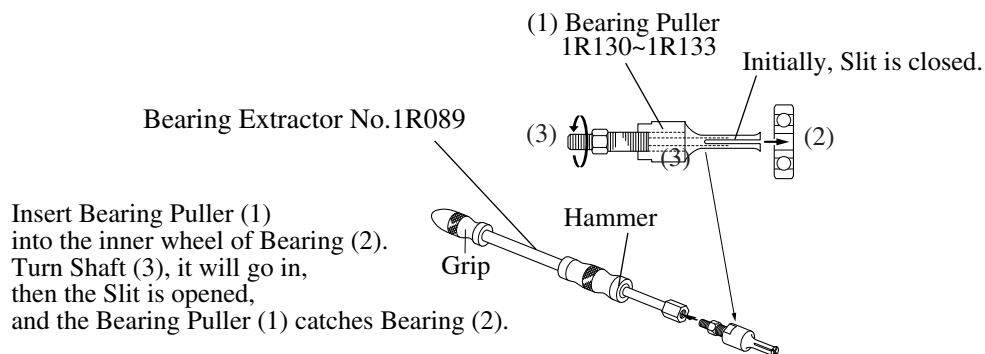
	MAKITA grease N No.1	Molybdenum di-sulphide lubricant
(1)	0.5g	0.2g
(2)	0.5g	—
(3)	—	0.6g
(4)	1.0g	0.2g






< 4 > Removing ball bearing 6901LLB

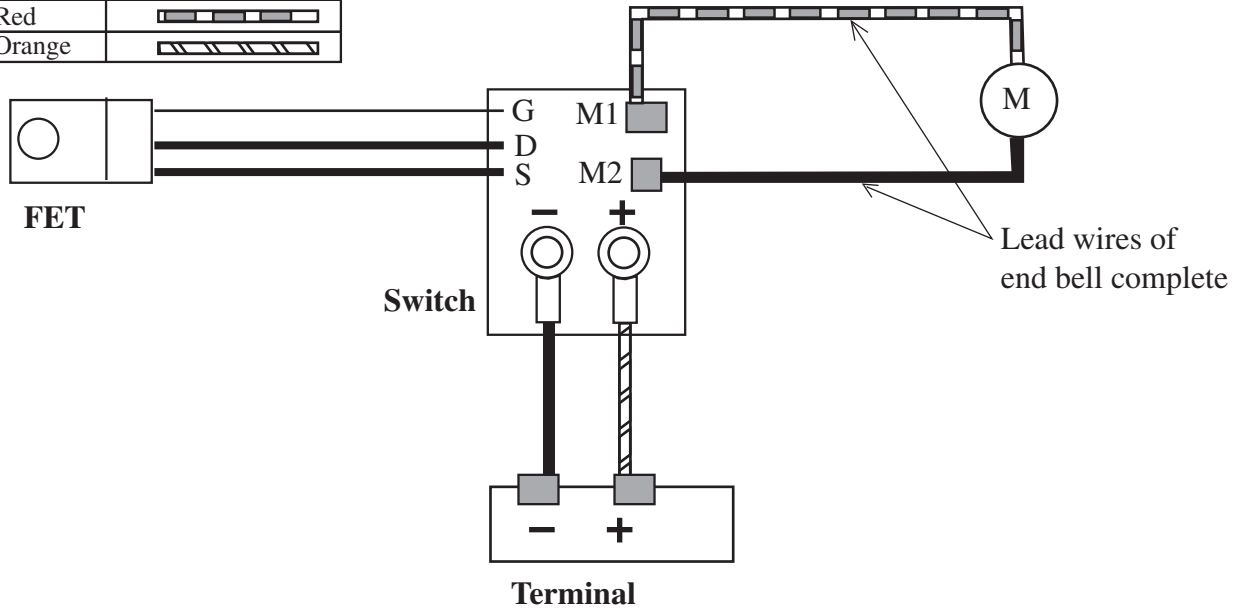
Ball bearing 6901LLB is firmly assembled by pressing into internal gear case, and it is difficult to disassemble it without any tool. For disassembling it, the following repairing tools are required.

- * Bearing pullers No. 1R130 - 133
- * Bearing Extractor No.1R089



Circuit diagram

Color index of lead wires	
Black	
Red	
Orange	



Wiring diagram

