

T ECHNICAL INFORMATION

Makita

PRODUCT

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Models No. ▶ 6990D

Description ▶ 9.6V Cordless impact driver

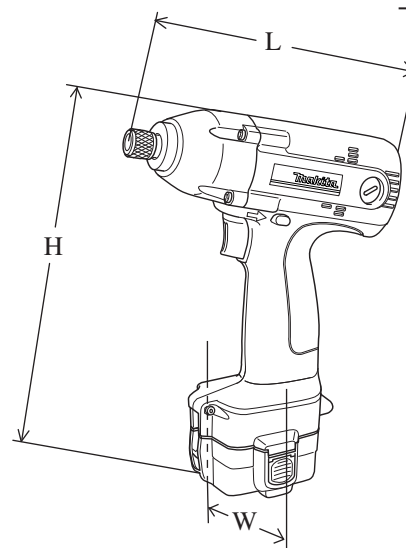
C ONCEPTION AND MAIN APPLICATIONS

This model is 9.6V cordless impact driver with more compact and light weight body comparing with Mod.6908D.

The fastening speed is fastest in this class.

The variation of this model is as listed below.

Model No.	Battery				Charger
	No.	Type	Ah	Q'ty	
6990DWA	9122	Ni-Cd	2.0	1 pc.	DC1411
6990DWA E	9122		2.0	2 pc.	
6990DWD	9134	Ni-MH	2.6	1 pc.	
6990DWDE	9134		2.6	2 pc.	
6990DWF	9135		3.0	1 pc.	
6990DWFE	9135		3.0	2 pc.	



Dimensions : mm (")	
Width (W)	77 (3)
Height (H)	231 (9-1/8)
Length (L)	168 (6-5/8)

► Specification

Voltage (V)		D/C 9.6 V
No load speed (min.⁻¹=rpm)		0 - 2,300
Impact per minute (min.⁻¹=bpm)		0 - 3,000
Max.fastening torque		* 90N.m (918Kgf.cm, 790in.lbs) (when fastening high tensile bolt M12 for 3 sec.)
Driving shank : mm (")		6.35 (1/4) Hex
Capacities	Screws	M4 - M8 (5/32" - 5/16")
	Standard bolt	M5 - M12 (3/16" - 15/32")
	High tensile bolt	M5 - M10 (3/16" - 3/8")
	Course thread	22 - 90mm (7/8" - 3-1/2")
	Self drilling screw (Teks)	Ø4 - Ø6x13 - 45mm (5/32" - 1/4"x 1/2" - 1-3/4")
Net weight: kg (lbs)		1.4 (3.1 lbs)

► Standard equipment

- * Philips bit 2-65 1 pc.
- * Battery cover 1 pc.
- * Plastic carrying case 1 pc.

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

► Optional accessories

- * Various Philips bits
- * Various socket bit
- * Various drill chuck
- * Bit piece for short size bit
- * Set plate for battery without push button
- * Battery 9133
- * Battery 9134
- * Battery 9135
- * Battery 9100
- * Battery 9102
- * Battery 9102A
- * Battery 9120
- * Battery 9122
- * Charger DC1411
- * Charger DC1801
- * Automotive charger DC1422

Model 6990D

The fastest fastening speed in this class

Electric brake

More compactly designed body

MAKITA Mod.6990D : 168mm (6-5/8")
Competitor A / Mod. A : 176mm (6-15/16")

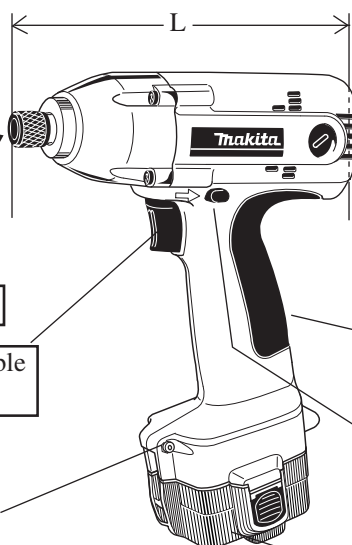
Magnesium alloyed hammer case.



Stopper can be attached

Easily operateable variable speed control switch

Set plate (optional accessory) can be attached for the battery without push button.



Newly designed D28 type motor with the following features
* more compact and light weight
* Externally accessible brush
* Replaceable armature
* Effective cooling

Palm-fitty, Soft Grip

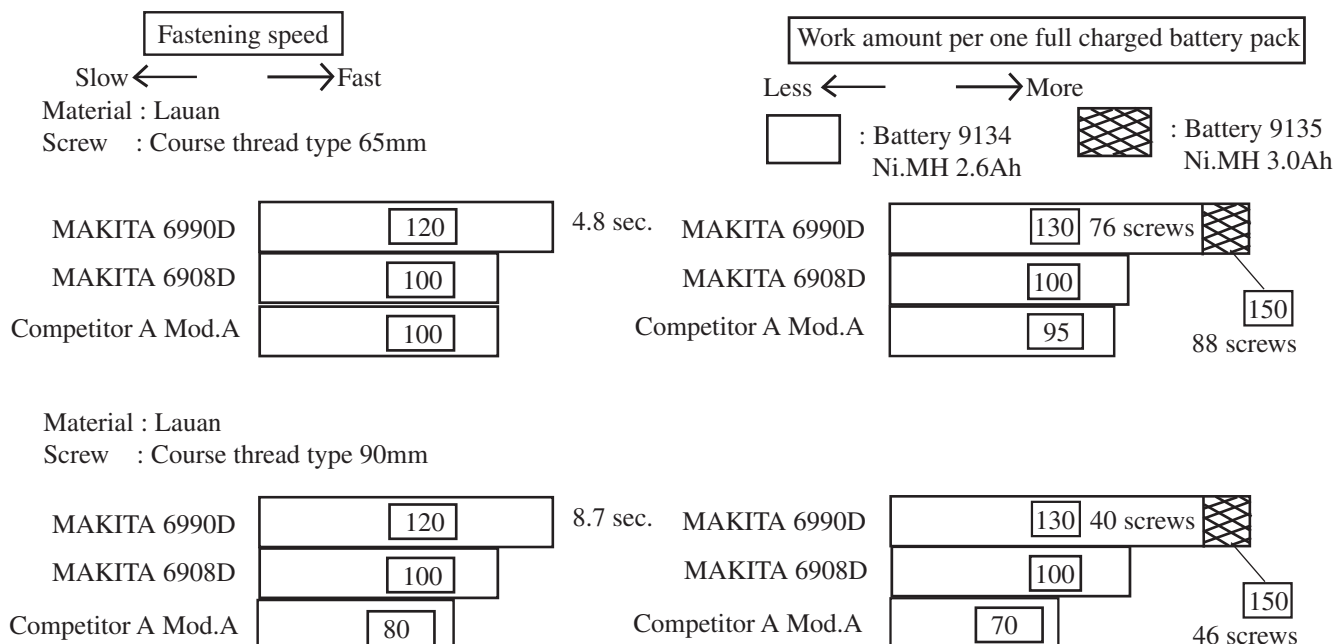
Push Button for Reversing

High capacity battery 9135 with 3.0Ah can be used.

► **Comparison of products**

Manufacturer Specification Model No.	MAKITA		Competitor A
	6990D	6908D	Model A
No load speed : (min -1= rpm)	0 - 2,300	0 - 2,200	0 - 2,200
Blows per min : (min -1= bpm).	0 - 3,000	0 - 2,800	0 - 2,900
Equipped motor	D28-15	D31- 16	—
Max. fastening torque (N.m)	90	78	88
Externally accessible brush	Yes	Yes	Yes
Overall length : mm	168	171	176
Net weight :Kg (lbs)	1.4 (3.1)	1.4 (3.1)	1.6 (3.5)

Numbers in chart below are relative values when setting the capacity of 6908D with 2.0Ah battery, as 100.



< 1 > Removing housing R and L

Remove hammer case from housing R and L.
And then, housing R and L can be removed.

< 2 > Removing sleeve section

- (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.

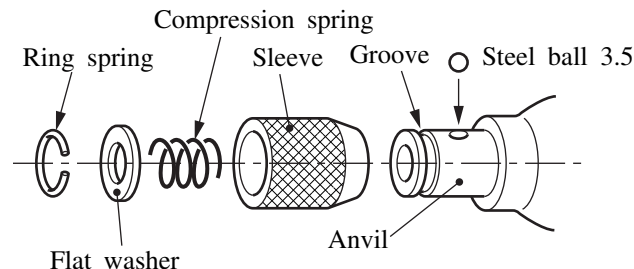


Fig. 1

- (4) When assembling anvil to hammer case, put MAKITA grease N No.2 by approx.0.5g to the cylindric part of anvil.

< 3 > Removing 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 steel ball 5.6 from spindle.

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

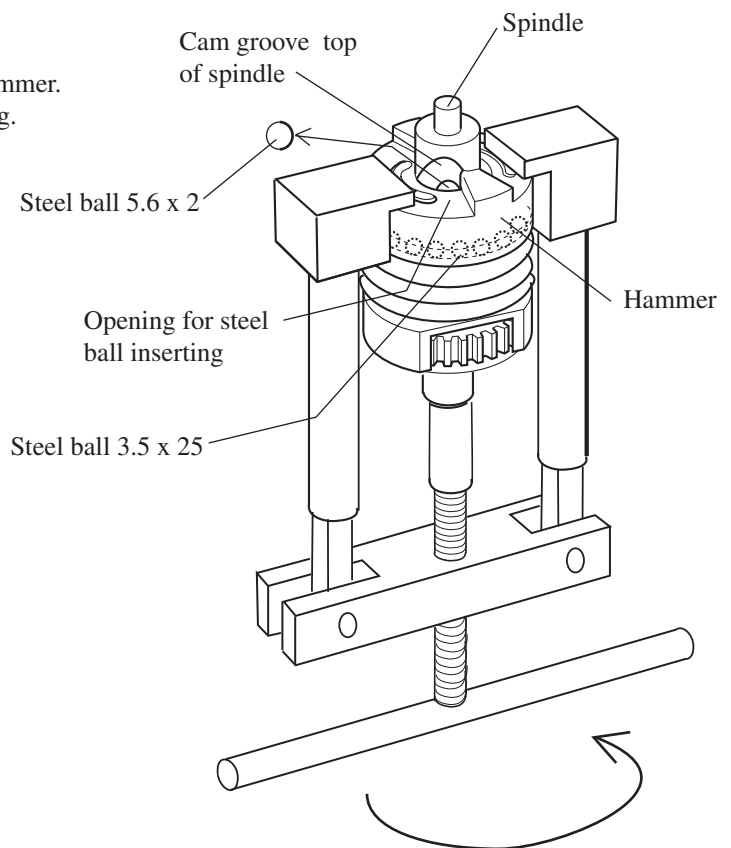
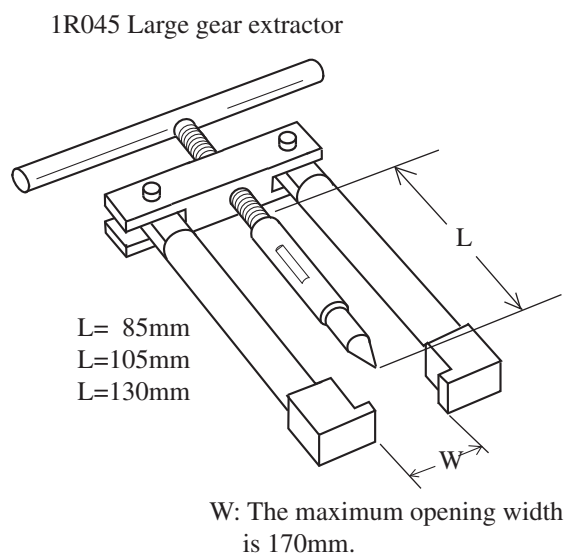
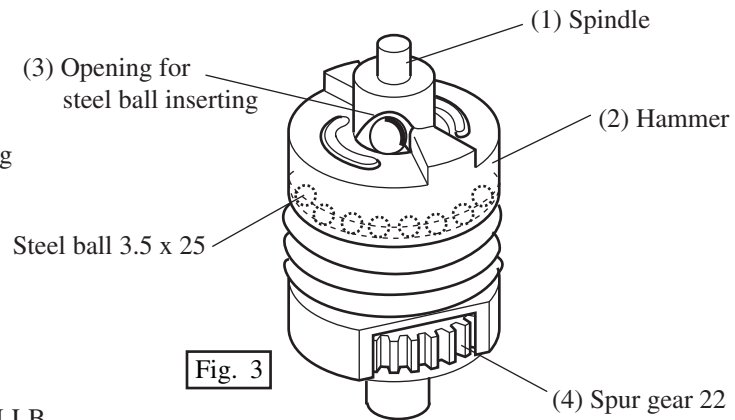


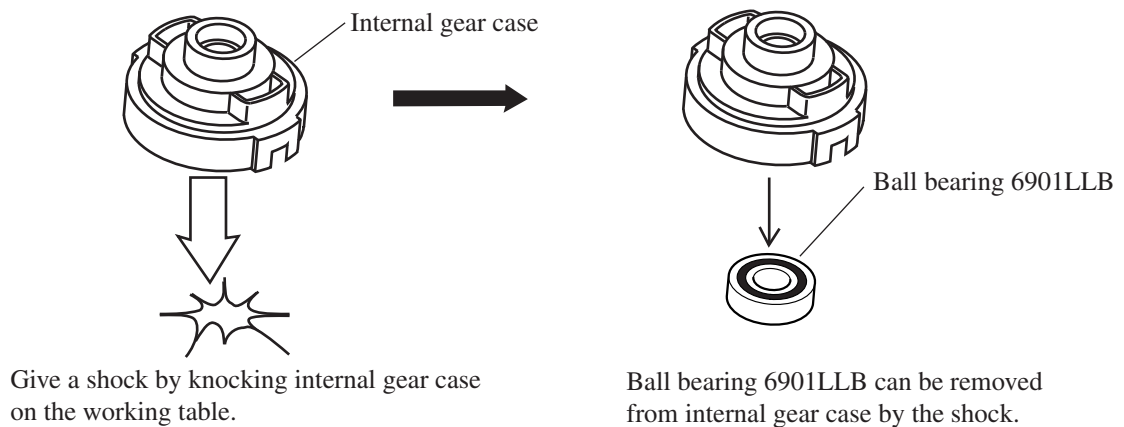
Fig. 2

(4) Apply MAKITA grease N No.2 to the position No. 1, 2, 3 and 4, when assembling.

- (1) Spindle : 0.5g
- (2) Hammer : 0.5g
- (3) Opening for steel ball inserting : 0.5g
- (4) Spur gear 22 : 2.0g



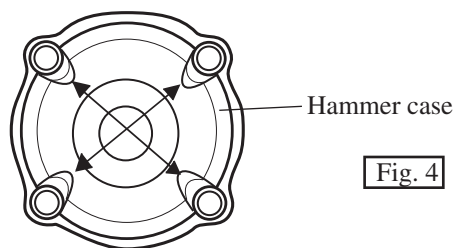
< 4 > Removing ball bearing 6901LLB



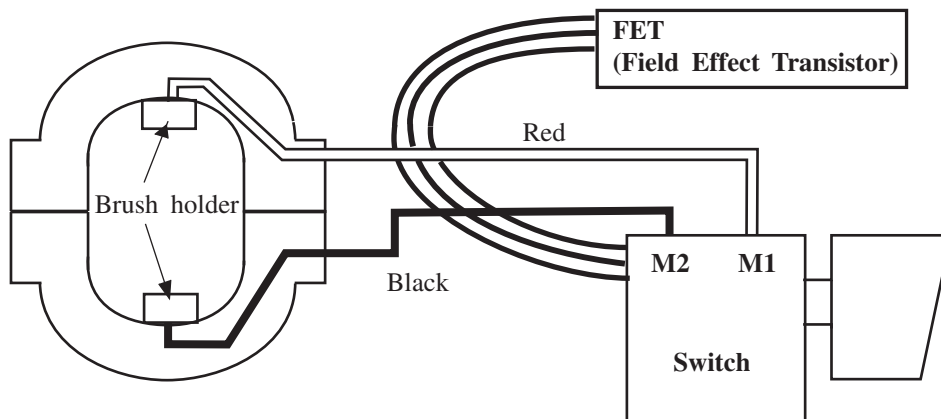
< 4 > Fastening torque for tapping screws

Tapping screws	Fastened position	Fastening torque: N.m (Kgf.cm)
4 x 18	Housing set (R & L)	1.27 - 1.76 (13 - 18)
4 x 25	*Hammer case	1.76 - 2.16 (18 - 22)
3 x 8	FET Spacer	1.1 - 1.5 (11 - 15)

< Note > Hammer case has to be fastened diagonally as illustrated in Fig. 4, when assembling.



► **Circuit diagram**



► Wiring diagram

Pass the lead wires as illustrated in Fig.5.

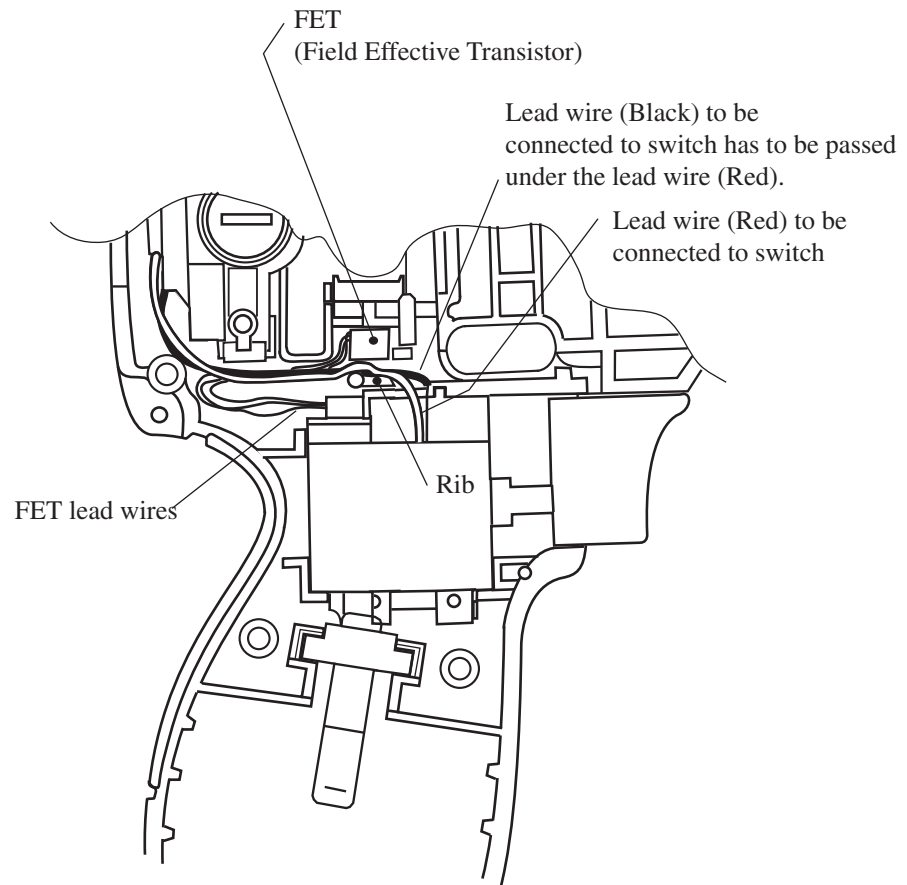


Fig.5