

TECHNICAL INFORMATION



PRODUCT

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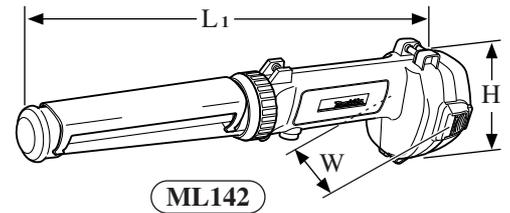
Models No. ▶ ML142, ML143, ML183

Description ▶ Rechargeable Job Site Light

CONCEPT AND MAIN APPLICATIONS

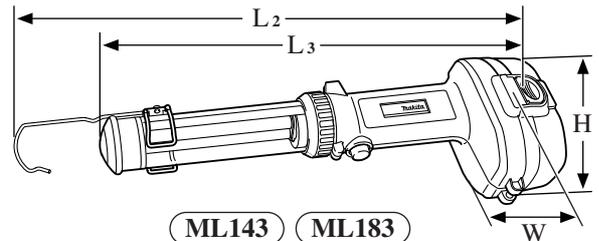
ML142 and ML143 are the 14.4V version of the existing models ML122 and ML123.

ML183 is the 18V version of the existing model ML123. These new models employ clustered type batteries.



ML142

Dimensions : mm (")			
Model No.	ML142	ML143	ML183
Length (L ₁)	347 (13-5/8)	—	—
Length (L ₂)	—	411 (16-1/4)	411 (16-1/4)
Length (L ₃)	—	350 (13-3/4)	350 (13-3/4)
Height (H)	116 (4-9/16)	116 (4-9/16)	154 (6-1/16)
Width (W)	94 (3-11/16)	94 (3-11/16)	95 (3-3/4)



ML143 ML183

< Note >

The battery's size is not included in the above dimensions.

Specification

Specifications	Model No.	ML142	ML143	ML183
Battery voltage (V)		14.4		18
Battery capacity (Ah)		2.0 3.0	2.0 3.0	3.0 2.0
* Continuous illumination time: approx. min.		180 280	180 280	280 180
**Illumination (lux)		330	280	330
Fluorescent tube	Type of tube	Compact fluorescent tube 13W x 2 pcs.		
	*** Service life: hour	2600		
	Color temperature: K	4100		
	Starter	No		
Net weight (w/o battery): Kg (lbs)		0.35 (0.77)	0.37 (0.82)	0.37 (0.82)

< Note > * Continuous illumination time:

The figures shown in the above list can differ from condition of the batteries at room temperature.

** Illumination (lux):

The figures shown in the above list were measured on the following conditions.

- With the reflector attached to the product
- Measured at the point of 50 cm (19-3/4") distant from light source

*** Service life: The figures shown in the above list are based on the sum total of illumination time in repeating "ON" for 19 minutes and "OFF" for 1 minute.

Standard equipment

For model ML183 and ML143

* Hook 1 pc.

For model ML142

* Hook 1 pc.

* Strap 1 pc.

* Reflector 1 pc.

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

Optional accessories

For model ML142 and ML143

* Fluorescent tube

* BLB (Blacklight blue) fluorescent tube

* Battery chargers: DC1413, DC1414, DC1422
DC1803, DC1804, DC1822,
DC1839

* Ni-MH 14.4V Battery: 1435

* Ni-Cd 14.4V Battery: 1422

For model ML183

* Fluorescent tube

* BLB (Blacklight blue) fluorescent tube

* Battery Chargers: DC1803, DC1804, DC1822, DC1839

* Ni-MH 18V Battery: 1835

* Ni-Cd 18V Battery: 1822

► Features and benefits

Removable reflector
 * Easy to change the illuminating direction by turning the reflector
 * Can be used as a lantern by removing the reflector.

Absorber to protect the body from shock

ML142

14.4V clustered type battery

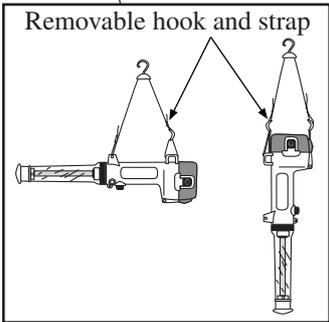
Retractable tool hook can be set back on the body easily when not used.

ML143

ML183

18V clustered type battery

Transparent lamp cover makes illumination brighter.



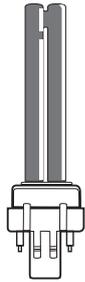
Removable hook and strap

Optional BLB (Blacklight Blue) fluorescent tube is available.

As a light source for oil leak detection, these new models are expected to meet the demands of automobile dealers, car maintenance shops, etc.

With BLB fluorescent tube on, the new models can emit UV light, which is used together with fluorescent dye for exact detection of oil leak points in the manner as described below. First, the fluorescent dye is added to the engine oil system, the system is turned on for circulation, and then UV light is used for leak detection.

When the dye is exposed to the UV light, all leak points will become visible with a bright yellowish green fluorescent glow.



► Comparison of products

Specifications		Model No.	MAKITA					
			ML183	ML142	ML143	BML125	BML126	ML122
Voltage (V)		18	14.4		12		both 9.6V and 12V	
* Continuous illumination time: approx. min.	18V (2.0Ah)	180	—		—		—	
	14.4V (2.0Ah)	—	180		—		—	
	12V/9.6V(2.0Ah)	—	—		150		150	
	12V/9.6V(3.0Ah)	—	—		250		230	
** Illumination (lux)	18V	330	—		—		—	
	14.4V	—	330	280	—		—	
	12V	—	—		380	330	380	330
	9.6V	—	—		—		330	280
Fluorescent tube	Type of tube	Compact fluorescent tube 13W x 2						
	*** Service life: hour	2,600	2,600	—		2,600	2,600	
	Color temperature: K	4,100	4,100	—		4,100	4,100	
	Starter	No	No		No		No	
Net weight w/o battery: Kg (lbs)		0.37 (0.82)	0.35 (0.77)	0.37(0.82)	0.35 (0.77)	0.37 (0.82)	0.35 (0.77)	0.37 (0.82)
Weight w/ battery 1822: Kg (lbs)		1.39 (3.06)	—		—		—	
Weight w/ battery 1422: Kg (lbs)		—	1.15 (2.54)	1.17(2.58)	—		—	
Weight w/ battery 1222: Kg (lbs)		—	—		+0.95 (2.09)	+0.97 (2.14)	1.0 (2.2)	1.04 (2.29)
Weight w/ battery 9122: Kg (lbs)		—	—		—		0.9 (1.98)	0.92 (2.03)
Dimensions	Length (L1): mm (")	—	347 (13-5/8)	—	340 (13-3/8)	—	347 (13-5/8)	—
	Length (L2): mm (")	411 (16-1/4)	—	411 (16-1/4)	—	404 (15-7/8)	—	411 (16-1/4)
	Length (L3): mm (")	350 (13-3/4)	—	350 (13-3/4)	—	343 (13-1/2)	—	350 (13-3/4)
	Height (H): mm (")	154 (6-1/16)	116 (4-9/16)	116 (4-9/16)	94 (3-11/16)	94 (3-11/16)	94 (3-11/16)	94 (3-11/16)
	Width (W): mm (")	95 (3-3/4)	94 (3-11/16)	94 (3-11/16)	80 (3-1/8)	80 (3-1/8)	97 (3-13/16)	97 (3-13/16)
Standard equipment		Hook (retractable)	Hook, Strap, Reflector	Hook (retractable)	Hook, Strap, Reflector	Hook (retractable)	Hook, Strap, Reflector	Hook (retractable)

< Note > * Continuous illumination time: The figures shown in the above list can differ from condition of the batteries at room temperature.

** Illumination (lux): The figures shown in the above list were measured on the following conditions.

- With the reflector attached to the product
- Measured at the point of 50 cm (19-3/4") distant from light source

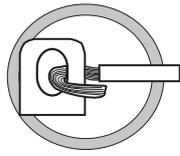
*** Service life : The figures shown in the above list are based on the sum total of illumination time in repeating "ON" for 19 minutes and "OFF" for 1 minute.

+ Weight w/battery BH1220

< 1 > Replacing battery holder, switch and circuit board complete

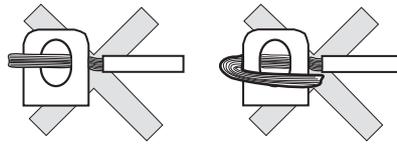
(1) Connecting lead wires

The lead wires have to be connected as illustrated in Fig. 1. Then, solder them.



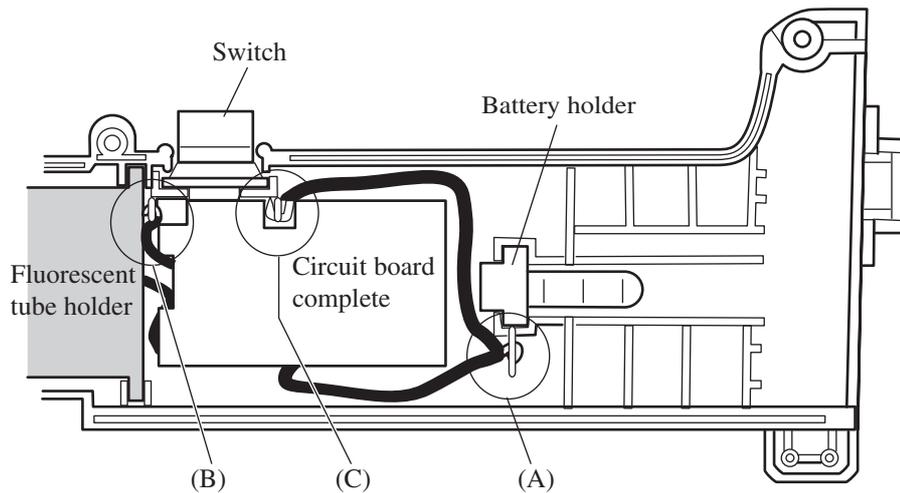
Correct connection

Fig. 1



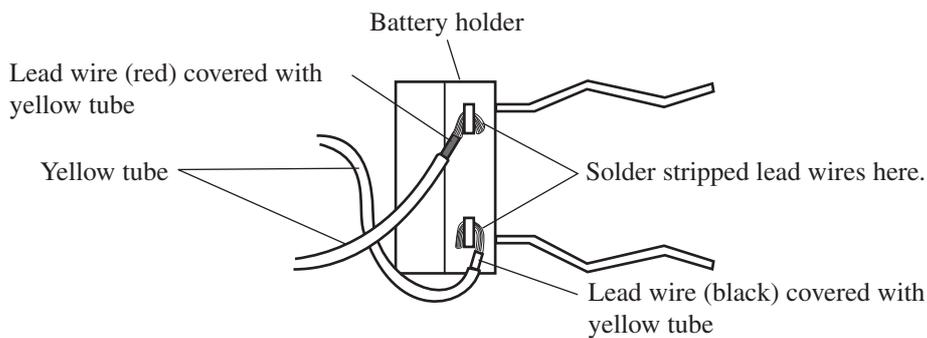
Wrong connection

Fig. 1A

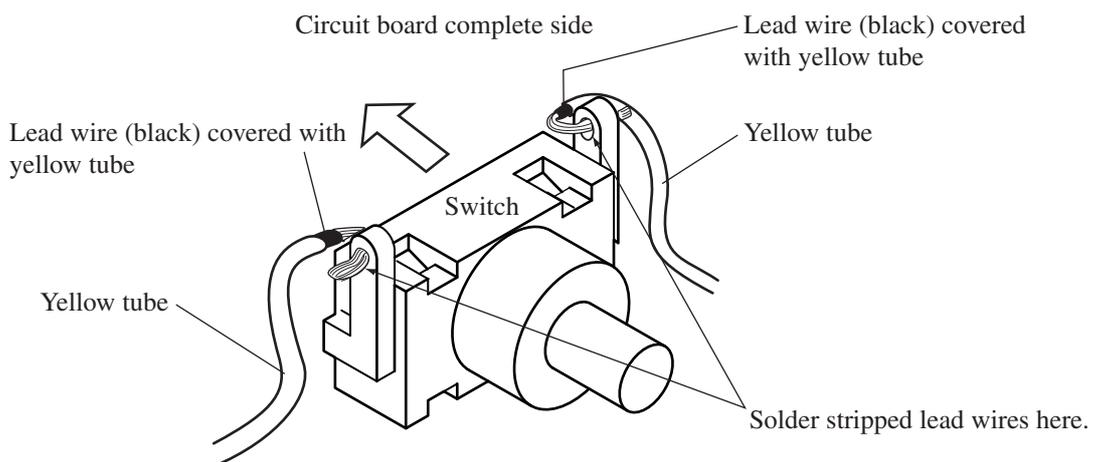


Place the lead wires so as not to be pinched by housing, circuit board complete and battery holder.

(A) Connecting the lead wire of circuit board complete with battery holder

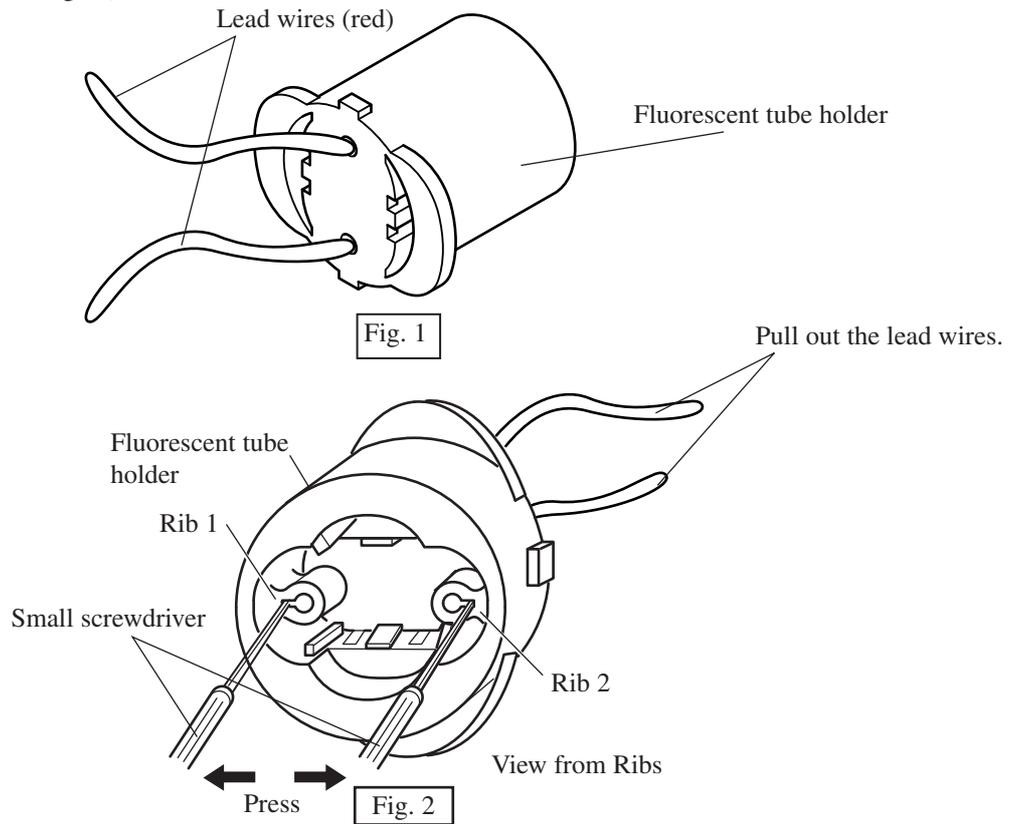


(B) & (C) Connecting the lead wire of circuit board complete with switch



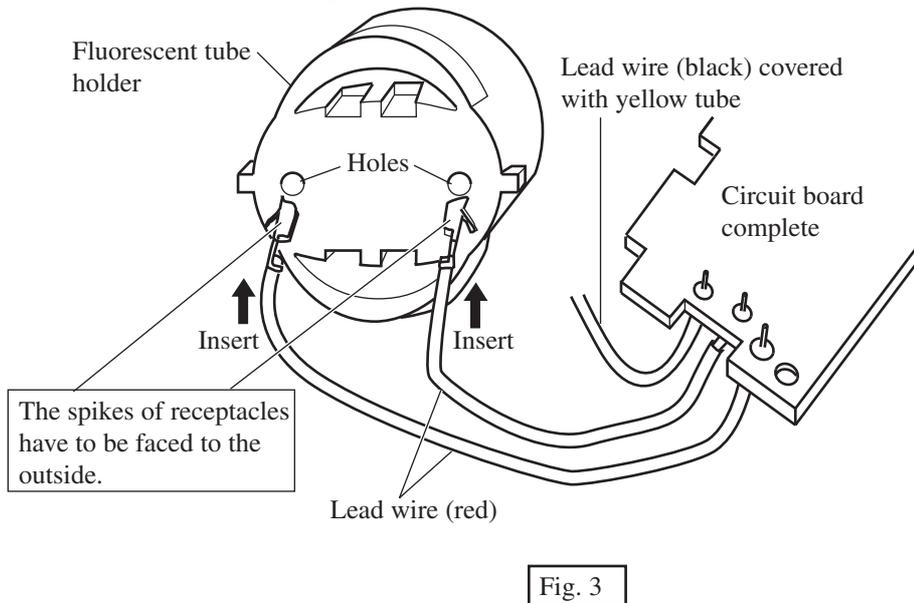
(D-1) Removing the lead wire of circuit board complete from fluorescent tube holder

Insert small screwdriver into rib 1 and 2, then pull out the lead wires pressing with the screwdriver in the direction of the arrow. (Fig. 1, Fig. 2.)



(D-2) Connecting the lead wire of circuit board complete with fluorescent tube holder

Insert receptacles into the holes of fluorescent tube holder with facing the spikes of receptacles to the outside as illustrated in Fig. 3.



< Note > The spikes of pulled (used) receptacles are deformed as illustrated in Fig. 3A. The used ones have to be modified as illustrated in Fig. 3B.

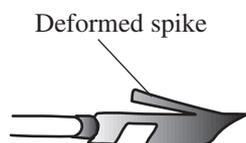


Fig. 3A

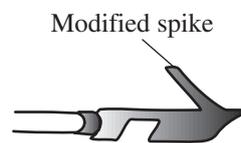
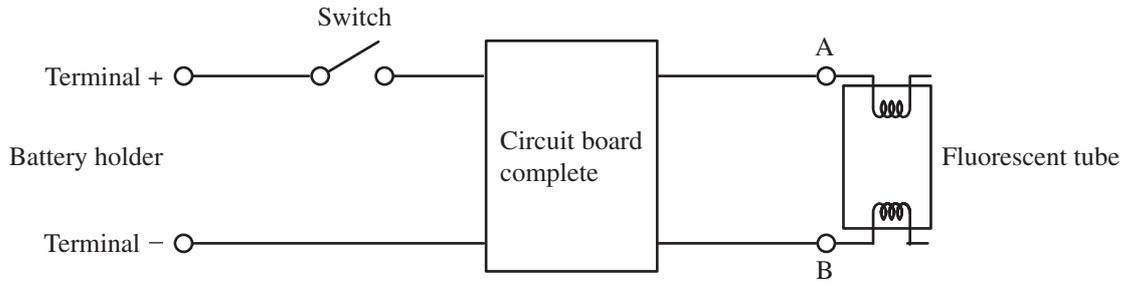


Fig. 3B

► **Circuit diagram**



► **Wiring diagram**

