

Models No. ▶ DC18RA

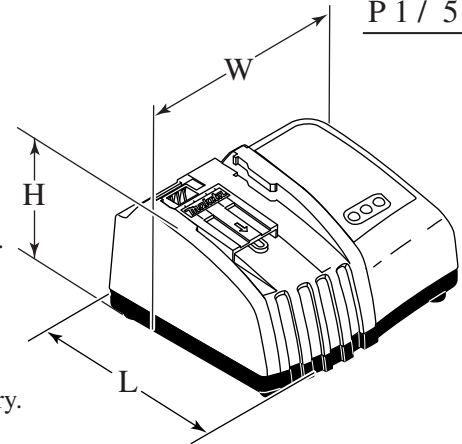
Description ▶ Charger

CONCEPT AND MAIN APPLICATIONS

Considering the future demand for slide type 7.2V Li-ion and Ni-MH battery, the above product has been launched with wider changeable range. This new face contains trickle charging function.

Its brief benefits are mentioned below.

1. Only 22 minutes for full-charge of 3.0 Ah Li-ion Battery
2. Innovative computer controlled charging system realized most suitable charge by making the digital communication between charger and battery.
3. Cooling system to keep the ideal temperature for charge.
4. Power display for battery; It displays the charging amounts of battery in two steps. (less than 80% or more than 80% of charge)
5. The adapter ADP04 (optional accessory) enables to charge the existing Ni-Cd and Ni-MH batteries.
6. The adapter ADP03 (optional accessory) enables to refresh inactive batteries
7. Selectable melody sound of completed charging



Dimensions: mm (")	
Length (L)	164 (6-1/2)
Width (W)	190 (7-1/2)
Height (H)	106 (4-3/16)

► Specification

Voltage (V)	Current (A)	Cycle (Hz)	Continuous Rating (W)		Max. Output(W)
			Input	Output	
110-120		50 - 60	240		
220-240		50 - 60	240		

Output voltage : V	DC 7.2 - 18
Output current : A	DC 9.0
Double Insulation	Yes
Power Supply Cord: m (ft)	2.0 (6.6)
Net weight: Kg (lbs)	1.0 (2.2)

		Cell	Capacity: Ah	Voltage: V	Battery
Charging Time	Approx. 15 min.	Li-ion	1.5	18	BL1815
		Ni-MH	2.0	14.4	BH1420
	Approx. 20 min.	Ni-MH	2.0	12	BH1220 / C
		Approx. 22 min.	Li-ion	2.0	9.6
	3.0			18	BL1830
	3.0		14.4	BL1430 / A	
	Approx. 30 min.	Ni-MH	3.3	12	BH1233/ C
			3.3	14.4	BH1433
		Ni-MH	3.3	9.6	BH9033
				3.3	9.6

< Note > The above figures about charging time may differ from condition to condition on batteries' temperature or room temperature.

► Optional accessories

- * ADP03 Automatic Refreshing Adapter
- * ADP04 Interchangeable Adapter

► Repair

CAUTION: Disconnect the charger from the power source for safety before repair/ maintenance !

[1] DISASSEMBLY/ASSEMBLY

[1] -1. Terminal Unit

DISASSEMBLING

1. Remove four caps 13 and four 4x20 tapping screws. Consequently, charger case complete can be separated from charger case cover. **(Fig. 1)**

< Note >

When removing charger case complete from charger case cover, be sure to put the product on the work bench, with charger case complete faced to the upper side.

2. Loosen band with which bundles lead wires of terminal unit and that of cirocco fan. Disconnect connector 1 and connector 2, and remove terminal unit from charger case cover. **(Fig. 2)**

Fig. 1

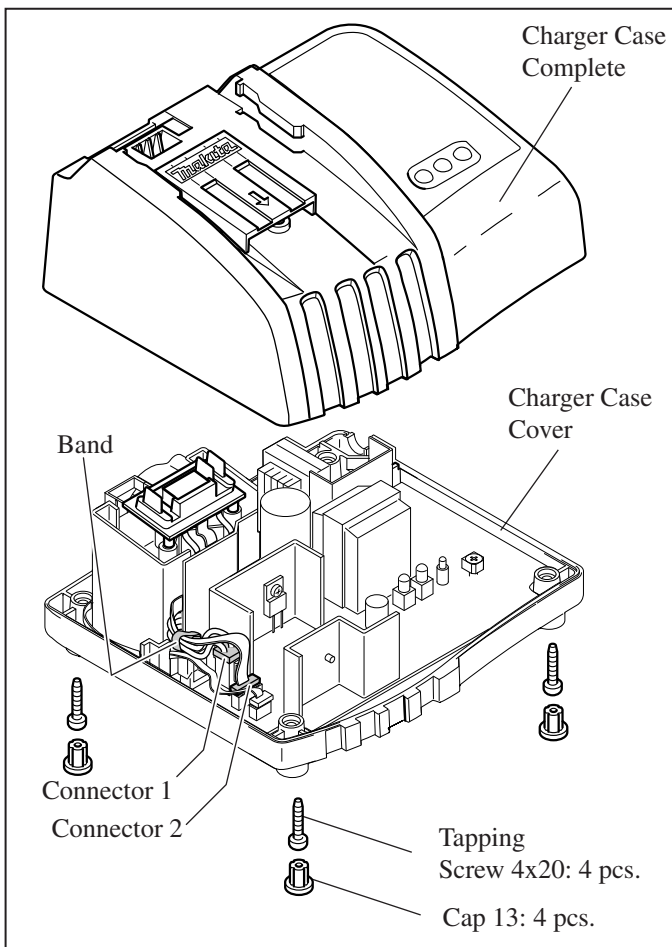


Fig. 2

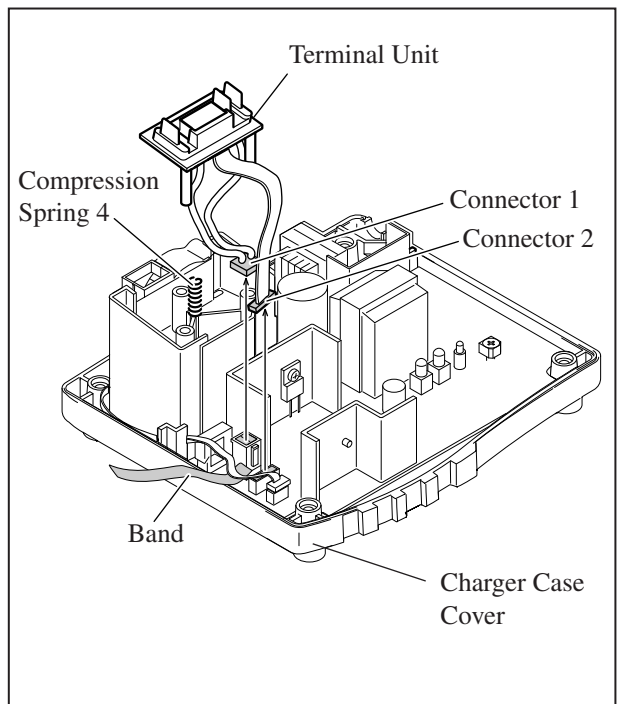
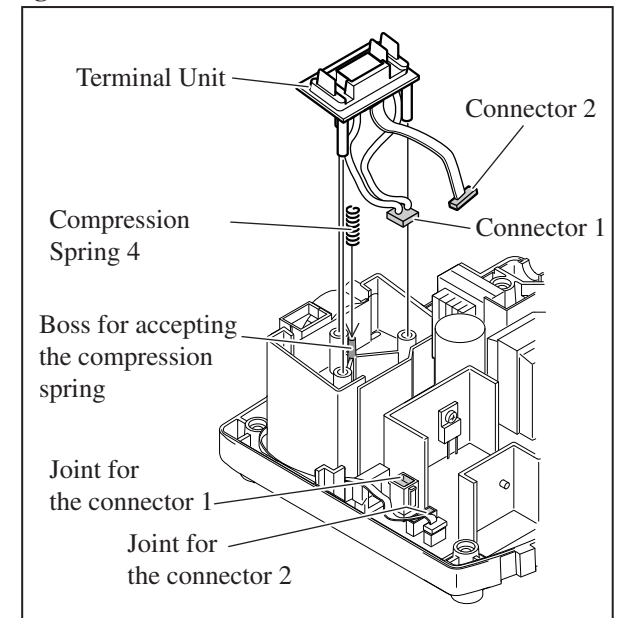


Fig. 3



ASSEMBLING

1. Insert compression spring 4 over the boss for accepting the compression spring. **(Fig. 3)**
2. Insert three legs of terminal unit into the three bosses of charger case cover. **(Fig. 3)**
3. Connect the connector 1 to the joint for connector 1 and connector 2 to the joint for the connector 2. **(Fig. 3)**
4. Bundle the lead wires with band. **Refer to Fig. 1.**
5. Put the lead wires by the rib and wall of charger case cover as instructed **[2] Wiring Diagram in page 5.**
6. Assemble charger case complete with four 4 x20 tapping screws and four caps 13 firmly.

► Repair

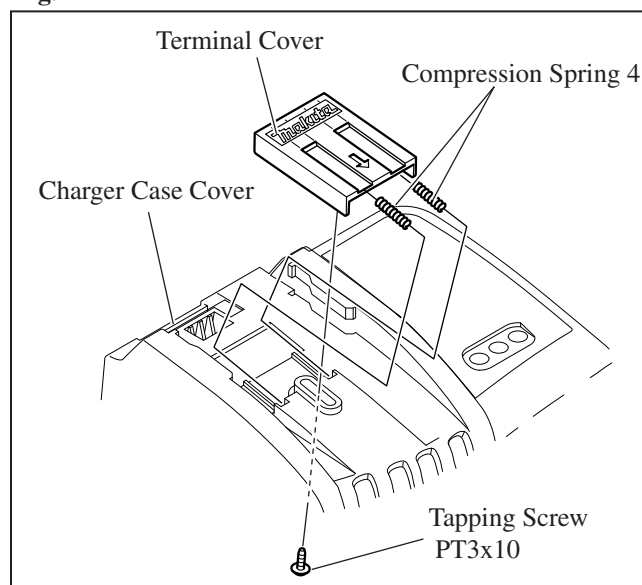
[1] DISASSEMBLY/ASSEMBLY

[1] -2. Terminal Cover

DISASSEMBLING

1. Separate charger case cover from charger case complete. (Fig. 1)
2. Remove PT3x10 tapping screw and disassemble terminal cover.
 <Note> Be sure to hold two compression springs with your finger so as not to jump out of terminal cover when disassembling terminal cover.

Fig. 4



ASSEMBLING

1. While setting two 4 compression springs in terminal cover and aligning them with the bosses of charger case complete, fit the rib of terminal cover to that of charger case complete. (Fig. 4.)
2. Fasten PT3x10 tapping screw through elliptic hole of charger case complete into the screw hole of terminal cover. (Refer to Fig. 4.)
3. Make sure that terminal cover can return to the original position by the help of compression spring 4, after pushing terminal cover toward the charging position.

< Note >

Compression Spring 4 is used also as a cushion for terminal unit as illustrated in Fig. 3. However, this compression spring 4 is different from those for terminal cover in the free length and coil diameter. (Fig. 5A)

Fig. 5

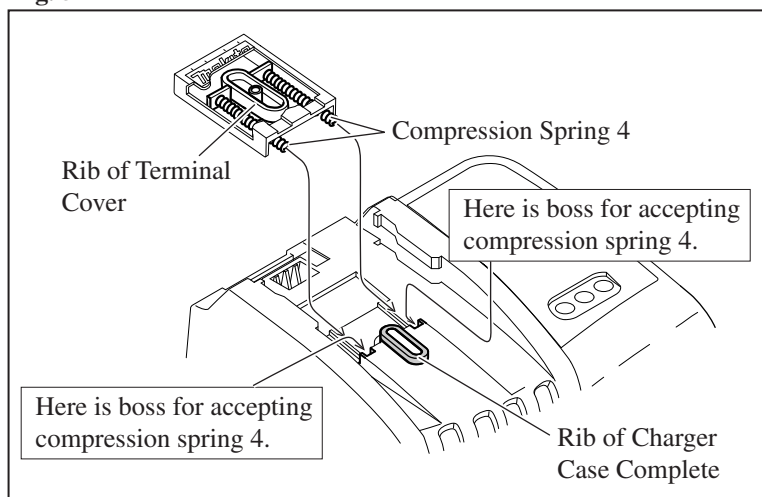
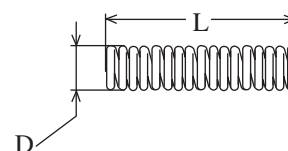


Fig. 5A

Pt. No.233194-8
 Compression spring 4 for **Terminal Cover**
 *L (Free Length) : **25mm**
 *D (Coil Diameter): **4.8mm**

Pt. No.231474-6
 Compression spring 4 for **Terminal Unit**
 *L (Free Length) : **20mm**
 *D (Coil Diameter): **5.0mm**



► Repair

[1] DISASSEMBLY/ASSEMBLY

[1] -3. Varistor and Fuse

1) Types of Breakage

1. If fuse is broken, varistor is usually broken by showing the sign of breakage mentioned below.
In this case, replace fuse and varistor at the same time.
2. Only varistor can be damaged if charger is plugged in a power source at double the rated voltage.
In this case, replace varistor solely.
3. If fuse is broken while varistor is not broken, charging circuit can be broken.
In this case, replace charging circuit complete.

Sign of varistor breakage

- a) Cracks in the surface of varistor
- b) Black discolored surface of varistor

2) Replacing Varistor/Fuse

The varistors are different, and installs depending on the voltage. The distinction can be made as illustrated in Fig. 6. Varistor/fuse is soldered on the charging circuit. Remove a broken varistor/fuse with soldering iron. And solder brand-new one with soldering iron. (Fig. 7)

Fig. 6

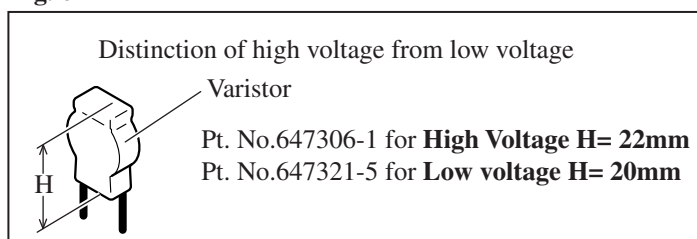
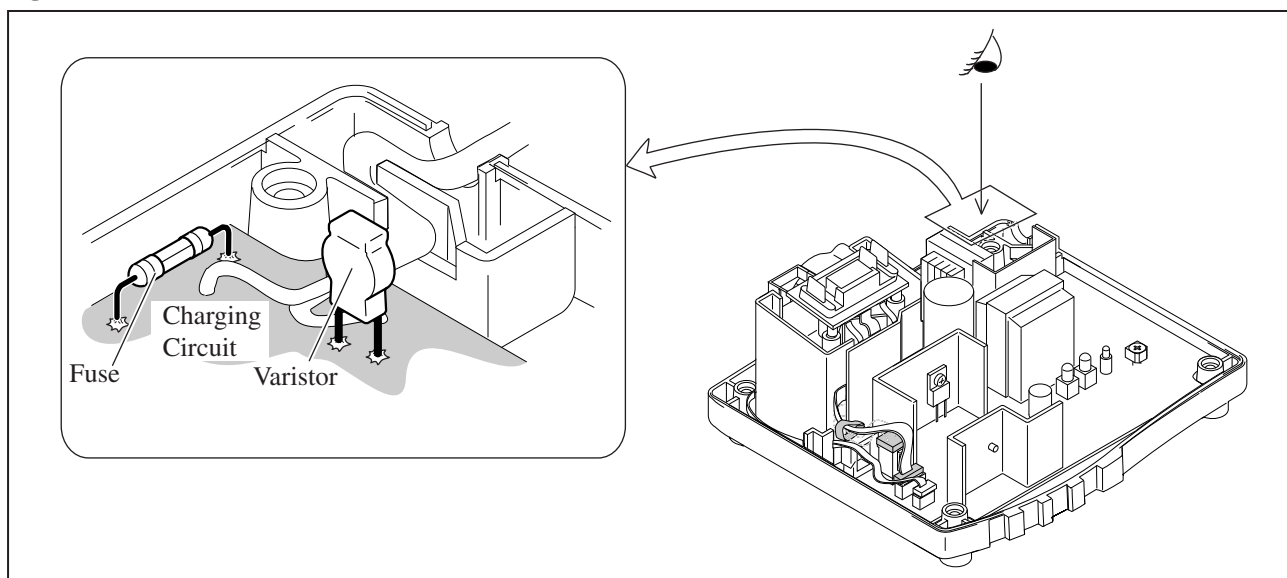


Fig. 7



▶ Wiring diagram

Fig. D-1

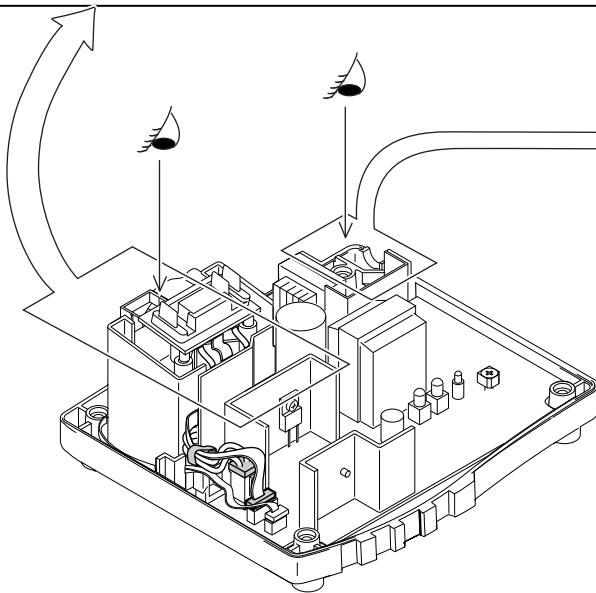
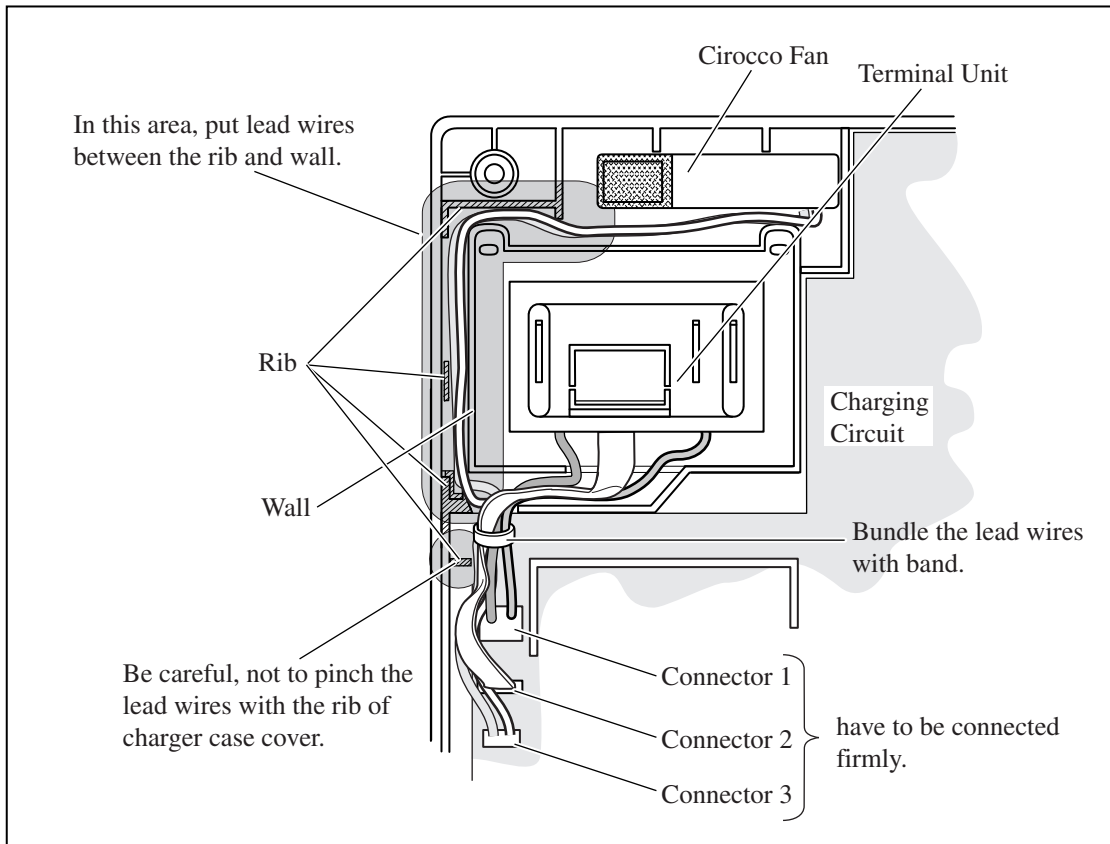


Fig. D-2

