

Hitachi Power Tools

SERVICE MANUAL

LIST No.
UC 36YRL: G884
Aug. 2007

PRODUCT NAME

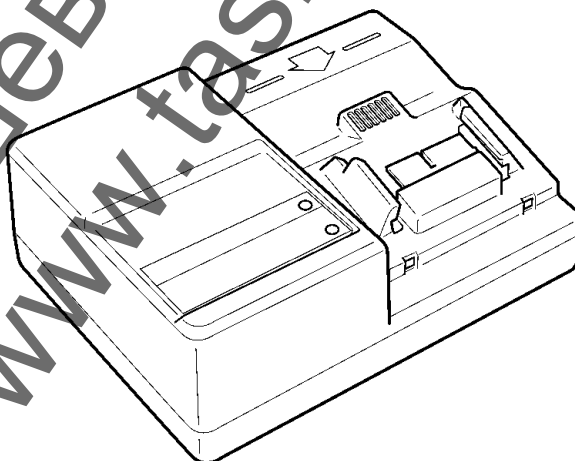
Hitachi Charger

Model UC 36YRL

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HITACHI

 **Hitachi Koki Co., Ltd.**
International Sales Division

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% PRECAUTIONS IN DISASSEMBLY AND REASSEMBLY

The **[Bold]** numbers in the descriptions below correspond to the item numbers in the Parts List and exploded assembly diagram for the Model UC 36YRL .

%1. Disassembly

- (1) Remove Case (A) **[2]** after removing the four Case Rubbers **[12]** and the four Tapping Screws (W/Flange) D3 x 18 **[11]** .
- (2) Remove Fan **[20]** after removing the two Tapping Screws (W/Flange) D3 x 25 **[19]** and remove the connector of the Fan **[20]** from the Printed Circuit Board Ass'y **[7]**.
- (3) Remove Fin (D) **[5]** and Fin (E) **[8]** from the Printed Circuit Board Ass'y **[7]** after removing the three Machine Screws (W/Washers) M3 x 12 **[3]**, three Nuts M3 **[6]** and four TP Tapping Screws D3 x 8 **[4]**.
- (4) Remove the Insulator **[9]** from the Printed Circuit Board Ass'y **[7]**.
- (5) Remove the Terminal Holder **[15]** after removing the three TP Tapping Screws D3 x 8 **[4]**, connector of the Terminal Holder **[15]** from the Printed Circuit Board Ass'y **[7]** and melt their soldered connections of the red and black lead wires of the Terminal Holder **[15]** with a soldering iron and remove them.
- (6) Remove the Cord **[18]** from the Printed Circuit Board Ass'y **[7]** after melting their soldered connections with a soldering iron. (The long lead wire of the Cord **[18]** for U.S.A/Canada is covered with the tube.)
- (7) A Prism **[14]** for pilot lamps is built into Case (A) **[2]** and the Filter **[16]** is stucked on Case (A) **[2]**.

(NOTE)

- Ideally, the soldered portions should be freed with a solder absorber. If a soldering iron must be used, use one with a rated power of 35 W.
- As excessive heat may damage the material of the printed circuit board, use of the soldering iron should be limited to less than three seconds at one time.

%2. Reassembly

Reassembly can be accomplished by following the disassembly procedures in reverse; however, special attention should be given to ensure that lamps, cord armor and charging terminals are properly installed in their prescribed grooves.

- (1) Screw tightening torque
 - ① Machine Screws (W/Washers) M3 x 12 **[3]** 0.6 - 1.0 N·m (6.0 - 10.0 kgf·cm)
 - ② TP Tapping Screw D3 x 8 **[4]**
 - Attaching Fin (D) **[5]** and Fin (E) **[8]** 0.8 - 1.2 N·m (8.0 - 12.0 kgf·cm)
 - Attaching Terminal Holder **[15]** 0.3 - 0.7 N·m (3.0 - 7.0 kgf·cm)
 - ③ Tapping Screw (W/Flange) D3 x 18 **[11]** 0.8 - 1.2 N·m (8.0 - 12.0 kgf·cm)
 - ④ Tapping Screw (W/Flange) D3 x 25 **[19]** 0.8 - 1.2 N·m (8.0 - 12.0 kgf·cm)

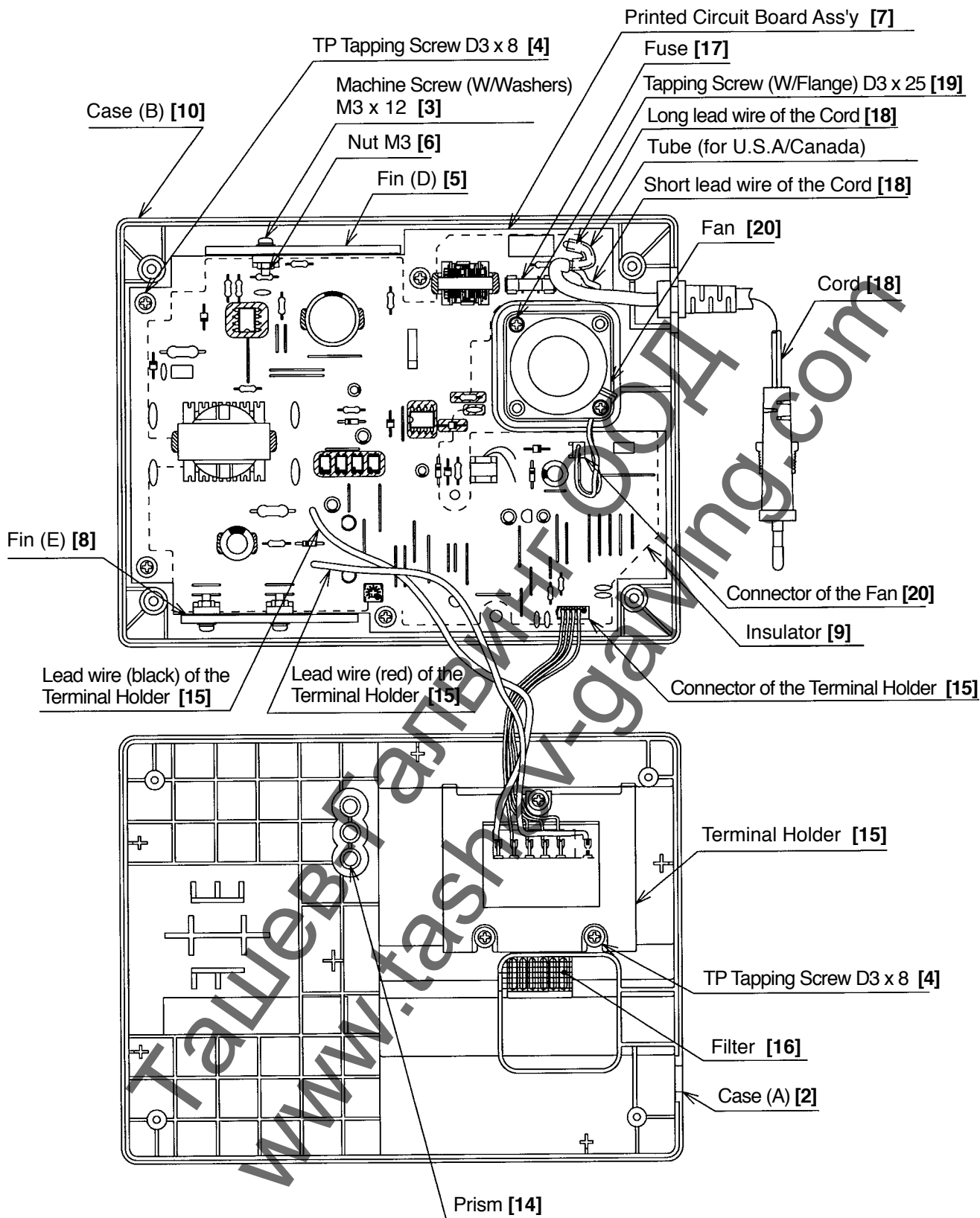


Fig. 1

3. Confirmation after Reassembly

(1) Confirm the following after reassembly. The red pilot lamp on the charger lights up when charging is started.

- When charging an BSL 3626 battery, confirm that the red pilot lamp flashes at 1 second intervals approx. 80 minutes from commencing charging.

(2) Measure the insulation resistance and conduct a dielectric strength test.

- Insulation resistance: 10 M Ω or more between the plug blade of cord and the name plate or case fastening screws, with a DC 500 V megohm tester.
- Dielectric strength test:
 - (a) Between the plug blade of the cord and the charging terminal blade.
 - (b) Between the plug blade of the cord and the name plate or the fastening screws on the case.

Based on the voltage listed on the Name Plate, dielectric strength test should be conducted.

Voltage on the name plate	Test voltage
120 V	AC 1,240 V (1 minute)
220 V to 240 V	AC 3,750 V (1 minute)

CAUTION: Without fail, insulation resistance must be measured between the plug blade of the cord and the name plate or the fastening screws, and dielectric strength test must be conducted between the plug blade of the cord and the charging terminal blade or between the plug blade of the cord and the name plate or the fastening screws on the case. Under no circumstances should testing be conducted between both blades of the plug, or both blades of the charging terminal, which may cause burn-out of the charger.

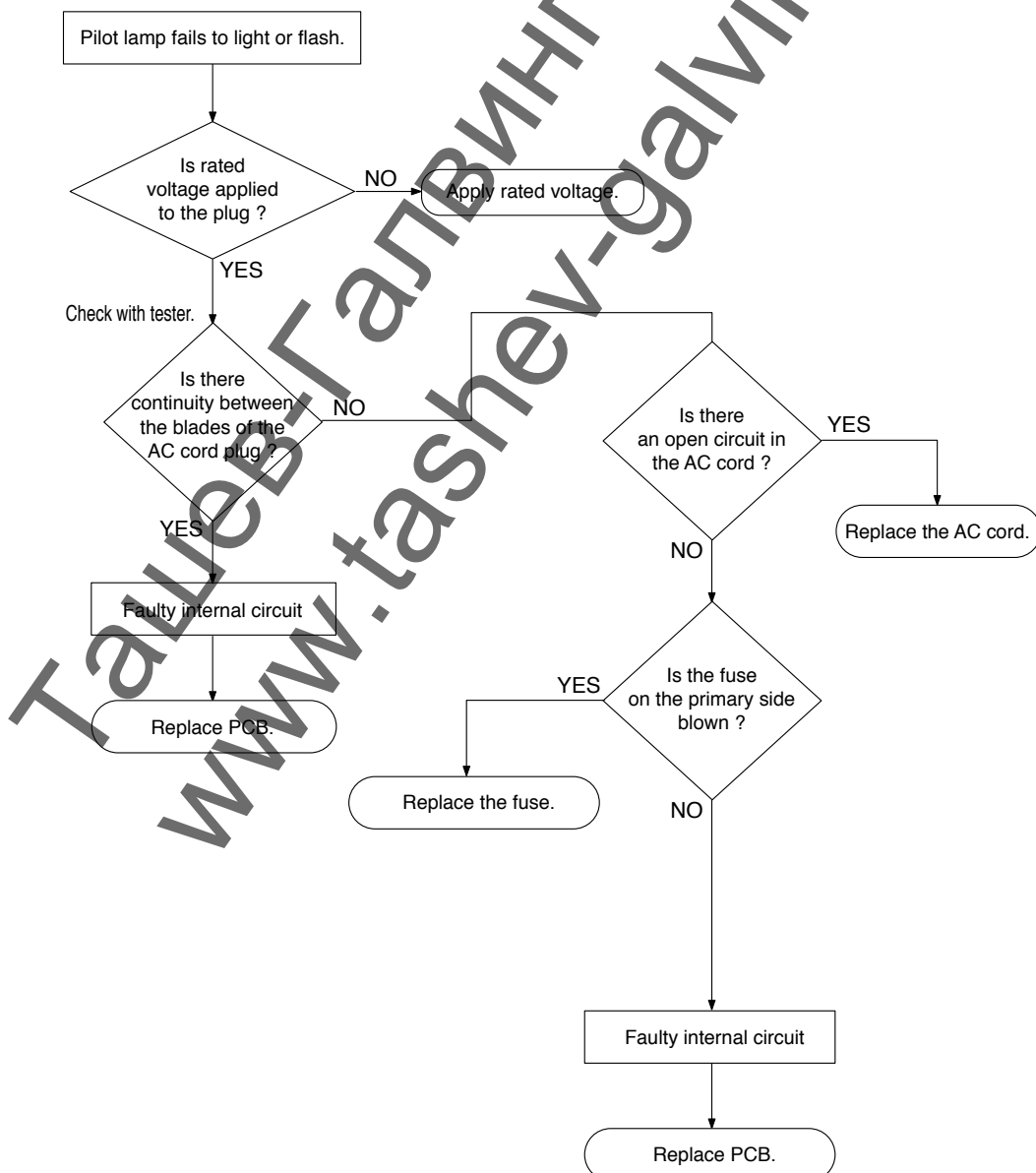
& TROUBLESHOOTING GUIDE

&-1. Troubleshooting Based on Pilot Lamp Indications

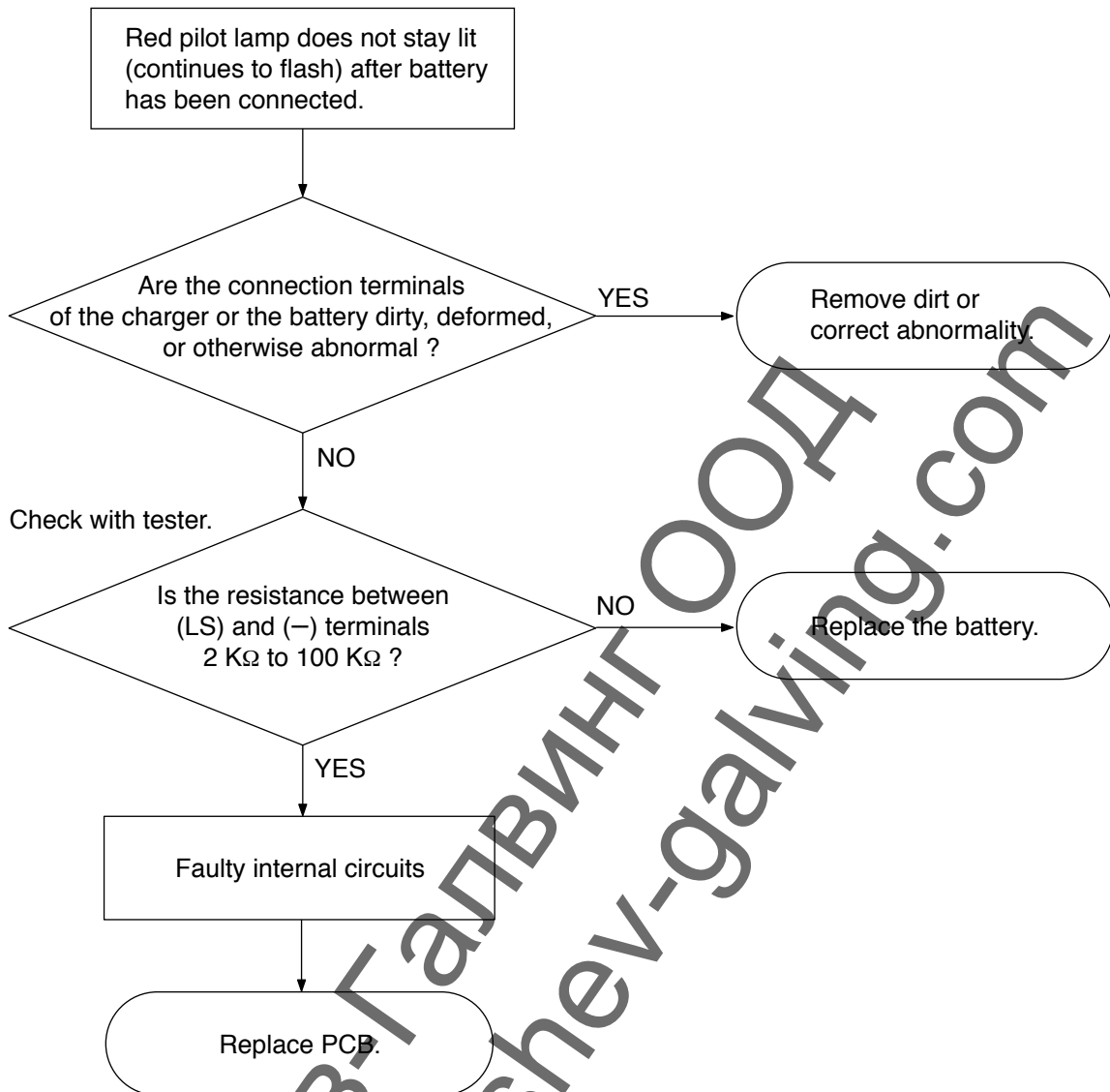
Phenomenon	Typical causes	Check procedures
Pilot lamp fails to light or flash.	(1) Faulty AC cord (2) Blown fuse (3.15 A) on primary side	Refer to trouble mode (A).
Red pilot lamp does not stay lit (continues to flicker) after battery has been connected.	(1) Poor connection of (T) or (LS) terminal (2) Faulty battery (open circuit) (3) Faulty PCB	Refer to trouble mode (B).
Pilot lamp remains green (red fails to light) after battery has been connected.	(1) Poor connection of (T) or (LS) terminal (2) Faulty PCB	Refer to trouble mode (C).
Pilot lamp indicates abnormality by flashing red rapidly (at 0.2 second intervals.)	(1) Faulty battery (short-circuit, or open circuit) (2) Faulty PCB	Refer to trouble mode (D).

&-2. Troubleshooting and Repair Procedures

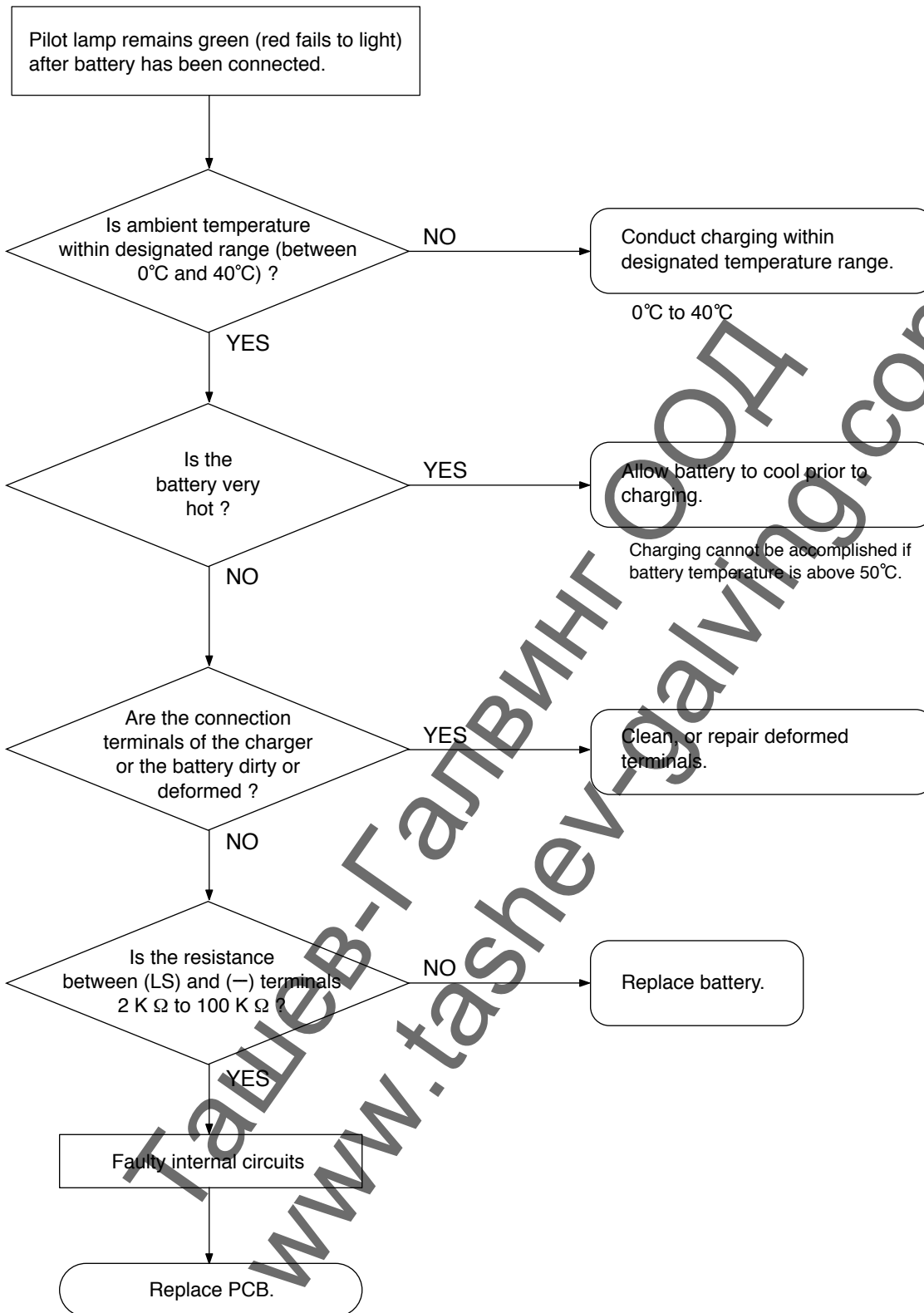
(1) Trouble mode (A)



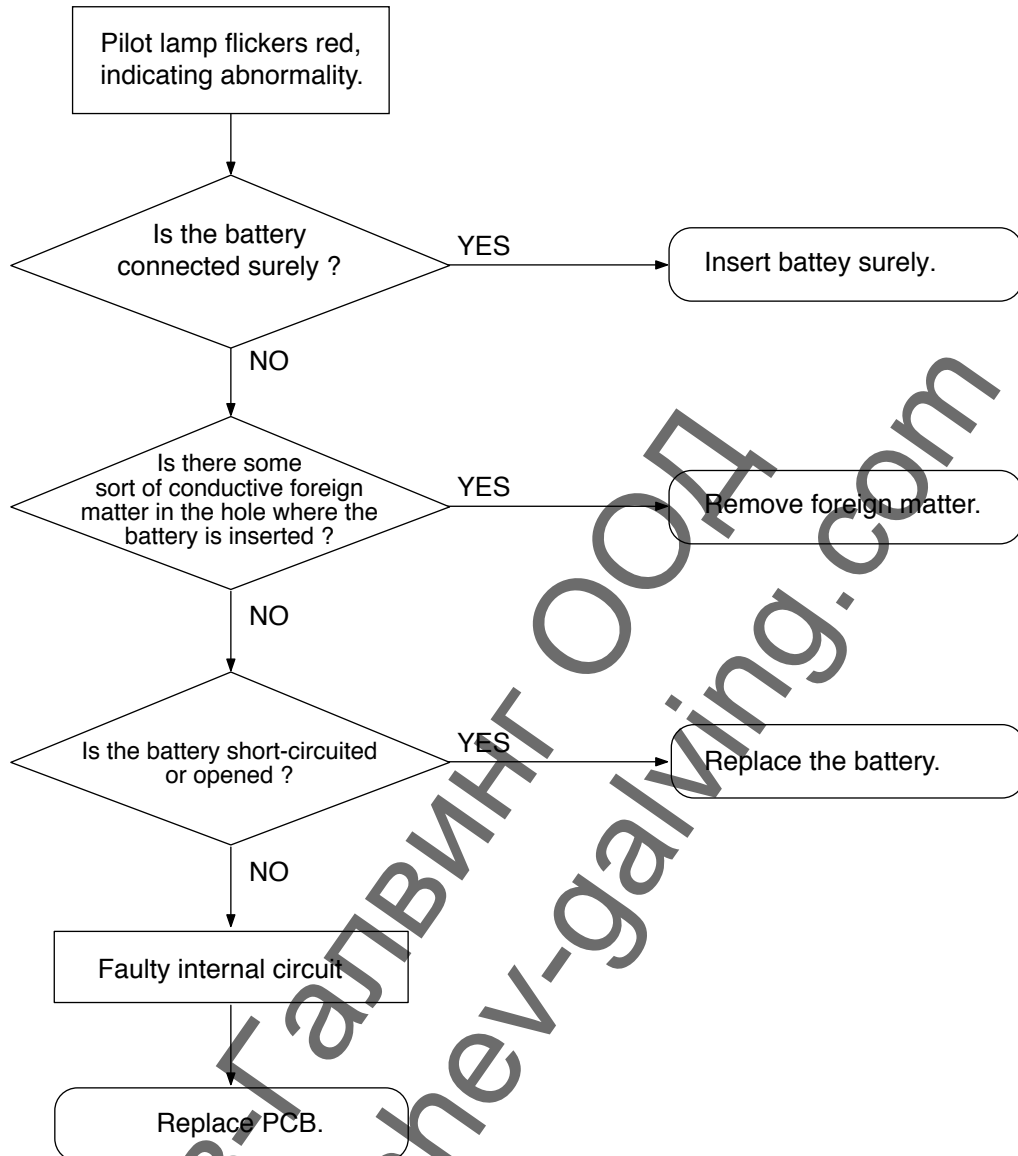
(2) Trouble mode (B)



(3) Trouble mode (C)



(4) Trouble mode (D)



1. STANDARD REPAIR TIME (UNIT) SCHEDULES

MODEL	Variable		10	20	30	40	50	60 min.
	Fixed							
UC 36YRL	General Assembly	Work Flow						
		Case (A) Case (B) Printed Circuit Board Ass'y Prism Terminal Holder Fuse Fan	Fin (D) Fin (E) Insulator Cord					

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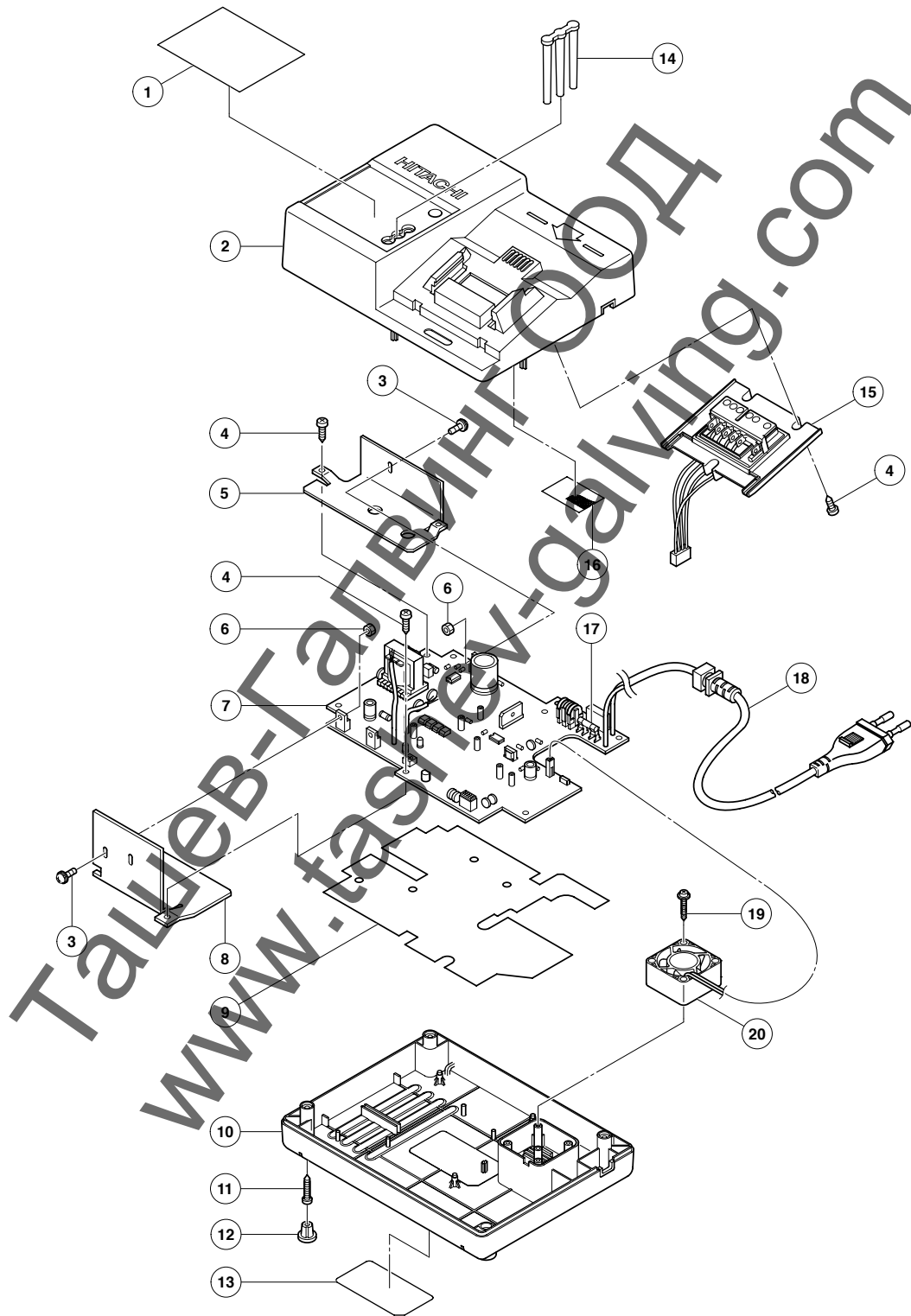
ELECTRIC TOOL PARTS LIST

■ CHARGER

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Model UC 36YRL

(E1)



PARTS

UC 36YRL

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS
1	328-637	HITACHI LABEL	1	
2	328-630	CASE (A)	1	
3	993-963	MACHINE SCREW (W/WASHERS) M3X12	3	
4	327-174	TP TAPPING SCREW D3X8	7	
5	328-632	FIN (D)	1	
6	949-553	NUT M3 (10 PCS.)	3	
7		PRINTED CIRCUIT BOARD ASS'Y 230V-240V	1	INCLUD. 17
8	328-633	FIN (E)	1	
9	328-622	INSULATOR	1	
10	328-618	CASE (B)	1	
11	326-358	TAPPING SCREW (W/FLANGE) D3X18	4	
12	327-173	CASE RUBBER	4	
13		NAME PLATE	1	
14	322-201	PRISM	1	
15	327-176	TERMINAL HOLDER	1	
16	328-531	FILTER	1	
17	328-679	FUSE (250V-3.15A)	1	
* 18	328-634	CORD	1	
* 18	328-635	CORD	1	FOR NZL, AUS
* 18	328-636	CORD	1	FOR GBR
19	327-175	TAPPING SCREW (W/FLANGE) D3X25	2	
20	326-809	FAN	1	