

# KENWOOD

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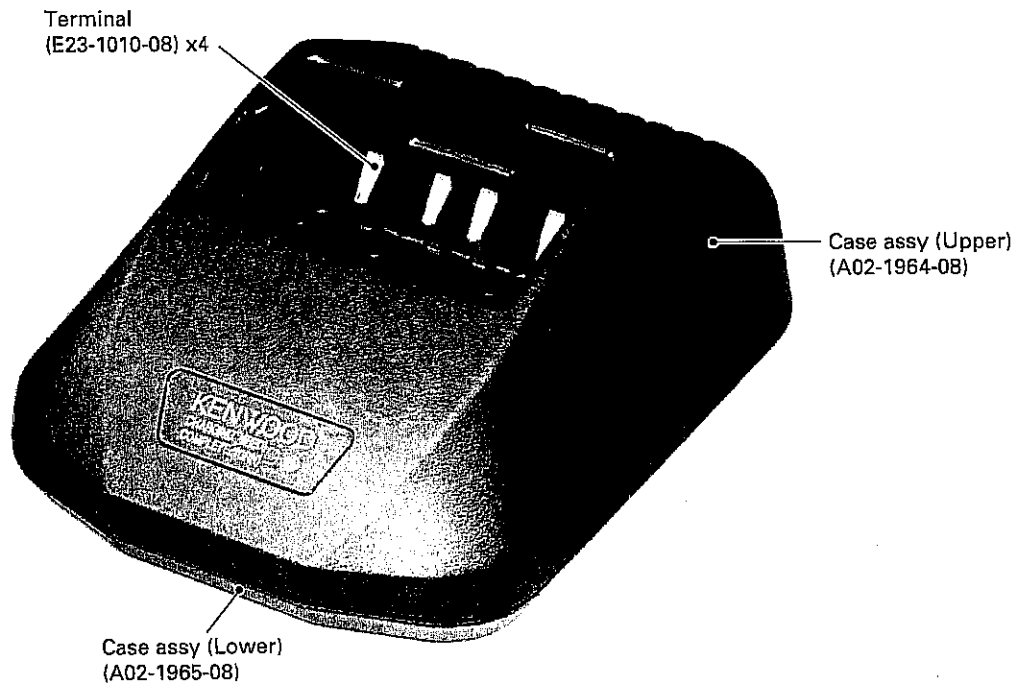
RAPID CHARGER

# KSC-16

## SERVICE MANUAL

# KENWOOD

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B51-8322-00 (N) 1290



### Specifications

Charging current (mA) .....	650 ± 65
Charging time (Minute) .....	60 ± 30% (KNB-14), 110 ± 30% (KNB-15A)
Source voltage .....	15V ± 2.5V
Terminal voltage (Open) .....	10V
Ambient temperature .....	5°C~40°C
Dimensions (mm) .....	105 (W) x 135 (D) x 55 (H)
Weight (kg) .....	0.16

## CIRCUIT DESCRIPTION

### 1. Power supply section

- 1) The power supply generates constant current (650 mA) from the input voltage (rated 15 VDC) from the adapter.
- 2) IC4 is a DC/DC converter.
- 3) R26 is a resistor for current detection.
- 4) R24 and R25 are resistors for no-load voltage detection.
- 5) IC3 is a power supply IC for the microcomputer (IC1).
- 6) The output is 5 V.

### 2. Charging control section

- 1) The microcomputer (IC1) controls the following:
  - : Peak detection
  - : Temperature control
  - : Detection of abnormality, such as a short terminal
  - : LED control
  - : Trickle charging
  - : Timer control
- 2) IC2 resets the microcomputer.
- 3) X1 is an oscillator that generates clocks for the microcomputer.

### 3. Charging switch section

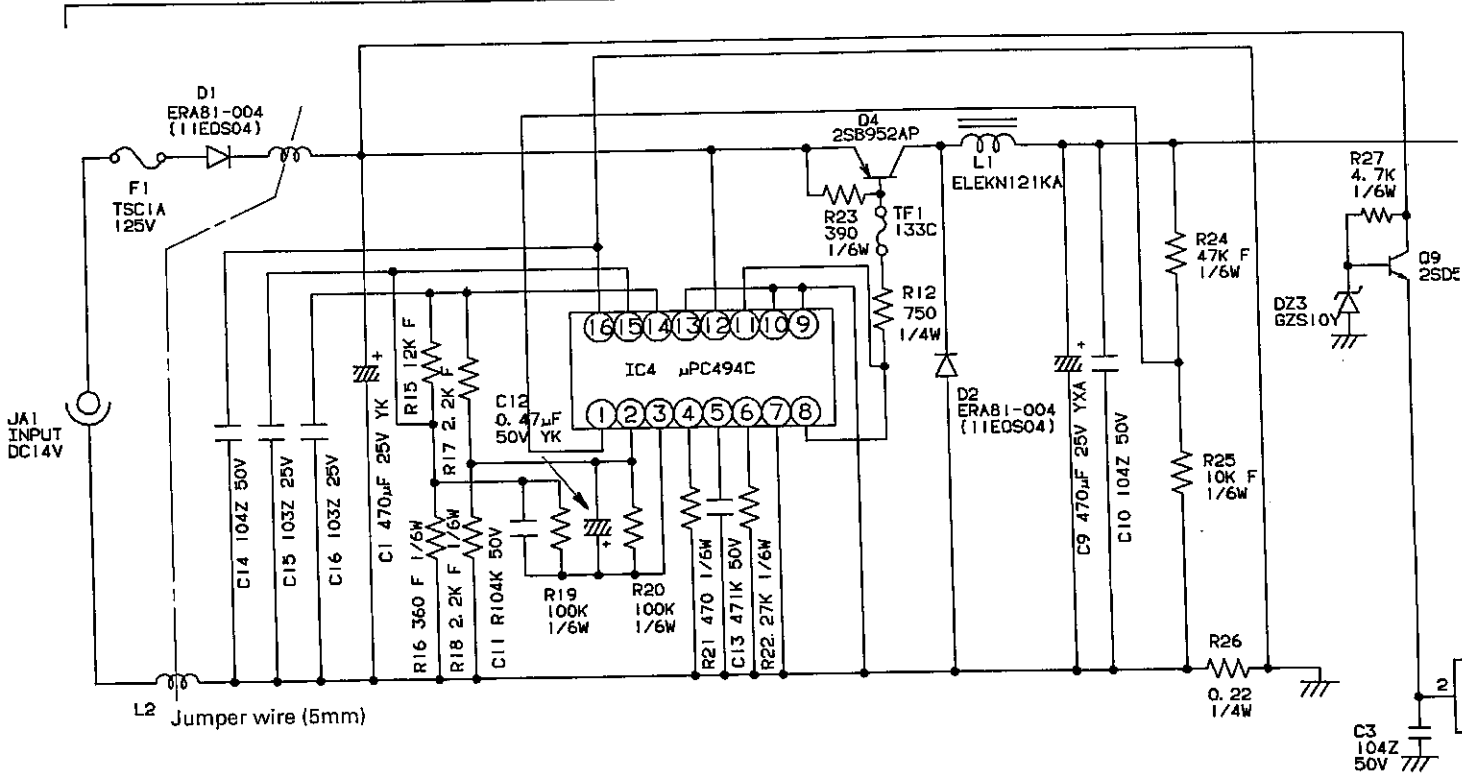
- 1) Q1 is a transistor that turns quick charging on and off.
- 2) Q2 is a transistor that turns trickle charging on and off.
- 3) The resistor (R6) determines the trickle current.

### 4. Display section

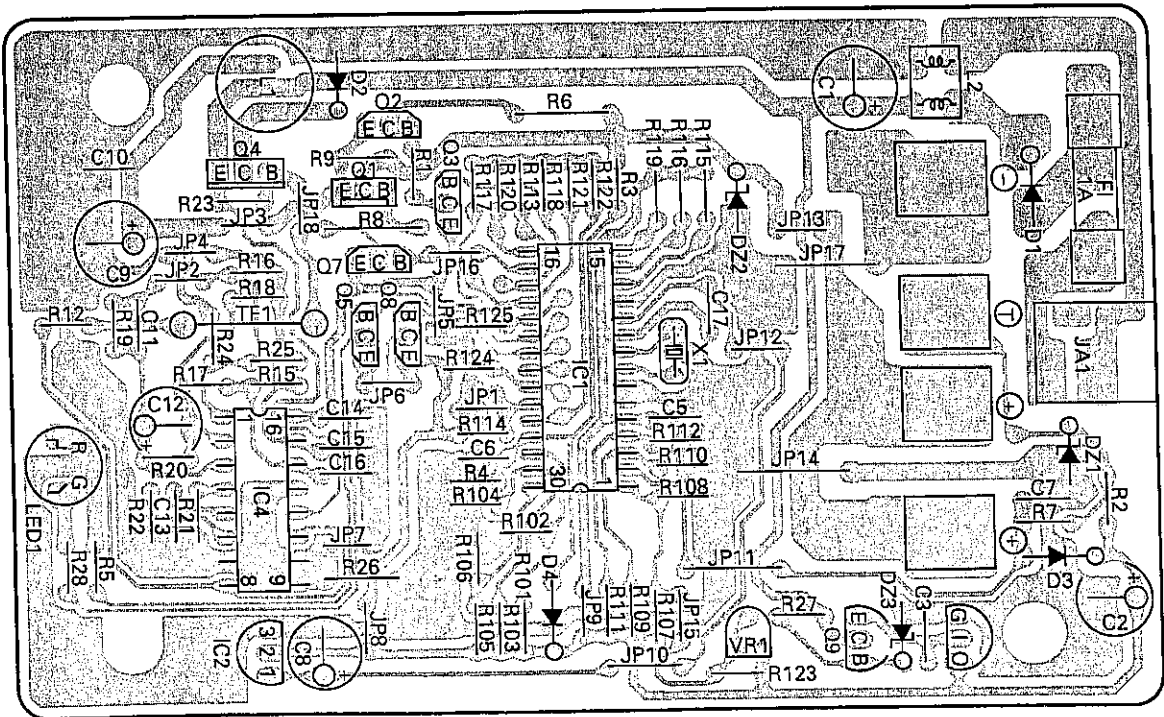
- 1) LED1 is a two-color LED that indicates the charging state.
- 2) Red ON ..... Quick charging  
Green ON ..... Charging is complete.  
Red Blinking .... Abnormal (short terminal, short battery, or open T terminal)

# KSC-16 CIRCUIT DIAGRAM

## POWER SUPPLY SECTION

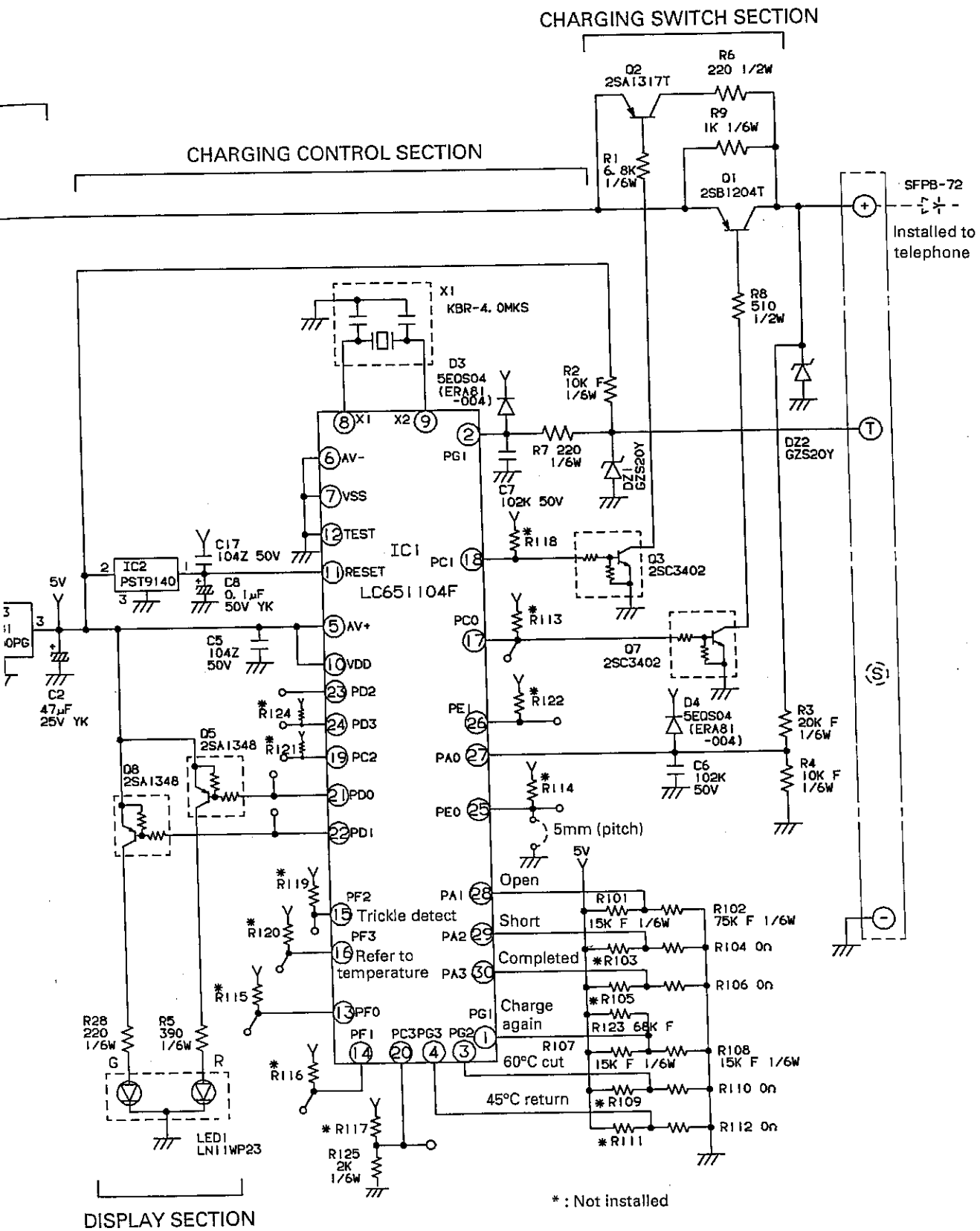


W02-1899-08 Component side view



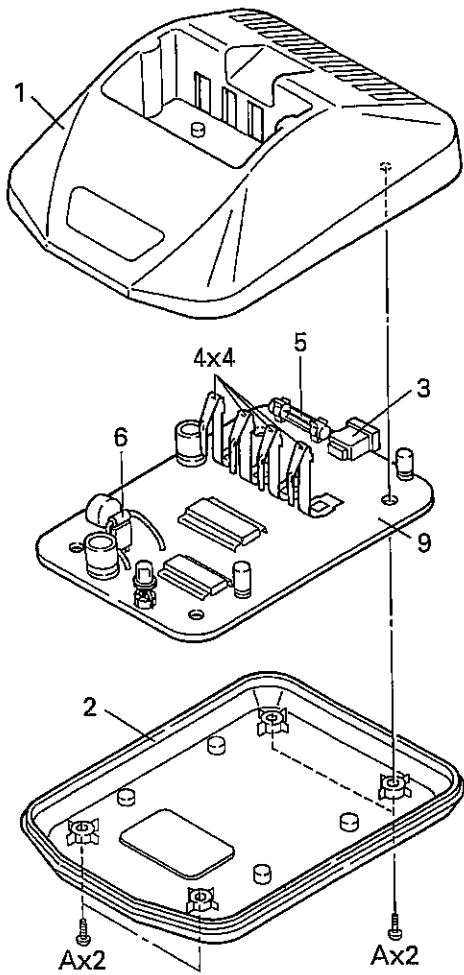
# KSC-16

## PC BOARD VIEW



## EXPLODED VIEW / PARTS LIST

### Exploded view



### Parts List

\* : New Parts

Ref. No.	New parts	Parts No.	Description	Desti-nation
1	*	A02-1964-08	Case assy (Upper)	
2	*	A02-1965-08	Case assy (Lower)	
3	*	E03-0187-08	Jack	
4	*	E23-1010-08	Terminal	
△		F04-1027-05	Fuse (1A)	
△	*	F09-0454-08	Thermal fuse	
A		N89-2612-45	Pan head tapping screw	
△	*	W02-1899-08	Circuit module	
△	*	W08-0477-05	AC adapter (120V/60Hz)	K
△	*	W08-0478-05	AC adaptor (230V/50Hz)	M

△ indicates safety critical components