

RAPID CHARGER / 快速充电器

KSC-32

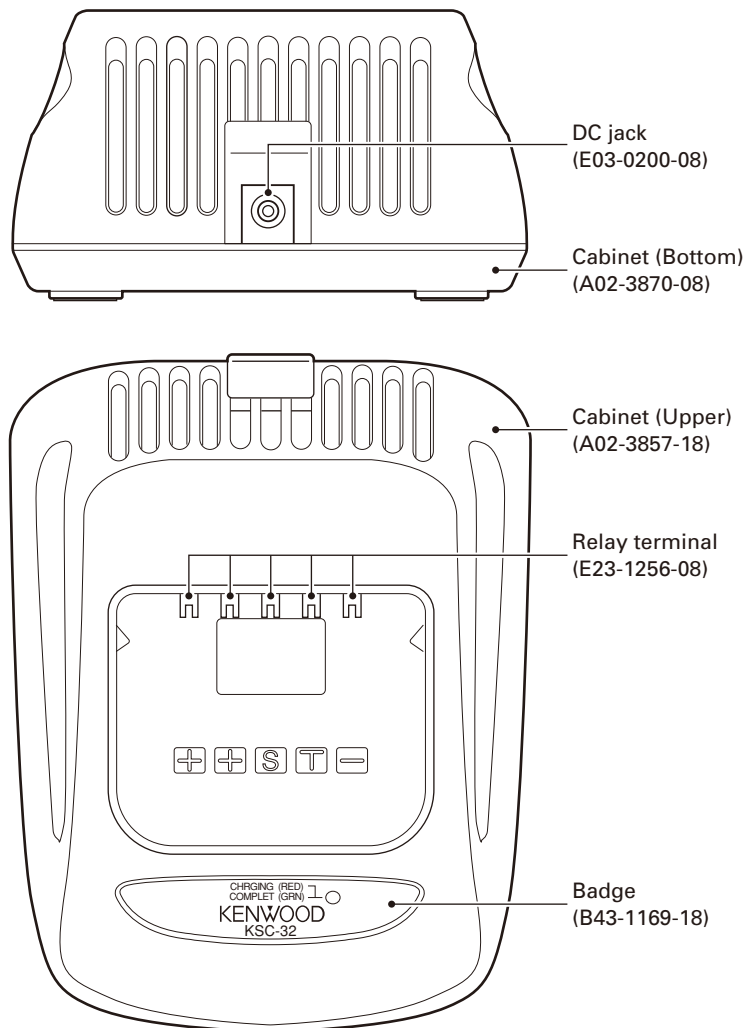
SERVICE MANUAL / 维修手册

C version / C 版本

KENWOOD

Kenwood Corporation

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无铅焊接通信产品  
保护环境建伍领先

⚠ 注意：本产品是无铅化焊接产品
在维修时请使用无铅焊锡
和相应的焊接工具
详细事项请访问如下网址了解：
<http://www.kenwoodhk.com.hk/>

This product complies with the **RoHS** directive for the European market.



This product uses Lead Free solder.

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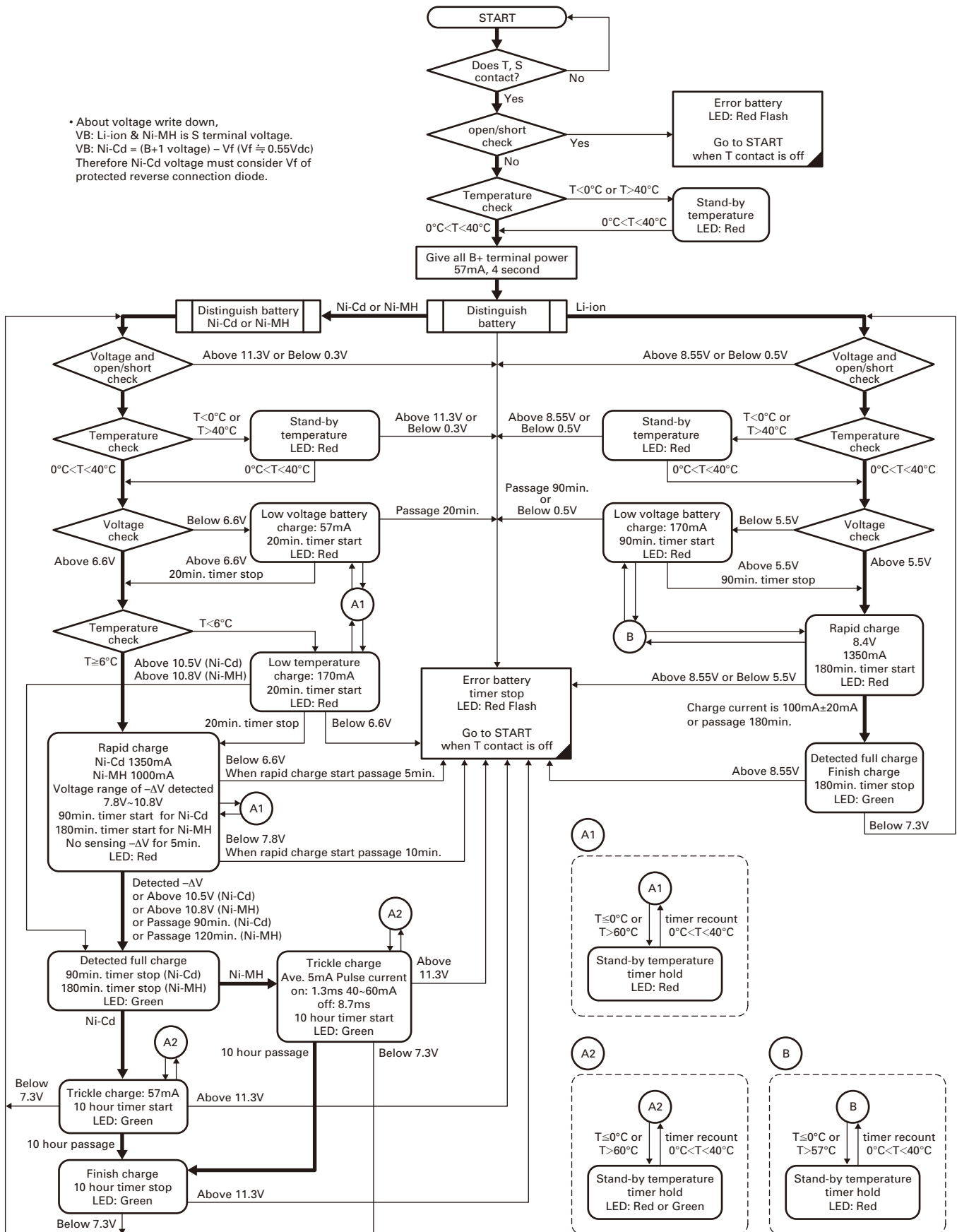
PARTS LIST / 零件表

* : New Parts

Ref. No.	Address	New parts	Parts No.	Description	Destination
KSC-32					
			A02-3857-18	CABINET(UPPER)	
			A02-3870-08	CABINET(BOTTOM)	
			B43-1169-18	BADGE	
			E03-0200-08	DC JACK	
			E23-1256-08	RELAY TERMINAL	
		*	N80-2610-43	SCREW	
			W02-3668-28	CHARGER UNIT	
		*	W08-1085-08	AC ADAPTER	

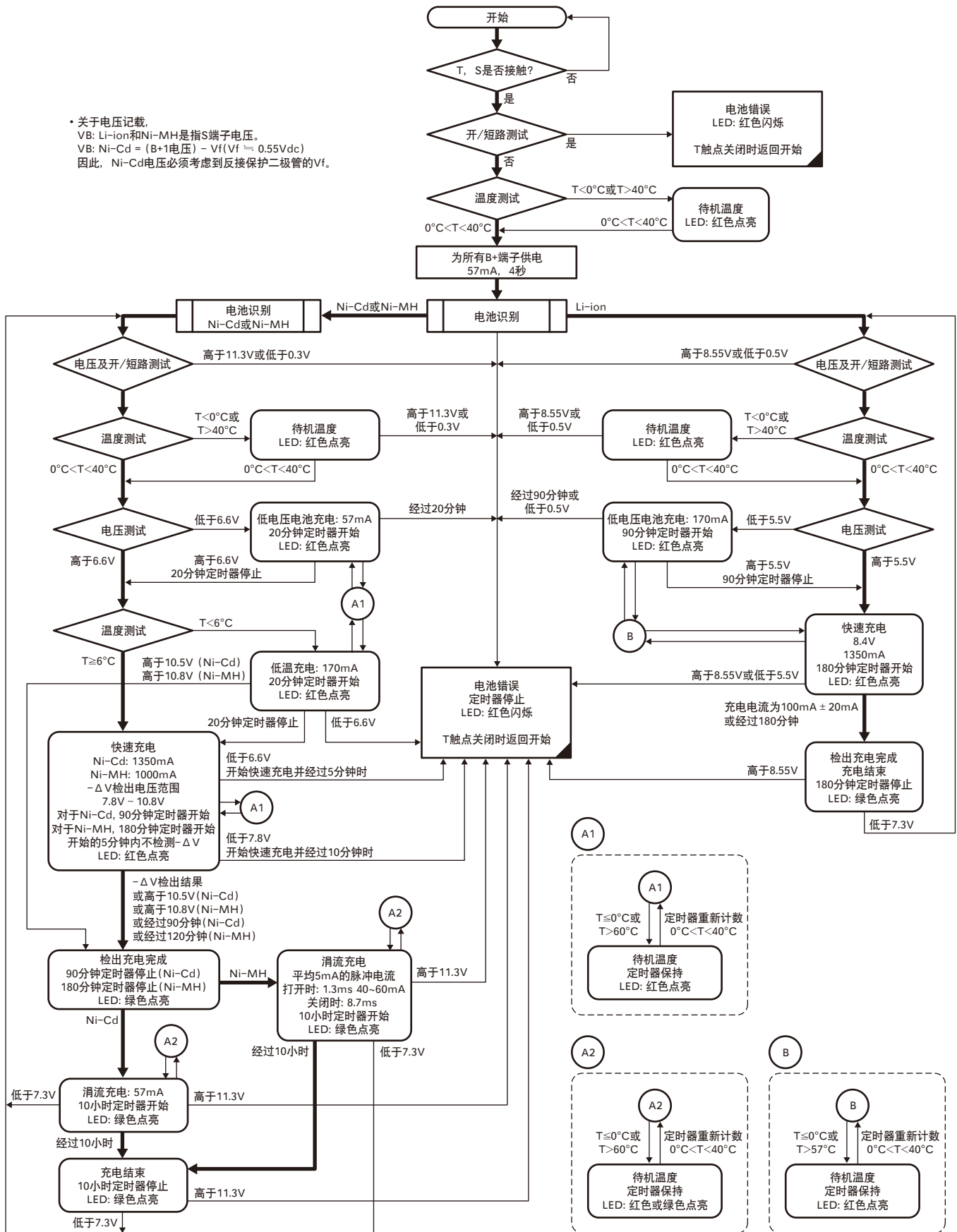
FLOW CHART

• About voltage write down,
 VB: Li-ion & Ni-MH is S terminal voltage.
 VB: Ni-Cd = (B+1 voltage) - Vf (Vf ≈ 0.55Vdc)
 Therefore Ni-Cd voltage must consider Vf of
 protected reverse connection diode.



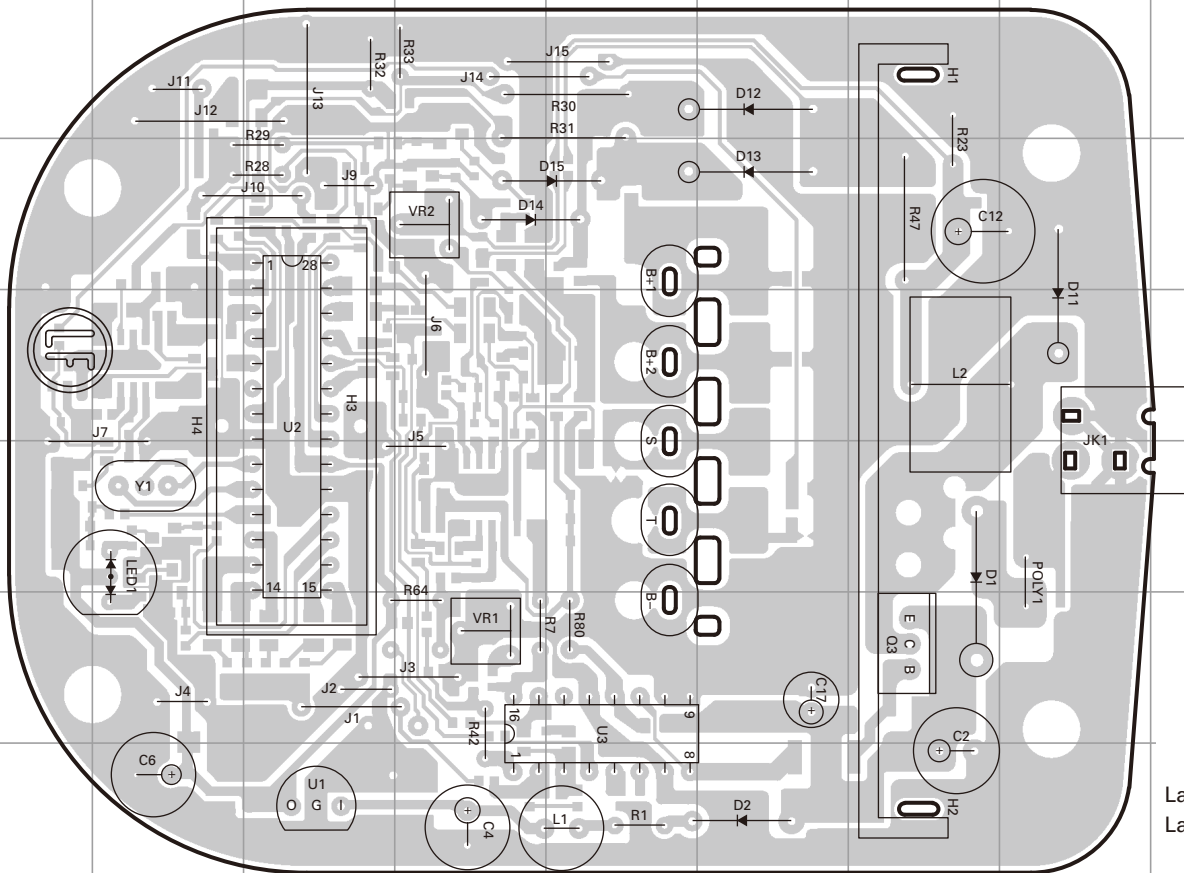
流程图

• 关于电压记载。
 VB: Li-ion和Ni-MH是指S端子电压。
 VB: Ni-Cd = (B+1电压) - Vf (Vf ≈ 0.55Vdc)
 因此, Ni-Cd电压必须考虑到反接保护二极管的Vf。

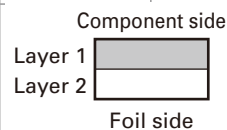


PC BOARD / PC板 KSC-32

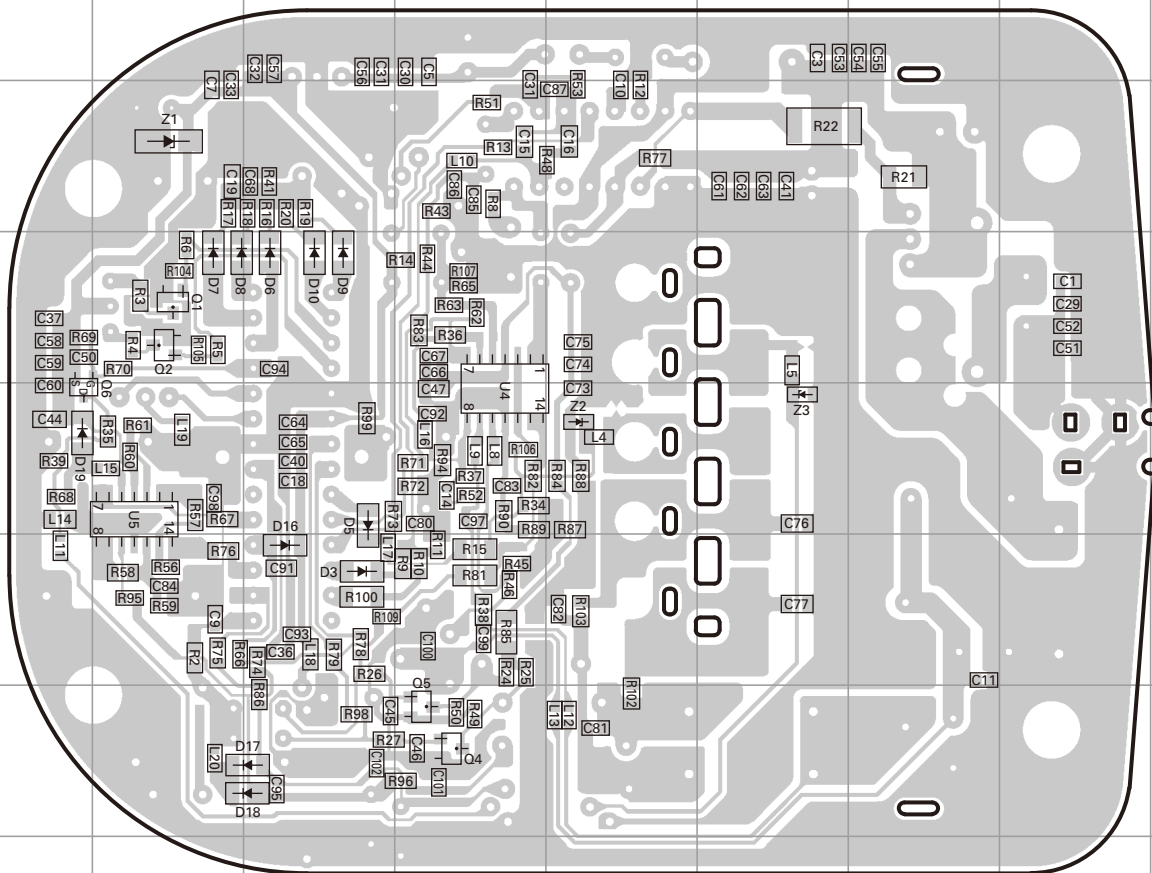
CHARGER UNIT (W02-3668-28) Component side view



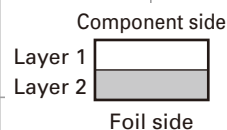
Ref. No.	Address
U1	7C
U2	4C
U3	6E
Q3	6G
D1	5G
D2	7F
D11	4H
D12	2F
D13	3F
D14	3D
D15	3E
LED1	5B



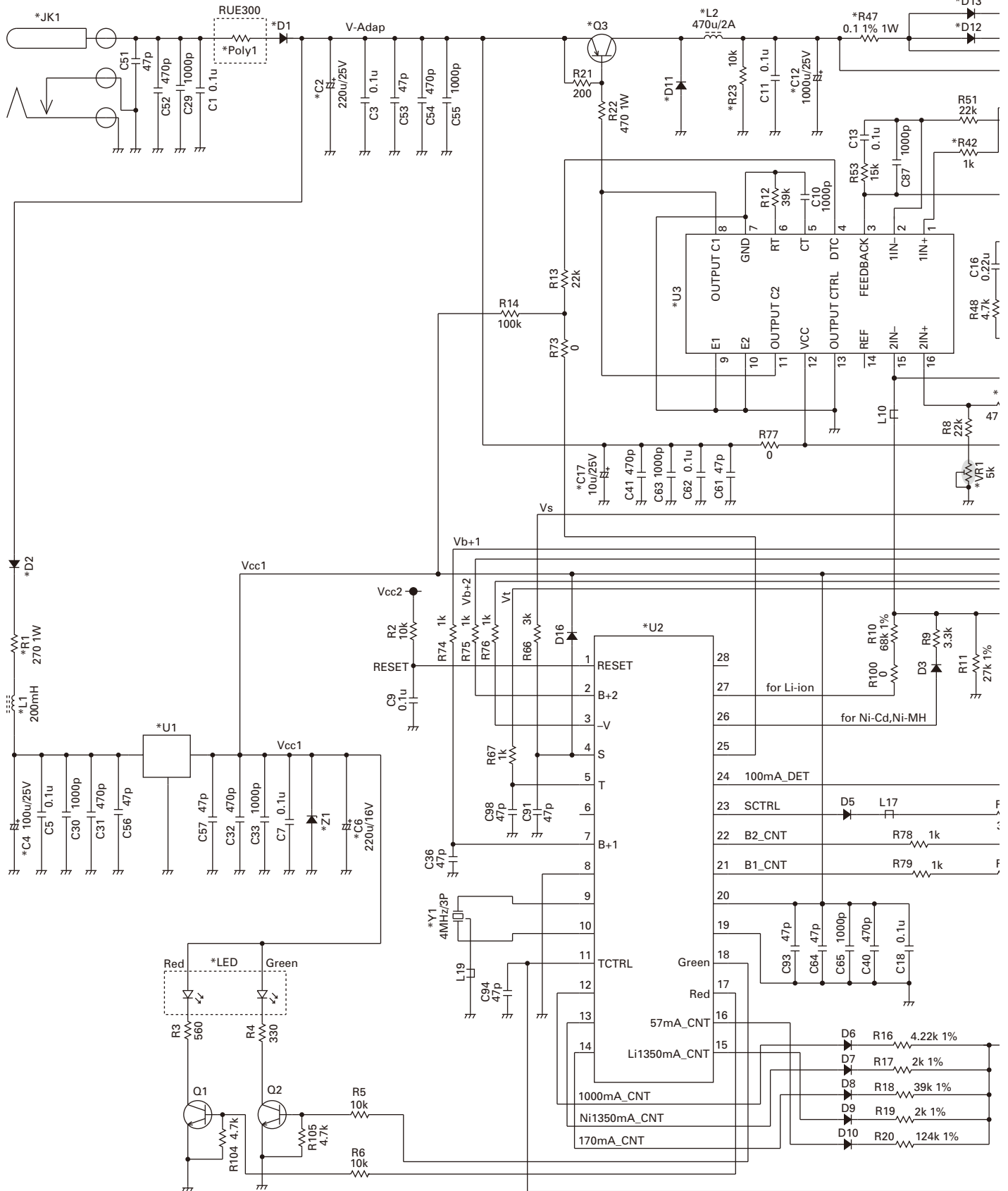
CHARGER UNIT (W02-3668-28) Foil side view



Ref. No.	Address
U4	11D
U5	11B
Q1	10B
Q2	10B
Q4	13D
Q5	13D
Q6	11A
D3	12C
D5	11C
D6	10C
D7	10B
D8	10B
D9	10C
D10	10C
D16	12C
D17	13C
D18	13C
Z1	9B
Z2	11E
Z3	11F



SCHEMATIC DIAGRAM / 原理图



“*” Marks are lead wire parts / “*” 标记为导线元件

VR1 (RC 655MC 5K) : Adjust Li-ion 8.4V

VR2 (RC 655MC 3K) : Adjust 57mA at Ni-Cd Trickle 10.80V

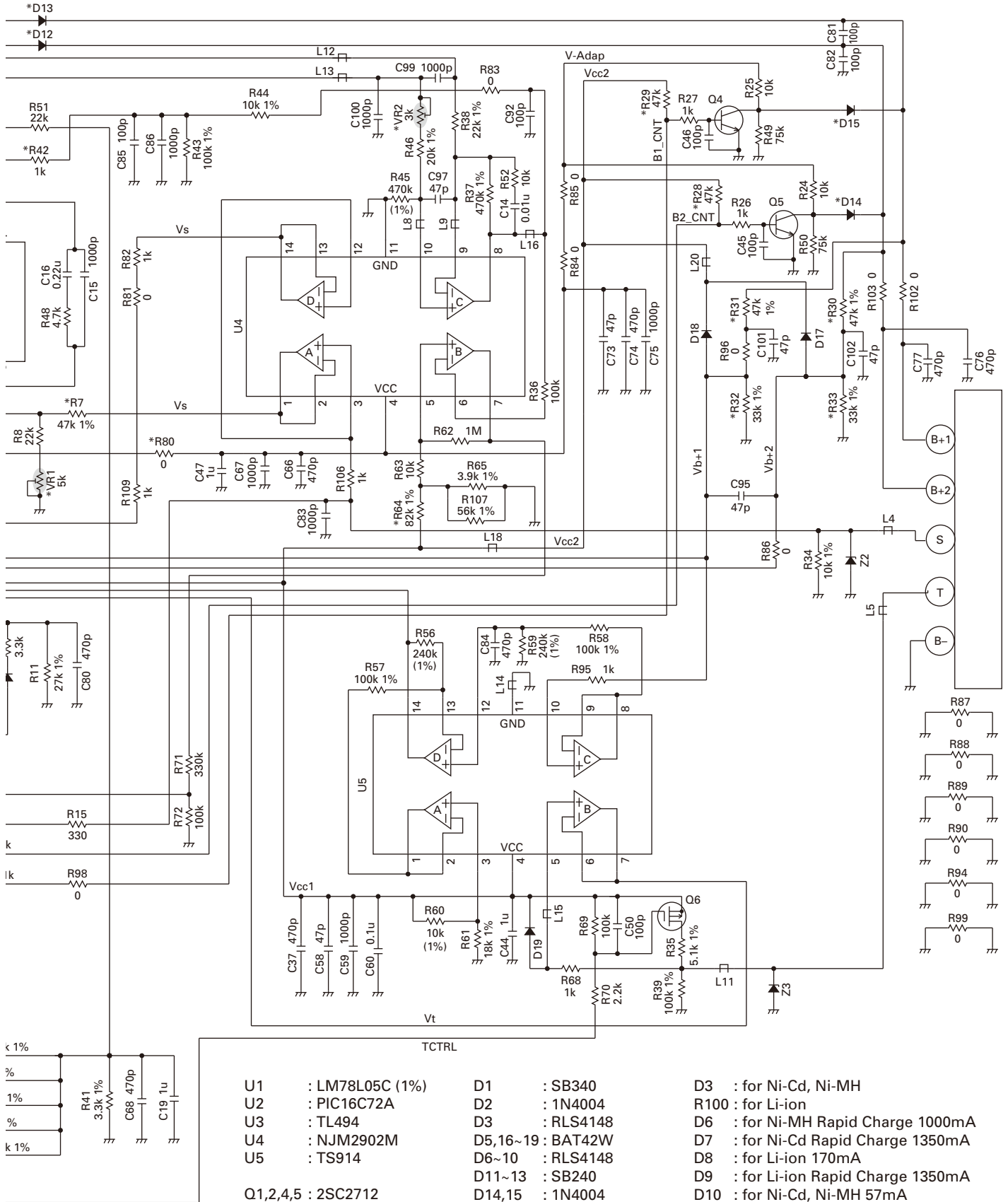
L1 : CHOKE 200mH

L2 : CHOKE 470uH/2A

L4,5,8-13,15-17,20 : BEADS 600Ω (SBK160808T-601Y-S)

L14,18,19 : BEADS 600Ω (SBK201209T-601Y-S)

SCHEMATIC DIAGRAM / 原理图



- U1 : LM78L05C (1%)
- U2 : PIC16C72A
- U3 : TL494
- U4 : NJM2902M
- U5 : TS914

- Q1,2,4,5 : 2SC2712
- Q3 : 2SA1469
- Q6 : IRLML6302

- D1 : SB340
- D2 : 1N4004
- D3 : RLS4148
- D5,16-19 : BAT42W
- D6-10 : RLS4148
- D11~13 : SB240
- D14,15 : 1N4004

- Z1 : PTZ5.6B/1W
- Z2,3 : MMSZ5246BS

- D3 : for Ni-Cd, Ni-MH
- R100 : for Li-ion
- D6 : for Ni-MH Rapid Charge 1000mA
- D7 : for Ni-Cd Rapid Charge 1350mA
- D8 : for Li-ion 170mA
- D9 : for Li-ion Rapid Charge 1350mA
- D10 : for Ni-Cd, Ni-MH 57mA
(Low Voltage, Trickle, Pulse)

- LED : M059AGW-A-K

SPECIFICATIONS / 规格

AC Voltage	100~240V
Dimensions (W x H x D)	102 x 56.4 x 131.5 mm
Weight (charger only)	Approx. 190g
Approximate Charging Times	
KNB-31A (Ni-Cd: 7.2V)	80 minutes
KNB-32N (Ni-MH: 7.2V).....	170 minutes
KNB-33L (Li-ion: 7.4V).....	140 minutes
KNB-41NC (Ni-MH: 7.2V)	170 minutes
KNB-47L (Li-ion: 7.4V).....	140 minutes
KNB-48L (Li-ion: 7.4V).....	170 minutes
KNB-50NC (Ni-MH: 7.2V)	140 minutes

交流电压.....	100~240V
尺寸(宽×高×长).....	102×56.4×131.5 mm
重量(仅充电器时).....	约 190g
大致充电时间	
KNB-31A (Ni-Cd: 7.2V).....	80 分
KNB-32N (Ni-MH: 7.2V).....	170 分
KNB-33L (Li-ion: 7.4V).....	140 分
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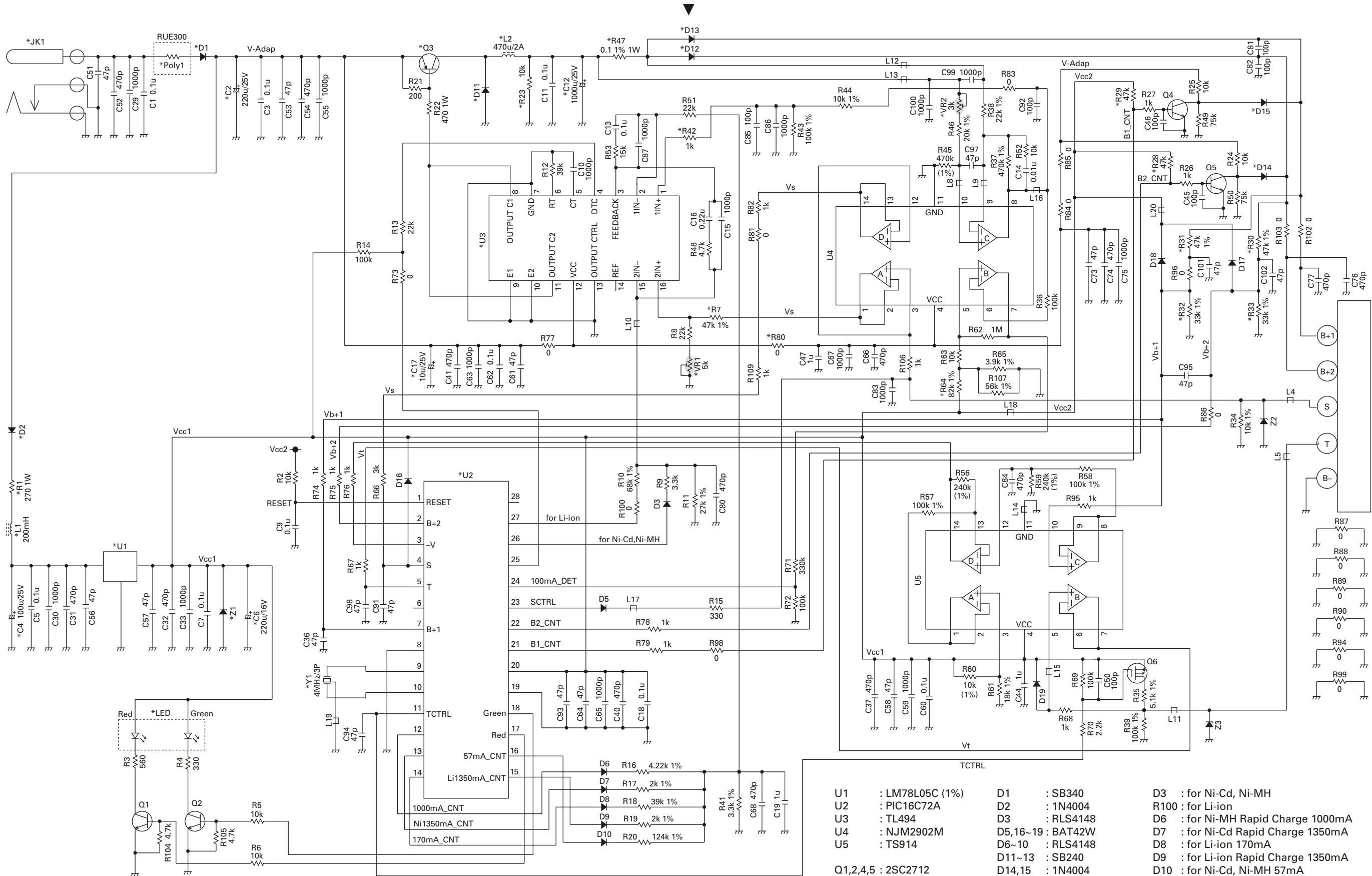
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- | | | |
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| U4 : NJM2902M | D5,16~19 : BAT42W | D7 : for Ni-Cd Rapid Charge 1350mA |
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| Q6 : IRLML6302 | LED : M059AGW-A-K | |