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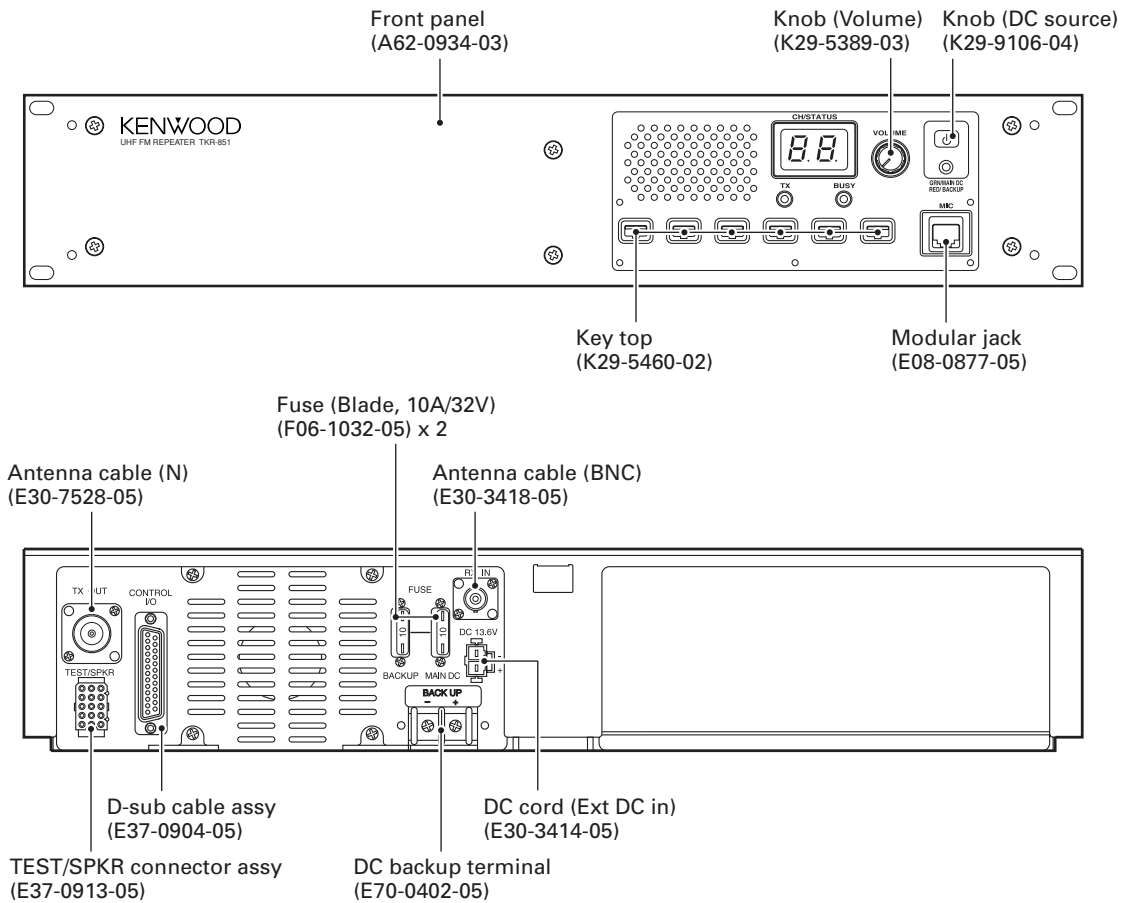
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This supplement to the service manual is available for products with serial number 60700001 or later.
This service manual contains a parts list, schematic diagrams and PC board of a new final unit for the TKR-851.
Since the adjustment procedure is the same as before, refer to the service manual (B51-8684-00) the TKR-851 for items not provided in this service manual.



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MODIFICATION

3. Single Antenna

The TKR-851 can be used as a base station by sharing an external antenna connector for both transmitting and receiving data.

3-1. Modification

1. Change the installation position of C81 and C160 of the final unit using a soldering iron.

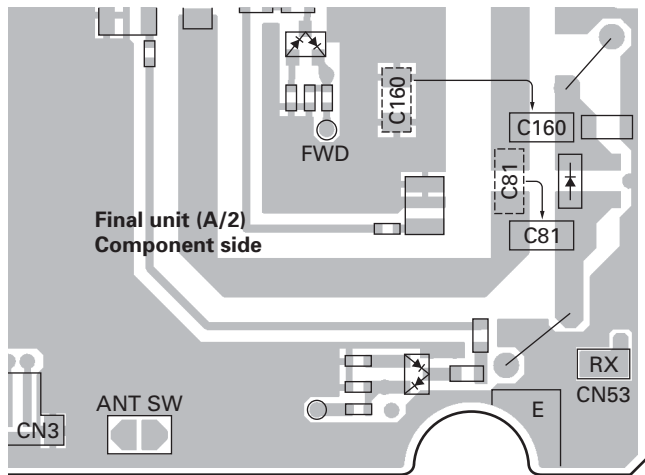


Fig. 3

2. Short-circuit the printed pattern of ANT SW near the CN3 connector by soldering.
3. Disconnect the pin connector from CN18 of the TX-RX unit.
Remove the two screws used for securing the BNC connector on the back panel of the unit. Detach the antenna cable assy. (E30-3418-05)
4. Cut off the coaxial cable of the removed antenna cable assy on the BNC connector side.
Strip off the insulation of the cut-off coaxial cable to prepare it to be soldered.

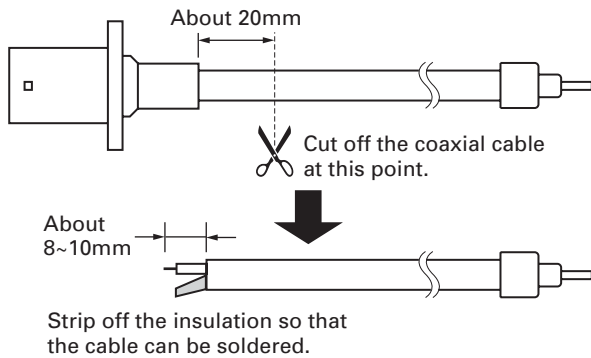


Fig. 4

3-2. Connection

1. Solder the prepared coaxial cable to the final unit.
2. Connect the pin connector of the coaxial cable to CN18 of the TX-RX unit.

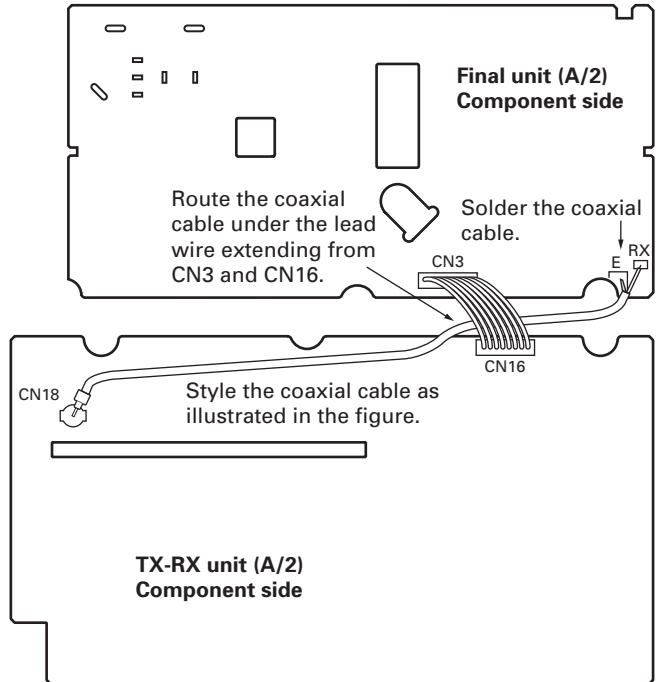


Fig. 5

3-3. Setting the FPU

Set the channel to be used as "Simplex" using the FPU.

PARTS LIST

* New Parts. Δ indicates safety critical components.

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

L : Scandinavia

Y : PX (Far East, Hawaii)

Y : AAFES (Europe)

K : USA

T : England

X : Australia

P : Canada

E : Europe

M : Other Areas

TKR-851 (Y54-323X-XX)
FINAL UNIT (X45-3742-71)

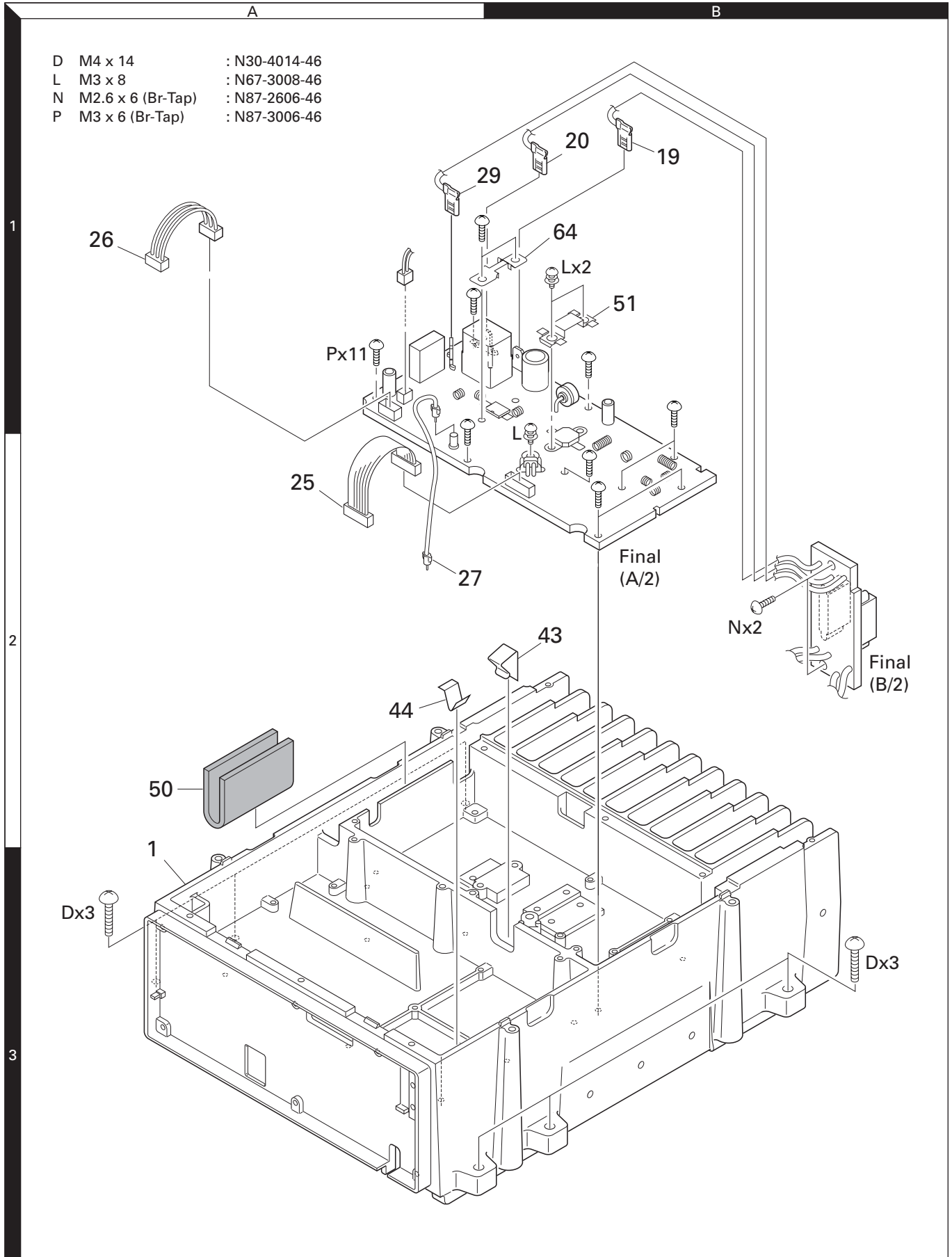
Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
TKR-851						C78			CK73GB1H471K	CHIP C 470PF K	
51	1B		G02-0894-04	EARTH SPRING		C79			CK73FB1E104K	CHIP C 0.10UF K	
64	1B		J21-8467-04	MOUNTING HARDWARE		C80			C92-0777-05	ELECTRO 1000UF 25WV	
FINAL UNIT (X45-3742-71)						C81			CM73F2H820J	CHIP C 82PF J	
C1			CK73GB1H471K	CHIP C 470PF K		C83			C93-0556-05	CHIP C 6.0PF D	
C3			C90-2146-05	ELECTRO 100UF 25WV		C86			C93-0560-05	CHIP C 10PF D	
C6,7			CK73GB1H471K	CHIP C 470PF K		C89			C93-0555-05	CHIP C 5.0PF C	
C8			CC73GCH1H080D	CHIP C 8.0PF D		C91-98			CK73GB1H471K	CHIP C 470PF K	
C10			CK73GB1H471K	CHIP C 470PF K		C99			CK73FB1E104K	CHIP C 0.10UF K	
C12-15			CK73GB1H471K	CHIP C 470PF K		C100-102			CK73GB1H471K	CHIP C 470PF K	
C17			CC73GCH1H050C	CHIP C 5.0PF C		C103			C92-0628-05	CHIP-TAN 10UF 10WV	
C18,19			CK73GB1H471K	CHIP C 470PF K		C104			CC73GCH1H101J	CHIP C 100PF J	
C20			CK73FB1H471K	CHIP C 470PF K		C105			CK73GB1H471K	CHIP C 470PF K	
C21			CC73FCH1H120J	CHIP C 12PF J		C106			CK73FB1E104K	CHIP C 0.10UF K	
C22			CC73FCH1H060D	CHIP C 6.0PF D		C107			CC73GCH1H101J	CHIP C 100PF J	
C23			CK73FB1H471K	CHIP C 470PF K		C108			CK73FB1E104K	CHIP C 0.10UF K	
C24		*	C90-5640-05	ELECTRO 100UF 16WV		C109			CC73GCH1H101J	CHIP C 100PF J	
C26			CC73GCH1H471J	CHIP C 470PF J		C112			CK73GB1H471K	CHIP C 470PF K	
C27			CK73GB1H471K	CHIP C 470PF K		C113			CK73FB1E104K	CHIP C 0.10UF K	
C28			CK73FB1E104K	CHIP C 0.10UF K		C114			CK73GB1H471K	CHIP C 470PF K	
C29			CK73GB1H471K	CHIP C 470PF K		C115			CK73FB1E104K	CHIP C 0.10UF K	
C30			CK73FB1E224K	CHIP C 0.22UF K		C116			CK73GB1H471K	CHIP C 470PF K	
C31			C93-0599-05	CHIP C 470PF K		C117			CK73FB1E104K	CHIP C 0.10UF K	
C32			C93-0558-05	CHIP C 8.0PF D		C118			C93-0558-05	CHIP C 8.0PF D	
C33,34			C93-0565-05	CHIP C 27PF J		C119			CK73GB1H471K	CHIP C 470PF K	
C35			C93-0599-05	CHIP C 470PF K		C120			CK73FB1H223K	CHIP C 0.022UF K	
C36			CK73FB1E104K	CHIP C 0.10UF K		C121,122			CM73F2H150J	CHIP C 15PF J	
C38			CK73GB1H471K	CHIP C 470PF K		C123,124			CM73F2H220J	CHIP C 22PF J	
C39			C93-0561-05	CHIP C 12PF J		C155			C93-0599-05	CHIP C 470PF K	
C40			C93-0564-05	CHIP C 22PF J		C157			CK73GB1H471K	CHIP C 470PF K	
C41			C93-0599-05	CHIP C 470PF K		C160			CM73F2H820J	CHIP C 82PF J	
C42			CC73FCH1H220J	CHIP C 22PF J		C161			CC73GCH1H220J	CHIP C 22PF J	
C43			CM73F2H220J	CHIP C 22PF J		C165,166			CK73FB1H471K	CHIP C 470PF K	
C44			C93-0556-05	CHIP C 6.0PF D		C167,168			CC73GCH1H220J	CHIP C 22PF J	
C46			C93-0599-05	CHIP C 470PF K		C169			CC73FCH1H560J	CHIP C 56PF J	
C48			CK73GB1H471K	CHIP C 470PF K		C170-172			CC73GCH1H220J	CHIP C 22PF J	
C49			CC73GCH1H101J	CHIP C 100PF J		C173,174			CC73FCH1H220J	CHIP C 22PF J	
C50			CK73FB1E104K	CHIP C 0.10UF K		C177			CC73FCH1H150J	CHIP C 15PF J	
C51			C90-2143-05	ELECTRO 47UF 25WV		C178			C93-0553-05	CHIP C 3.0PF C	
C52			CC73GCH1H101J	CHIP C 100PF J		C179			CC73FCH1H030C	CHIP C 3.0PF C	
C53			CK73FB1E104K	CHIP C 0.10UF K		CN1			E04-0154-05	PIN SOCKET	
C54			C90-2146-05	ELECTRO 100UF 25WV		CN3			E40-5632-05	PIN ASSY	
C55			C93-0599-05	CHIP C 470PF K		CN4			E40-3246-05	PIN ASSY	
C56			CC73FCH1H220J	CHIP C 22PF J		CN5			E40-5703-05	PIN ASSY	
C59			CM73F2H150J	CHIP C 15PF J		CN6-8			E23-0462-05	TERMINAL	
C61			CM73F2H820J	CHIP C 82PF J		F1			F53-0217-05	FUSE	
C68			CK73GB1H471K	CHIP C 470PF K		CN51,52			J13-0071-05	FUSE HOLDER	
C69			CC73GCH1H101J	CHIP C 100PF J		L1			L40-1075-92	SMALL FIXED INDUCTOR (10NH/1608)	
C70			CK73FB1E104K	CHIP C 0.10UF K		L2			L40-1075-34	SMALL FIXED INDUCTOR (10NH/8)	
C71,72			CK73GB1H471K	CHIP C 470PF K		L3			L40-1875-92	SMALL FIXED INDUCTOR (18NH/1608)	
C75			CK73GB1H471K	CHIP C 470PF K		L5			L41-6865-20	SMALL FIXED INDUCTOR	
C77			CC73GCH1H101J	CHIP C 100PF J		L6,7			L34-4517-05	AIR-CORE COIL	
						L9			L34-4517-05	AIR-CORE COIL	
						L11			L34-4517-05	AIR-CORE COIL	

PARTS LIST

FINAL UNIT (X45-3742-71)

Ref. No.	Address	New parts	Parts No.	Description	Destination	Ref. No.	Address	New parts	Parts No.	Description	Destination
L12			L34-4523-05	AIR-CORE COIL		K1			S76-0426-05	RELAY	
L14			L40-1575-34	SMALL FIXED INDUCTOR (15NH/8)		D2			02DZ6.2(Y)	ZENER DIODE	
L15			L40-1075-34	SMALL FIXED INDUCTOR (10NH/8)		D4,5			HSM88AS	DIODE	
L16			L40-1075-92	SMALL FIXED INDUCTOR (10NH/1608)		D7			ZSA5A27	ZENER DIODE	
L17			L40-1875-92	SMALL FIXED INDUCTOR (18NH/1608)		D8			RB051L-40	DIODE	
L19			L34-4667-05	AIR-CORE COIL		D9			MINISMDC050-02	VARISTOR	
L20			L34-4758-05	AIR-CORE COIL		D10			1SS355	DIODE	
R1			RK73GB1J103J	CHIP R 10K J 1/16W		D51,52			DSA3A1	DIODE	
R2			RK73GB1J222J	CHIP R 2.2K J 1/16W		D53			MA4PH633	DIODE	
R3			RK73GB1J470J	CHIP R 47 J 1/16W		D55,56			MA4PH633	DIODE	
R4			RK73GB1J220J	CHIP R 22 J 1/16W		IC1			MAX6502UKP035	ANALOGUE IC	
R6			RK73GB1J470J	CHIP R 47 J 1/16W		IC2			NJM78L05UA	BI-POLAR IC	
R7			RK73GB1J682J	CHIP R 6.8K J 1/16W		IC3			TA75W01FU	MOS-IC	
R8			RK73FB2A100J	CHIP R 10 J 1/10W		Q1			2SC5110(O)	TRANSISTOR	
R9			RK73FB2A220J	CHIP R 22 J 1/10W		Q2			2SC3356(R24)	TRANSISTOR	
R11			RK73GB1J104J	CHIP R 100K J 1/16W		Q3			2SK2596	FET	
R12			RK73GB1J183J	CHIP R 18K J 1/16W		Q4			PD55008S	DRIVE FET	
R13			RK73FB2A470J	CHIP R 47 J 1/10W		Q5			RD60HUF1-01	FINAL FET	
R14			R92-2571-05	CHIP R 270 J 1/2W		Q8			2SC4116(Y)	TRANSISTOR	
R15			R92-1259-05	CHIP R 18 J 1/2W		Q9			DTD123EK	DIGITAL TRANSISTOR	
R16			R92-2571-05	CHIP R 270 J 1/2W		TH1			PTH9M04BE471TS	THERMISTOR	
R17			RK73FB2A124J	CHIP R 120K J 1/10W							
R18			RK73EB2B101J	CHIP R 100 J 1/8W							
R19			RK73FB2A104J	CHIP R 100K J 1/10W							
R20,21			R92-1252-05	CHIP R 0 OHM J 1/16W							
R22			R92-1213-05	CHIP R 100 J 1/2W							
R23			RK73FB2A124J	CHIP R 120K J 1/10W							
R24			RK73FB2A104J	CHIP R 100K J 1/10W							
R26			RK73GB1J101J	CHIP R 100 J 1/16W							
R31			RK73GB1J224J	CHIP R 220K J 1/16W							
R34			R92-1252-05	CHIP R 0 OHM J 1/16W							
R35			RK73GB1J104J	CHIP R 100K J 1/16W							
R36			R92-1252-05	CHIP R 0 OHM J 1/16W							
R37			R92-0670-05	CHIP R 0 OHM							
R38			RK73GB1J473J	CHIP R 47K J 1/16W							
R40			R92-1204-05	CHIP R 100 J 1/4W							
R41,42			R92-1252-05	CHIP R 0 OHM J 1/16W							
R44			R92-0670-05	CHIP R 0 OHM							
R45			RK73GB1J223J	CHIP R 22K J 1/16W							
R46			RK73GB1J471J	CHIP R 470 J 1/16W							
R47			RK73GB1J222J	CHIP R 2.2K J 1/16W							
R48			RK73GB1J471J	CHIP R 470 J 1/16W							
R49			R92-1217-05	CHIP R 0 OHM							
R50			R92-1317-05	CHIP R 18 J 1W							
R54			RK73GB1J102J	CHIP R 1.0K J 1/16W							
R55			RK73GB1J474J	CHIP R 470K J 1/16W							
R56			RK73GB1J473J	CHIP R 47K J 1/16W							
R57			RK73GB1J471J	CHIP R 470 J 1/16W							
R58			RK73GB1J474J	CHIP R 470K J 1/16W							
R59			R92-1252-05	CHIP R 0 OHM J 1/16W							
R60			RK73GB1J103J	CHIP R 10K J 1/16W							
R61			R92-2687-05	RESISTOR 5.6 J 5W							
R62			RK73GB1J103J	CHIP R 10K J 1/16W							
R70			R92-1252-05	CHIP R 0 OHM J 1/16W							
R71			R92-1214-05	CHIP R 120 J 1/2W							
R72			RK73GB1J184J	CHIP R 180K J 1/16W							
R73			R92-1204-05	CHIP R 100 J 1/4W							
R77			RK73GB1J154J	CHIP R 150K J 1/16W							
VR1			R12-6429-05	TRIMMING POT. (100K/12)							

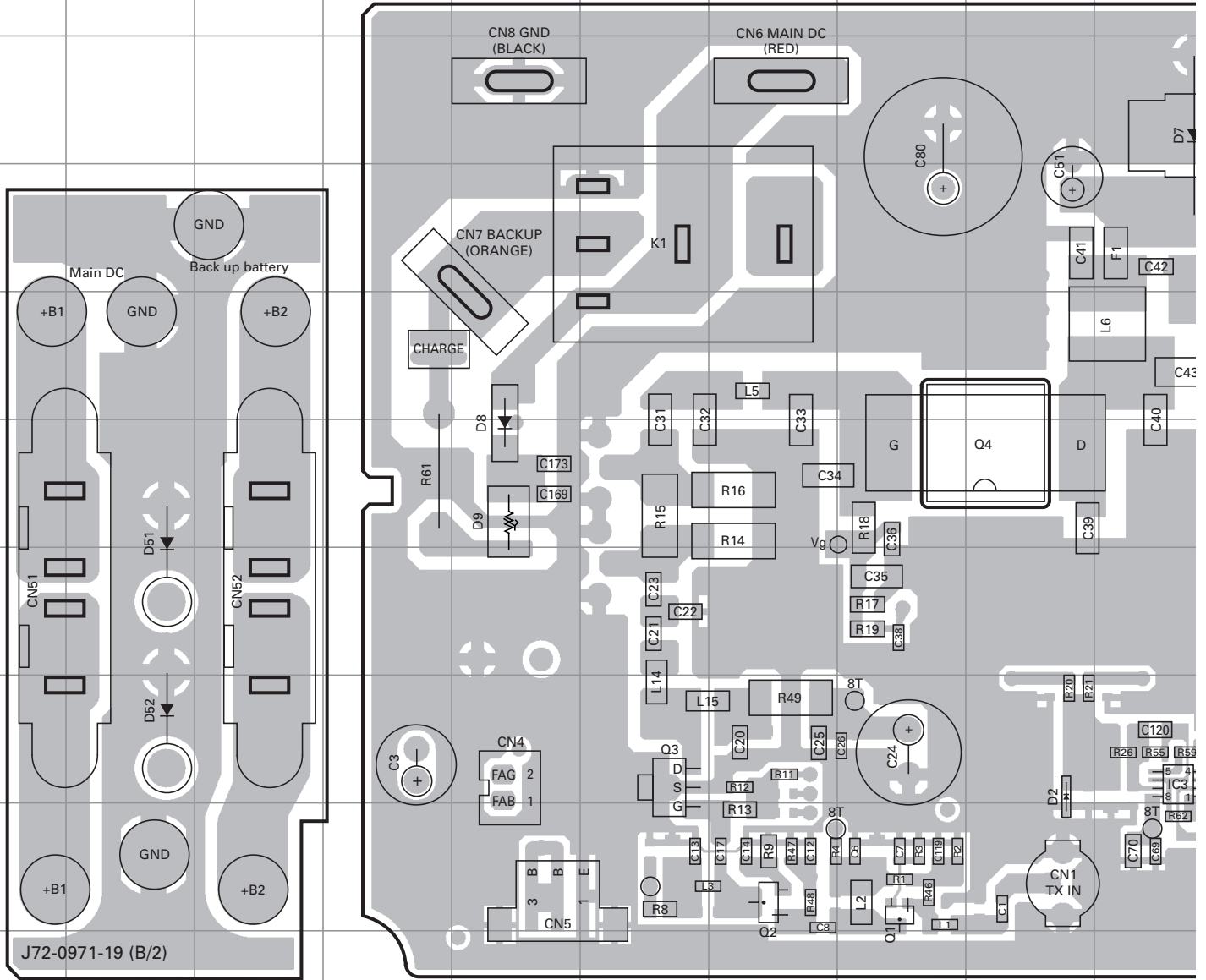
EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

TKR-851 PC BOARD

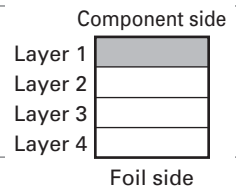
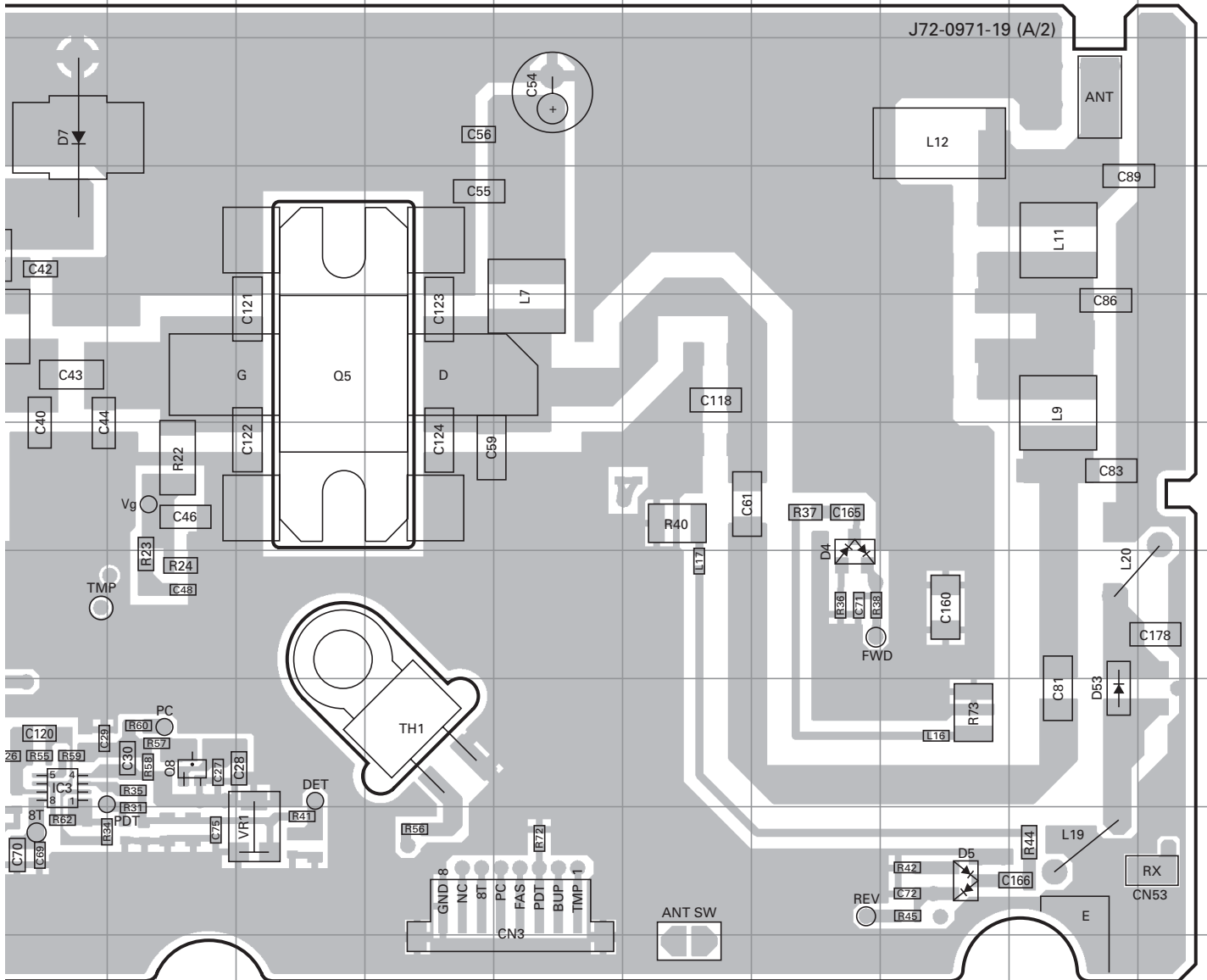
FINAL UNIT (X45-3742-71) Component side view (J72-0971-19)



Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC3	8J	Q4	6I	D4	7P	D9	6E
Q1	9H	Q5	5L	D5	9Q	D51	7B
Q2	9G	Q8	8K	D7	3J	D52	8B
Q3	8F	D2	8I	D8	6E	D53	8R

PC BOARD TKR-851

FINAL UNIT (X45-3742-71) Component side view (J72-0971-19)

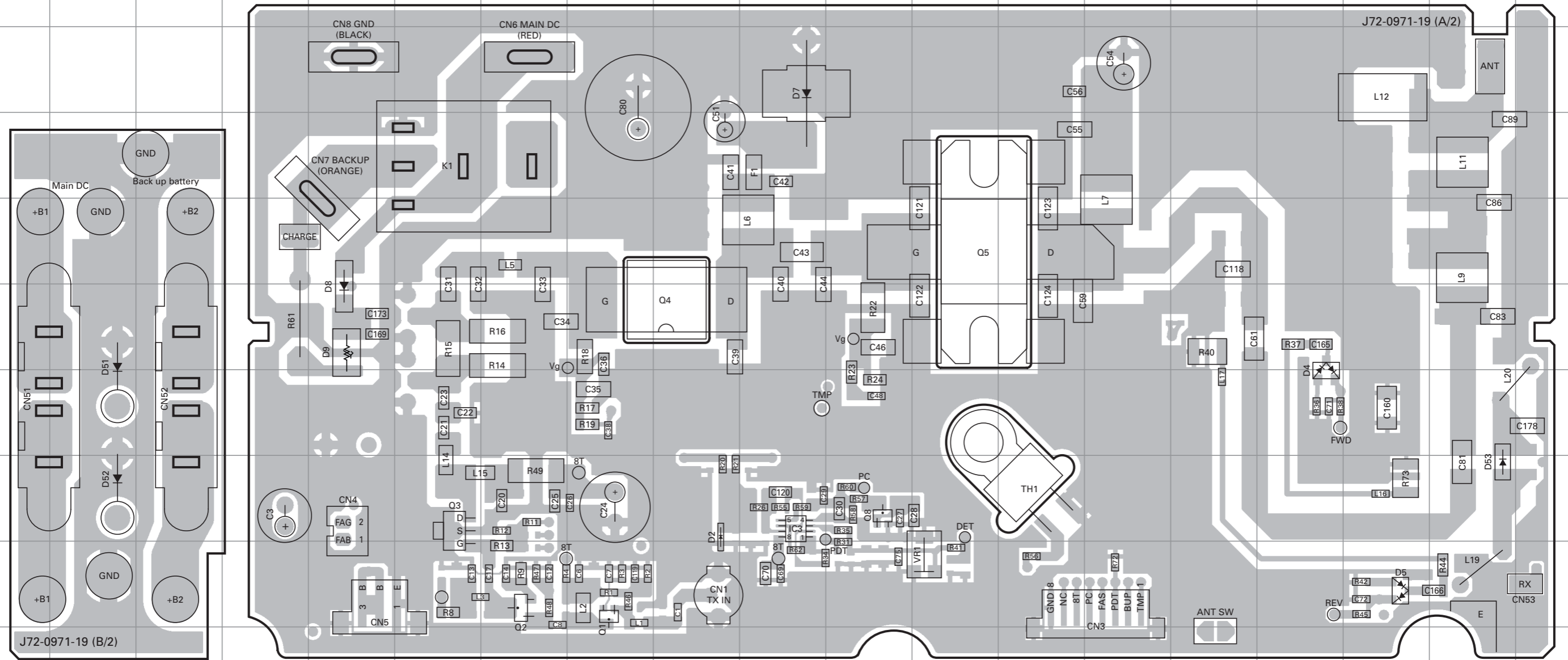


TKR-851 PC BOARD

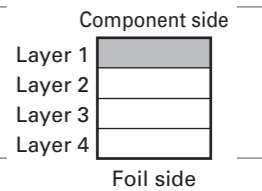
PC BOARD TKR-851

FINAL UNIT (X45-3742-71) Component side view (J72-0971-19)

FINAL UNIT (X45-3742-71) Component side view (J72-0971-19)

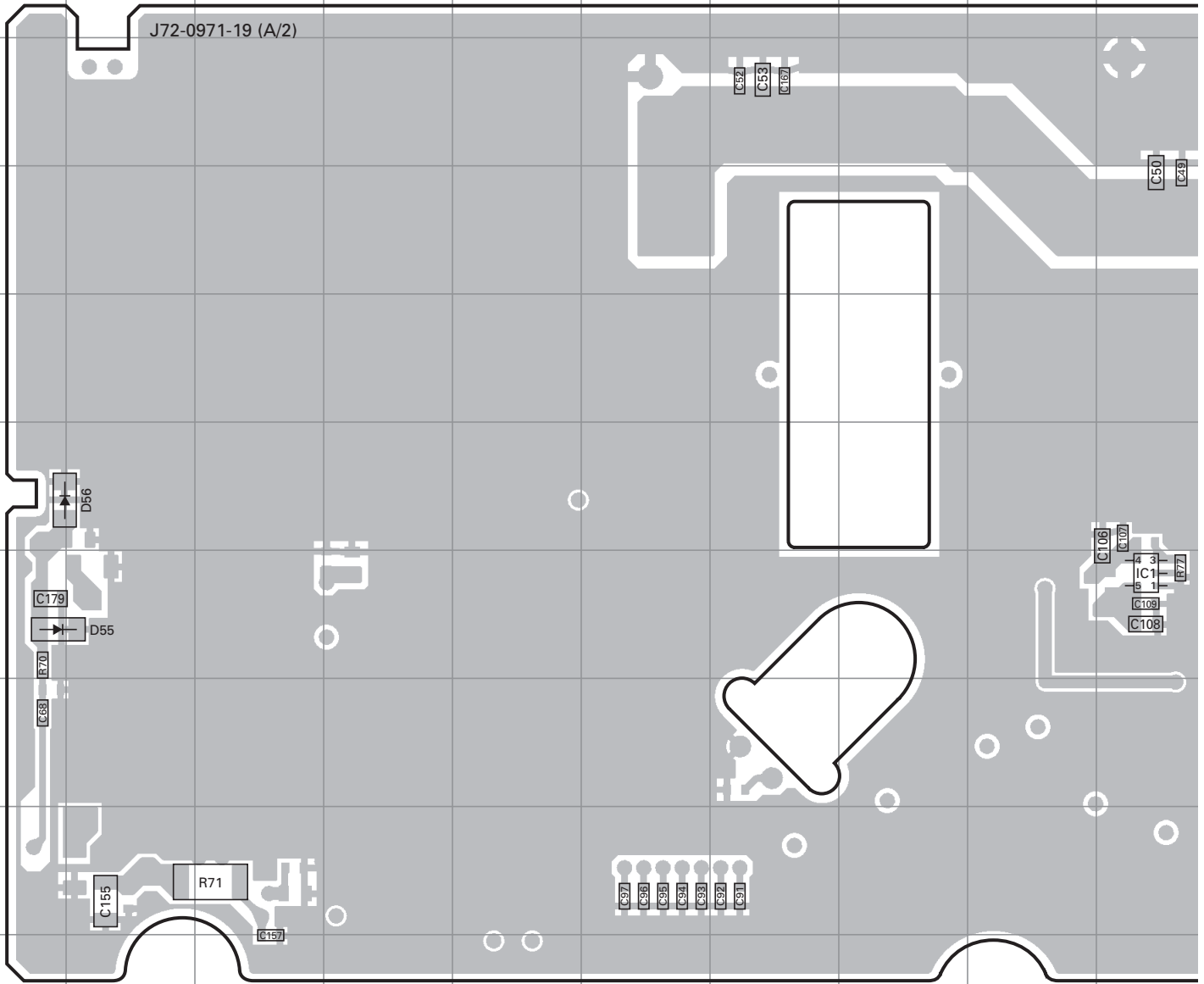


Ref. No.	Address	Ref. No.	Address	Ref. No.	Address	Ref. No.	Address
IC3	8J	Q4	6I	D4	7P	D9	6E
Q1	9H	Q5	5L	D5	9Q	D51	7B
Q2	9G	Q8	8K	D7	3J	D52	8B
Q3	8F	D2	8I	D8	6E	D53	8R



TKR-851 PC BOARD

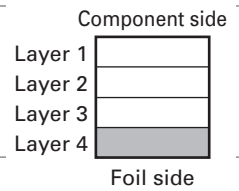
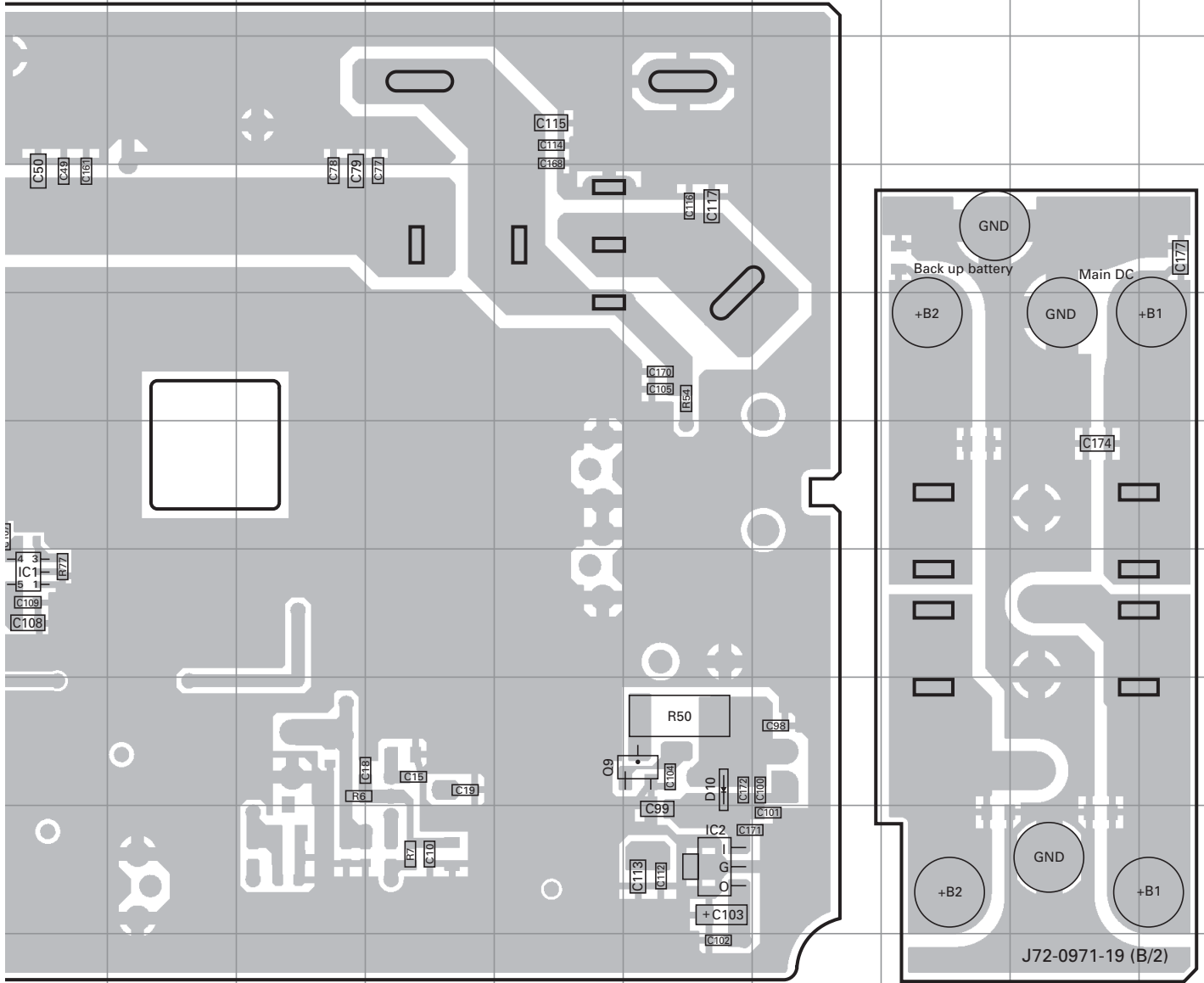
FINAL UNIT (X45-3742-71) Foil side view (J72-0971-19)



Ref. No.	Address	Ref. No.	Address
IC1	7J	D55	6A
IC2	9O	D56	7A
Q9	8O		
D10	8O		

PC BOARD TKR-851

FINAL UNIT (X45-3742-71) Foil side view (J72-0971-19)

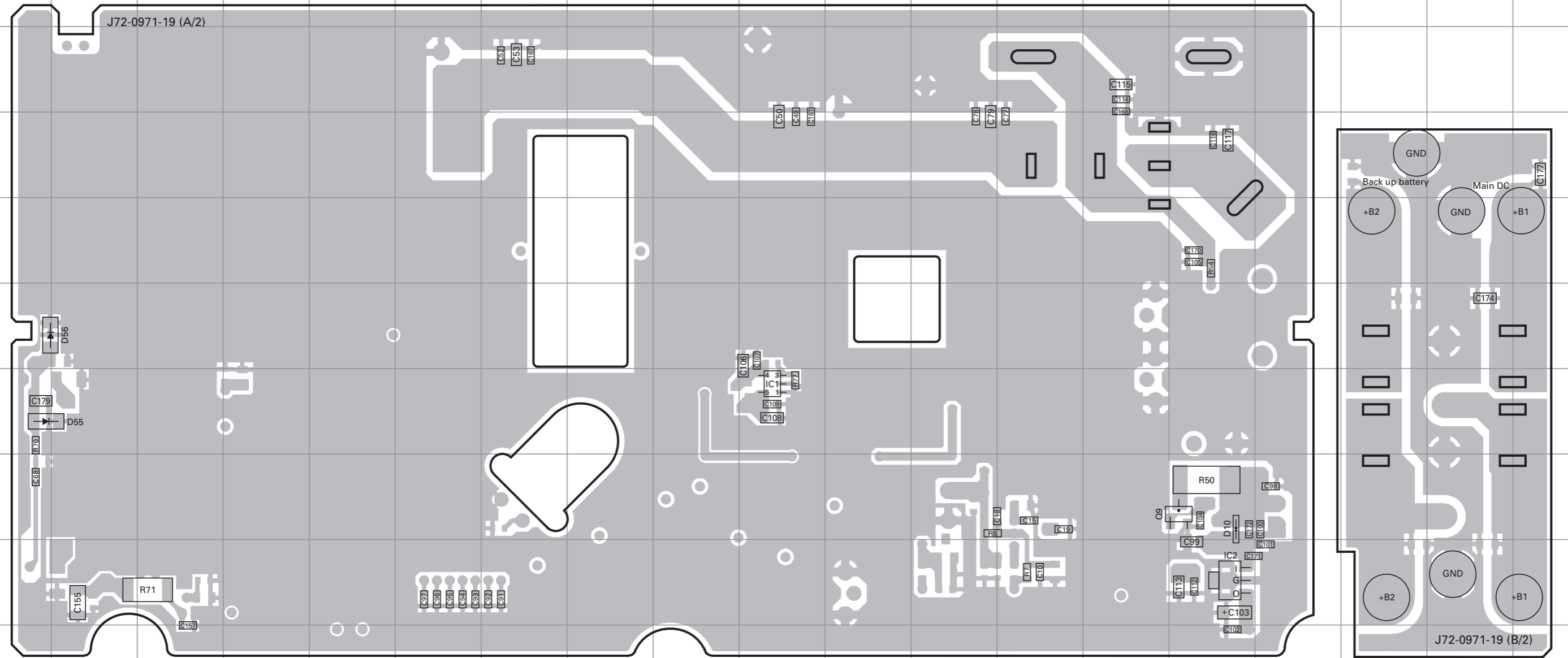


TKR-851 PC BOARD

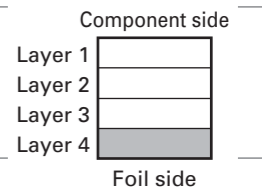
PC BOARD TKR-851

FINAL UNIT (X45-3742-71) Foil side view (J72-0971-19)

FINAL UNIT (X45-3742-71) Foil side view (J72-0971-19)

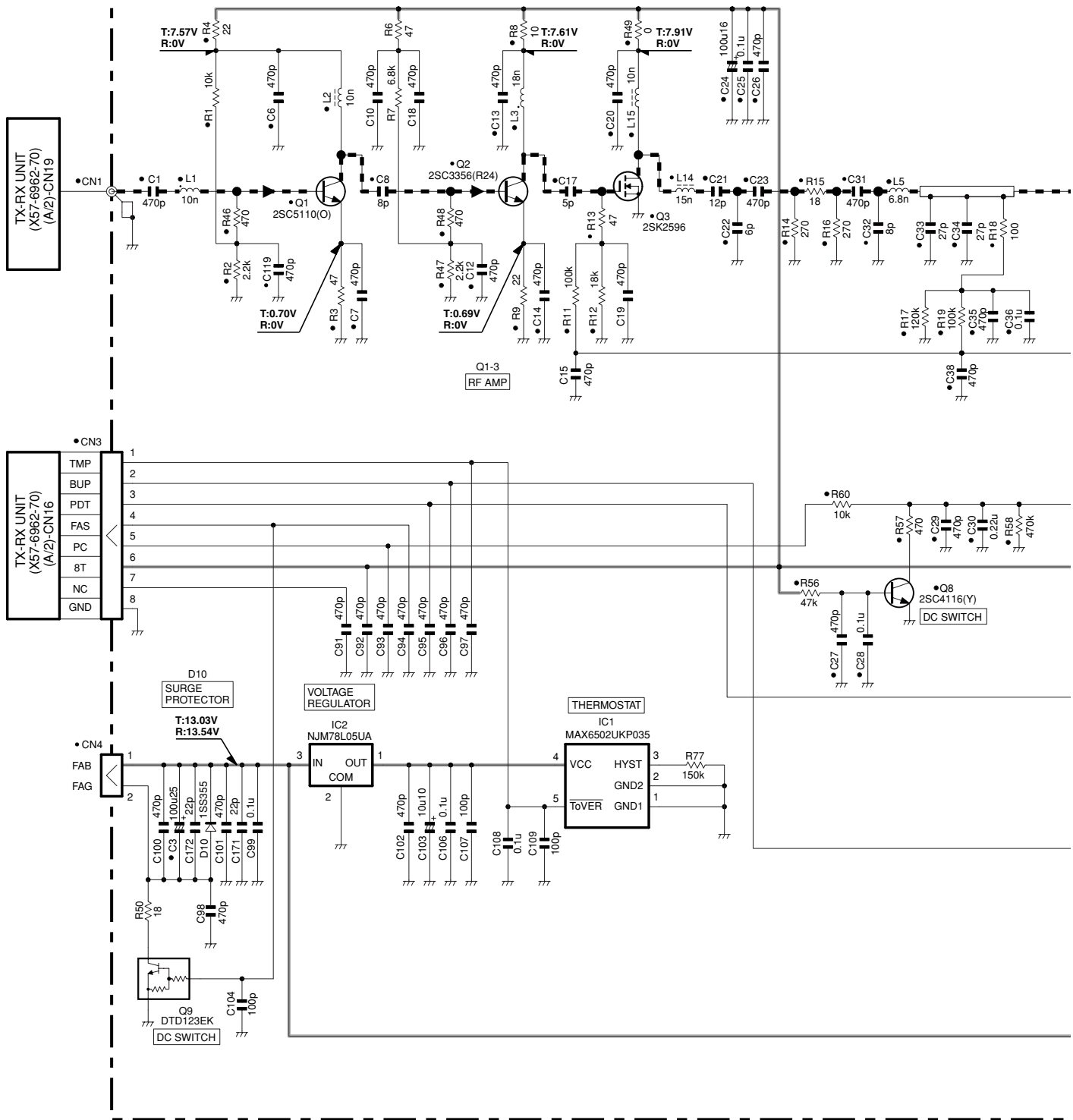


Ref. No.	Address	Ref. No.	Address
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IC2	9O	D56	7A
Q9	8O		
D10	8O		



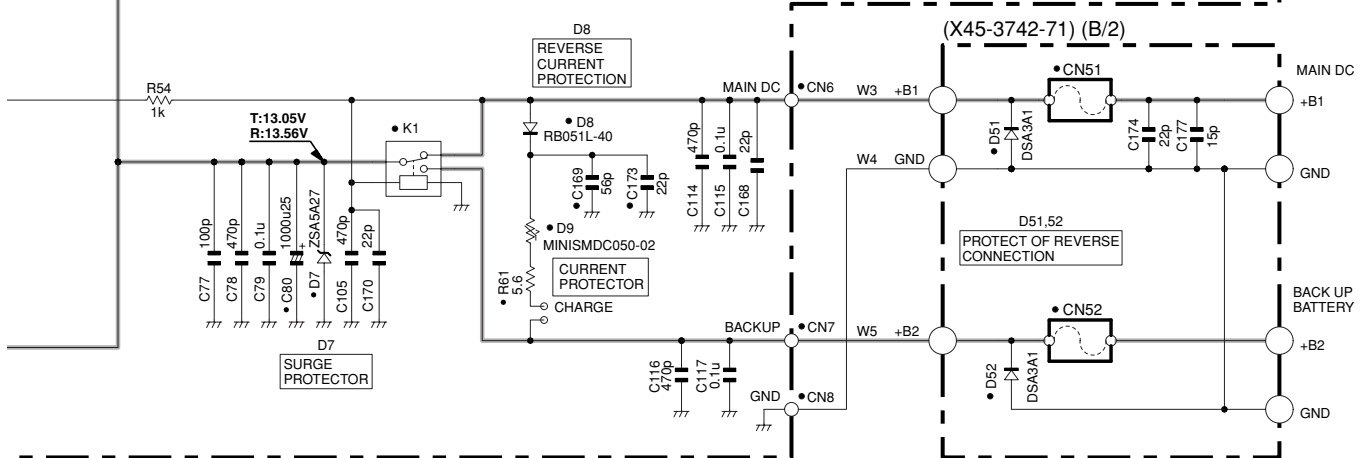
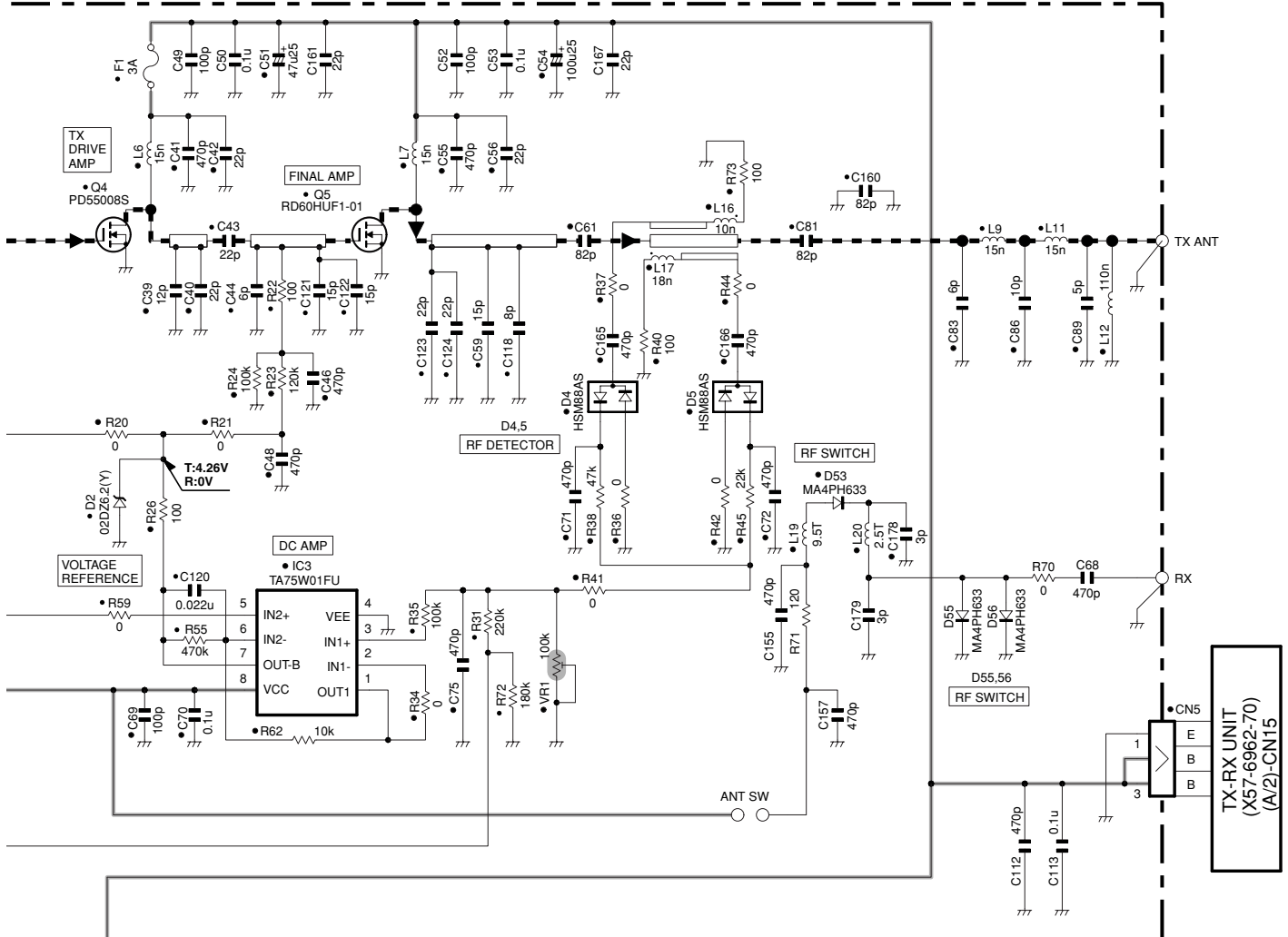
TKR-851 SCHEMATIC DIAGRAM

FINAL UNIT (X45-3742-71) (A/2)



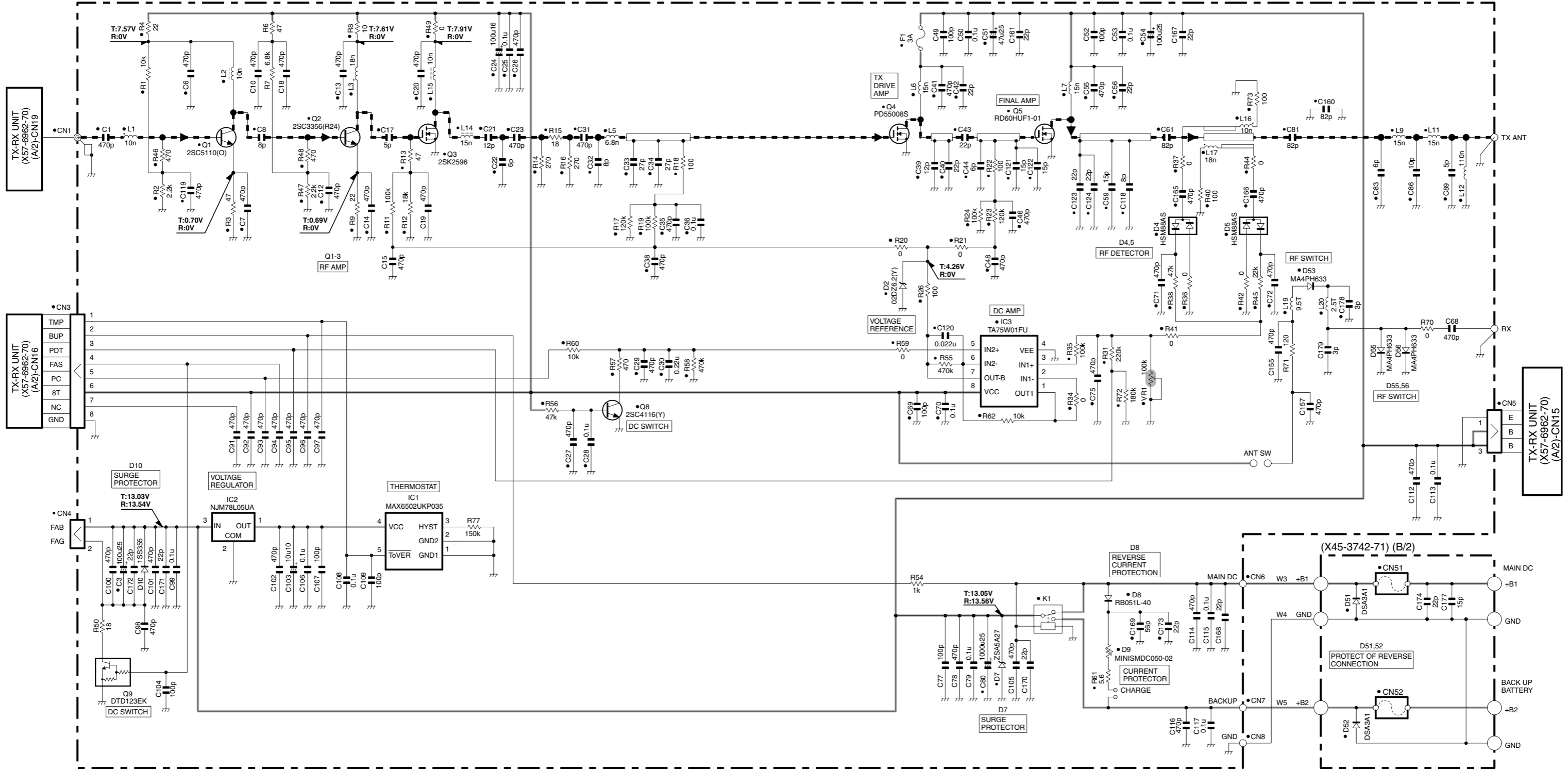
SCHEMATIC DIAGRAM TKR-851

FINAL UNIT (X45-3742-71) (A/2)



Note : The components marked with a dot (•) are parts of layer 1.

FINAL UNIT (X45-3742-71) (A/2)



TKR-851

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