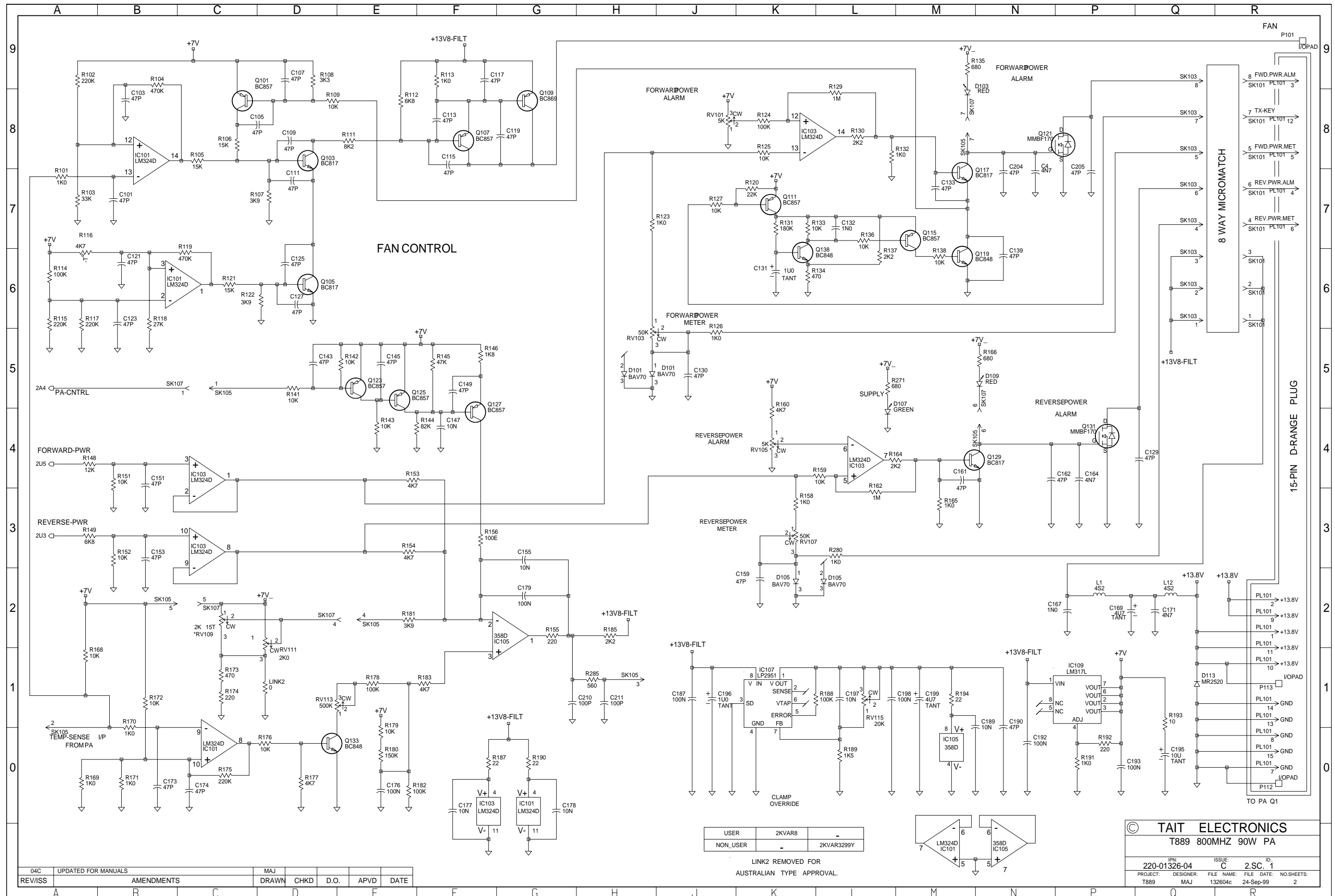


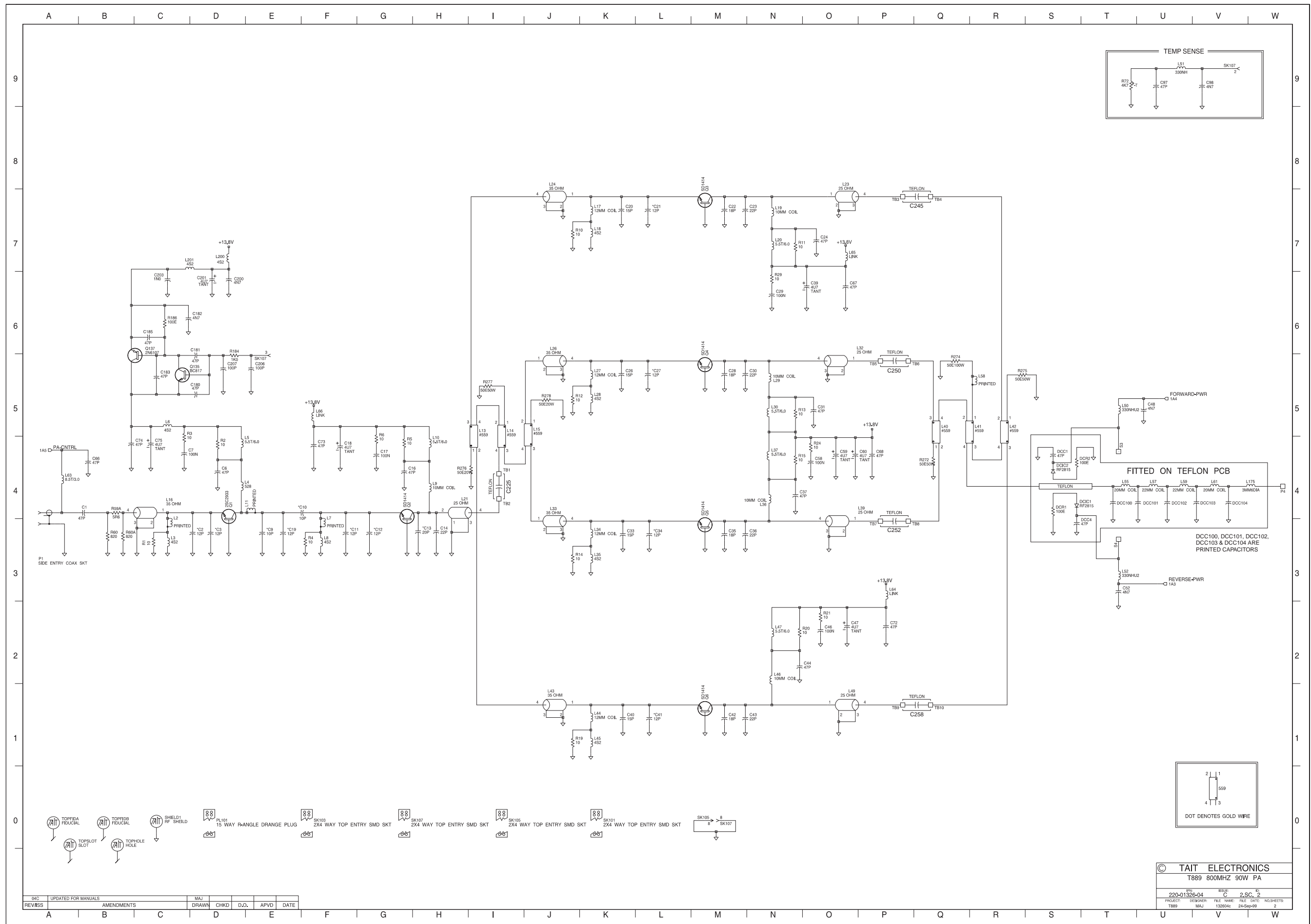
RV111 may be fitted instead of *RV109 to convert the output power adjustment to internal access only.

The circuitry for the break-off D-range PCB is shown on the control section circuit diagram.

T889 PCB Layout - Top Side
220-01326-04



Sheet 1 - T889 Control Section
220-01326-04



REV	DESCRIPTION	MAJ	CHKD	D.O.	APVD	DATE
001	UPDATED FOR MANUALS					
002	AMENDMENTS					

© TAIT ELECTRONICS	
T889 800MHZ 90W PA	
REV: C	ISSUE: 2
PROJECT: T889	DESIGNER: MAJ
FILE NAME: 132004c	FILE DATE: 24-Sep-99
NO. SHEETS: 2	SHEET NO: 2

T889 Parts List (IPN 220-01326-04)

How To Use This Parts List

The components listed in this parts list are divided into two main types: those with a circuit reference (e.g. C2, D1, R121, etc.) and those without (miscellaneous and mechanical).

Those with a circuit reference are grouped in alphabetical order and then in numerical order within each group. Each component entry comprises three or four columns: the circuit reference, variant (if applicable), IPN and description. A number in the variant column indicates that this is a variant component which is fitted only to the product type listed. Static sensitive devices are indicated by an (S) at the start of the description column.

The miscellaneous and mechanical section lists the variant and common parts in IPN order. Where possible, a number in the legend column indicates their position in the mechanical assembly drawing.

The Parts List Amendments box below lists component changes that took place after the parts list and diagrams in this section were compiled. These changes (e.g. value changes, added/deleted components, etc.) are listed by circuit reference in alphanumeric order and supersede the information given in the parts list or diagrams. Components without circuit references are listed in IPN order.

Parts List Amendments

D101, D105	Removed from the main PCB and replaced by two 1N4148 diodes (IPN 001-50012-00) placed on the D-range PCB: one soldered between PL101 pins 5 and 7 (cathode), the other between PL101 pins 6 and 8 (cathode). To allow external power meters to read zero and still provide meter overvoltage protection (710978).
DCR1, DCR2	Changed from 100Ω (IPN 036-13100-00) to 270Ω (IPN 036-13270-00) to improve the directivity of the directional coupler (710959).
R123, R158	Changed from 1k resistors (IPN 036-14100-00) to BA592 diodes (IPN 001-10059-20) to allow external power meters to read zero (710978).
R149	Changed from 12k (IPN 036-15120-00) to 6k8 (IPN 036-14680-00) to increase the reverse power sense gain to improve alarm operation (710958).
258-00010-03	Cooling fan: some T889 PAs may be fitted with a different fan (IPN 258-00010-06). If so, a 100μH inductor (IPN 056-00021-02) may be fitted in series in the fan power feed wire with a 10μF capacitor (IPN 025-08100-03) fitted in parallel with this inductor (710921).

Parts List Amendments - Continued

This page is provided for entering future amendments to the Parts List.

T889 Mechanical & Miscellaneous Parts (220-01326-04)

IPN	Legend	Description	IPN	Legend	Description
025-08100-03		CAP 10M 35V 20% TANT 5MM L/S	356-00010-01		TAG SOLDER 3MM SHORT M6132/3.2
044-04200-07		RES POT COVER H-83P	356-00010-03		TAG SOLDER 3MM LONG M614/3.2
056-00021-02		IND FXD 100UH AX	356-00010-26		PIN TRACK HARWIN FOR 1.6MM PCB
070-01001-00		D-RANGE 15 WAY COMPL T800	356-00010-26		PIN TRACK HARWIN FOR 1.6MM PCB
201-00030-02		WIRE T/C WIRE 7/0.2 PVC RED	357-00010-45		CLAMP CABLE 4.8MM P CLIP
201-00050-25		AUTO 154 RED 41/0.3 PVC	360-00010-41		BUSH SHORTY BLK
201-00050-26		AUTO 154 BLACK 41/0.3 PVC	362-00010-07		GASKET SIL INSULATING TO-220
219-02591-01		LOOM RIBBON 8 WAY FOR T839PA	362-00010-13		BUSH INSULATING 1.1MM TOP HAT
219-02593-01		LOOM RIBBON ASSY FOR T889PA	362-00010-33		GROMMET LED MTG 3MM
219-02600-00		RG316 CABLE ASSEMBLY T889 PA	365-00100-20		LABEL WHITE S/A 28X11MM
219-02639-00		CABLE ASSEMBLY RG223/UN TO BNC	369-00010-14		TIE CABLE NYLON 100*2.6MM
220-01326-04		PCB T889 90W PA SERIES II	399-00010-56		BAG PLASTIC 200*250MM
240-02010-54		SKT 15W DRANGE PNL MTG 125 C	400-00020-07		SLEEVING 2MM SIL RUBBER
240-02100-51		SKT N-TYPE FLANGE FEM SEMI-RIG	400-00020-30		HEATSHRINK 3MM
240-06010-14		CLAMP LATCHING 15 W D RANGE			
240-06010-15		BLOCK LATCHING 15W D RANGE			
258-00010-06		FAN 12V 119x119x25 (CHAMPION)			
302-05204-00		BRKT A3M2314 F/THRU MTG T859			
303-11182-02		HEATSINK T889 MECH, DRILLED			
303-23117-00		COVER SIDE COMPL A2M2223			
306-01010-00		FERRULE A4M948 HANDLE			
308-01007-00		HANDLE A4M949 FXD EQUIP			
316-06515-00		PNL FRT T889 SCRND COMPLETE			
318-01011-00		RAIL A2M1872 BOTTOM T377 PA			
318-01012-00		RAIL A3M1873 TOP T377 PA			
319-01187-00		SHIELD LID T889 HARMONIC FLTR			
319-01202-00		SHIELD T869PA CONTROL CIRCUIT			
319-01220-00		SHIELD LID T889 LOW PASS FILTE			
319-30061-00		SPACER PLATE T889 WIRELINE			
319-30062-00		SPACER T889 PRE DRIVER XSTR			
319-40009-00		STRAP RF PWR XSTR EARTHING 889			
345-00040-09		SCRW M3*6MM CSK POZI TRUNC			
345-00040-16		SCRW M3X20MM P/POZ ST BZ			
349-00020-07		SCRW 4-40 X 5/16 P/POZ T/T BLK			
349-00020-09		SCRW T/T 4-40X3/8 IN P/POZ BLK			
349-00020-36		SCREW TT M3X8m PANTORX BLK			
349-00020-43		SCRW T/T M4X12MM P/POZ BZ			
349-00020-49		SCRW T/T M4X35MM P/POZ BZ			
349-00020-50		SCRW T/T 4-40 * 5/8 P/POZ BLK			
352-00010-29		NUT M4 NYLOC HEX			
353-00010-10		WSHR M3 FLAT 7MM*0.6MM ST BZ			

replace A4 pages 7.2.19/7.2.20 with A3 pages 7.2.19/7.2.20

replace A4 pages 7.2.19/7.2.20 with A3 pages 7.2.19/7.2.20

T889 Grid Reference Index (IPN 220-01326-04)

How To Use This Grid Reference Index

The first digit in the PCB layout reference is a "1" or "2", indicating the top or bottom side layout respectively, and the last two characters give the location of the component on that diagram.

The first digit in the circuit diagram reference is the sheet number, and the last two characters give the location of the component on that sheet.

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
C1	1:R2	2-B4	C111	1:A3	1-D7	C225	1:N7	2-I4	L17	1:L2	2-K7
*C2	1:Q5	2-D3	C113	1:A2	1-F8	C245	1:F2	2-P7	L18	1:K2	2-K7
*C3	1:Q5	2-D3	C115	1:A2	1-F8	C250	1:G2	2-P5	L19	1:J1	2-N7
C4	1:A1	1-N7	C117	1:A2	1-F9	C252	1:G7	2-P3	L20	1:H1	2-N7
C6	1:S6	2-D4	C119	1:A2	1-G8	C258	1:F7	2-P1	L21	1:P8	2-I4
C7	1:S4	2-C4	C121	1:B5	1-B6				L23	1:G2	2-O7
*C9	1:Q6	2-E3	C123	1:B5	1-B6	D101	1:B4	1-H5	L24	1:M2	2-J7
*C10	1:Q6	2-F4	C125	1:A3	1-D6	D101	1:B4	1-H5	L26	1:L3	2-J5
*C11	1:Q6	2-F3	C127	1:B3	1-D6	D103	1:V8	1-M8	L27	1:L4	2-K5
*C12	1:Q6	2-G3	C129	1:A3	1-Q4	D105	1:A5	1-K2	L28	1:K5	2-K5
*C13	1:Q7	2-H3	C130	1:B3	1-J5	D105	1:A5	1-L2	L29	1:J4	2-N5
C14	1:Q7	2-H3	C131	1:A1	1-K6	D107	1:V9	1-L4	L30	1:H4	2-N5
C16	1:R8	2-G4	C132	1:A2	1-L7	D109	1:V8	1-N5	L32	1:H3	2-O5
C17	1:Q8	2-G4	C133	1:B1	1-M7	D113	1:P1	1-Q1	L33	1:L7	2-J3
C18	1:P8	2-F4	C139	1:A1	1-N6				L34	1:L6	2-K3
*C19	1:Q6	2-E3	C143	1:B3	1-D5	DCC1	1:E7	2-S4	L35	1:K5	2-K3
C20	1:K1	2-K7	C145	1:B3	1-E5	DCC4	1:D7	2-S3	L36	1:J6	2-N4
*C21	1:K2	2-L7	C147	1:E5	1-F4	DCC100	1:D6	2-T4	L37	1:H5	2-N4
C22	1:J2	2-M7	C149	1:E4	1-F5	DCC101	1:C6	2-U4	L39	1:H7	2-O3
C23	1:J1	2-M7	C151	1:B2	1-B4	DCC102	1:C8	2-U4	L40	1:G5	2-Q4
C24	1:J1	2-O7	C153	1:A1	1-B3	DCC103	1:B8	2-V4	L41	1:F5	2-Q5
C26	1:K4	2-K5	C155	1:D4	1-G3	DCC104	1:B6	2-V4	L42	1:F5	2-R5
*C27	1:K4	2-L5	C159	1:A5	1-K2	DCIC1	1:D7	2-S4	L43	1:M8	2-J1
C28	1:J4	2-M5	C161	1:A2	1-M4	DCIC2	1:E8	2-S4	L44	1:L8	2-K1
C29	1:J1	2-N6	C162	1:B3	1-N4	DCR1	1:D8	2-S4	L45	1:L7	2-K1
C30	1:J4	2-M5	C164	1:B2	1-P4	DCR2	1:E7	2-S4	L46	1:J9	2-N2
C31	1:J5	2-O5	C167	1:U4	1-P2				L47	1:H9	2-N2
C33	1:K6	2-K3	C169	1:U3	1-P2	IC101	1:D5	1-G0	L49	1:G8	2-O1
*C34	1:K6	2-L3	C171	1:U4	1-Q2	IC101	1:D5	1-B6	L50	1:E7	2-T5
C35	1:J6	2-M3	C173	1:D4	1-B0	IC101	1:D5	1-M0	L51	1:N1	2-U9
C36	1:J6	2-M3	C174	1:C5	1-C0	IC101	1:D5	1-B7	L52	1:D9	2-T3
C37	1:J5	2-N4	C176	1:E3	1-E0	IC101	1:D5	1-C1	L55	1:D6	2-T4
C39	1:H1	2-O6	C177	1:C1	1-F0	IC103	1:B1	1-C3	L57	1:C7	2-U4
C40	1:K8	2-K1	C178	1:E5	1-G0	IC103	1:B1	1-K8	L58	1:F2	2-R5
*C41	1:K8	2-L1	C179	1:C3	1-G2	IC103	1:B1	1-F0	L59	1:B8	2-U4
C42	1:J8	2-M1	C180	1:T8	2-D5	IC103	1:B1	1-L4	L61	1:B7	2-V4
C43	1:J9	2-M1	C181	1:T7	2-D5	IC103	1:B1	1-C2	L63	1:S2	2-A4
C44	1:J9	2-N2	C182	1:T8	2-C6	IC105	1:D3	1-G2	L64	1:H7	2-P3
C46	1:J9	2-O2	C183	1:S8	2-C5	IC105	1:D3	1-N0	L65	1:H2	2-O7
C47	1:H9	2-O2	C185	1:T8	2-C6	IC105	1:D3	1-M0	L66	1:Q2	2-F5
C48	1:E7	2-U5	C187	1:D2	1-J1	IC107	1:D2	1-K1	L175		2-W4
C52	1:C9	2-T3	C189	1:D3	1-N1	IC109	1:C2	1-N1	L200	1:T6	2-D7
C58	1:J6	2-O4	C190	1:D3	1-N1				L201	1:T7	2-D7
C59	1:H7	2-O4	C192	1:C2	1-N0	L1	1:U3	1-P2			
C60	1:H3	2-O4	C193	1:C4	1-P0	L2	1:Q5	2-C3	LINK2	1:V7	1-D1
C66	1:S3	2-B4	C195	1:C3	1-Q0	L3	1:P4	2-C3			
C67	1:H2	2-O6	C196	1:C2	1-J1	L4	1:R6	2-D4	P1	1:R2	2-A4
C68	1:H6	2-P4	C197	1:C2	1-L1	L5	1:S5	2-D4	P4	1:A7	2-W4
C72	1:H8	2-P2	C198	1:D2	1-L1	L6	1:S5	2-C5			
C73	1:Q8	2-F4	C199	1:D3	1-M1	L7	1:R6	2-F3	P101	1:A5	1-R9
C74	1:S4	2-B4	C200	1:T7	2-D6	L8	1:S7	2-F3	P112	1:U4	1-R0
C75	1:R4	2-C4	C201	1:T6	2-D6	L9	1:Q8	2-H4	P113	1:U2	1-R1
C97	1:P1	2-U9	C203	1:T7	2-C6	L10	1:R8	2-H4			
C98	1:P1	2-V9	C204	1:A1	1-N7	L11	1:Q6	2-E4	PL101	2:V3	2-D0
C101	1:D4	1-B7	C205	1:A1	1-P7	L12	1:U3	1-Q2			
C103	1:D5	1-B8	C206	1:T7	2-E5	L13	1:N5	2-I4	Q1	1:Q5	2-D4
C105	1:A3	1-D8	C207	1:S7	2-D5	L14	1:N5	2-I5	Q2	1:Q7	2-G4
C107	1:A3	1-D9	C210	1:D1	1-G1	L15	1:M5	2-J5	Q3	1:K1	2-M7
C109	1:A3	1-D8	C211	1:C1	1-H1	L16	1:R4	2-C4	Q4	1:K4	2-M5

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
Q5	1:K6	2-M3	R136	1:A2	1-L7	SK103	1:A4	2-F0			
Q6	1:K8	2-M1	R137	1:A2	1-L6	SK105	1:C1	2-I0			
Q101	1:A3	1-C8	R138	1:A3	1-M6	SK107	1:Q1	2-G0			
Q103	1:A3	1-D8	R141	1:B3	1-D5						
Q105	1:B2	1-D6	R142	1:B3	1-E5	TB1		2-I4			
Q107	1:A2	1-F8	R143	1:A3	1-E4	TB2		2-I4			
Q109	1:A2	1-G8	R144	1:B4	1-F4	TB3		2-P7			
Q111	1:A5	1-K7	R145	1:E4	1-F5	TB4		2-Q7			
Q115	1:A2	1-M7	R146	1:E4	1-F5	TB5		2-P5			
Q117	1:B1	1-M7	R148	1:B2	1-A4	TB6		2-P5			
Q119	1:A3	1-M6	R149	1:B4	1-A3	TB7		2-P3			
Q121	1:A1	1-P8	R151	1:B2	1-B4	TB8		2-P3			
Q123	1:B3	1-E5	R152	1:A1	1-B3	TB9		2-P1			
Q125	1:B3	1-E5	R153	1:B2	1-E4	TB10		2-Q1			
Q127	1:E4	1-F4	R154	1:A2	1-E3						
Q129	1:B2	1-N4	R155	1:D4	1-G2						
Q131	1:B3	1-P4	R156	1:D4	1-F3						
Q133	1:C5	1-E0	R158	1:A1	1-K3						
Q135	1:S8	2-C5	R159	1:A1	1-L4						
Q137	1:T8	2-B5	R160	1:C3	1-K4						
Q138	1:A1	1-K6	R162	1:A1	1-L3						
			R164	1:B2	1-M4						
R1	1:P5	2-C3	R165	1:B2	1-M3						
R2	1:S5	2-D4	R166	1:V8	1-N5						
R3	1:S5	2-C4	R168	1:C4	1-A1						
R4	1:R6	2-F3	R169	1:C5	1-A0						
R5	1:R8	2-G4	R170	1:C4	1-B1						
R6	1:Q8	2-G4	R171	1:C5	1-B0						
R10	1:L2	2-J7	R172	1:B4	1-B1						
R11	1:H1	2-N7	R173	1:V7	1-C1						
R12	1:L5	2-J5	R174	1:V7	1-C1						
R13	1:H4	2-N5	R175	1:C4	1-C0						
R14	1:L5	2-J3	R176	1:D4	1-D0						
R15	1:H5	2-N4	R177	1:D5	1-D0						
R19	1:L7	2-J1	R178	1:D3	1-E1						
R20	1:H9	2-N2	R179	1:D3	1-E0						
R21	1:H9	2-O2	R180	1:E3	1-E0						
R24	1:H6	2-O4	R181	1:D4	1-E2						
R29	1:H1	2-N6	R182	1:E3	1-E0						
R59A	1:R3	2-B4	R183	1:E3	1-F1						
R60	1:R3	2-B3	R184	1:S7	2-D5						
R60A	1:R3	2-B3	R185	1:D4	1-H2						
R72	1:P1	2-T9	R186	1:T8	2-C6						
R101	1:C4	1-A7	R187	1:C1	1-F0						
R102	1:E4	1-A9	R188	1:D2	1-L1						
R103	1:E5	1-A7	R189	1:C3	1-L0						
R104	1:D4	1-B9	R190	1:E4	1-G0						
R105	1:A5	1-C8	R191	1:C2	1-P0						
R106	1:A3	1-C8	R192	1:B2	1-P0						
R107	1:A5	1-D7	R193	1:B3	1-Q1						
R108	1:A3	1-D9	R194	1:D3	1-M1						
R109	1:A3	1-D8	R271	1:V9	1-L5						
R111	1:A3	1-E8	R272	1:F9	2-Q4						
R112	1:A2	1-E8	R274	1:G1	2-Q5						
R113	1:A2	1-F9	R275	1:F1	2-R5						
R114	1:B4	1-A6	R276	1:N9	2-I4						
R115	1:B5	1-A6	R277	1:N1	2-I5						
R116	1:B4	1-A6	R278	1:L1	2-J5						
R117	1:B5	1-A6	R280	1:A4	1-L3						
R118	1:B5	1-B6	R285	1:D1	1-H1						
R119	1:B4	1-C6									
R120	1:A5	1-K7	RV101	1:C4	1-J8						
R121	1:B4	1-C6	RV103	1:C4	1-H5						
R122	1:B5	1-D6	RV105	1:C3	1-K4						
R123	1:B2	1-H7	RV107	1:C2	1-K3						
R124	1:B1	1-K8	*RV109	1:V6	1-C2						
R125	1:B2	1-K8	RV111	1:V6	1-D2						
R126	1:B4	1-J5	RV113	1:C3	1-E1						
R127	1:A4	1-J7	RV115	1:C2	1-L1						
R129	1:B1	1-L8									
R130	1:B1	1-L8	S3	1:E8	2-T4						
R131	1:A2	1-K7	S4	1:D9	2-T3						
R132	1:B1	1-L8									
R133	1:A2	1-K7	SHIELD1	1:C7	2-C0						
R134	1:A1	1-K6									
R135	1:V9	1-M9	SK101	1:U3	2-K0						