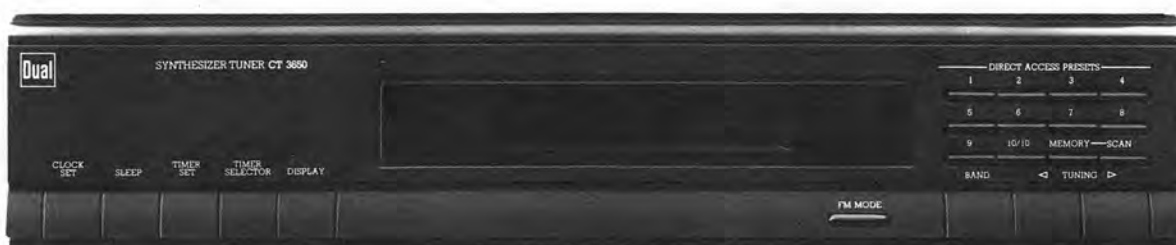


Service-Anleitung Service Manual Instructions de Service


CT 3650

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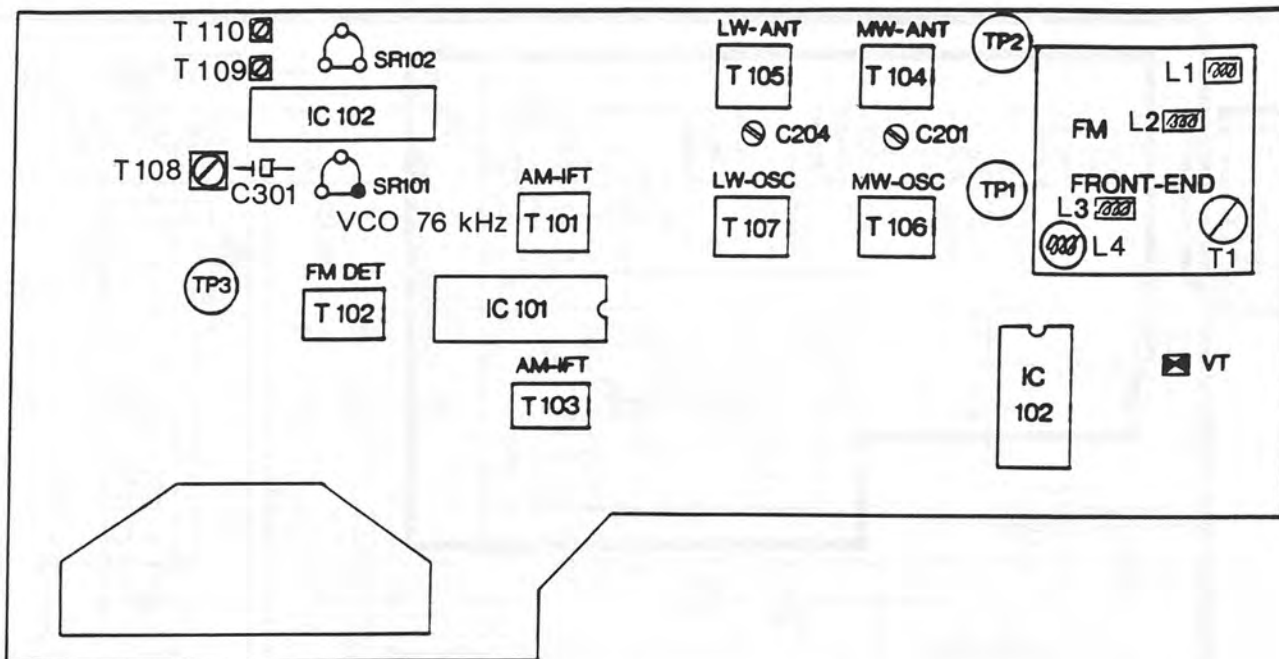
Technische Daten (typische Werte)	Technical data (typical value)	Caractéristiques techniques (valeur caractéristique)	CT 3650
Empfangsbereiche FM (UKW) MW LW	Wave bands FM (VHF) MW LW	Gammes d'ondes FM (O.U.C.) P.O. GO	87,5– 108 MHz 531 – 1602 kHz 146 – 281 kHz
Empfindlichkeit FM-Mono (75 Ohm, 26 dB Rauschabstand) FM-Stereo (75 Ohm, 46 dB Rauschabstand)	Sensitivity FM-Mono (75 Ohm, signal-to-noise ratio 26 dB) FM-Stereo (75 Ohm, signal-to-noise ratio 46 dB)	Sensibilité FM-mono (75 ohms, rapport signal/bruit de 26 dB) FM-stéréo (75 ohms, rapport signal/bruit de 46 dB)	1,5 μ V 35 μ V
Geräuschspannungsabstand (IHF) Stereo (1 kHz/46 kHz Hub)	Signal-to-noise ratio, weighted (IHF) Stereo (1 kHz/46 kHz)	Rapport signal/bruit (IHF) Stéréo (1 kHz/46 kHz)	65 dB
Klirrfaktor	Harmonic distortion	Taux de distorsion	0,25 %
Übersprechdämpfung bei 1 kHz	Channel separation at 1,000 Hz	Diaphonie stéréo (à 1 kHz)	40 dB
NF-Frequenzgang für Preemphasis 50 μ s–3 dB	AF frequency response for 50 μ s pre-emphasis – 3 dB	Bande passante BF pour pré-emphasis 50 μ s à 3 dB	20 Hz–15 kHz
Trennschärfe (stat./dyn.)	Selectivity (stat./dyn.)	Sélectivité (stat./dyn.)	80/70 dB
NF-Ausgangsspannung	AF output level	Tension de sortie BF	ca. 400 mV
Betriebsspannung	Operating voltage	Tension de service	17 V ~
Stromaufnahme	Current input	Consommation	400 mA

Abgleichanleitung CT 3650

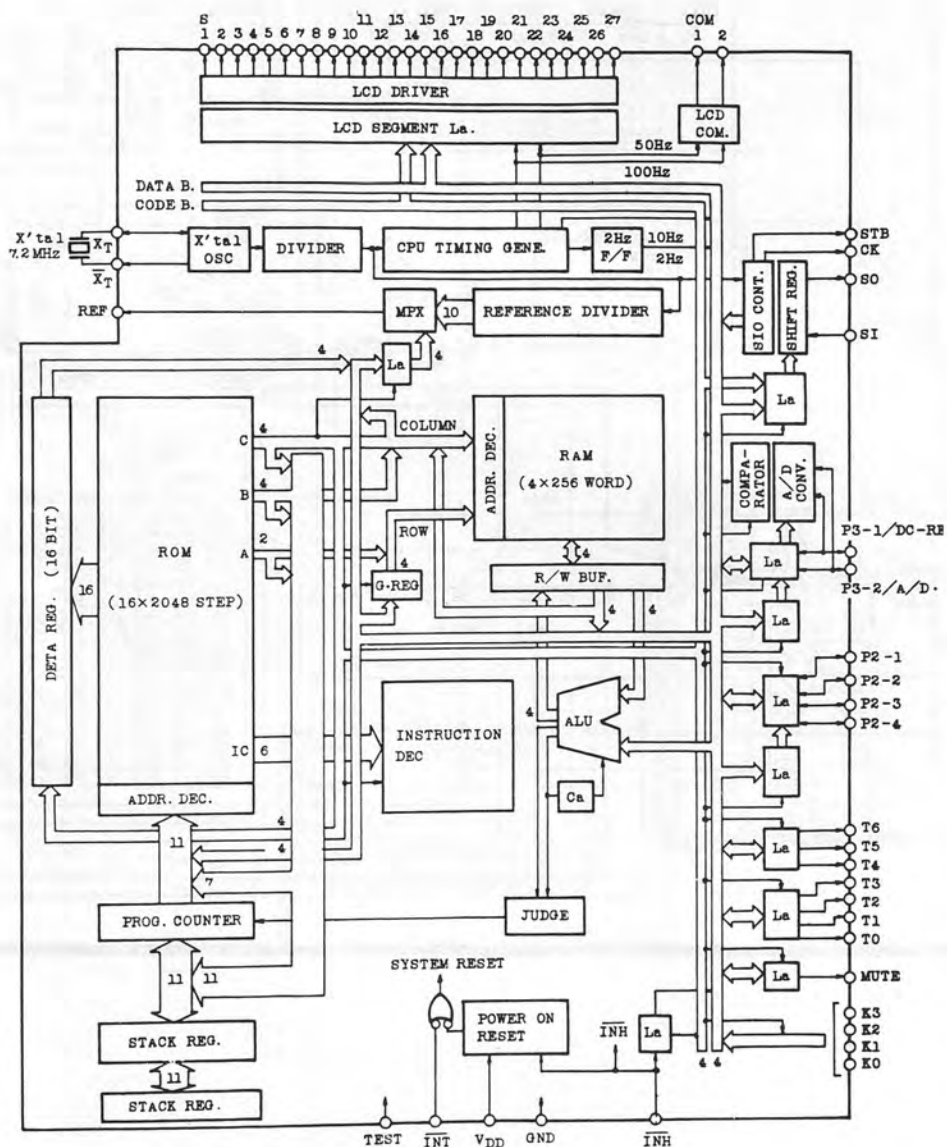
Signalquelle	Einstellung Gerät	Einstellung Signalquelle	Meßgerät Anschluß	Abgleichposition	Abgleich, Bemerkung
FM Oszillator					
	108 MHz		DC-Voltmeter an TP VT	Luftspule L 4	7,5 DC \pm 0,1 V
	87,5 MHz			Kontrolle	2,2 V DC
FM-ZF					
Wobbelgenerator an TP 1	Senderfreie Frequenz	10,7 MHz 100 μ V – 100 mV	Oszilloskop an TP 3	T 102	10,7 MHz 
FM-ZF, Vorkreis					
FM-Meßsender an 75 Ohm Antenneneingang	Senderfreie Frequenz ca. 98 MHz	0-1 mV, Hub \pm 40 kHz Mod. 1 kHz ca. 98 MHz auf Deckung	NF-Voltmeter Oszilloskop an NF-Ausgang	T 1	Maximum
	ca. 88 MHz	ca. 88 MHz auf Deckung		Luftspulen L1, L2, L3	
Pilotfrequenz 76 kHz, Kanaltrennung					
FM-Meßsender an 75 Ohm Antenneneingang	Senderfreie Frequenz ca. 98 MHz, Taste FM-Mode: Ein (Am Display: FM Auto)	ca. 98 MHz auf Deckung Hub \pm 40 kHz, Mod. 1 kHz 1-2 mV, ohne Pilotton	Frequenzzähler an SR 101	SR 101	76 kHz \pm 50 Hz
		mit 19 kHz Pilot	NF-Voltmeter Oszilloskop an NF-Ausgang	SR 102	Maximale Kanaltrennung
Unterdrückung Pilotton (19 kHz)					
FM-Meßsender an 75 Ohm Antenneneingang	Senderfreie Frequenz ca. 98 MHz	ca. 98 MHz auf Deckung 1-2 mV 19 kHz Pilot ein	NF-Voltmeter, Oszilloskop an NF-Ausgang	T 109 (L. K.)	Minimum
				T 110 (R. K.)	
LPF (114 kHz)					
NF-Generator an TP 3	Aus	114 kHz, 1-2 Vss	Oszilloskop an C 301	T 108	Minimum
AM-Oszillator					
	MW – 531 kHz		DC Voltmeter an TP VT	T 106	0,9 V \pm 0,1 V
	MW – 1602 kHz			Kontrolle	6,5 V
	LW – 146 kHz			T 107	1,0 V \pm 0,1 V
	LW – 281 kHz			Kontrolle	5,6 V
AM-ZF, Vorkreis					
AM-Meßsender an AM Antenneneingang	MW – 999 kHz	10 μ V – 1 mV, 1 kHz Mod. 30% 999 kHz	NF-Voltmeter, Oszilloskop an NF-Ausgang	T 101, T 103	Maximum
	MW – 603 kHz	603 kHz		T 104	
	MW – 1404 kHz	1404 kHz		C 201	
	LW – 160 kHz	160 kHz		T 105	
	LW – 260 kHz	260 kHz		C 204	
AM-Vorkreisabgleich wiederholen					

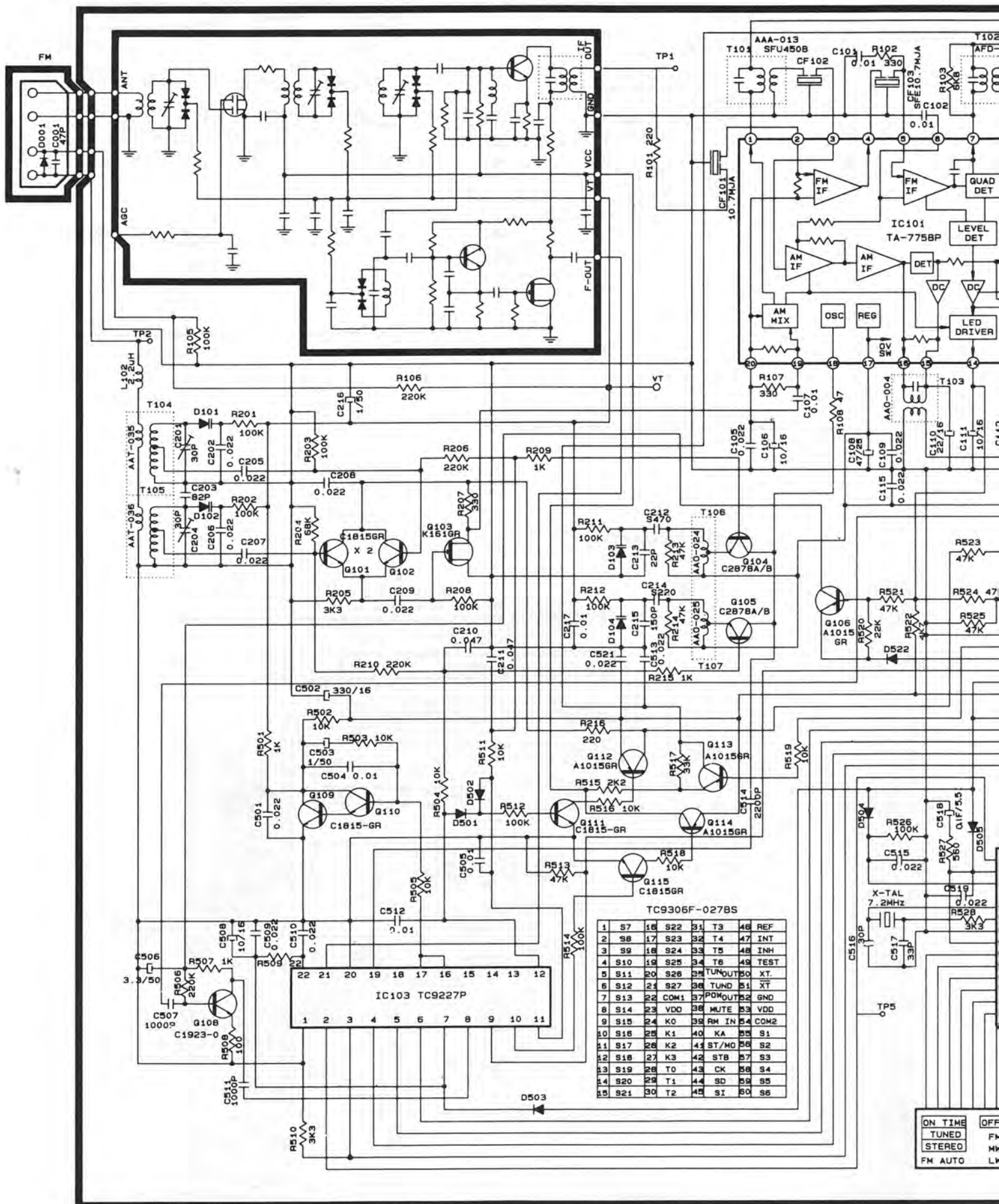
Tuning instruction for CT 3650

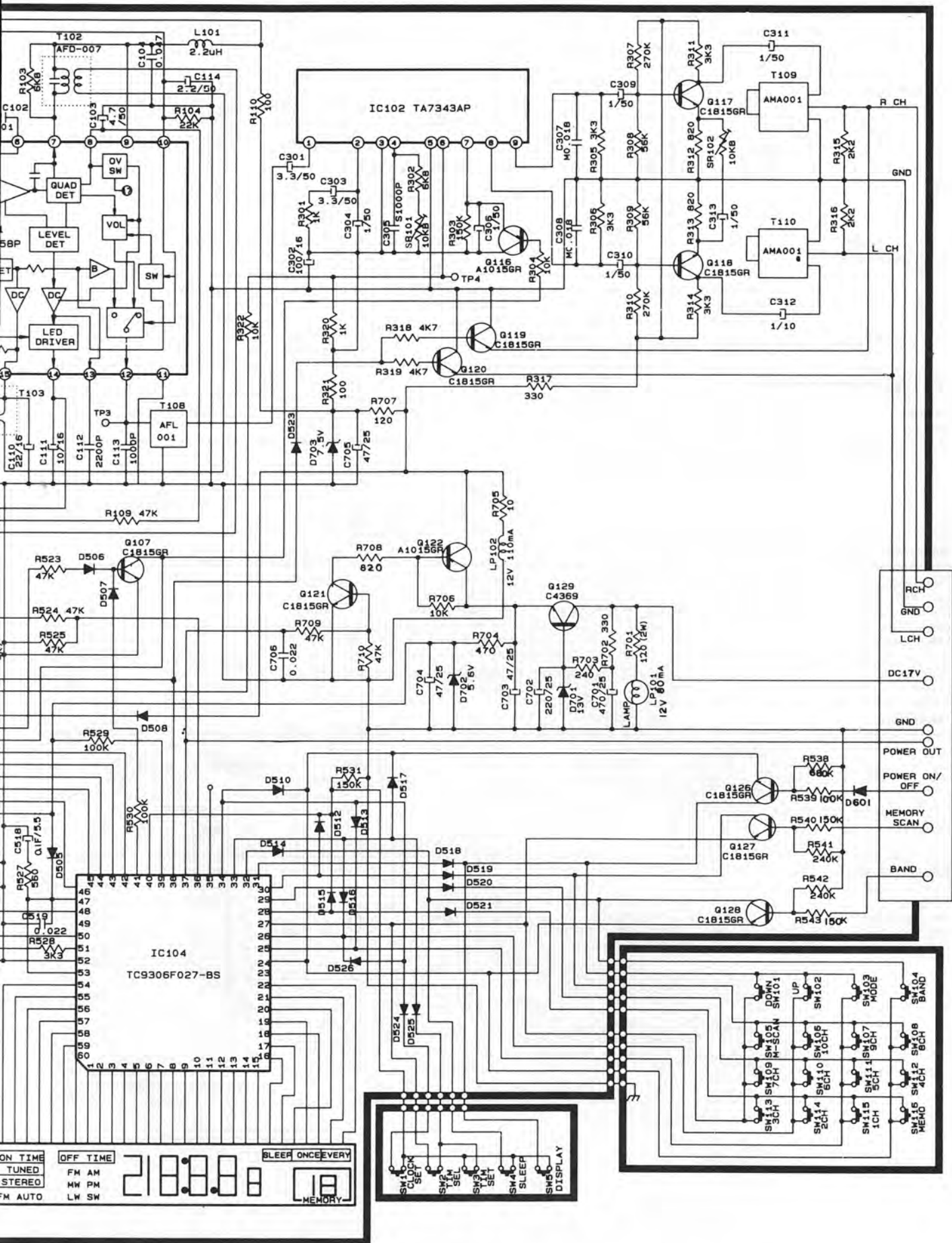
Signal source	Equipment setting	Signal source setting	Measuring device	Item to be tuned	Tuning remarks
FM oscillator					
	108 MHz		DC voltmeter to TP VT	aircoil L 4	7,5 DC \pm 0,1 V
	87,5 MHz			control	2,2 V DC
FM IF					
	Frequency without transmitters	10,7 MHz 100 μ V – 100 mV	oscilloscope to TP 3	T 102	10,7 MHz 
FM IF, input circuit					
FM signal generator to 75 ohm antenna input	Frequency without transmitters approx. 98 MHz	0-1mV, shift \pm 40 kHz mod. 1 kHz Tune to approx. 98 MHz	AF voltmeter, oscilloscope on, AF output	T 1	maximum
	approx. 88 MHz	Tune to approx. 88 MHz		Aircoils L1, L2, L3	
Pilot frequency, channel separation					
FM signal generator to 75 ohm antenna input	Frequency without transmitters approx. 98 MHz Button FM-mode: ON (on Display: FM Auto)	Tune to approx. 98 MHz Shift \pm 40 kHz, mod. 1 kHz 1-2 mV without pilot tone	Frequency counter to SR 101	SR 101	76 kHz \pm 50 Hz
		19 kHz pilot ON	AF voltmeter oscilloscope on AF output	SR 102	maximum channel separation
Suppression of residual pilot frequencies (19 kHz)					
FM signal generator to 75 ohm antenna input	Frequency without transmitters approx. 98 MHz	Tune to approx. 98 MHz, 1-2 mV 19 kHz pilot ON	AF voltmeter, oscilloscope on AF output	T 109 (L. C.)	minimum
				T 110 (R. C.)	
LPF (114 kHz)					
AF generator to TP 3	OFF	114 kHz, 1-2 Vss	oscilloscope to C 301	T 108	minimum
AM oscillator					
	AM – 531 kHz		DC voltmeter to TP VT	T 106	0,9 V \pm 0,1 V
	AM – 1602 kHz			control	6,5 V
	LW – 146 kHz			T 107	1,0 V \pm 0,1 V
	LW – 281 kHz			control	5,6 V
AM IF, input circuit					
AM signal generator to AM antenna input	AM – 999 kHz	10 μ V – 1 mV, 1 kHz mod. 30% 999 kHz	AF voltmeter, oscilloscope on AF output	T 101, T 103	maximum
	AM – 603 kHz	603 kHz		T 104	
	AM – 1404 kHz	1404 kHz		C 201	
	LW – 160 kHz	160 kHz		T 105	
	LW – 260 kHz	260 kHz		C 204	
Repeat AM-input circuit tuning					

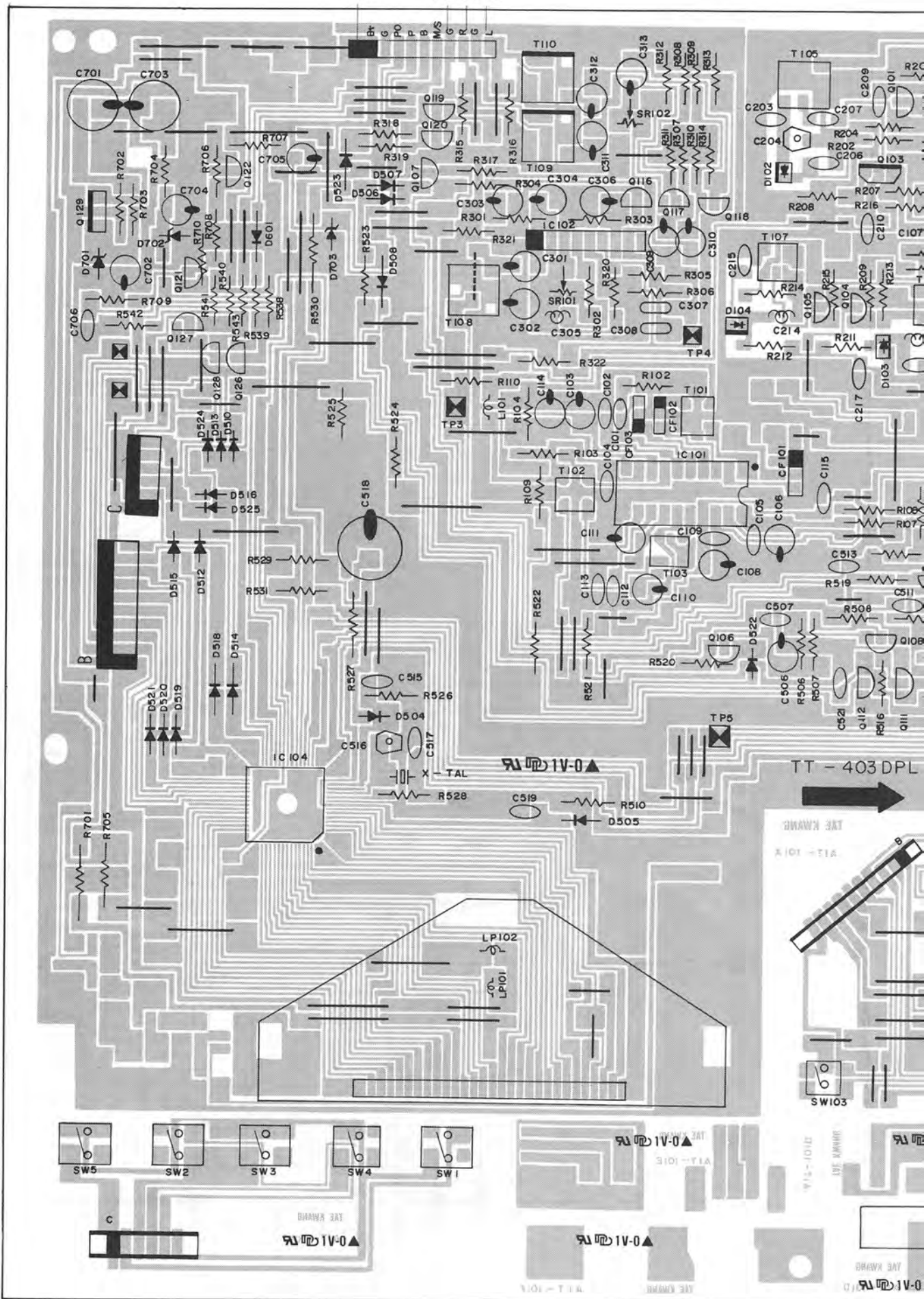


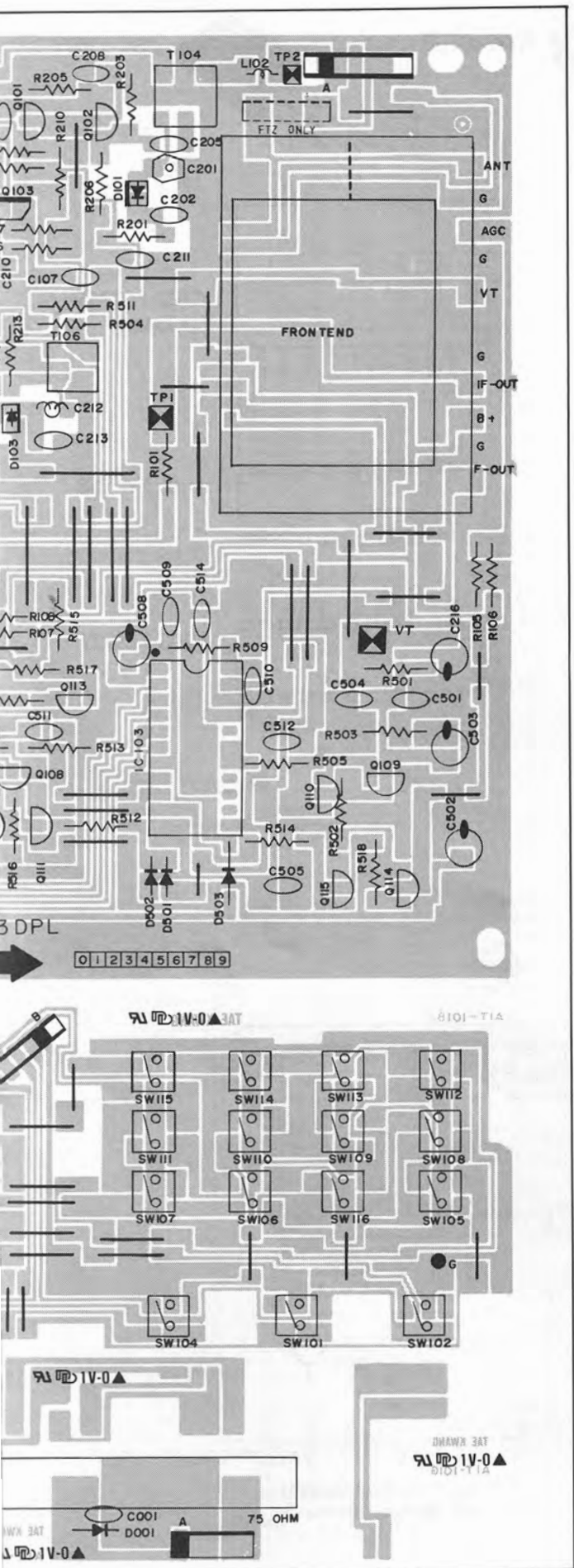
IC104 TC9306F-027BS

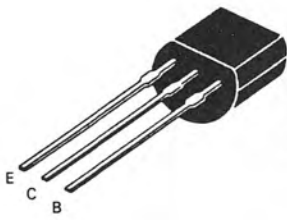




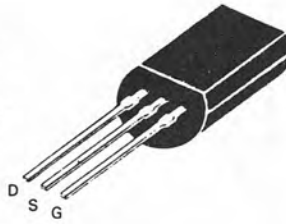




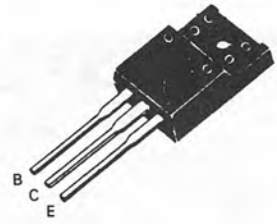




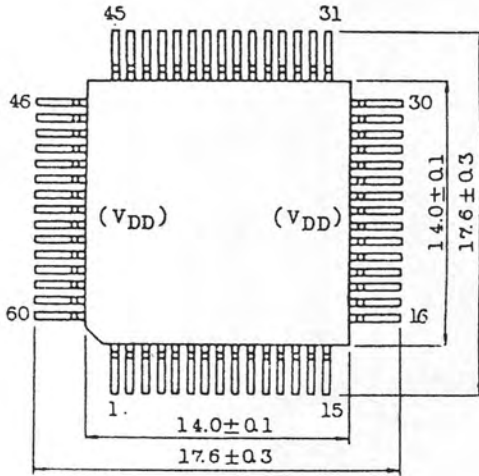
KTC-1815GR
KTC-1923Y
KTC-2878A/B
KTA-1015GR



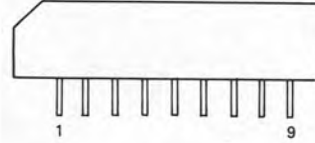
KTK-161GR



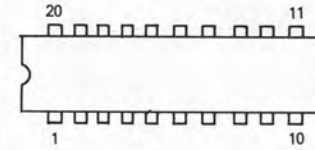
2SC-4369Y



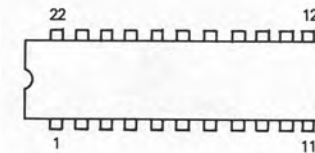
IC104
TC9306F-027BS



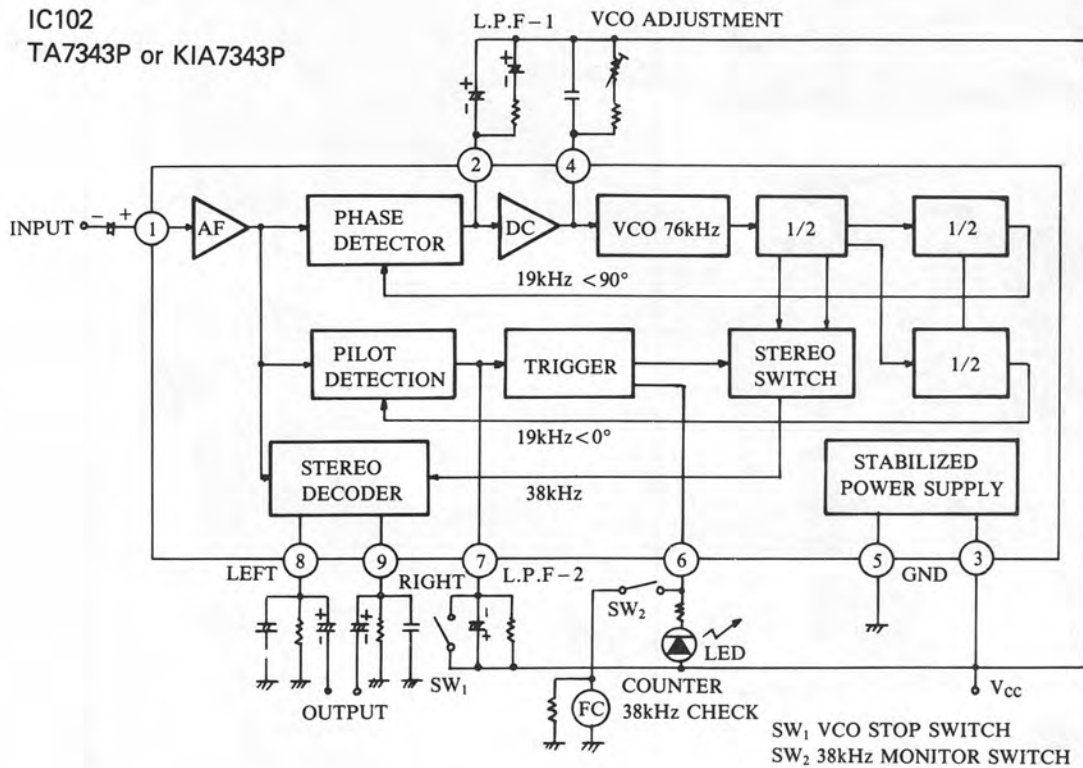
IC102 TA7343P or
KIA7343P



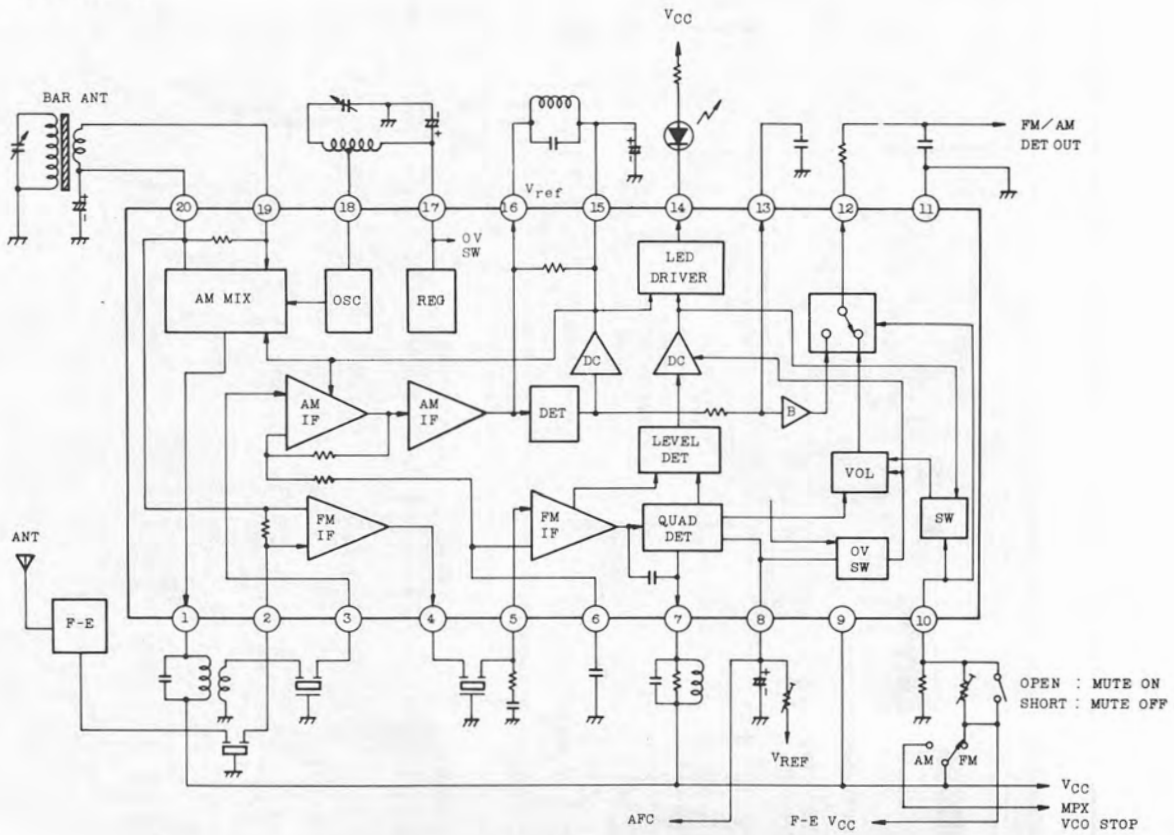
IC101 TA7758



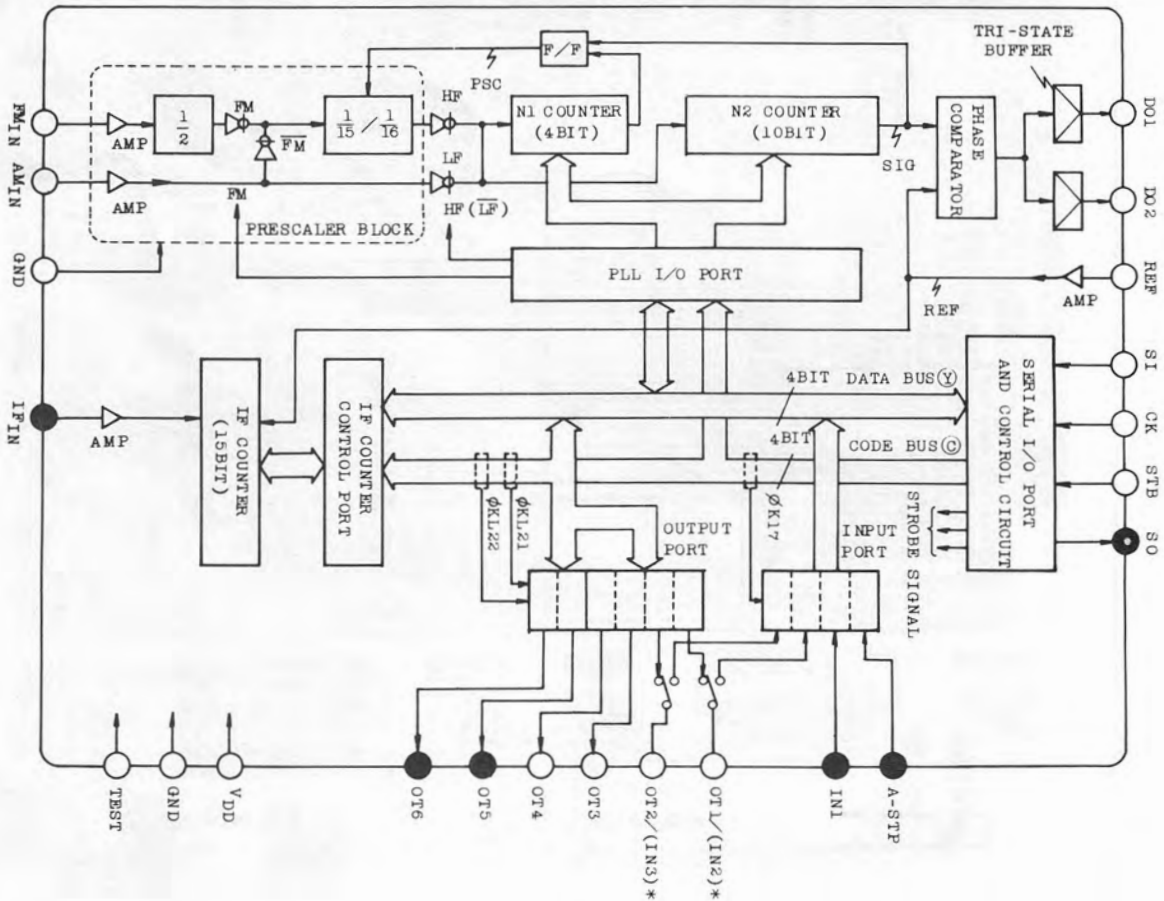
IC103 TC9227

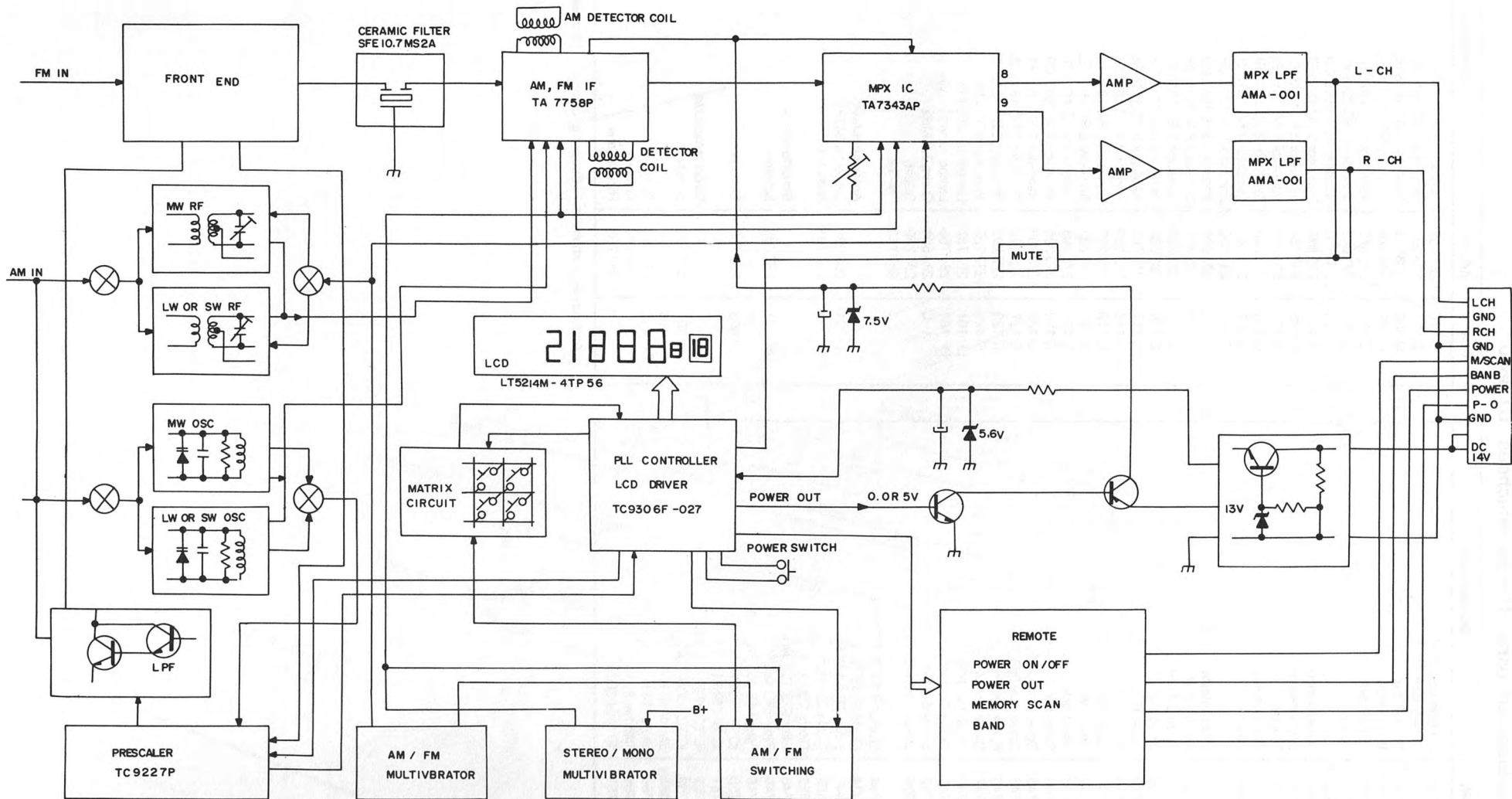


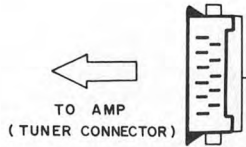
IC101 TA7758



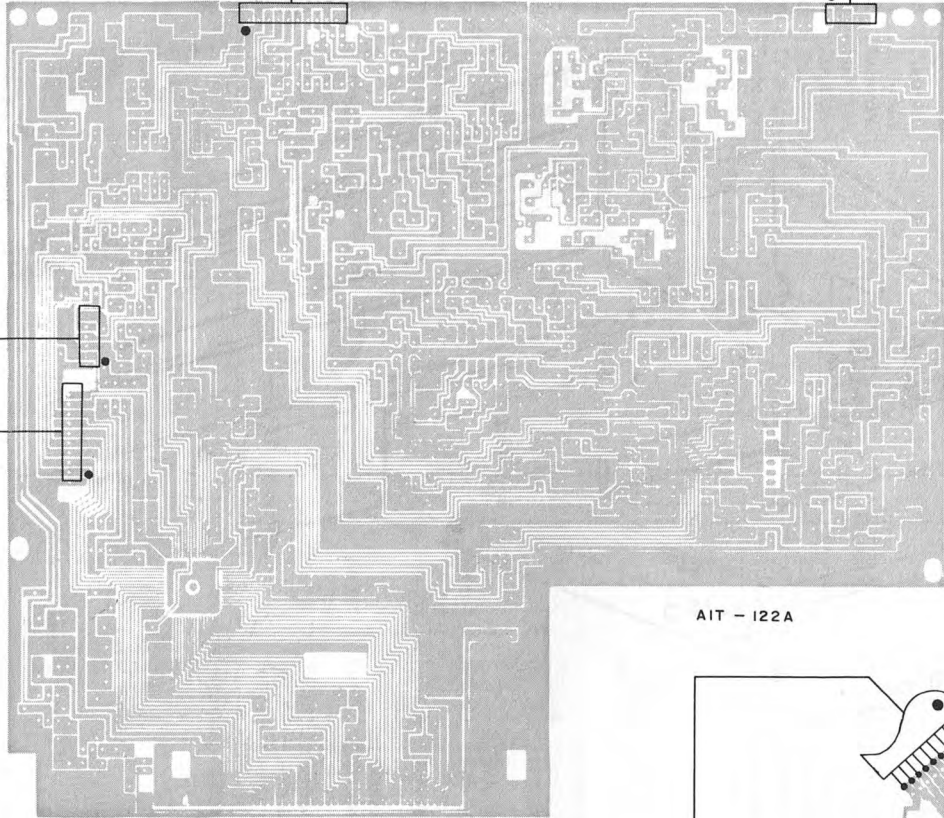
IC103 TC9227P



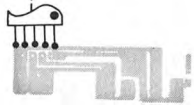




ST CONNECTOR 11P L = 350mm



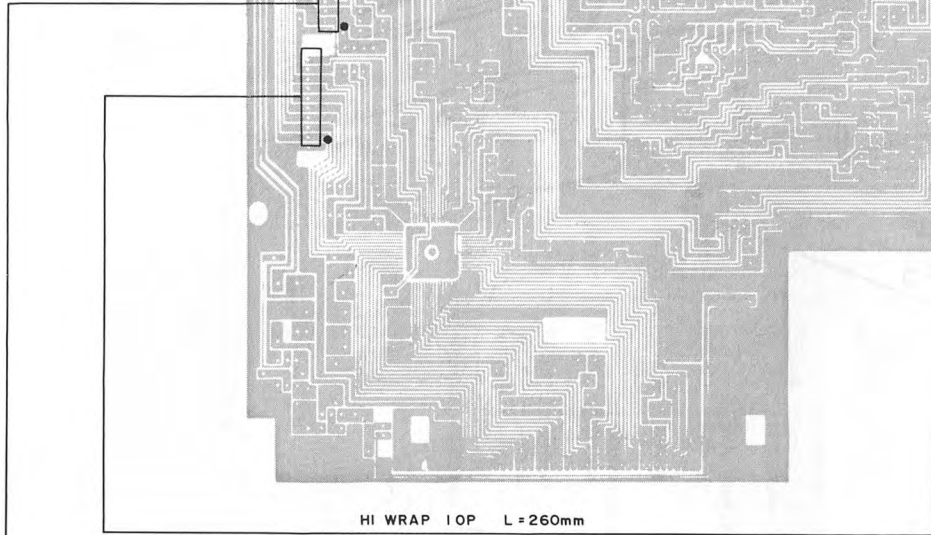
HI WRAP 4P L = 100mm



AIT - 122D



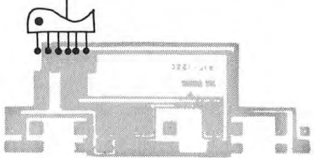
AIT - 122D



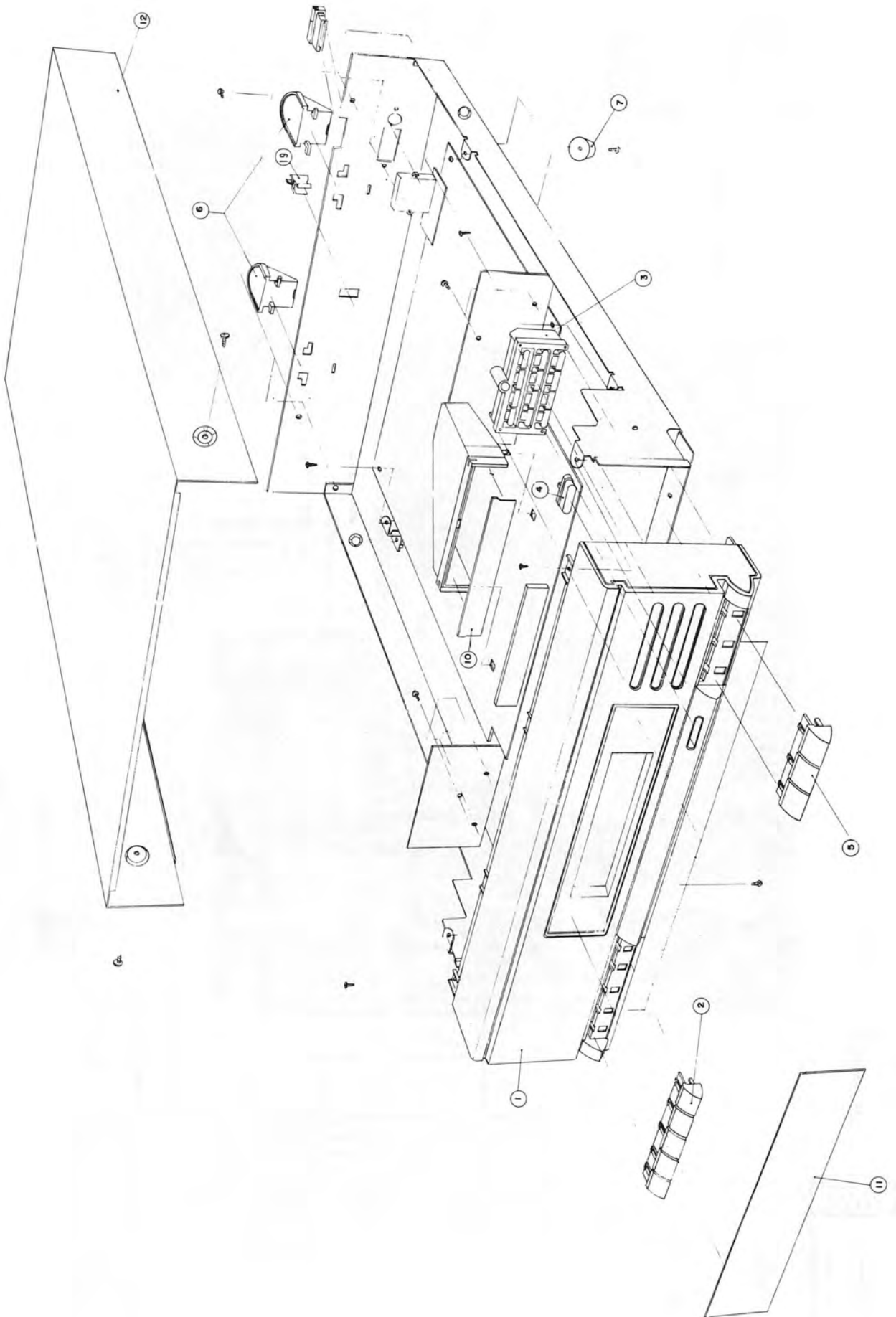
AIT - 122A

HI WRAP 10P L = 260mm

HI WRAP 6P L = 240mm



AIT - 122B



Ersatzteile · Replacement parts · Pièces détachées · CT 3650

Pos.	Art.-Nr.	Bezeichnung
1	287 726	Frontblende CT 3650
2	287 727	Taste 5-fach
3	287 728	Taste Preset
4	287 729	Taste Mode
5	287 730	Taste 3-fach
6	287 731	Stütze
7	287 923	Fuß
8	287 732	Kabelführung
10	287 733	Lampenblende
11	287 734	Fenster
12	287 735	Gehäuseblech
19	287 736	Halter
Grundplatte		
L 101	287 737	Spule 2,2 UH
L 102	287 737	Spule 2,2 UH
T 101	287 738	Spule AM
T 102	287 739	Spule FM
T 103	287 740	Spule AM
T 104	287 741	Spule MW
T 105	287 742	Spule LW
T 106	287 743	Spule MW
T 107	287 744	Spule LW
T 108	287 745	Spule Band Paß
T 109	287 746	Spule Low Paß
T 110	287 746	Spule Low Paß
D 101	287 747	Diode ISV 149
D 102	287 747	Diode ISV 149
D 103	287 747	Diode ISV 149
D 104	287 747	Diode ISV 149
D 501	263 034	Diode 1S 2473
bis		
D 525	263 034	Diode 1S 2473
D 601	263 034	Diode 1S 2473
D 701	282 447	Diode DZ 13 BM
D 702	283 552	Diode DZ 5,6
D 703	283 553	Diode DZ 7,5
CF 101	287 748	Filter SFE 10,7 MJ
CF 102	287 749	Filter SFU 450 B
CF 103	287 748	Filter SFE 10,7 MJ
IC 101	287 750	IC TA 7758 P
IC 102	287 751	IC TA 7343 P
IC 103	287 752	IC TC 9227 P
IC 104	287 753	IC TC 9306 F 027
SR 101	287 754	Steller 10 K
SR 102	287 754	Steller 10 K
C 201	287 755	Trimmer 30 Pf
C 204	287 755	Trimmer 30 Pf

Pos.	Art.-Nr.	Bezeichnung
C 516	287 755	Trimmer 30 Pf
Q 101	273 293	Transistor 2 SC 1815 BL
Q 102	273 293	Transistor 2 SC 1815 BL
Q 103	282 169	Transistor KTK 161 Y
Q 104	271 072	Transistor 2 SC 2878 B
Q 105	271 072	Transistor 2 SC 2878 B
Q 106	283 330	Transistor KTA 1015 GR
Q 107	273 293	Transistor 2 SC 1815 BL
Q 108	287 756	Transistor KTC 1923 Y
Q 109	273 293	Transistor 2 SC 1815 BL
Q 110	273 293	Transistor 2 SC 1815 BL
Q 111	273 293	Transistor 2 SC 1815 BL
Q 112	283 330	Transistor KTA 1015 GR
Q 113	283 330	Transistor KTA 1015 GR
Q 114	283 330	Transistor KTA 1015 GR
Q 115	273 293	Transistor 2 SC 1815 BL
Q 116	283 330	Transistor KTA 1015 GR
Q 117	273 293	Transistor 2 SC 1815 BL
Q 118	273 293	Transistor 2 SC 1815 BL
Q 119	273 293	Transistor 2 SC 1815 BL
Q 120	273 293	Transistor 2 SC 1815 BL
Q 121	273 293	Transistor 2 SC 1815 BL
Q 122	283 330	Transistor KTA 1015 GR
Q 126	273 293	Transistor 2 SC 1815 BL
Q 127	273 293	Transistor 2 SC 1815 BL
Q 128	273 293	Transistor 2 SC 1815 BL
Q 129	287 935	Transistor KTC 4369
LP 101	287 757	Lampe 12 V/80 MA
LP 102	287 758	Lampe 12 V/110 MA
X-L	284 503	Quarz 7,2 MHz
	287 759	Display
	287 760	FM-Teil
Antennenplatte		
D 001	263 034	Diode 1S 2473
	287 761	Antennenbuchse
Schalterplatte		
SW 001	287 762	Schalter
bis		
SW 005	287 762	Schalter
Bedienteilplatte		
SW 101	287 763	Schalter
bis		
SW 116	287 763	Schalter
	287 764	Antenne
	287 765	Hilfsantenne

Änderungen vorbehalten! Subject to change! Sous réserve de modification!