

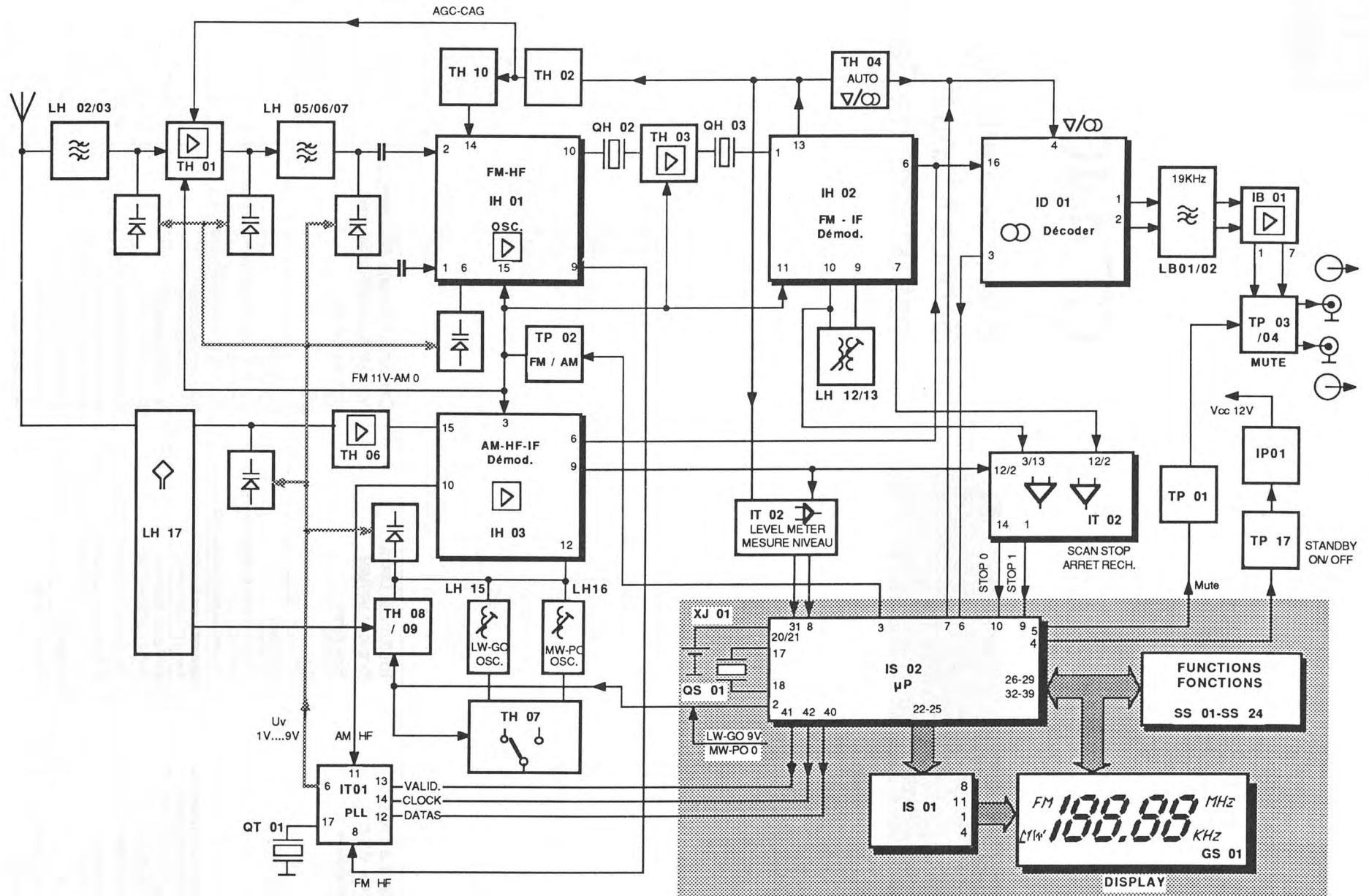
CT 440

Service-Anleitung Service Manual Instructions de Service



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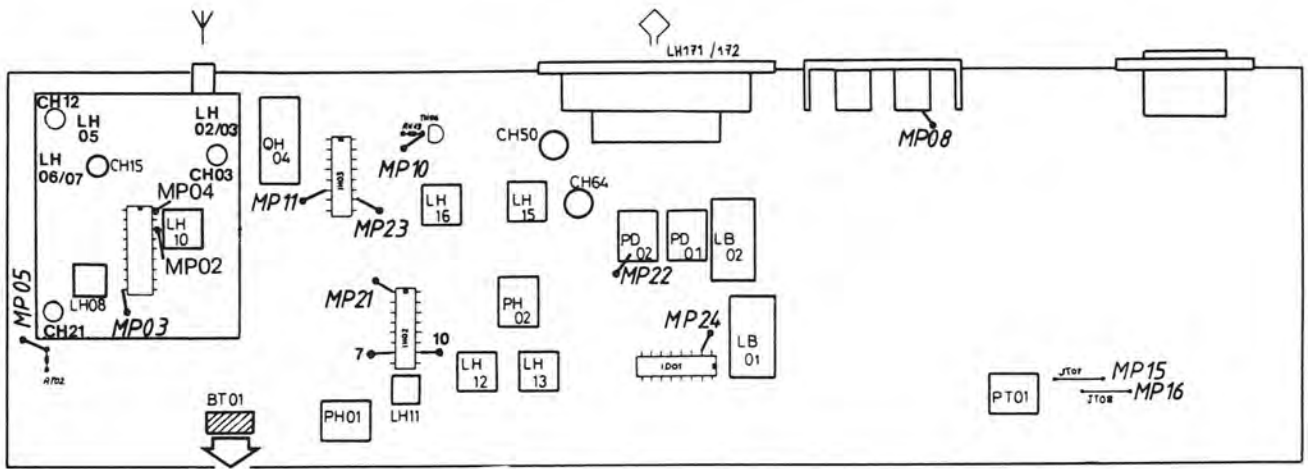
Technische Daten (typische Werte)	Technical Data (typical value)	Caractéristiques techniques (valeur caractéristiques)	
Empfangsbereiche FM (UKW) MW LW	Wave bands FM (VHF) MW LW	Gammes d'ondes FM (O.U.C.) P.O. G.O.	87,5– 108 MHz 520 – 1619 kHz 150 – 349 kHz
Empfindlichkeit FM-Mono (75 Ohm, 26 dB Rauschabstand) 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)	0,8 μ V 30 μ V
Geräuschspannungsabstand Stereo (1 kHz/46 kHz Hub)	Signal-to-noise ratio, weighted Stereo (1 kHz/46 kHz)	Rapport signal/bruit Stéréo (1 kHz/46 kHz)	70 dB
Klirrfaktor Stereo (1 kHz/46 kHz Hub)	Harmonic distortion Stereo (1 kHz/46 kHz)	Taux de distorsion Stéréo (1 kHz/46 kHz)	0,20 %
Übersprechdämpfung bei 1 kHz	Channel separation at 1000 Hz	Diaphonie stéréo (à 1 kHz)	45 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	10 Hz – 16 kHz
Trennschärfe	Selectivity	Sélectivité	70 dB
NF-Ausgangsspannung	AF output level	Tension de sortie BF	ca. 500 mV
Netzspannung	Line voltage	Tension secteur	Model Europe 230 V Model USA/Canada 115 V



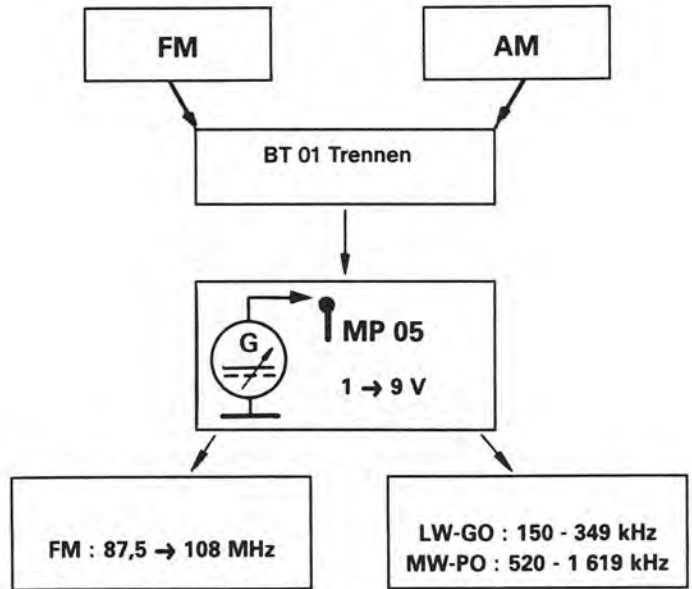
Ableich / Alignment / Reglages / Reglajes / Regolazione

FM											
					F						
Oscillator FM	1					87,5 MHz	LH 08	MP 5	$V = 1 V \pm 10 mV$		
	2					108 MHz	CH 021	MP 5	$V = 9 V \pm 10 mV$		
HF	3			$V_e = 10 \mu V$	101 MHz	101 MHz	CH 03/12/13 LH 10	MP 8 max.			
Vorkreis	4				90 MHz	90 MHz	LH 02/03 05/06/07				
μP nach FM-Filter justieren	5		FM-Taste drücken 		z. B.: Keramikfilter „orange“	10,73 MHz	SE 05 → + - ← SE 06				
μP nach AM-Filter justieren	6		AM-Taste drücken			455 kHz					
Netzschalter Aus/Ein											
ZF	7		Υ MP 01			Starken FM-Sender auf seiner Sollfrequenz empfangen	LH 11		DC-Voltmeter über Pin 7+10 IH 02 $0 V \pm 1 mV$ einstellen. Kontrolle: Tuning $\pm 10 kHz$ Display muß noch „EXACT“ anzeigen.		
	Ableich 8+9 nur bei Austausch von LH 12; LH 13										
	8			$V_e = 1 mV$		98 MHz	98 MHz	LH 13		MP8 NF und Klirrfaktorminimum	
	9		Υ MP 01			Starken FM-Sender auf seiner Sollfrequenz empfangen	LH 12		DC-Voltmeter über Pin 7+10 IH 02 $0 V \pm 1 mV$ einstellen		
AGC-CAG	10		\uparrow MP 01 $\Delta f = 40 kHz$, $\nabla = 1 kHz$ mono $V_e = 110 dB \mu V$		98 MHz	98 MHz	PH 01		DC-Voltmeter MP 4 1. Linksanschlag 2. Zurück bis Spannungsänderung eintritt		
Decoder	11		$V_e = 1 mV$		98 MHz	98 MHz	PD 002		\uparrow MP 22 $f \approx 228 kHz$		
	12		$V_e = 1 mV$ $\Delta f = 40 kHz + 19 kHz$ Pil.				PD 001		\uparrow MP 24 min.		
Kanaltrennung	13		$V_e = 1 mV$ $\Delta f \approx 40 kHz + 19 kHz$ Pilote 1 Kanal modul.		98 MHz	98 MHz	PH 002		max. Kanaltrennung		
Unterdrückung Piloton	14		$V_e = 1 mV$ 19 kHz Pilot ohne Mod.		98 MHz	98 MHz	LB 01 LB 02		MP 08 LK minimum RK minimum		
Vu-Meter	15		$V_e = 1 mV$		98 MHz	98 MHz	PT 001		DISPLAY 60 dB		

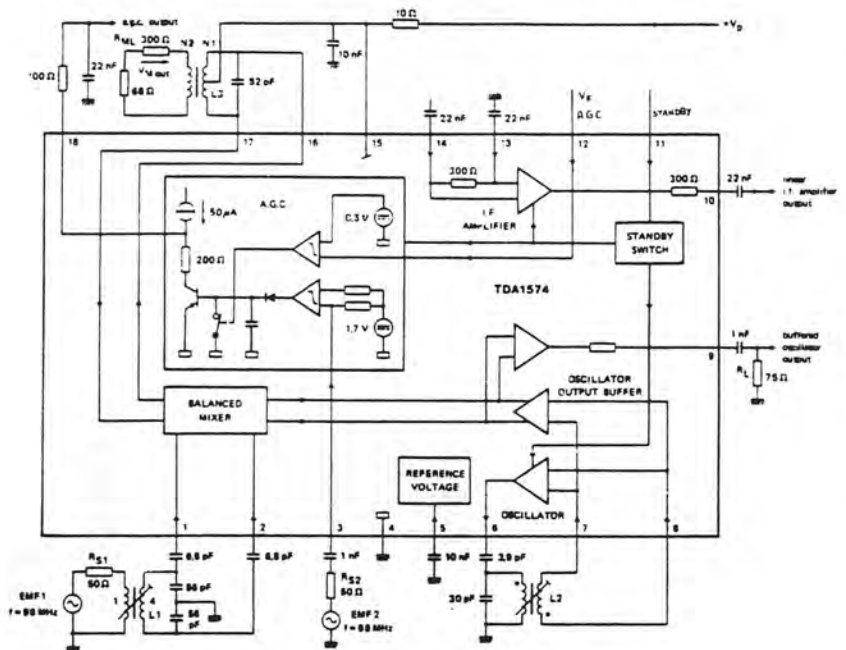
AM										
					F					
Oscillator LW	1					150 kHz	LH 016	\uparrow MP 5	$V = 1 V \pm 10 mV$	
	2					349 kHz	Kontrolle	\uparrow MP 5	$9 V \pm 10 mV$	
Oscillator MW	3					520 kHz	LH 015	\uparrow MP 5	$V = 1 V \pm 10 mV$	
	4					1619 kHz	CH 065	\uparrow MP 5	$V = 9 V \pm 10 mV$	
ZF	5		\uparrow MP 10		455 kHz	1 MHz	QH 004 R	\uparrow MP 11	V max/Symmetrie	
MW-HF	6		$V_e = 1 mV$		600 kHz	600 kHz	LH 171	max. \uparrow MP 8		
	7				1500 kHz	1500 kHz	CH 050			
LW-HF	8				210 kHz	210 kHz	LH 172	max. \uparrow MP 8		

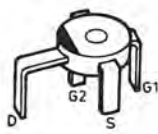
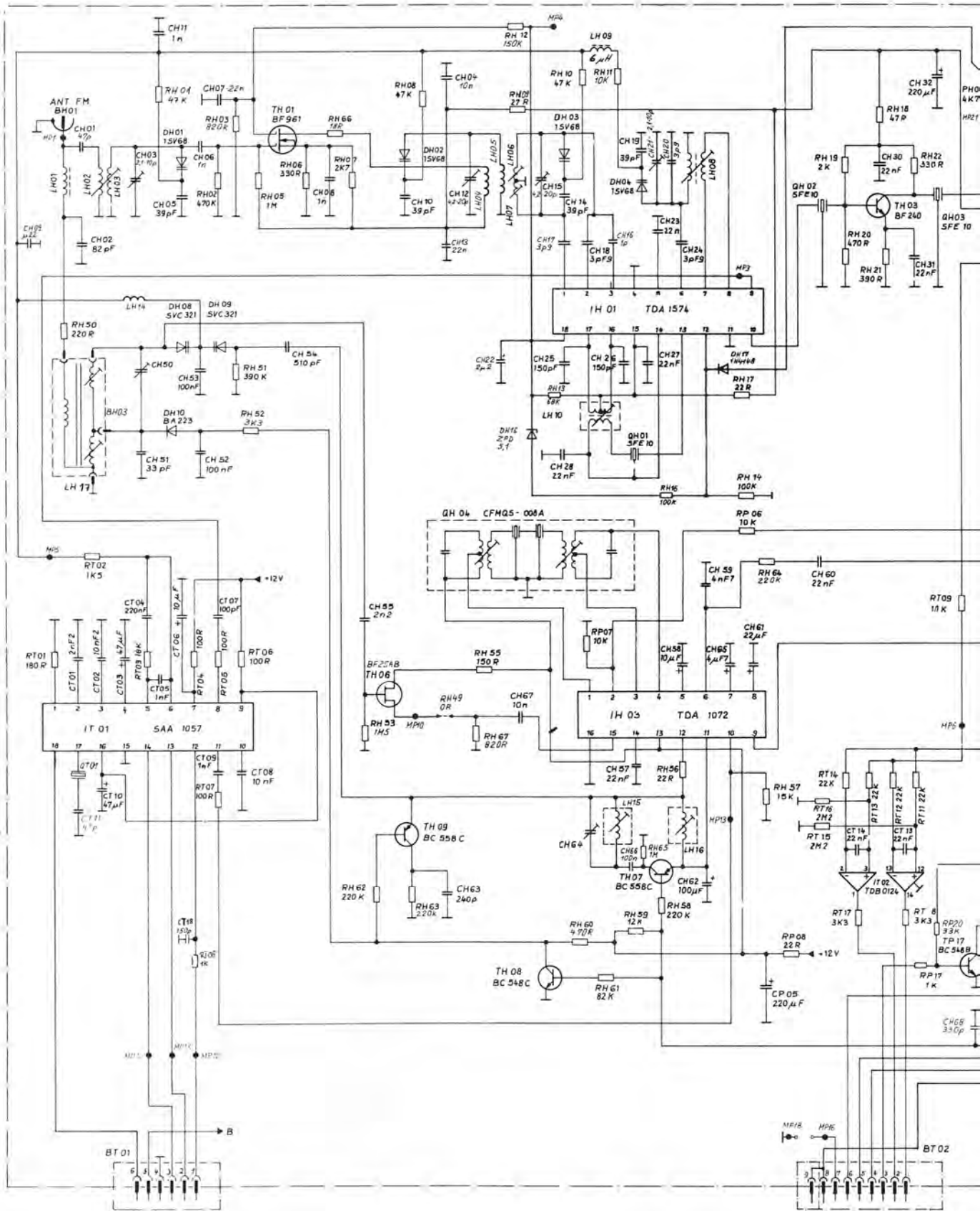


Keramikfilter	Frequenz
Black	10,64 MHz
Blue	10,67 MHz
Red	10,70 MHz
Orange	10,73 MHz
White	10,76 MHz



TDA 1574





RF 961



BF 256 B



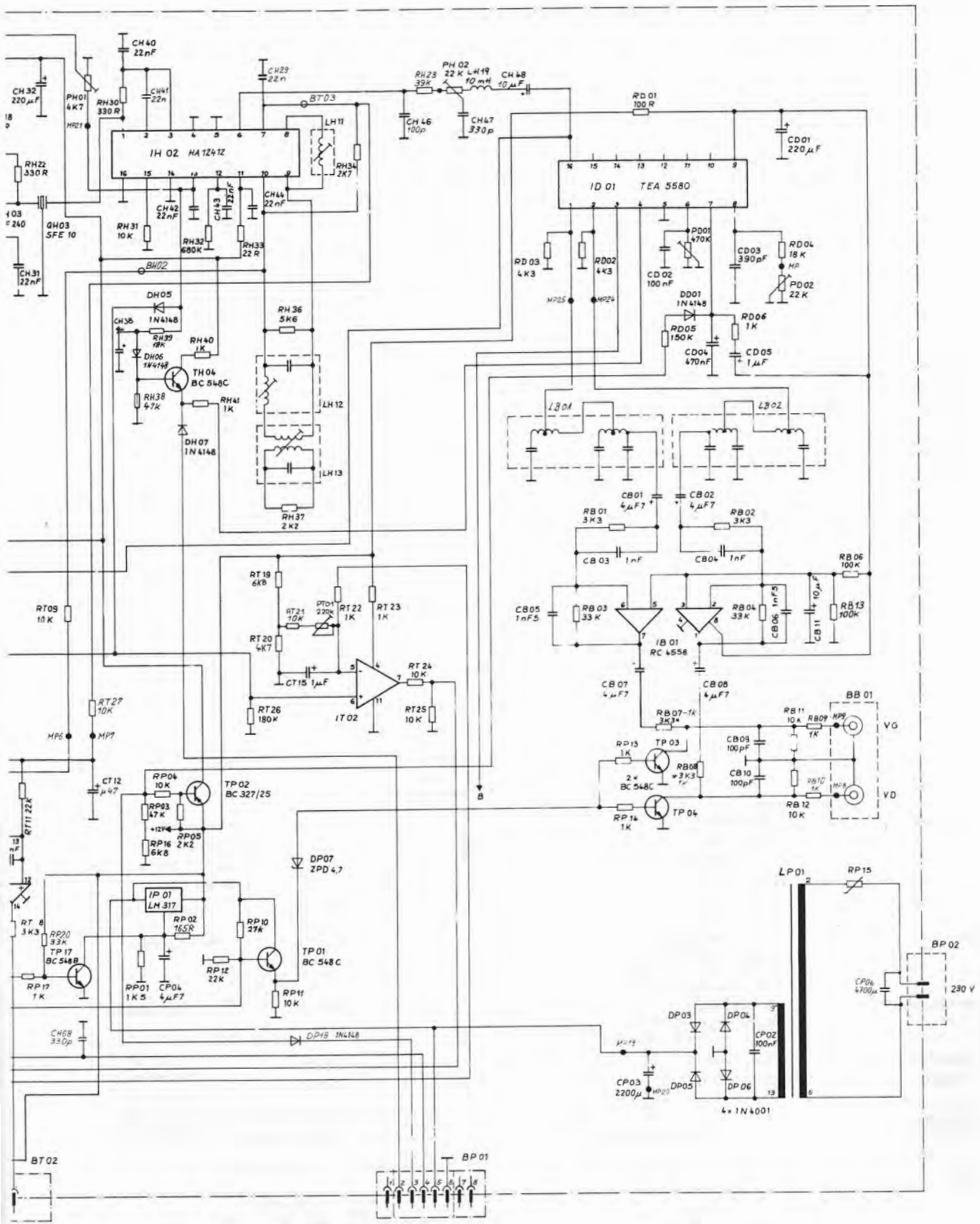
BC 327 / 25
BC 548 B - C
BC 558 B - C



BF 240



MC 4558 BC



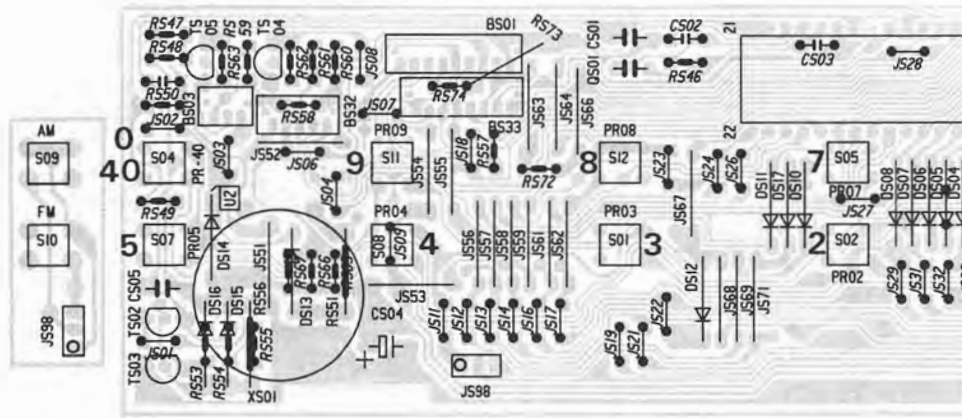
C 4558 BCP
SAA 1057
TDA 1574



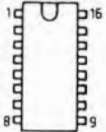
LM 324 DP
TCA 3189
TDA 1072
TEA 5580

Tastenplatte
Control board
Platine commandes
Platina de mandos
Piastra comandi

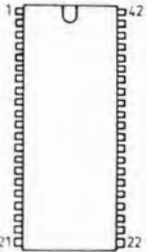
Bestückungsseite
Component side
Côté composants
Lado componentes
Lato componenti



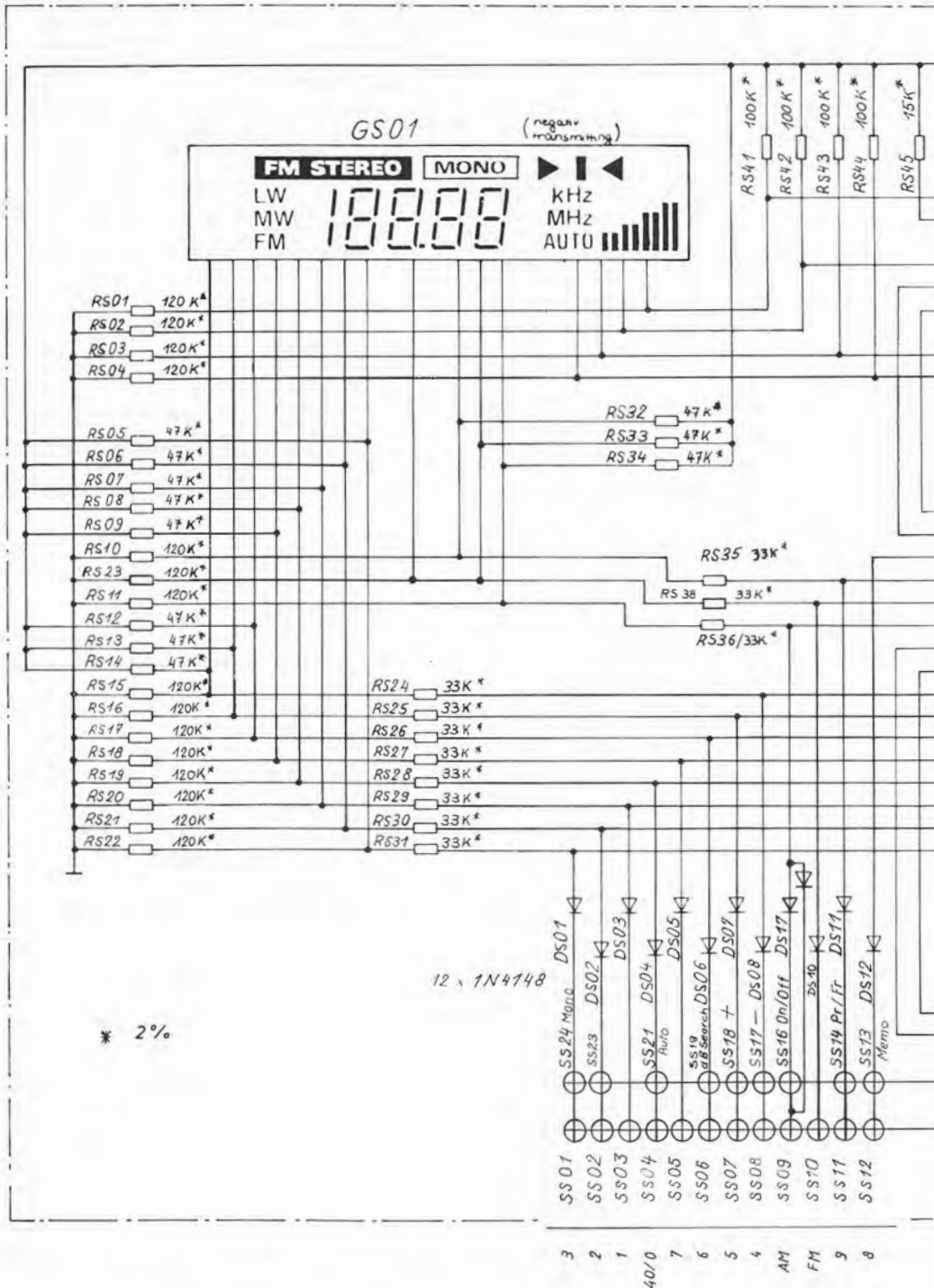
BC 548 C
BC 558

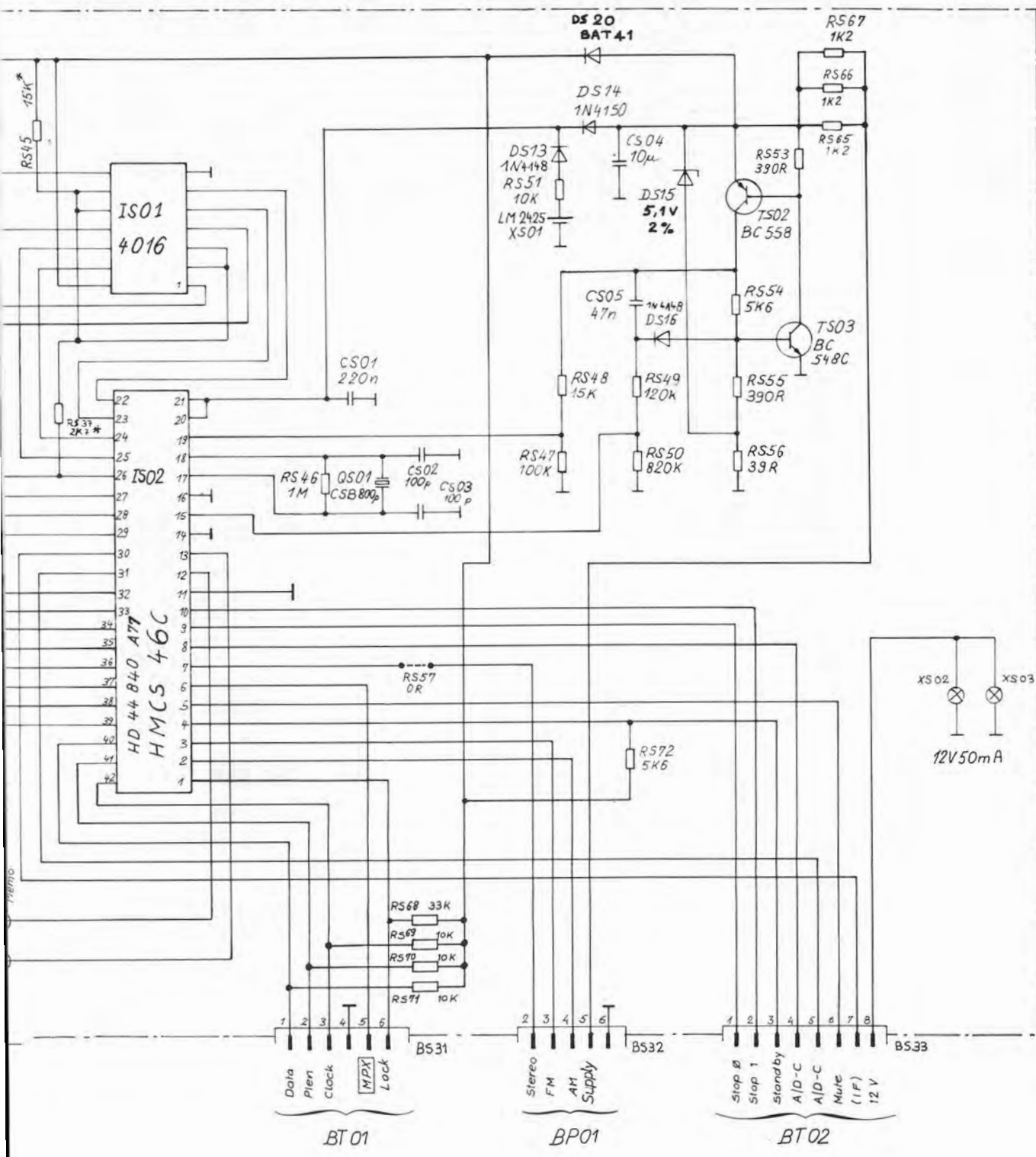
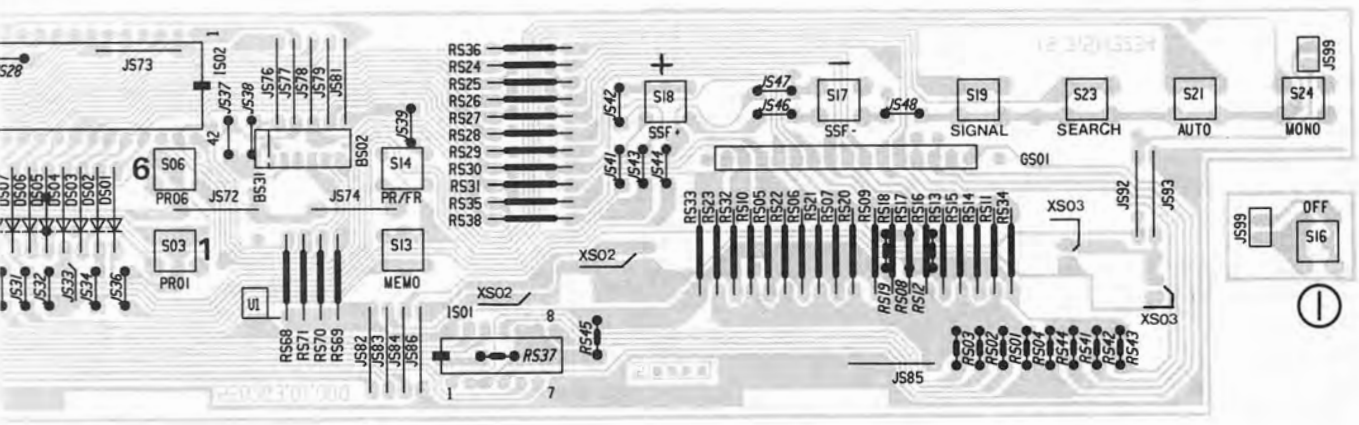


HEF 4016



HD 44840 A 77





7
6
4
2

5

P

OUT

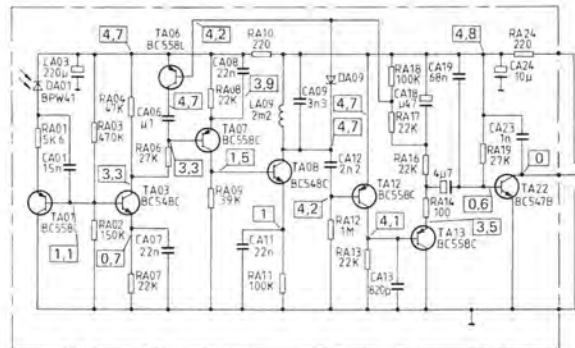
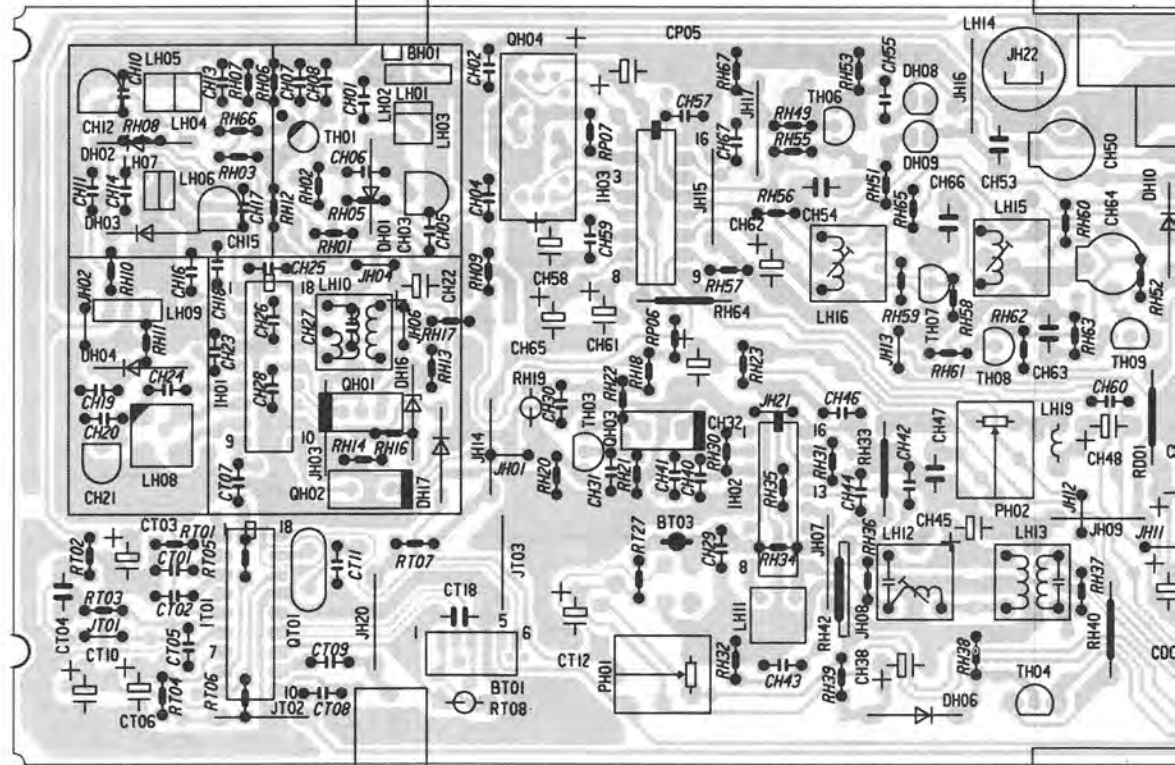
XTAL

TEST

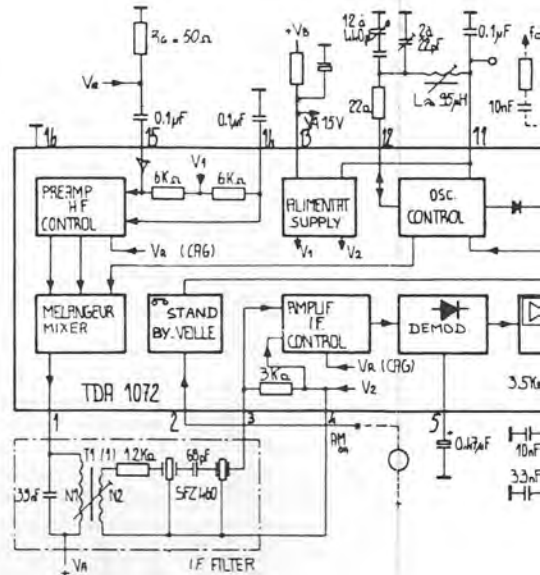
IR-Empfänger
IR-Receiver
IR-Recepteur



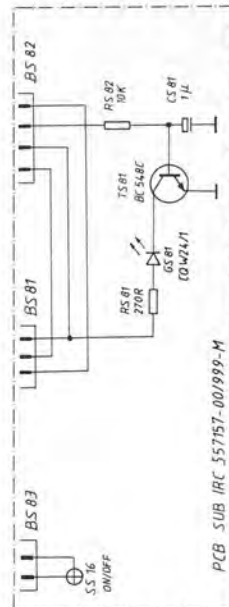
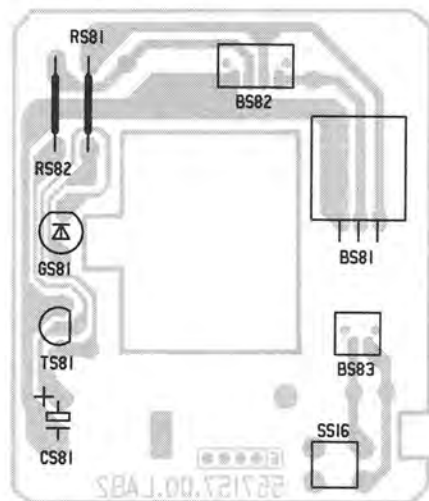
Grundplatte
Main board
Platine principale



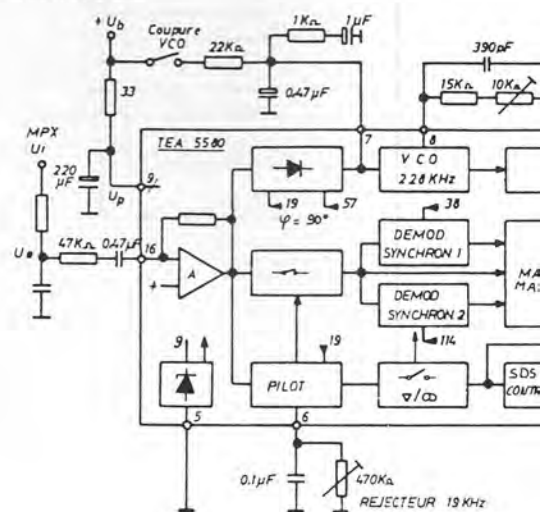
TDA 1072

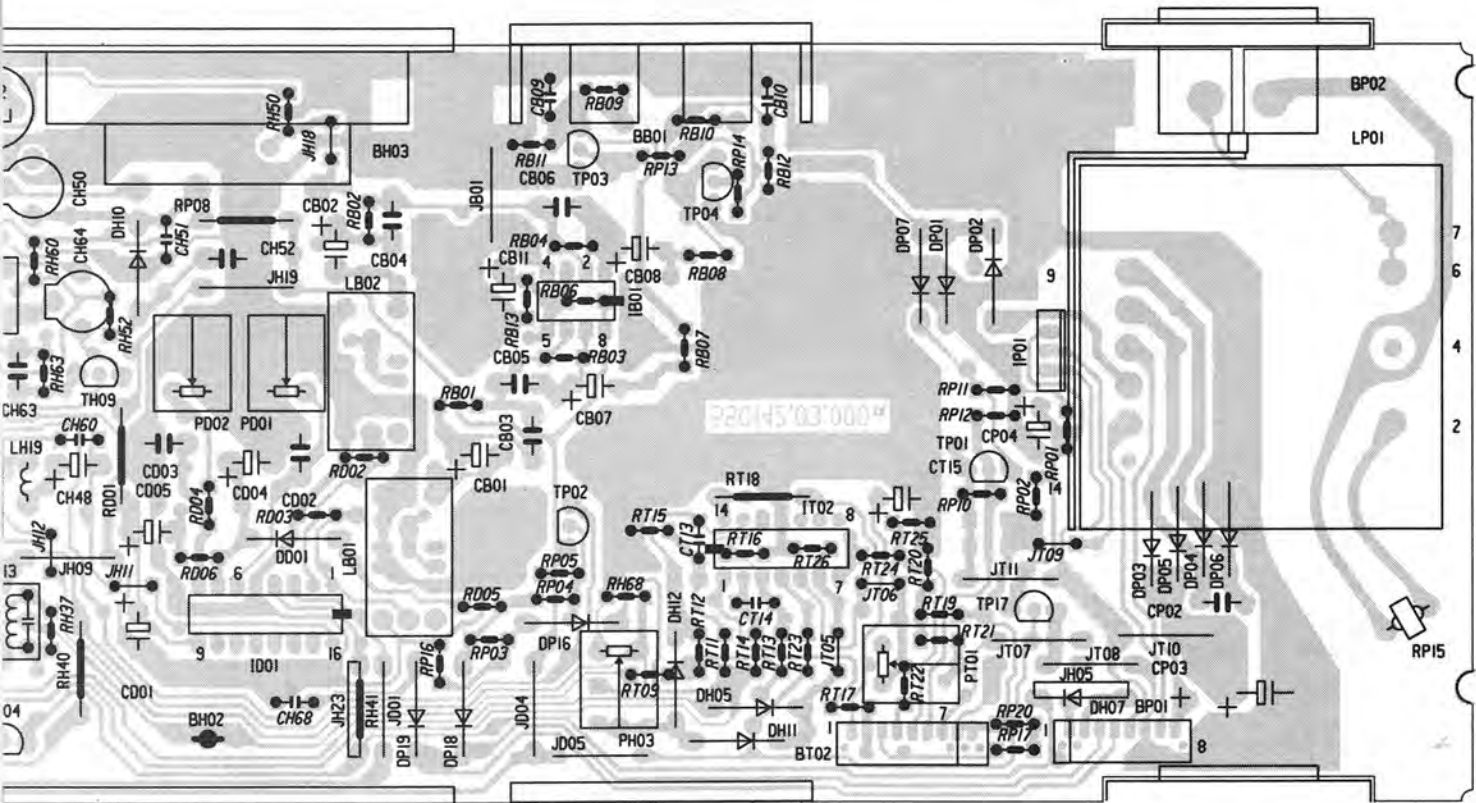


Anzeige- / Led-platte
Indicator board
Platine de indicateur

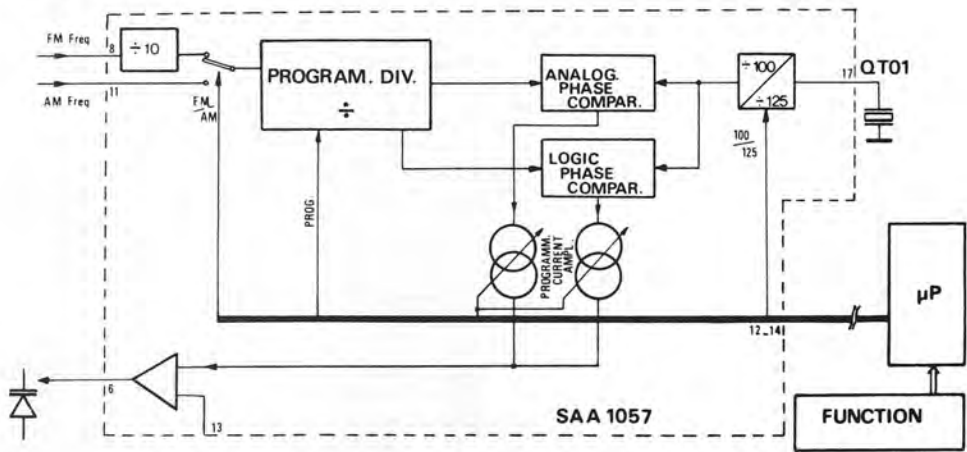


TEA 5580

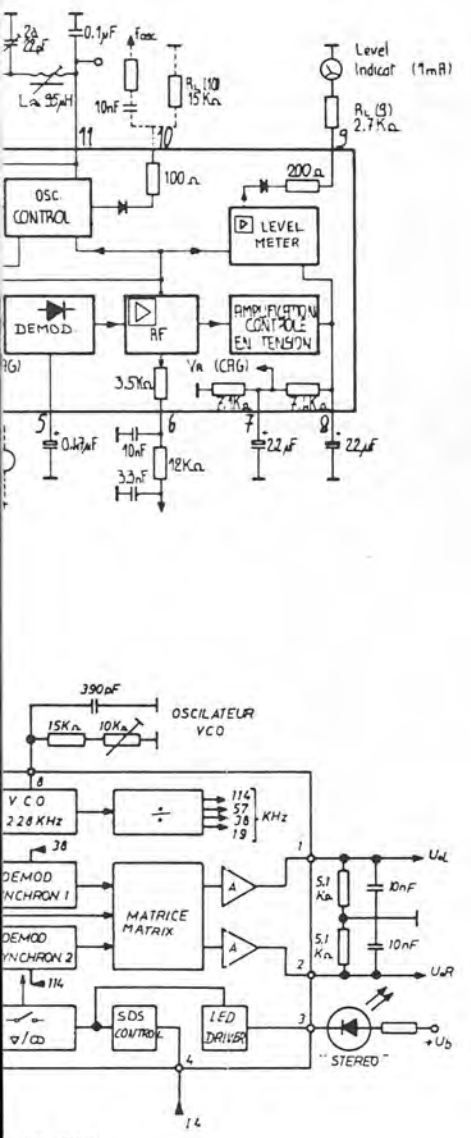
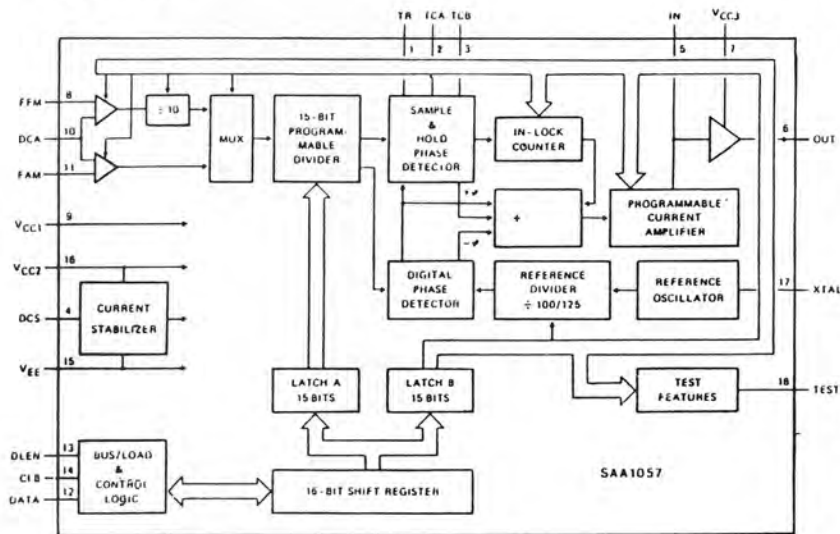




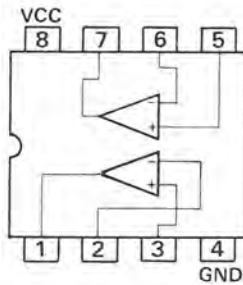
PLL Circuit



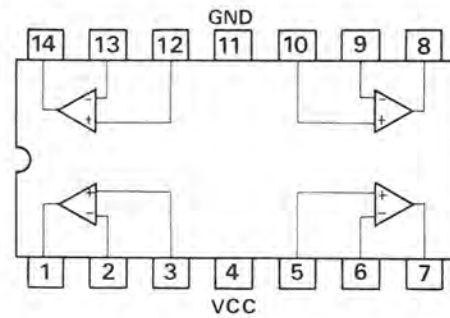
SAA 1057



RC 4558



TDB 0124



Ersatzteile · Replacement parts · Pièces détachées · CT 440

Pos.	Art.-Nr.	Stck	Bezeichnung
1	280 455	1	Gehäuseblech
2	281 415	1	Frontblende
3	281 945	1	Blinde CT 440
4	280 456	1	Reflector
5	281 417	2	Taste (Tuning)
6	280 460	4	Taste (Funktionen)
7	280 271	1	Taste (Power)
8	279 835	1	Feder (Power)
10	280 196	1	Ferritantenne
20	281 416	1	Tastenplatte
DS 1	223 906	15	Diode 1 N 4148
DS 13	223 906	15	Diode 1 N 4148
DS 15	280 444	1	Diode BZX 55 C 5 V 1
DS 16	223 906	15	Diode 1 N 4148
DS 17	223 906	15	Diode 1 N 4148
DS 20	279 840	2	Diode BAT 41
GS 1	280 443	1	Display
IS 1	261 871	1	IC MC 14066 BCP MOS
IS 2	281 408	1	IC HD 44840 B 05
JS 83	279 840	2	Diode BAT 41
QS 1	281 409	1	Keramikfilter 800 kHz
SS 1	280 197	20	Schalter
SS 14	280 197	20	Schalter
SS 17	280 197	20	Schalter
SS 19	280 197	20	Schalter
SS 21	280 197	20	Schalter
SS 23	280 197	20	Schalter
SS 24	280 197	20	Schalter
TS 2	276 032	1	Transistor BC 558 C
XS 1	280 200	1	Akku 3 V
XS 2	280 199	2	Lampe 12 V/40 mA
XS 3	280 199	2	Lampe 12 V/40 mA
22	281 418	1	Grundplatte
BB 1	280 453	1	Cinchbuchse
BH 2	280 225	1	Stecker 4-pol.
BP 2	279 860	1	Netzanschlußbuchse
CH 3	280 419	4	Trimmer 2,5/20 PF
CH 12	280 419	4	Trimmer 2,5/20 PF
CH 15	280 419	4	Trimmer 2,5/20 PF
CH 21	280 419	4	Trimmer 2,5/20 PF
CH 50	280 219	2	Trimmer 2/22 PF
CH 64	280 219	2	Trimmer 2/22 PF
DD 1	223 906	9	Diode 1 N 4148
DH 1	275 858	4	Diode 1 SV 68
DH 4	275 858	4	Diode 1 SV 68
DH 5	223 906	9	Diode 1 N 4148
DH 7	223 906	9	Diode 1 N 4148
DH 8	275 855	2	Diode SVC 321
DH 9	275 855	2	Diode SVC 321
DH 10	275 854	1	Diode BA 223
DH 17	223 906	9	Diode 1 N 4148
DP 1	223 906	9	Diode 1 N 4148
DP 2	223 906	9	Diode 1 N 4148
DP 3	227 344	3	Diode 1 N 4001
DP 6	227 344	3	Diode 1 N 4001
DP 7	280 450	1	Diode BZX 83 C 5 V 6
DP 16	223 906	9	Diode 1 N 4148
DP 18	223 906	9	Diode 1 N 4148
DP 19	223 906	9	Diode 1 N 4148
IB 1	236 299	1	IC RC 4558 D
ID 1	280 215	1	IC TEA 5580
IH 3	260 760	1	IC TDA 1072
IP 1	279 927	1	IC LM 317 T

Pos.	Art.-Nr.	Stck	Bezeichnung
IT 1	274 730	1	IC SAA 1057
IT 2	281 410	1	IC NJM 2902 N
LB 1	280 451	2	Filter
LB 2	280 451	2	Filter
LH 8	280 208	1	Spule
LH 10	280 209	1	Spule
LH 11	280 445	1	Spule
LH 12	280 446	1	Spule
LH 13	280 447	1	Spule
LH 15	280 210	1	Spule
LH 16	280 448	1	Spule
LH 19	280 229	1	Drossel
LP 1	280 454	1	Netztrafo
PD 1	280 223	2	Steller 470 K Ω
PD 2	280 222	2	Steller 22 K Ω
PH 1	280 452	2	Steller 4,7 K Ω
PH 2	280 222	2	Steller 22 K Ω
IH 1	280 216	1	IC TOA 1574
IH 2	268 204	1	IC HA 12412
PH 3	280 452	2	Steller 4,7 K Ω
PH 4	280 131	1	Steller 100 K Ω
PT 1	280 223	2	Steller 470 K Ω
PT 2	280 222	2	Steller 22 K Ω
QH 4	280 220	1	Filter 455 kHz
QT 1	281 411	1	Quarz 4 mHz
RP 15	280 121	1	PTC Widerstand 125 Ω
TH 1	248 800	1	Transistor BF 961
TH 3	275 871	1	Transistor BF 240
TH 4	244 715	6	Transistor BC 548 C
TH 5	244 715	6	Transistor BC 548 C
TH 6	227 670	6	Transistor BF 256 B
TH 7	276 032	3	Transistor BC 558 C
TH 8	244 715	6	Transistor BC 548 C
TH 9	276 032	3	Transistor BC 558 C
TH 10	240 787	1	Transistor BC 558 B
TP 1	244 715	6	Transistor BC 548 C
TP 2	244 893	1	Transistor BC 327-25
TP 3	244 715	6	Transistor BC 548 C
TP 4	244 715	6	Transistor BC 548 C
TP 8	240 786	2	Transistor BC 548 B
TP 17	240 786	2	Transistor BC 548 B
TT 1	276 032	3	Transistor BC 558 C
30	281 412	1	Anzeige-LED-Platte
GS 81	281 413	1	LED CQW 241
SS 16	280 197	1	Schalter
TS 81	244 715	1	Transistor BC 548 C
40	281 414	1	Fernbedienungsempfänger
DA 1	279 890	1	Diode BPW 41
DA 9	223 906	1	Diode 1 N 4148
TA 1	244 715	3	Transistor BC 548 C
TA 3	244 715	3	Transistor BC 548 C
TA 6	276 032	4	Transistor BC 558 C
TA 7	276 032	4	Transistor BC 558 C
TA 8	244 715	3	Transistor BC 548 C
TA 12	276 032	4	Transistor BC 558 C
TA 13	276 032	4	Transistor BC 558 C
TA 22	244 891	1	Transistor BC 547 B
50	280 531	1	Fuß
	279 596	1	Netzkabel
	280 440	1	Behelfsantenne
	280 372	1	Verpackung
	280 934	1	Bedienungsanleitung CT 440

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

	Ⓓ Zeichenerklärung	ⒼⒷ Legend	Ⓕ Légende	Ⓔ Leyenda	Ⓘ Leggenda
	Ein	On	Marche	Encendido	Acceso
	Aus	Off	Arrêt	Apagado	Spento
	Ein-Aus	On-Off	Marche-Arrêt	Encendido-Apagado	Acceso-Spento
	Bereitschaft	Stand-by	Attente (veille)	Espera	Disponibile
	Lautstärke	Volume	Volume	Volumen	Volumen
	Balance	Balance	Balance	Balance	Balance
	Höhen	Treble	Aiguës	Agudos	Alti
	Bässe	Bass	Graves	Graves	Bassi
	Lautsprecher	Loudspeaker	Haut-Parleur	Altavoz	Alto parlante
	Kopfhörer	Headphones	Casque	Auriculares	Cuffia
	Hörkapsel	Earphones	Ecouteur	Auricular	Cuffia
	Stummschaltung	Muting	Silencieux	Circuito silencioso	Sintonia Silenziosa
	Abstimmen	Tuning	Syntonisation	Sintonía	Sintonia
	Empfangsfrequenz-Regelung	Automatic frequency control	Contrôle automatique de fréquence	Control automático de frecuencia	Controllo automatico delle frequenza
	Normal-Lauf	Normal-run	Défilement normal	Velocidad normal	Sfilamento normale
	Schnell-Lauf	Fast-run	Défilement rapide	Velocidad rapida	Sfilamento rapido
	Pause	Pause	Pause	Pausa	Pause
	Auswurf	Eject	Ejection	Expulsión	Eiezione
	Stop	Stop	Stop	Stop	Stop
	Stop / Eject	Stop / Eject	Stop / Eject	Stop / Eject	Stop / Eject
	Microphon	Microphone	Microphone	Micrófono	Microfono
	Tonbandgerät	Tape recorder	Magnétophone	Magnetófono	Magnetofono
	Aufnahme	Recording	Enregistrement	Grabación	Registrazione
	Wiedergabe	Play-back	Lecture	Reproducción	Riproduzione
	Antenne	Aerial	Antenne	Antena	Antenne
	Dipole	Dipole	Dipôle	Dipole	Dipole
	Tuner	Tuner	Radio-récepteur	Sintonizador	Tuner
	Plattenspieler	Pick-up	Lecteur de disques	Giradiscons	Giradischi
	Mono	Mono	Mono	Mono	Mono
	Stereo	Stereo	Stereo	Estereo	Stereo
	Uhr, Timer	Clock, Timer	Horloge, minuterie	Reloj, Timer	Orologio, Timer
	Output	Output	Sortie d'un signal	Salida de señales	Uscita di segnale
	Input	Input	Entrée d'un signal	Entrada de señales	Ingresso di segnale
	Trimmer	Trimmer	Trimmer	Trimmer	Trimmer
	Einstellregler	Adjuster	Potentiomètre ajustable	Potenciometro ajustable	Trimmer ohmico
	Abgleichbarer Kreis	Circuit can be aligned	Circuit à aligner	Circuito ajustable	Circuito a alineare
	L. E. D.	L. E. D.	L. E. D.	L. E. D.	L. E. D.
	Photodiode	Photodiode	Photodiode	Fotodiodo	Photodiodo
	Messpunkt	Test point	Point test	Punto de prueba	Punto di riferimento