

Dual

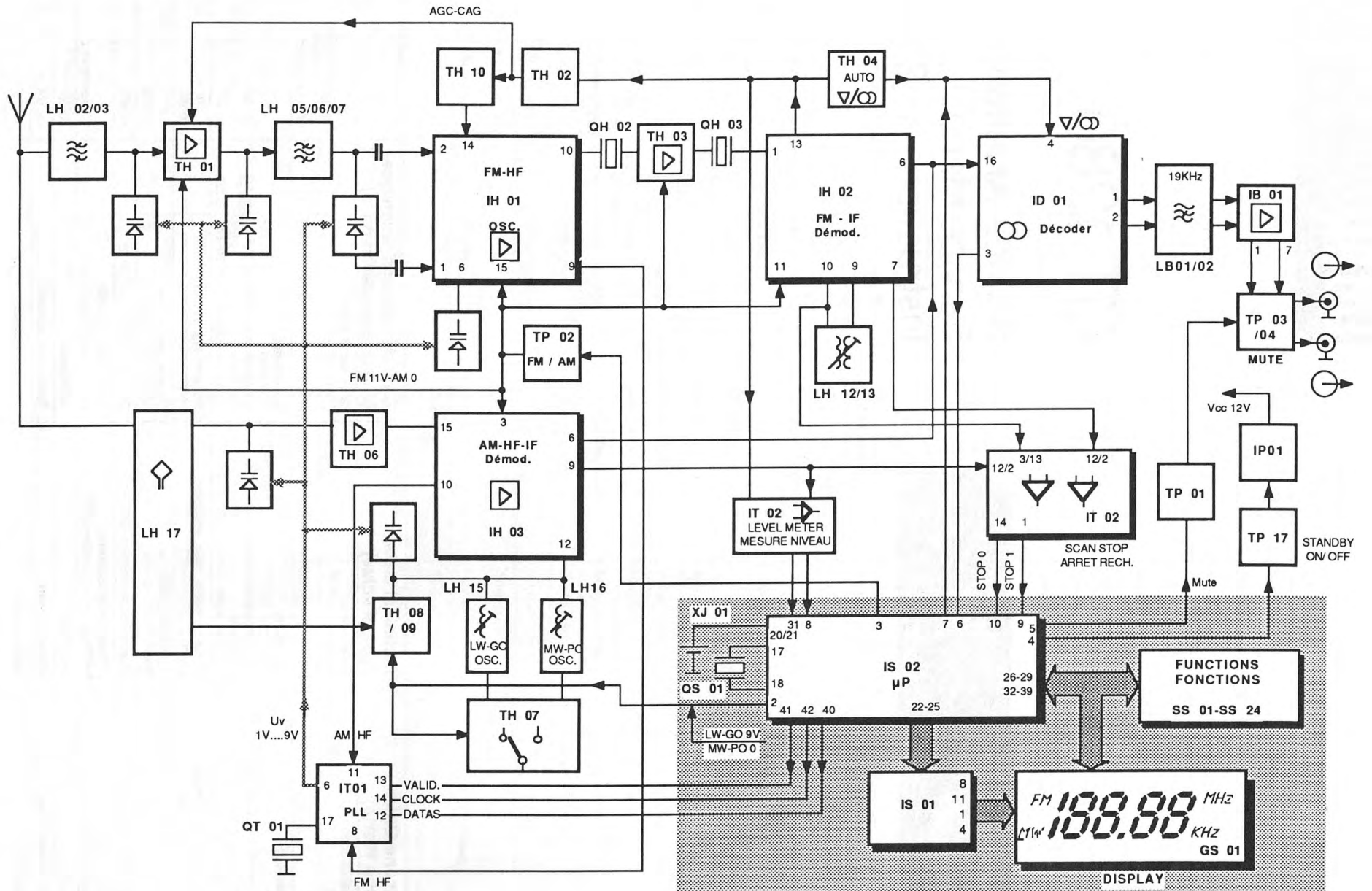
NEW  
TECH

## CT 1280

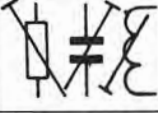

Service-Anleitung  
Service Manual  
Instructions de ServiceDownload from www.dual.de  
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


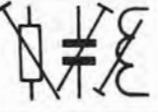







| Technische Daten<br>(typische Werte)   | Technical Data<br>(typical value)  | Caractéristiques techniques<br>(valeur caractéristiques)   |  |
|--|--|--|--|
| <b>Empfangsbereiche</b><br>FM (UKW)<br>MW<br>LW  | <b>Wave bands</b><br>FM (VHF)<br>MW<br>LW  | <b>Gammes d'ondes</b><br>FM (O.U.C.)<br>P.O.<br>G.O.   | 87,5– 108 MHz<br>520 – 1619 kHz<br>150 – 349 kHz |
| <b>Empfindlichkeit</b><br>FM-Mono<br>(75 Ohm, 26 dB Rauschabstand)<br>FM-Stereo<br>(75 Ohm, 46 dB Rauschabstand) | <b>Sensitivity</b><br>FM-Mono<br>(75 Ohm, signal-to-noise ratio 26 dB)<br>FM-Stereo<br>(75 Ohm, signal-to-noise ratio 46 dB) | <b>Sensibilité</b><br>FM-mono<br>(75 ohms, rapport signal/bruit de 26 dB)<br>FM-stéréo<br>(75 ohms, rapport signal/bruit de 46 dB) | 0,8 $\mu$ V<br>30 $\mu$ V                        |
| <b>Geräuschspannungsabstand</b><br>Stereo (1 kHz/46 kHz Hub)   | <b>Signal-to-noise ratio, weighted</b><br>Stereo (1 kHz/46 kHz)  | <b>Rapport signal/bruit</b><br>Stéréo (1 kHz/46 kHz)   | 70 dB  |
| <b>Klirrfaktor</b><br>Stereo (1 kHz/46 kHz Hub)  | <b>Harmonic distortion</b><br>Stereo (1 kHz/46 kHz)  | <b>Taux de distorsion</b><br>Stéréo (1 kHz/46 kHz)   | 0,20 %   |
| <b>Übersprechdämpfung</b> bei 1 kHz  | <b>Channel separation</b> at 1000 Hz   | <b>Diaphonie stéréo</b> (à 1 kHz)  | 45 dB  |
| <b>NF-Frequenzgang</b><br>für Preemphasis 50 $\mu$ s – 3 dB  | <b>AF frequency response</b><br>for 50 $\mu$ s pre-emphasis – 3 dB   | <b>Bande passante BF</b><br>pour pré-emphasis 50 $\mu$ s à 3 dB  | 10 Hz–16 kHz                                     |
| <b>Trennschärfe</b>  | <b>Selectivity</b>   | <b>Sélectivité</b>   | 70 dB  |
| <b>NF-Ausgangsspannung</b>   | <b>AF output level</b>   | <b>Tension de sortie BF</b>  | ca. 500 mV                                       |
| <b>Netzspannung</b>  | <b>Line voltage</b>  | <b>Tension secteur</b>   | Model Europe 230 V<br>Model USA/Canada 115 V     |

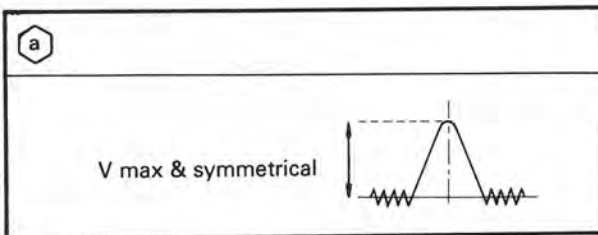
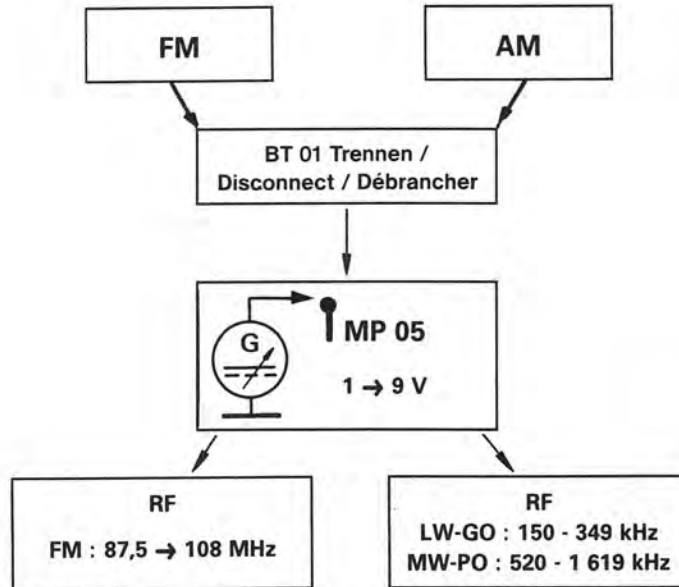
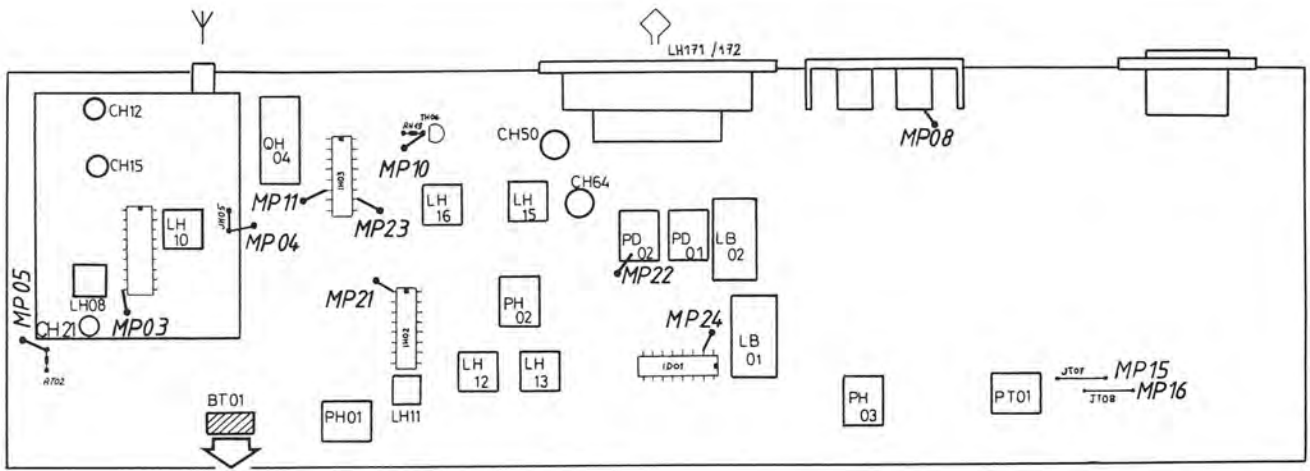
Dual GmbH · Postfach 1144 · 7742 St. Georgen/Schwarzwald



Abgleich / Alignment / Reglages / Reglajes / Regolazione

| FM Alignment   |   |  |         |  |   |   |
|--|---|--|---------|--|---|---|
|  |    |  | F       |  |  |   |
| Oscillator   | 1   |  |         | 87,5 MHz   | LH 008  | MP 5 V = 1 V ± 10 mV  |
| Oscillateur  | 2   |  |         | 108 MHz  | CH 021  | MP 5 V = 9 V ± 10 mV  |
| HF - RF  | 3   | Ve = 10 mV   | 101 MHz | 101 MHz  | CH 003/012<br>013   | max MP 2  |
|  | 4   |  | 90 MHz  | 90 MHz   | LH 002/003<br>006/005/007   |   |
| IF - FI  | 5   |  Ve = 100 µV                              | 98 MHz  | 98 MHz   | LH 010  | MP 21    |
|  | 6   |  | 119 MHz | 98 MHz   | LH 018  | MP 21 min.  |
|  | 7   | 100 µV marker 98 MHz   | 98 MHz  | 98 MHz   | * µP  | MP 21    |
| AGC - CAG  | 8   | Ve = 1 mV  | 98 MHz  | 98 MHz   | PH 001  | MP 4 V = 3,6 V ± 10 mV  |
| Distorsion   | 9   | Δf = 40 kHz  | 98 MHz  | 98 MHz   | LH 012  | MP 8   |
|  | 10  | ∇ 1 kHz  | 98 MHz  | 98 MHz   | LH 013  |   |
| <br>Décoder | 11  | Ve = 1 mV  | 98 MHz  | 98 MHz   | PD 002  | MP 22 f = 228 kHz   |
|  | 12  | Ve = 1 mV <br>Δf = 40 kHz + 6,75 kHz Pil. |         |  | PD 001  | MP 24 min.  |
| Séparation   | 13  | Ve = 1 mV Δf = 40 kHz +<br>6,75 kHz Pilote<br>1 channel Modul.   | 98 MHz  | 98 MHz   | PH 002  | Max. Séparation<br>Min. Diaphone  |
| Diaphonie  |   |  |         |  |   |   |
| Vu-Meter   | 14  | Ve = 1 mV  | 98 MHz  | 98 MHz   | PT 001  | DISPLAY<br>AFFICHEUR 60 dB  |

| AM Alignment |   |   |          |  |  |   |
|--------------|---|---|----------|--|--|---|
|              |    |   | F        |  |         |   |
| LW - OSC     | 1   |   |          | 150 kHz  | LH 016   | MP 5 V = 1 V ± 10 mV  |
| OSC - GO     | 2   |   |          | 349 kHz  | Contrôle   | MP 5 V = 9 V  |
| MW - OSC     | 3   |   |          | 520 kHz  | LH 015   | MP 5 V = 1 V ± 10 mV  |
| OSC - PO     | 4   |   |          | 1619 kHz   | CH 065   | MP 5 V = 1 V ± 10 mV  |
| IF - FI      | 5   |  MP 10<br>marker 1 MHz | 1 MHz    | 1 MHz  | QH 004 R   | MP 11    |
|              | 6   |   | 1 MHz    | 1 MHz  | * µP   | MP 11    |
| MW - HF      | 7   | Ve = 1 mV   | 600 kHz  | 600 kHz  | LH 171  | max. MP 10  |
| RF - PO      | 8   |   | 1500 kHz | 1500 kHz   | CH 050   |   |
| LW HF        | 9   |   | 210 kHz  | 210 kHz  | LH 172  | max. MP 10  |
| RF - GO      |   |   |          |  |  |   |



|   |        | MP 8            |
|---|--------|-----------------|
| 1 | LH 012 | OV ± 30 mV      |
| 2 | LH 013 | minimum         |
| 3 | LH 012 | OV ± 3 mV       |
| 4 | LH 013 | min. distorsion |
| 5 | LH 012 | OV ± 3 mV       |

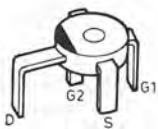
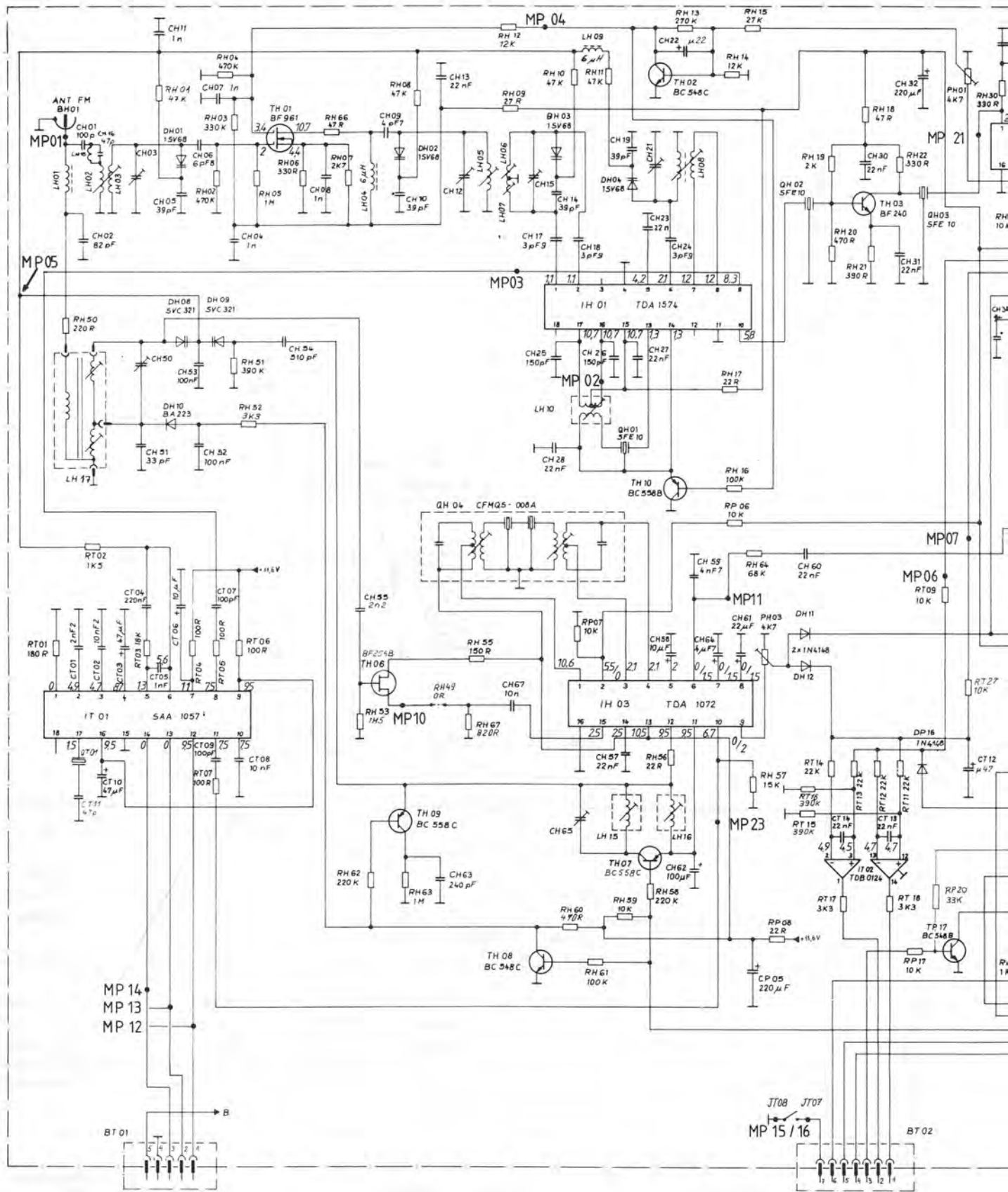
Wiederholen  
Repeat  
Repetier

**b)\* μP IF Adjust**

- Kurzschliessen während 1 s
- Short circuit during 1 s
- Court-circuiter pendant 1 s

⇒ GE 14 Displays IF  
GE 14 Affiche la FI

|           |                                     |   |                  |       |
|-----------|-------------------------------------|---|------------------|-------|
| <b>FM</b> | MP 01<br>Ve = 1 mV<br>98 MHz Marker | <ul style="list-style-type: none"> <li>- press</li> <li>- enfoncez</li> </ul> | MP 21 center<br> | SS 16 |
| <b>AM</b> | MP 01<br>Ve = 1 mV<br>1 MHz Marker  | <p>SE 05</p> <p>SE 06</p>   | MP 11 center<br> |       |



BF 961



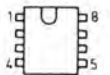
BF 256 B



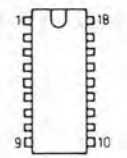
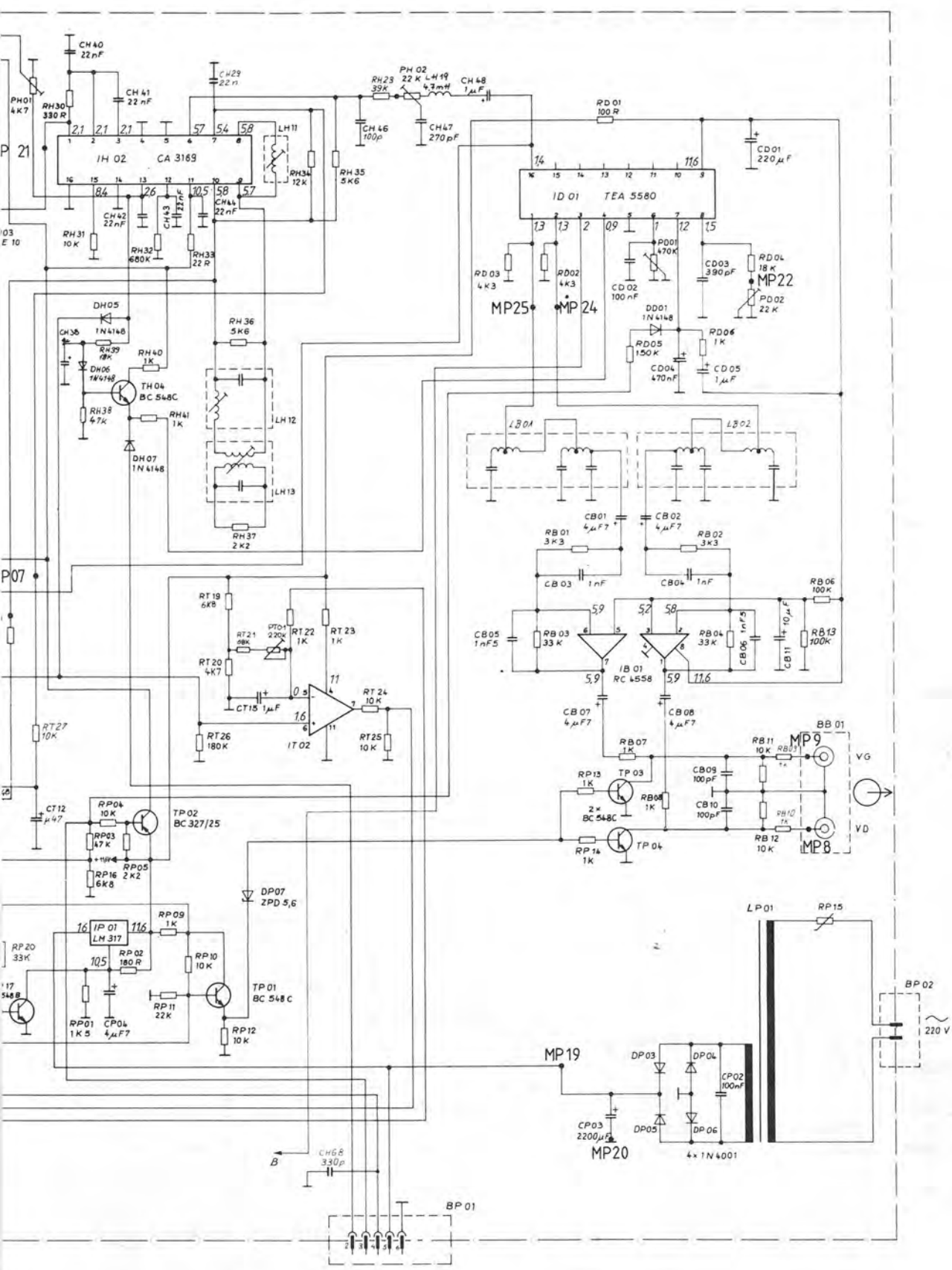
BC 327 / 25  
BC 548 B - C  
BC 558 B - C



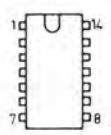
BF 240



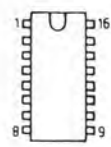
MC 4558 BCP



SAA 1057  
TDA 1574



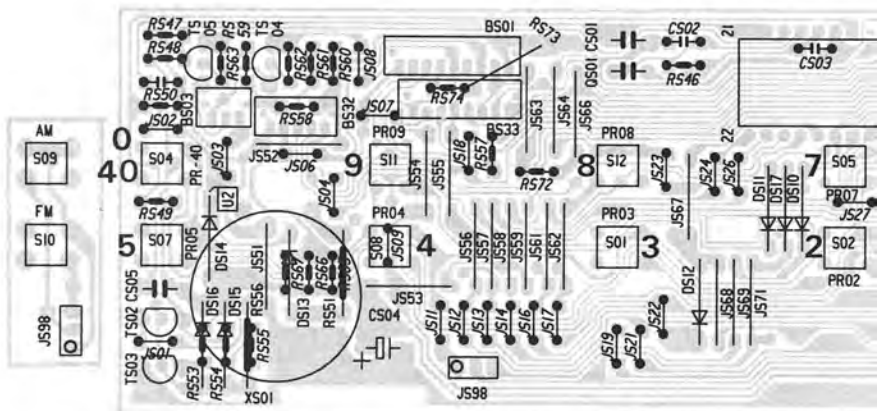
LM 324 DP



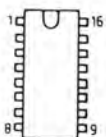
TCA 3189  
TDA 1072  
TEA 5580

Tastenplatte  
Control board  
Platine commandes  
Platina de mandos  
Piastra comandi

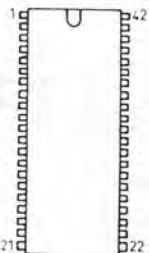
Bestückungsseite  
Component side  
Côté composants  
Lado componentes  
Lato componenti



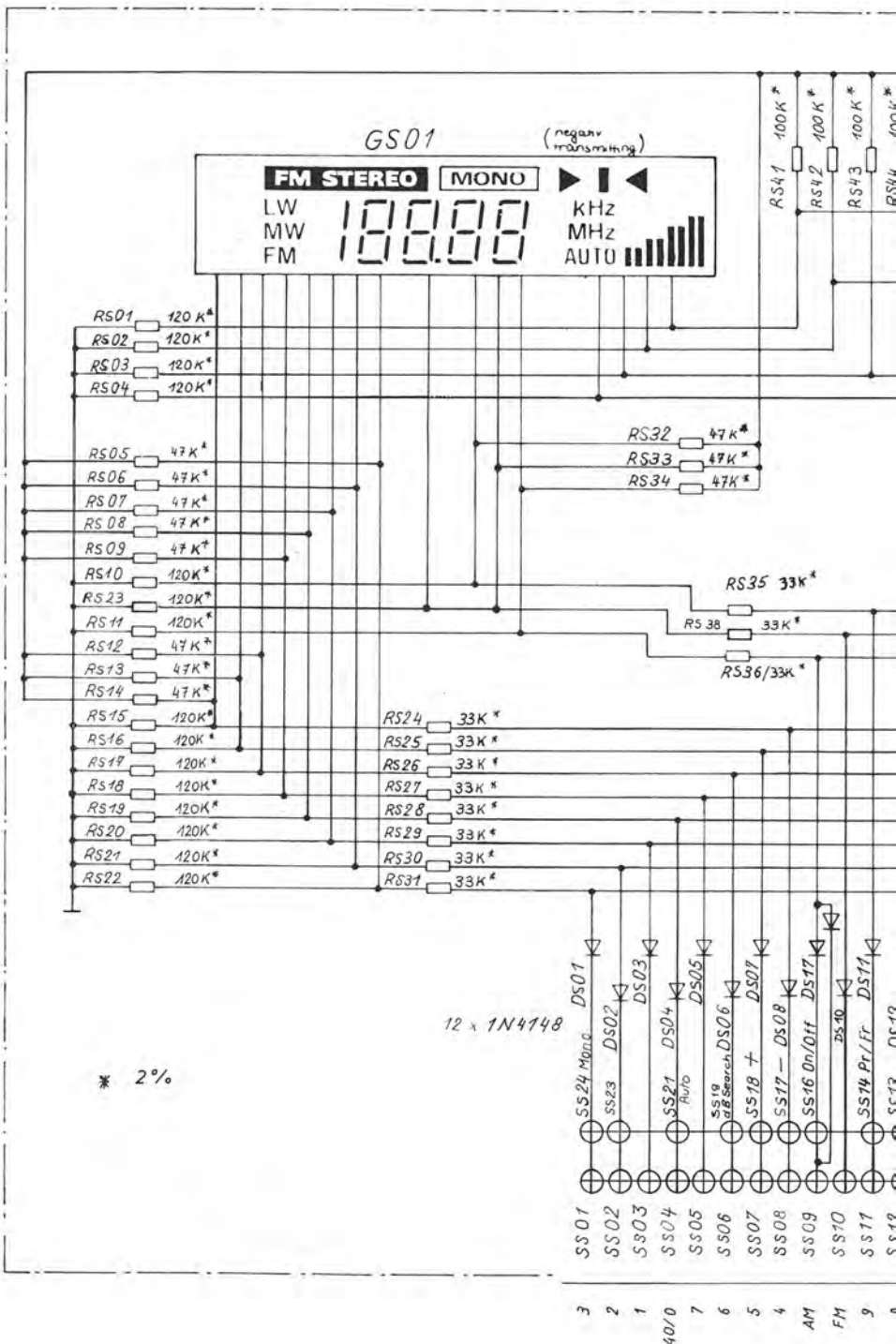
BC 548 C  
BC 558

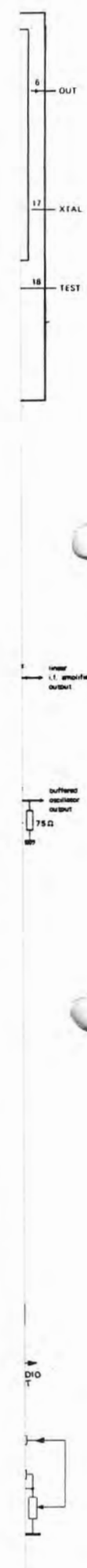
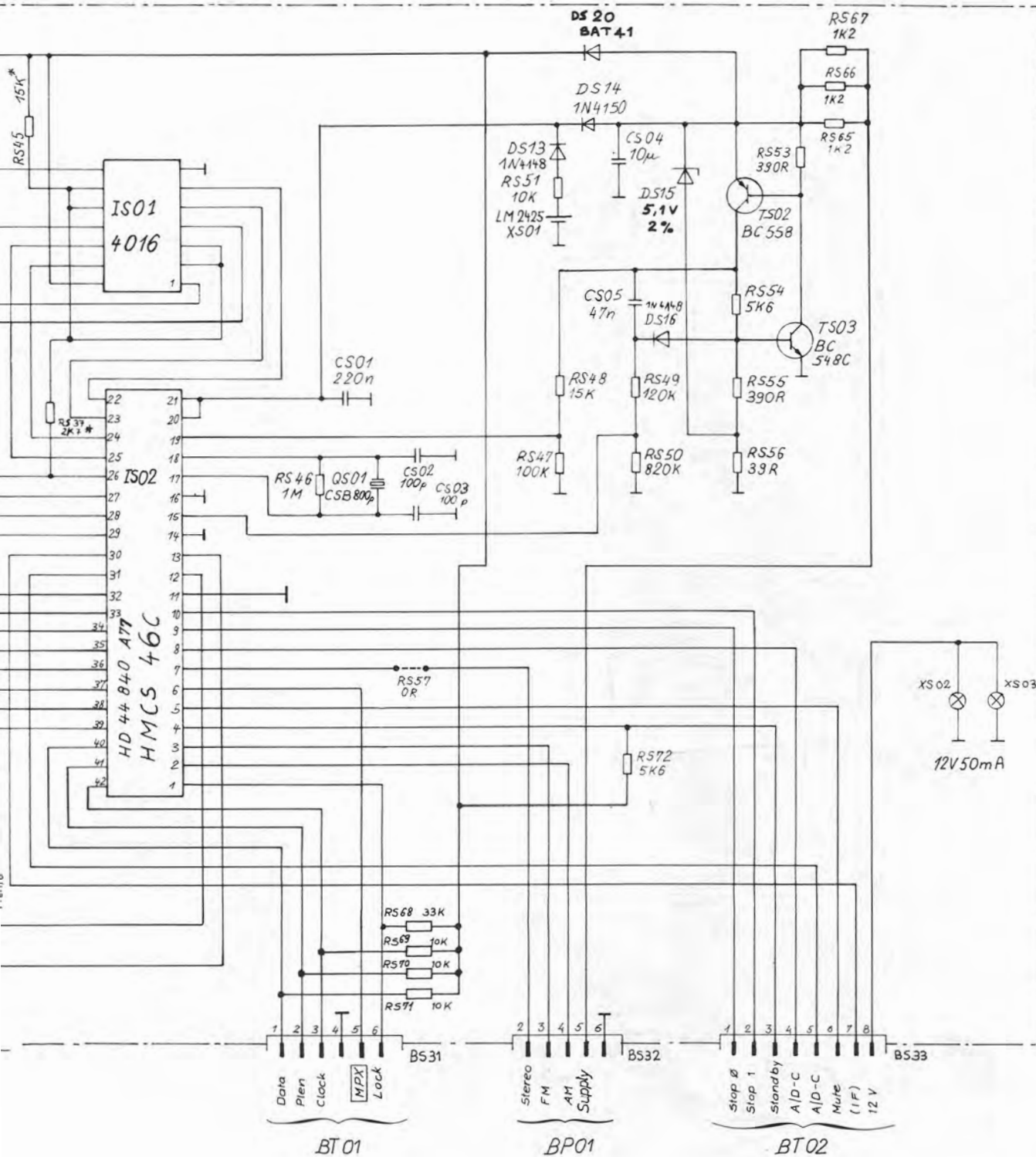
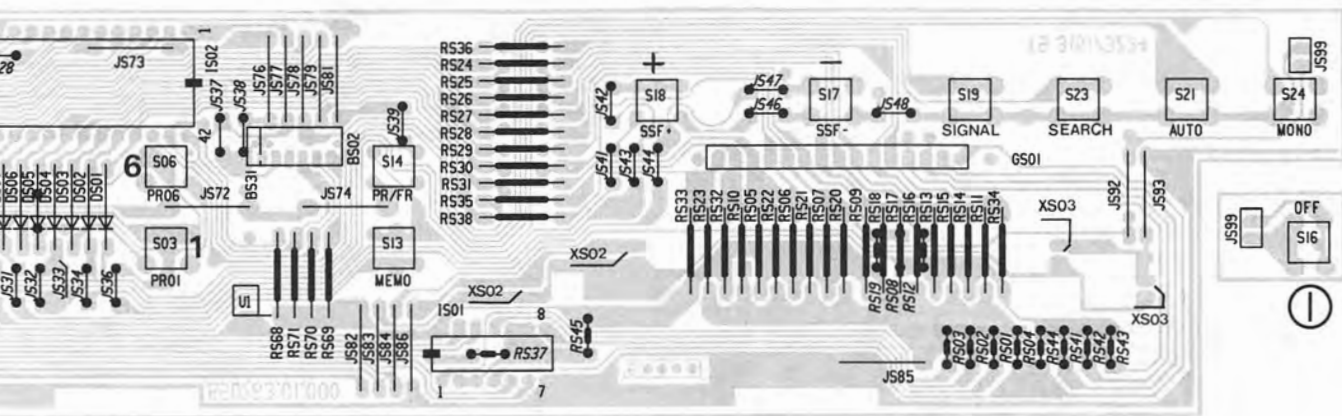


HEF 4016



HD 44840 A 77



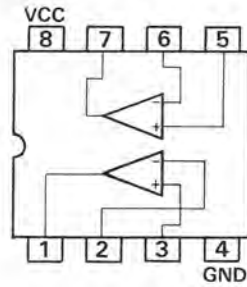




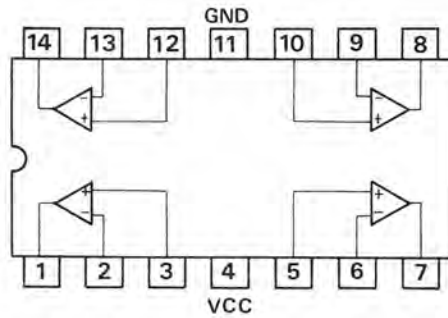




## RC 4558



## TDB 0124



## Ersatzteile · Replacement parts · Pièces détachées · CT 1280

| Pos.  | Art.-Nr. | Stck | Bezeichnung                   |
|-------|----------|------|-------------------------------|
| 1     | 280 455  | 1    | Gehäuseblech GM               |
| 1     | 280 461  | 1    | Gehäuseblech PM               |
| 2     | 280 457  | 1    | Frontblende GM                |
| 2     | 280 462  | 1    | Frontblende PM                |
| 3     | 280 458  | 1    | Fenster                       |
| 4     | 280 456  | 1    | Reflector                     |
| 5     | 280 459  | 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    | 280 463  | 1    | <b>Tastenplatte</b>           |
| 22    | 280 464  | 1    | <b>Grundplatte</b>            |
| BB 1  | 280 453  | 1    | Cinchbuchse                   |
| BH 2  | 280 225  | 1    | Stecker 4pol. (Ferritantenne) |
| 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  | 11   | Diode 1 N 4148                |
| DH 1  | 275 858  | 4    | Diode 1 SV 68                 |
| bis   |          |      |                               |
| DH 4  | 275 858  | 4    | Diode 1 SV 68                 |
| DH 5  | 223 906  | 11   | Diode 1 N 4148                |
| bis   |          |      |                               |
| DH 7  | 223 906  | 11   | 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 11 | 223 906  | 11   | Diode 1 N 4148                |
| DH 12 | 223 906  | 11   | Diode 1 N 4148                |
| DP 1  | 223 906  | 11   | Diode 1 N 4148                |
| DP 2  | 223 906  | 11   | Diode 1 N 4148                |
| DP 3  | 227 344  | 4    | Diode 1 N 4001                |
| bis   |          |      |                               |
| DP 6  | 227 344  | 4    | Diode 1 N 4001                |
| DP 7  | 280 450  | 1    | Diode BZX 83 C 5 V 6          |
| DP 16 | 223 906  | 11   | Diode 1 N 4148                |
| DP 19 | 223 906  | 11   | Diode 1 N 4148                |
| DS 1  | 223 906  | 15   | Diode 1 N 4148                |
| bis   |          |      |                               |
| DS 13 | 223 906  | 15   | Diode 1 N 4148                |
| DS 14 | 279 521  | 1    | Diode 1 N 4150                |
| 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                |
| GS 1  | 280 443  | 1    | Display                       |
| IB 1  | 236 299  | 1    | IC RC 4558                    |
| ID 1  | 280 215  | 1    | IC TEA 5580                   |
| IH 1  | 280 216  | 1    | IC TDA 1574                   |
| IH 2  | 280 449  | 1    | IC CA 3189                    |
| IH 3  | 260 760  | 1    | IC TDA 1072                   |
| IP 1  | 279 927  | 1    | IC LM 317 T                   |
| IS 1  | 261 871  | 1    | IC MC 14066                   |
| IS 2  | 280 202  | 1    | IC UP 4484-A 77               |
| IT 1  | 274 730  | 1    | IC SAA 1057                   |
| IT 2  | 261 352  | 1    | IC LM 324                     |

| Pos.  | Art.-Nr. | Stck | Bezeichnung                 |
|-------|----------|------|-----------------------------|
| JS 83 | 279 840  | 1    | Diode BAT 41                |
| LB 1  | 280 451  | 2    | Filter                      |
| LB 2  | 280 451  | 2    | Filter                      |
| LH 1  | 280 207  | 3    | Spule                       |
| LH 2  | 280 423  | 1    | Drossel                     |
| LH 3  | 280 413  | 1    | Spule                       |
| LH 4  | 280 207  | 3    | Spule                       |
| LH 5  | 280 424  | 1    | Drossel                     |
| LH 6  | 280 414  | 2    | Spule                       |
| LH 7  | 280 414  | 2    | Spule                       |
| LH 8  | 280 208  | 1    | Spule                       |
| LH 9  | 280 207  | 3    | 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 18 | 280 425  | 1    | Drossel                     |
| LH 19 | 280 229  | 1    | Drossel                     |
| LP 1  | 280 454  | 1    | Netztrafo                   |
| PD 1  | 280 223  | 2    | Steller 470 kΩ              |
| PD 2  | 280 222  | 2    | Steller 22 kΩ               |
| PH 1  | 280 452  | 2    | Steller 4,7 kΩ              |
| PH 2  | 280 222  | 2    | Steller 22 kΩ               |
| PH 3  | 280 452  | 2    | Steller 4,7 kΩ              |
| PT 1  | 280 223  | 2    | Steller 470 kΩ              |
| RP 15 | 280 121  | 1    | PTC Widerstand 125 Ω        |
| SS 1  | 280 197  | 21   | Schalter                    |
| bis   |          |      |                             |
| SS 14 | 280 197  | 21   | Schalter                    |
| SS 16 | 280 197  | 21   | Schalter                    |
| bis   |          |      |                             |
| SS 19 | 280 197  | 21   | Schalter                    |
| SS 21 | 280 197  | 21   | Schalter                    |
| SS 23 | 280 197  | 21   | Schalter                    |
| SS 24 | 280 197  | 21   | Schalter                    |
| TH 1  | 248 800  | 1    | Transistor BF 961           |
| TH 2  | 244 715  | 6    | Transistor BC 548 C         |
| TH 3  | 275 871  | 1    | Transistor BF 240           |
| TH 4  | 244 715  | 6    | Transistor BC 548 C         |
| TH 6  | 227 670  | 1    | Transistor BF 256 B         |
| TH 7  | 276 032  | 2    | Transistor BC 558 C         |
| TH 8  | 244 715  | 6    | Transistor BC 548 C         |
| TH 9  | 276 032  | 2    | 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 17 | 240 786  | 1    | Transistor BC 548 B         |
| TS 2  | 270 032  | 1    | Transistor BC 558 C         |
| TS 3  | 244 715  | 1    | Transistor BC 548 C         |
| XS 2  | 280 199  | 2    | Lampe 12 V/40 MA            |
| XS 3  | 280 199  | 2    | Lampe 12 V/40 MA            |
|       | 280 531  | 2    | Gerätefuß                   |
|       | 279 596  | 1    | Netzkabel Europa            |
|       | 280 440  | 1    | Behelfsantenne              |
|       | 280 372  | 1    | Verpackung                  |
|       | 280 532  | 1    | Bedienungsanleitung CT 1280 |

|  | (D)<br>Zeichenerklärung       | (GB)<br>Legend                 | (F)<br>Légende                       | (E)<br>Leyenda                      | (I)<br>Leggènda                         |
|--|-------------------------------|--------------------------------|--------------------------------------|-------------------------------------|---|
|  | 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                         | Syntonsisation                       | Sintonía                            | Sintonia                                |
|  | Empfangsfrequenz-<br>Regelung | Automatic frequency<br>control | Contrôle automatique<br>de fréquence | Control automático<br>de frecuencia | Controllo automatico<br>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                   | Giradiscos                          | 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                    |