Service Service Service CDR820, CDR822

A02-350

Product Service Group CE Audio

Service Information

Already published Service Informations: none

CORRECTION TO THE SERVICE MANUAL

• MECHANICAL PARTSLIST

Correct code number for pos. 225 WORDMARK PHILIPS reads 3104 120 00290.

CHANGES IN COURSE OF PRODUCTION

- New Software
 - From production week 0152 onwards following new software versions have been implemented in the sets:

CDR80x:

Main μP 7414: **V46**

CDR module: MO2021, B0042 (MO stands for "Mozart Board", B stands for "Basic Engine")

CDR82x:

Main μP 7414: **V34**

CDR module: MO2021, B3201 (MO stands for "Mozart Board", B stands for "Basic Engine")

The upgrade of the CDR module addresses the following issues:

- Playback of Audio CD's which do not comply with the Red Book standard
- New features in Service Testprogram
- Detection of corrupted mp3 files and proper handling of CRC errors
- Better track time prediction for VBR encoded mp3 files
- Improved CD-TEXT indexing
- Automatic Loader Detection during startup
- Several minor improvements

Software versions V34 (CDR82x) respectively V46 (CDR80x) of the main µP 7414 enable the extended Service Testprogram which is already indicated in the Service Manual.

For updated flow charts of the Service Testprogram see attached sheets.

- From production week 0207 onwards the software of the Mozart Board has been upgraded to MO3001.

This upgrade addresses a major problem with the "Disc Recover Mode" of models CDR820, CDR822 and a few minor problems valid for all sets.

Problem "Disc Recover Mode":

After a power failure during recording, the set enters the "Disc Recover Mode" but it does never return from this mode. The display shows "Disc Recover" even after disconnecting/reconnecting mains.

The faulty disc cannot be removed because the set does not react on any button (i.e. Open/Close).

The problem can be solved by a software upgrade of the Mozart Flash ROM to "MO3001".

To remove the faulty disc from the tray proceed as follows:

- 1. Remove Top Cover
- 2. Connect mains → set will enter Recover Mode
- 3. Stop the disc manually until an error message is displayed
- 4. Press Open/Close

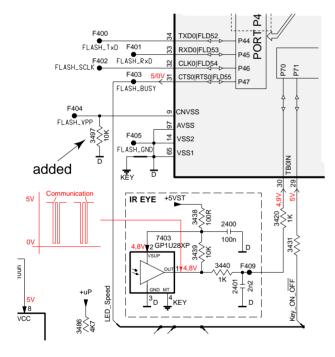
DISPLAY BOARD

The copper pattern has been changed to layout stage .7.

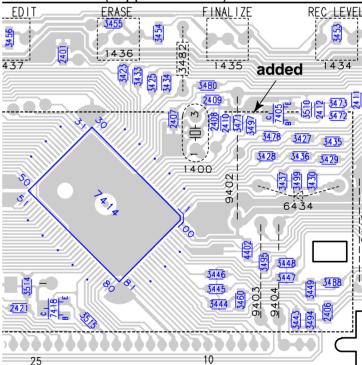
(The layout stage can be identified by the last digit of the 12-figure number, located at the upper left corner of the copper pattern)

Reason: To ensure a reliable startup with the flash-version of the μP over all tolerances, resistor 3497 has been added between pin 9 of μP 7414 and ground.

3497© 4822 051 30103 10k 5% 0.06W



Portion of Display Board layout stage .7 (copperside view) OUT FINAL IZE



SERVICE TESTPROGRAM **VARIOUS TEST**

To enter Service Testprogram hold PLAY & CD3 buttons * To leave Service Testprogram plug mains cord off. * In the main menu the sound settings (volume, ...) and depressed while the trays work as in normal mode. plugging mainscord in. Qn/Off switch in pos. ON Display shows 5 stands for Service mode of the μP - software. of the software used in the Front (Display) µP. DISPLAY TEST QUARTZ TEST KEY TEST FORMAT EEPROM EEPROM TEST TEMPERATURE (NTC) TEST FFWD ▶ button N DISPLAY button AUX button **REW** ← button CD TEXT button PROGRAM button Tact frequency μP (divided 10MHz) Display shows all Display shows Display shows Display shows¹⁾ Display shows Testpattern is written to gments and flags (dimme address 1 NTE XX for checking open circuits. NEN 1220±37Hz can be measur Numbers acc. table 2 for 2s. read back again XX = value in °C EEPROM is cleared and All LEDs are switched on. on (1) (pin 27 of μ P). are indicated as long as button is held depressed default values are stored. If a button is pressed on the Remote Control KEY RE is shown STOP button This test should only be used to clear STOP buttor and the @ flag flashes. STOP button Test ok? the EEPROM in case of a μP-"hangup". pressed? Attention: all data are set to default values. BLACK BOX data are **not** cleared. STOP buttor Display shows Display shows ERR PRSS $^{1)}$ If the ON/OFF switch is in the position \emph{OFF} , all other keys are blocked and display will show 99 as long any key is held depressed. STOP button pressed?

KEY CODES

KEY	KEY CODE	KEY	KEY CODE
OPEN/CLOSE (CDC)	0	CD1	14
CD CHANGE	1	COPY CD	15
AUX	2	COMPILE CD	16
CDR	3	RECORD	17
DISPLAY	4	PLAY/PAUSE	18
SHUFFLE	5	44	20
PROGRAM	6	NO /CANCEL	21
CD TEXT /EDIT	7	>>	22
A-B EDIT	8	YES /ENTER	23
ERASE CD	9	SPEED (CDR820 only))	24
FINALIZE CD	10	OPEN/CLOSE (CDR)	25
REC LEVEL	11	ON/OFF	99
CD3	12	STOP	exit test
CD2	13		



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CDR82x

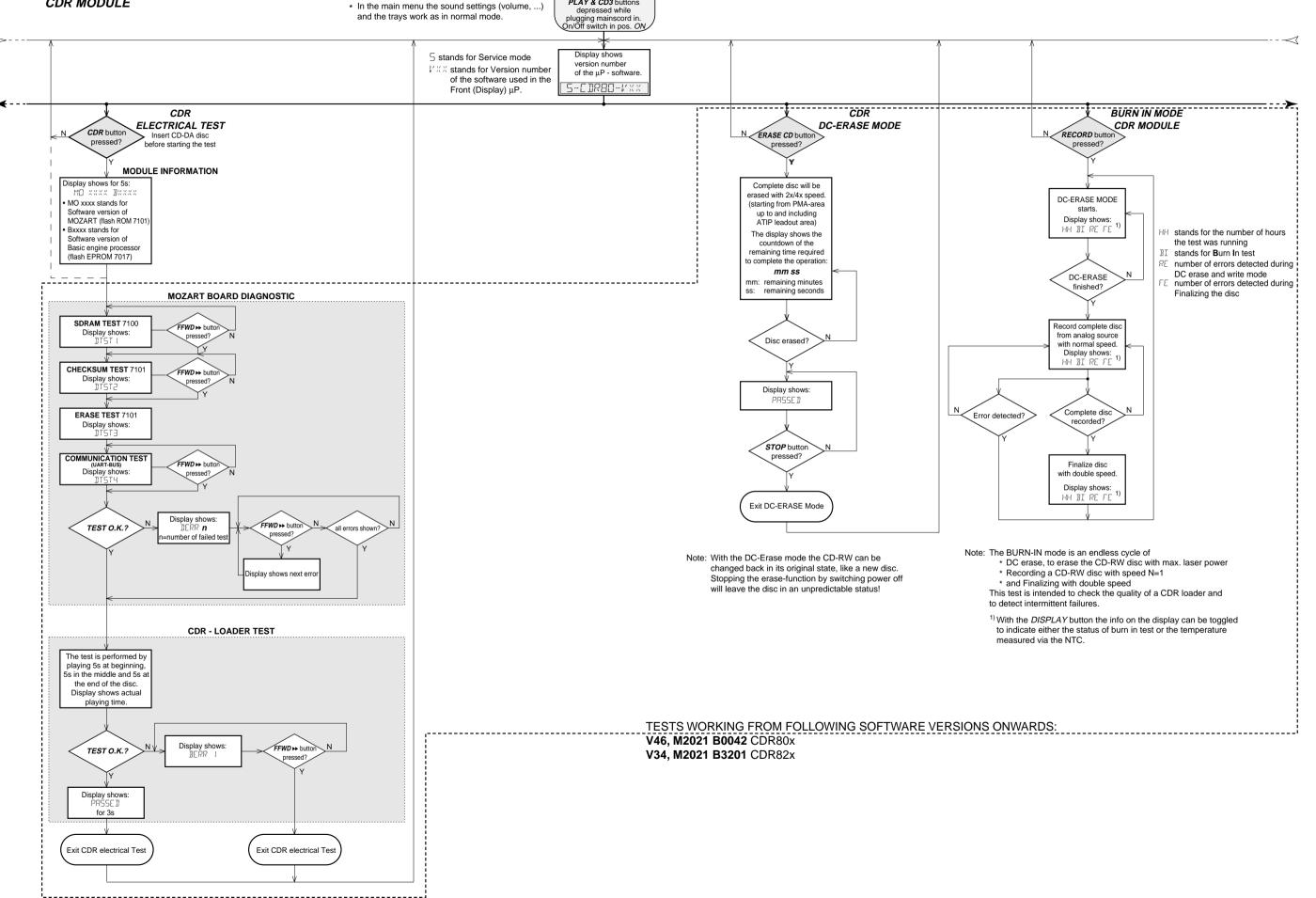


5-7a 5-7a

To enter Service Testprogram hold PLAY & CD3 buttons

* To leave Service Testprogram plug mains cord off.

SERVICE TESTPROGRAM CDR MODULE



SERVICE TESTPROGRAM To enter Service Testprogram hold PLAY & CD3 buttons * To leave Service Testprogram plug mains cord off. 3CDC MODULE * In the main menu the sound settings (volume, ...) and depressed while plugging mainscord in. On/Off switch in pos. ON the trays work as in normal mode. Display shows 5 stands for Service mode version number of the μP - software. √ X X stands for Version number of the software used in the Front (Display) μP. CDC CDC ALL TESTS ARE WORKING LOADER TEST MECHANICAL TEST CD1 button CD2 button FROM FOLLOWING SOFTWARE for visual inspection only < (not for CDR82x) **VERSIONS ONWARDS:** Insert CD-DA disc before starting the test 1) V46, M2021 B0042 CDR80x V34, M2021 B3201 CDR82x The test is performed by Display shows: playing 5s at beginning, 5s in the middle and 5s at ED ME TEST the end of the disc. Display shows actual playing time. FOCUS TEST 2) TURNTABLE V SLIDE TEST 2) TRAY TEST CAROUSEL FFWD → butto TEST O.K.? TEST JOG turned YES button PLAY button STOP button CD CHANGE butto **OPEN/CLOSE** but one step cw? Display shows: for 3s Turntable motor Objective moves Slide moves Tray opens. Carousel turns Exit Mech. Testprogram is switched on. Display shows: ontinuously up/dow continuously in/out clockwise. Display shows: Display shows: Display shows: Display shows: en when tray is block Exit CD electrical Test Exit CD electrical Test **JOG** turned YES button PLAY button OPEN/CLOSE buttor CD CHANGE buttor one step cw? pressed? pressed? 1) The set does not automatically search for the place where a disc is inserted. Tray closes. Only that disc will be played which is located on the compartment, which is just in PLAY position. This will normally be *DISC 1*, except the carousel has been activated by the carousel test before. Turntable motor Slide moves to inner Focus servo Display shows: Carousel is switched off. It is therefore recommended to insert a CD-DA disc into compartment 1 before starting Service Testprogram. en when trav is blocke

²⁾ Open tray to get free insight to the CD drive.