

## THE B203 TIMER CONTROLLER FROM REVOX

### Description

The B203 is an interactive "Switcher-Timer-PC Interface" controller. Specifically designed to be integrated in the current REVOX line, the B203 is powered via the B285 receiver serial port and can be linked via patch cords (max. 8 inputs) to the "brain" of the B215, B225, PR99, B291 as well as to the less recent units equipped with serial link retrofits.

The connection of 3 B206 transceivers for multiroom operation as well as a RS-232 port are available for more sophisticated remote or computer controlled operations.

Physically the B203 can best be integrated in the 200 serie when sitting on top of the B225. The association of the two is matching the height of the B215 or B285 and may therefore be installed in a conventional REVOX disco-rack U-board.

On the front panel of the B203 a function display and the I.R. sensor are visible. On the back a row of sockets are available for connection to the other units of the system. From right to left: 1 parallel remote control, 8 device outlets, 3 B206 extensions (ABC), 1 RS 232 port and an on/off battery buffer switch.

### The switcher (easy/select)

After selecting the easy mode, the "easyness" of the operation of the REVOX system becomes obvious, for example: Just pressing the "play next" button on the B205 remote control will trigger a serie of operations: In a split of a second the CD player is switched on, starts to play the first cut, the receiver is also switched on, the input "disc" is selected and soon the music comes out through the preselected speaker output (i.e. speaker A) with the correct preselected power-on volume! Another example?

Pressing "tape 1" on the receiver will switch on the B285 as well as start the B215 in play mode, or from another room, via the B206, pressing "play" will activate the B215 in play mode and the music will be heard through the preselected speaker.

In practice, the "easy" configuration is entered only once the first time used (it can of course be altered anytime). The menu: Time, date, language, easy on/off, timer on/off and speaker selection. When completed the user can sit back, relax and enjoy music literally at the touch of a button.

### The Timer (event)

The B203 timer programming operations are very much like those practiced in video recorders. One can select and program up to 5 "events". Each event occurs at a given starting time, date (or day(s) of the week). Then, after selecting among sources such as tuner, CD, tape, phono, one can direct the signal to a recorder, amplifier or speaker. The program will be interrupted at a stop-time, to mark the end of the event.

3 back-up batteries secure the program in case of power failure. An "exit" button can be used to escape and reset a programming in progress and another button is available to the user to "test" a programmed event independently from the schedule and with no harm to the pre-established sequence.

This quite sophisticated timer, as one can see, will become handy for "early-bed-goers"-audiophiles!

### The PC Interface (RS-232 interface)

All B203 internal functions ("easy" and "timer") can be individually activated with control feedback.

The connection to a maximum of 8 units can be realised via "bibus" cables and each unit can be individually activated with control feedback (if implemented).

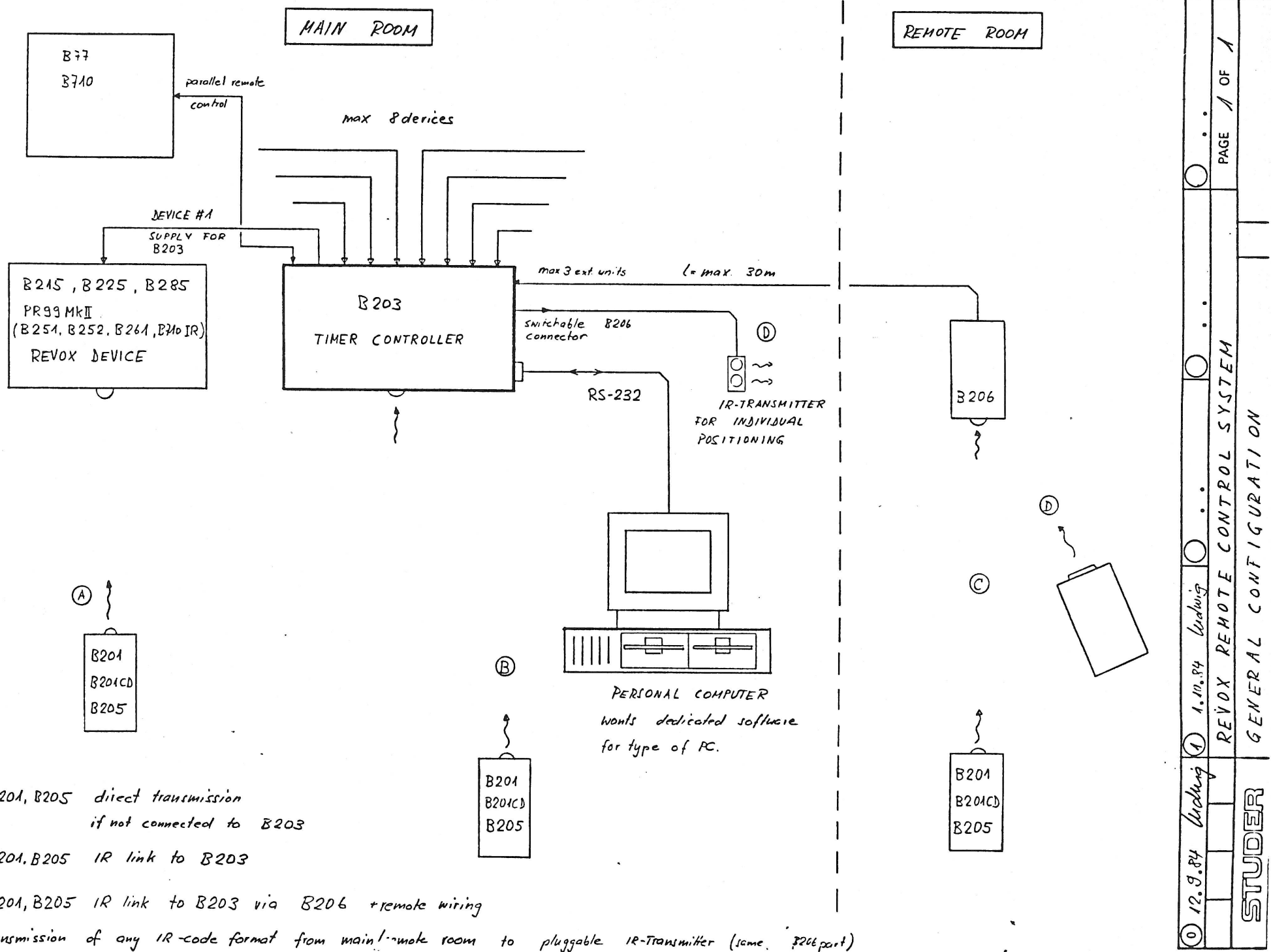
A unit equipped with a parallel socket (9-pol) can be individually activated as well (no control feedback).

### Interface RS 232 Hardware

Full duplex, 3 wire connector (GND, Tx, Rx) 1200 baud, 1 start bit, 1 stop bit, 8 data bits, no parity software handshaking  
X on, X off.

DIN-plug.

Serial PC-interface.

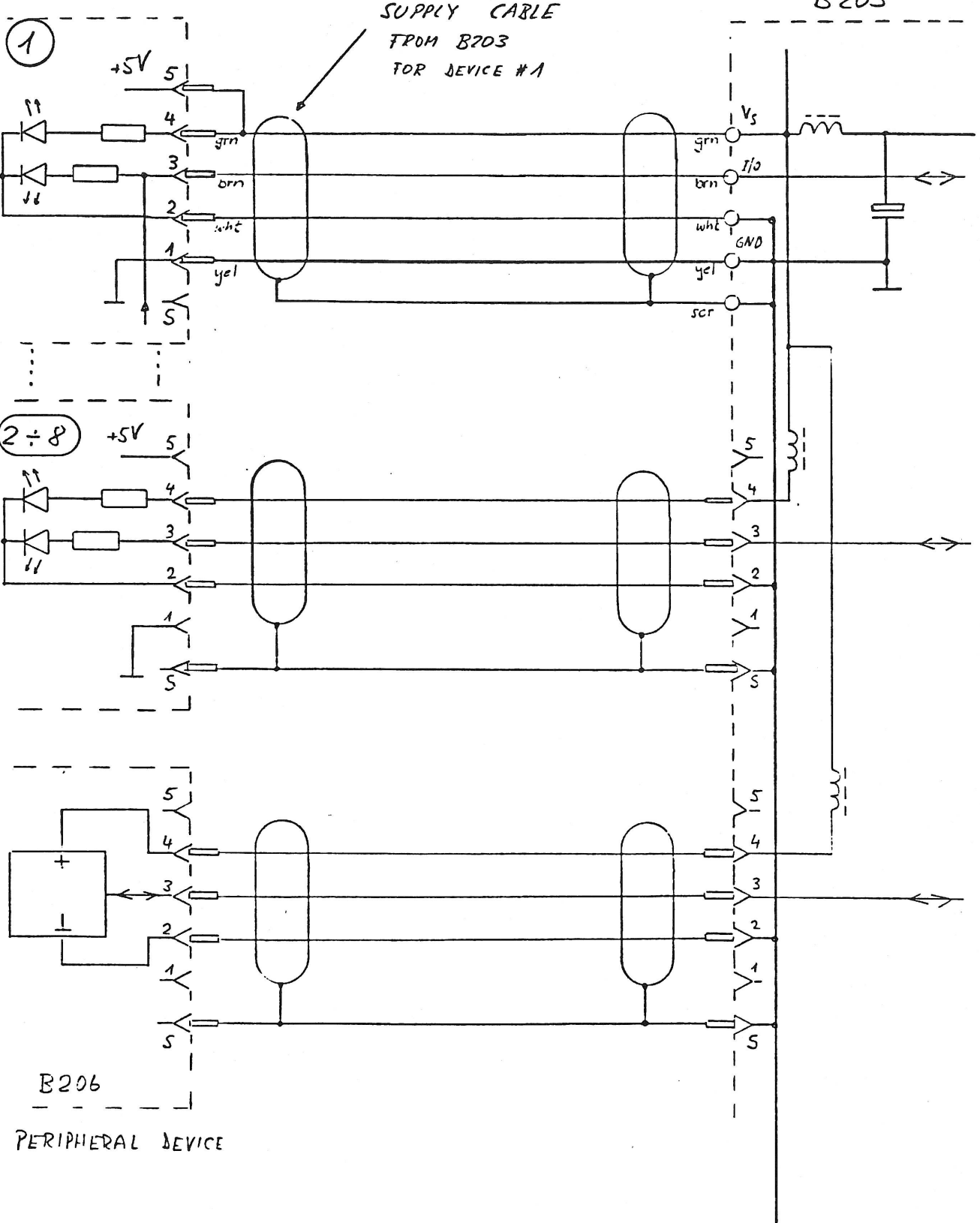


- Ⓐ B201, B205 direct transmission if not connected to B203
- Ⓑ B201, B205 IR link to B203
- Ⓒ B201, B205 IR link to B203 via B206 + remote wiring
- Ⓓ Transmission of any IR-code format from main/remote room to pluggable IR-transmitter (same B206 part)



DEVICE #

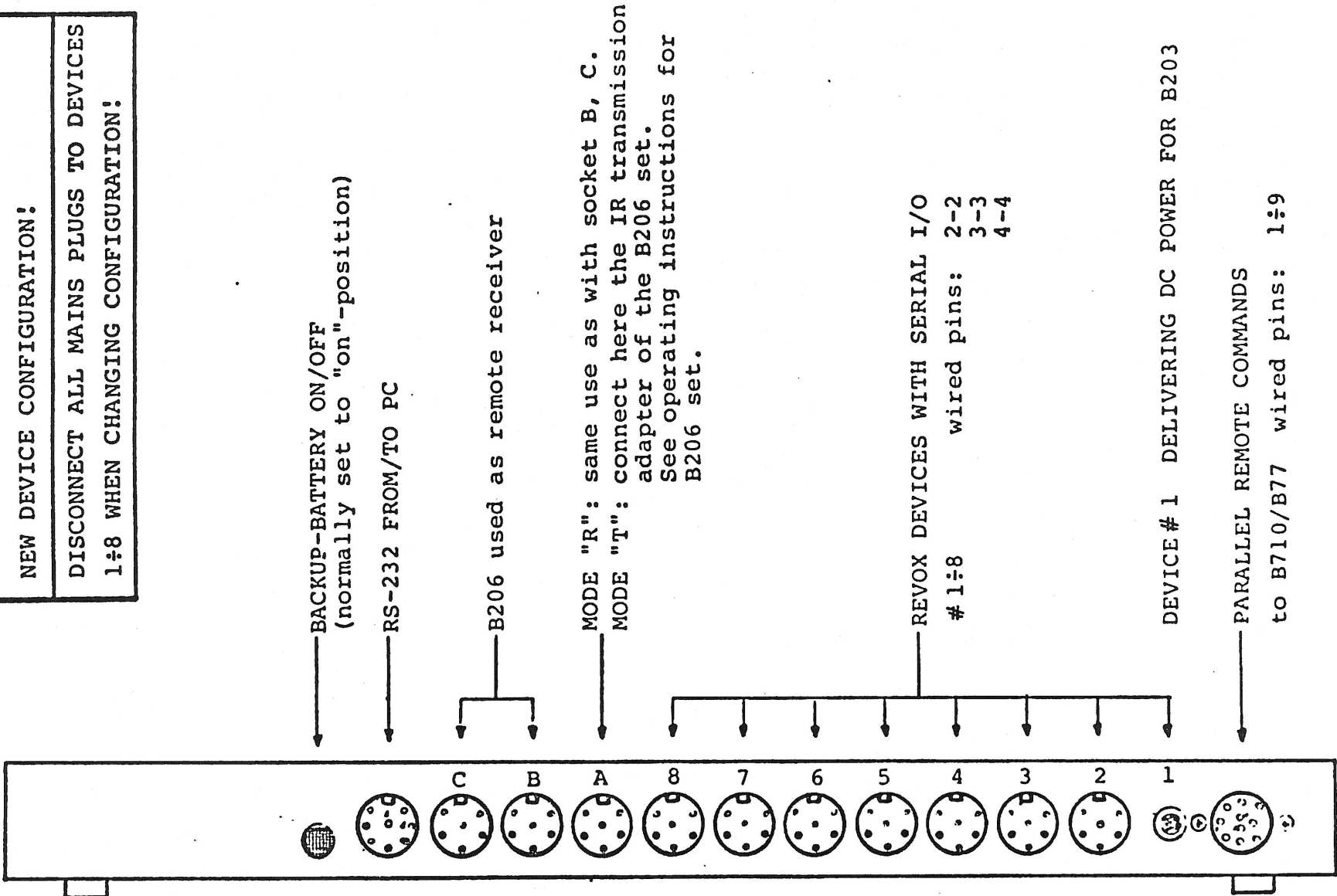
BUS CONTROLLER  
B203



|                  |                        |      |      |             |
|------------------|------------------------|------|------|-------------|
| ① 29.0384 Ludwig | ○ ..                   | ○ .. | ○ .. | ○ ..        |
|                  | REVOK SYSTEM 200       |      |      | PAGE 1 OF 1 |
| STUDER           | SIGNAL / GROUND WIRING |      |      | SC          |

PLEASE CHECK CAREFULLY TO USE THE APPROPRIATE JACK WHEN INSTALLING A NEW DEVICE CONFIGURATION!

DISCONNECT ALL MAINS PLUGS TO DEVICES 1:8 WHEN CHANGING CONFIGURATION!



BACK PANEL VIEW

ATTENTION!  
 DO NOT CONNECT PR99 WITHOUT  
 SPECIFIED CONNECTOR!! (24VDC à PIN 5)

## 1.5 RS 232 Interface

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All internal functions (EASY function and TIMER) as well as the connected equipment can be selectively operated via the RS232 serial port of the B203. The operating state of the B203 as well as the status of the connected equipment (if designed for this) can be inquired via this interface.

### Interface hardware

- Full-duplex, 3-wire connection (GND, Tx, Rx)
- 1200 Baud, 1 start bit, 1 stop bit, 8 data bits, no parity bit.
- Software handshaking (Xon, Xoff)

### Software versions

Two software versions are available:

- B203-C (customer version), contains the equipment modules for: B215, B226, B225 with microprocessor board 1.769.327, B285 (B291 without RS232 module).
- B203-IND (industry version), contains the equipment module for: B215, A725, A725-2, PR99 MKII, B225 with microprocessor board 1.769.327 and B226.

The units conforming to the industrial version are identified on the rear with an additional label (IND). For identification of the software version the B203 should be switched off and on again (turn batteries off and unplug/reconnect the cable of terminal 1). The industrial version (B203-IND) is identified by a flashing star in the display field (TIMER OFF).

### 1.5.1 Dialog B203 <--> personal computer

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To achieve the fastest possible communication, the commands and feedbacks have been kept as short as possible in the form of ASCII strings.

The length of a string as well as its layout is specific to the corresponding equipment and depends on the device identifier, however, it cannot exceed 79 characters. A string is always terminated with a carriage return (ASCII 13).

The character set comprises the digits 0 to 9 and the letters A to Z. To prevent confusion with Ø and 1 the characters 0, I, l are used as little as possible. In order to prevent misinterpretation (& % \$ : ; ..) the space and the minus sign (-) are the only valid special characters. Upper and lower case characters are interpreted by the B203 as equivalent. The B203 transmits only upper case characters.

On request by the personal computer the status of a unit is returned in the form of a string. The format of the feedback is alphanumeric.

## 1.5.2 Command format

The command string starts always with the connection number (0...9) followed by the command chain which is always terminated with <CR> (ASCII 13). The carriage return is no longer mentioned in the following text even though it is part of each command string. In the examples it is represented by the character "<".

### A. Channel number (1st string segment)

\*\*\*\*\*

0 B203 internal  
1 Terminal 1 (SERIAL LINK)  
2 Terminal 2 (SERIAL LINK)  
| |  
8 Terminal 8 (SERIAL LINK)  
9 Parallel remote control

- The terminal No. "0" designates a general command for the B203. This address provides, e.g., access for using the feedback of the TIMER and EASY functions.
- Terminal numbers "1...8" address the subsequent instruction set for the equipment connected to the corresponding terminal.
- Terminal number "9" corresponds to the 9-pin socket of the parallel remote control for the B710 or B77. It can be controlled either with the commands specific to these units or with individual signals (6+1 bits) or as byte (6+1 bits). This means that expansions of auxiliary functions can be programmed by the user (e.g. for changing over speaker groups, illumination, or for operating a slide control, etc.). ■ To ensure that the correct instruction set related to the specific unit is used, the user or the timer must always call the device identifiers first.

Commands that are not defined in the equipment table are interpreted as incorrect by the B203.

When the device identifier is called, the B203 responds with a feedback that contains only the terminal number and the device identifier. (Device identifier: see under "Feedback format").

- An invalid entry is acknowledged by the B203 with ASCII 007 (BEL).



### 1.5.3 Feedback format

On request by the computer the B203 returns the status of a unit in the form of a string. This string starts with a terminal number, followed by the device identifier and the status messages. The string is terminated with <CR LF> (Carriage Return, Line Feed). The record layout of the status messages depends on the device identifier and is, therefore, specific to the unit.

#### A. Channel number (1st string segment)

\*\*\*\*\*

0 B203 internal  
1 Terminal 1 (SERIAL LINK)  
2 Terminal 2 (SERIAL LINK)  
| | |  
8 Terminal 8 (SERIAL LINK)  
9 Parallel remote control

#### B. Device identifier (2nd and 3rd segment)

\*\*\*\*\*

00 No identifier from the unit (unit without feedback)  
01 PR99 MKII  
02 A725 (software: 1.025.621.23)  
03 B285  
04 B215  
05 B225-2 (with microprocessor board 1.769.327.00)  
06 B226  
07 A725-2 (software: 1.025.621.24)  
08 B291  
  
50 B203-C (e.g. output 5.0)  
51 B203-IND (e.g. output 5.1)  
| | |  
98 B203-C (max. output 9.8)  
99 B203-IND (max. output 9.9)

- Number for C and IND versions is always in pairs.  
Example: Release B203-C ... 50 ... 56 ... 98  
          Release B203-IND ... 51 ... 57 ... 99
- The device identifier is a 2-digit number and always follows immediately the terminal number. This number is assigned consecutively for each development or change for accessing the information stored in the equipment ROM.
- If the connected unit does not have a device identifier, it cannot supply any feedback (e.g. B225). For reasons of time optimization this terminal is no longer scanned by the B203.

#### Note:

- With the return of the output number a possibly changed structure of the feedback strings can be redefined.

#### 1.5.4 Pin assignment

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A 3-wire cable is required for the connection between the serial port of the B203 • Timer Controller and a home computer or personal computer by means of an RS232 serial interface. (Max. cable length 3 meters).

| B203<br>RS232<br>5-pol. DIN | Personal-Computer<br>RS232<br>25-pol. D-Type |
|-----------------------------|--|
| 2 GND                       | 7 GND  |
| 3 OUT (Tx)                  | 3 IN (Rx)                                    |
| 4 IN (Rx)                   | 2 OUT (Tx)                                   |

#### 1.7.4 Command table A725

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##### Commands for STUDER A725 • COMPACT DISC PLAYER

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|       |  |
|-------|--|
| O     | Standby  |
| S     | Stop (and power on)  |
| P     | Play/Next (and power on)   |
| J     | Index scan   |
| W     | Pause  |
| D     | Switch to disc time indication   |
| T     | Switch to track time indication  |
| U     | Autostop on  |
| V     | Autostop off   |
| E     | Load (move drawer in or out)   |
| H     | Locate   |
| M     | Pause without muting   |
| Gmmss | Position laser pickup at disc time in minutes (mm)<br>: seconds (ss). Depending on the preceding device<br>status either play continues or pause is activated. |
| Cnn   | Position laser pickup at index (nn). Depending on<br>the preceding device status either play continues<br>or pause is activated.                               |
| Ynn   | Play disc from track (nn).   |
| Znn   | Position laser pickup at track (nn) and switch to<br>pause.  |
| X     | Inquiry device status  |
| N     | Inquire catalog No.  |

Certain CD producers write the number of the CD (catalog No. also into the contents list of the CD. If this is the case, this number can be inquired with the command [N]. If no catalog number is stored, this field will be output with all zeros.

Status messages A725

\*\*\*\*\*

String format:

ABBCDDEEFFFGGGG<

A. Channel number (1st string segment)

\*\*\*\*\*

- 0 B203 internal
- 1 Terminal 1 (SERIAL LINK)
- 2 Terminal 2 (SERIAL LINK)
- | | |
- 8 Terminal 8 (SERIAL LINK)
- 9 Parallel remote control

B. Equipment identifier (2nd - 3rd string segment)

\*\*\*\*\*

- 02 A752 (software: 1.025.621.23)
- 07 A725-2 (software: 1.025.621.24)

C. Device status (4th string segment)

\*\*\*\*\*

- |   | A725-2:                | A725:       |
|---|------------------------|-------------|
| 0 | Standby                | Play        |
| 1 | Stop                   | Faderstart  |
| 2 | Play                   | Pause       |
| 3 | Play + Autostop        | Play + Loop |
| 4 | Play + Loop            | Autostop    |
| 5 | Play + Autostop + Loop |             |
| 6 | Pause                  |             |
| 7 | Pause + Loop           |             |
| 9 | Pause without muting   |             |

D. Track number (5th - 6th string segment)

\*\*\*\*\*

nn Number of current rack (decimal)

E. Index number (7th - 8th string segment)

\*\*\*\*\*

nn Number of current index (decimal)

F. Elapsed time (9th - 12th string segment)

\*\*\*\*\*

mmss Depending on the display either the time since the start of the disc or the start of the track is displayed (minutes = mm, seconds = ss).

G. Remaining time (13th - 16th string segment)

\*\*\*\*\*

mmss Depending on the display either the time remaining to the end of the disc or the end of the track is displayed (minutes = mm, seconds = ss).

Separate string for catalog number

\*\*\*\*\*

String format:

ANnnnnnnnnnnnn000<

A. Channel number (1st string segment)

\*\*\*\*\*

0 B203 internal  
1 Terminal 1 (SERIAL LINK)  
2 Terminal 2 (SERIAL LINK)  
| | |  
8 Terminal 8 (SERIAL LINK)  
9 Parallel remote control

N. Identifier (2nd string segment)

\*\*\*\*\*

N Identifier for catalog No.

n. Catalog No. (3rd - 18th string segment)

\*\*\*\*\*

nn...n000 Catalog No., the last three digits are always zero.

Status response from B 291

a. Status:

| nibble1 | nibble2   | nibble3      | nibble4     |
|---------|-----------|--------------|-------------|
| 1       | Hex size  | Hex state    | afvh if=1   |
|         | 0 33 norm | 0 play       | a arm in    |
|         | 1 45 norm | 2 pause      | f fader off |
|         | 2 33 spec | 3 stop/pause | v vari on   |
|         | 3 45 spec | 6 returning  | h power on  |
|         |           | A autosearch |             |

b. Varispeed:

| nibble1 | nibble2  | nibble3  | nibble4  |
|---------|----------|----------|----------|
| 5       | Hex sign | Hi digit | Lo digit |
|         | 0 +      | 0...9    | 0...9    |
|         | 1 -      |          |          |

Status response from PR99 Mk2

| 1xyz     | status with   |
|----------|---|
| z : 0    | undefined state   |
| 1        | stop  |
| 2        | fast forward  |
| 3        | rewind  |
| 4        | play  |
| 5        | record  |
| 6        | dump  |
| 7        | zero locate   |
| 8        | address-locate  |
| 9        | tape out  |
| x : 1bbb | set-mode  |
| : 0bbb   | normal mode   |
| : b000   | speed 1.19 cm/sec                                       |
| : b001   | speed 2.38 cm/sec                                       |
| : ....   |   |
| : b110   | speed 76 cm/sec   |
| y : 1bb0 | pause   |
| : b1b0   | repeat  |
| 8x .. 0x | counter hrs, mins, secs<br>as in general specification. |

Status response from A725

a. identifier

| nibble : n1 | n2 | n3 | n4 |
|-------------|----|----|----|
| 0           | 2  | 2  | 5  |

b. actual track  
4 1 n n (track-no. nn)

c. actual index  
4 2 n n (index-no. nn)

d. actual time : minutes  
4 3 m m (minutes mm)

e. actual time : seconds  
4 4 s s (seconds ss)

d. actual remaining time : minutes  
4 5 m m (minutes mm)

e. actual remaining time : seconds  
4 6 s s (seconds ss)

note:

times are track-times or disc-times, depending on display setting.

f. player-status

|   |     |     |     |               |
|---|-----|-----|-----|---------------|
| 1 | xxx | yyy | zzz |               |
|   |     |     | 1zz | pause         |
|   |     |     | z1z | play + loop   |
|   |     | yy1 | zz1 | autostop      |
|   |     |     |     | faderstart on |

g. disk\_catalog\_number

|   |      |   |   |
|---|------|---|---|
| 2 | digp | a | b |
|---|------|---|---|

digp: which pair of digits (0..7)  
a,b: digits

Note:

catalog\_number is considered to be a string of 16 bcd digits, the last 3 always being 0, which leads to a 13 digit number.

Status response from A725-2 (software: 1.025.621.24)

|                   | nibble : n1 | n2 | n3 | n4 |                |
|-------------------|-------------|----|----|----|----------------|
| a. identifier     | 0           | 7  | 2  | 5  |                |
| b. actual track   | 4           | 1  | n  | n  | (track-no. nn) |
| c. actual index   | 4           | 2  | n  | n  | (index-no. nn) |
| d. time played    | 4           | 3  | m  | m  | (minutes mm)   |
| e. time played    | 4           | 4  | s  | s  | (seconds ss)   |
| d. remaining time | 4           | 5  | m  | m  | (minutes mm)   |
| e. remaining time | 4           | 6  | s  | s  | (seconds ss)   |

note:

times are track-time or disc-time, depending on display setting.

f. player-status

| 1 | xxxx               | yyyy | zzzz |               |
|---|--------------------|------|------|---------------|
| 0 | none               | 1    |      | pause         |
| 1 | stop               | 1    |      | play + loop   |
| 2 | stopping           | 1    |      | autostop      |
| 3 | start              | 1    |      | faderstart on |
| 4 | lead-in            |      |      |               |
| 5 | fill TOC           |      |      |               |
| 6 | play               |      |      |               |
| 7 | scan               |      |      |               |
| 8 | pause              |      |      |               |
| 9 | skip               |      |      |               |
| A | drawer running in  |      |      |               |
| B | drawer running out |      |      |               |
| C | cue play           |      |      |               |
| D | cue pause          |      |      |               |
| E | power off          |      |      |               |
| F | scan pause         |      |      |               |

g. disc-catalog-number

| 2 | digp | a | b |
|---|------|---|---|
|---|------|---|---|

digp: which pair of digits (0..7)

a,b: digits

Note:

catalog-number is considered to be a string of 16 bcd digits, the last 3 always being 0, which leads to a 13 digit number.

2.2.2 Tabelle aller IR-Codes.

D = Commands only without --key  
 \* = Commands only with --key  
 x = Commands not accessible via hand-held IR-Transmitters  
 Access to HD, HG only via B205

| Data bits | HEX | Matrix | AMPLIFIER<br>B 251 | TUNER<br>B 201 | RECEIVER<br>B 285/286 | CD-PLAYER<br>B225, B226 | CASS.REC.<br>B 215 | TAPE RECORDER<br>PR 99 Mk2 | TURNTABLE<br>B791/795, B291 |
|-----------|-----|--------|--------------------|----------------|-----------------------|-------------------------|--------------------|----------------------------|-----------------------------|
| 111111    | 00  | AA     | POWER OFF          | POWER OFF      | D POWER OFF           | POWER OFF               | POWER OFF          | STOP                       | STOP, POWER OFF             |
| 011111    | 01  | AB     |                    |                |                       |                         | PAUSE+REC          | PAUSE+REC                  |                             |
| 101111    | 02  | AC     |                    |                |                       |                         | PLAY+REC           | PLAY+REC                   |                             |
| 001111    | 03  | AD     |                    |                |                       |                         | STOP               | STOP                       |                             |
| 110111    | 04  | AE     |                    |                |                       |                         | REW <<             | REW <<                     |                             |
| 010111    | 05  | AF     |                    |                |                       |                         | FORW >>            | FORW >>                    |                             |
| 100111    | 06  | AG     |                    |                |                       |                         | MONITOR            | MONITOR                    |                             |
| 000111    | 07  | AH     |                    |                |                       |                         | LOC-1              | Z-LOC                      |                             |
| 111011    | 08  | BA     |                    |                |                       |                         | LOC-2              | A-LOC                      |                             |
| 011011    | 09  | BB     |                    |                |                       |                         | PAUSE              | PAUSE                      |                             |
| 101011    | 0A  | BC     |                    |                |                       |                         | PLAY               | PLAY                       |                             |
| 001011    | 0B  | BD     |                    |                |                       |                         | LOOP               | REPEAT                     |                             |
| 110011    | 0C  | BE     |                    |                |                       |                         |                    | PAUSE ON                   |                             |
| 010011    | 0D  | BF     |                    |                |                       |                         |                    | PAUSE OFF                  |                             |
| 100011    | 0E  | BG     |                    |                |                       | < REW                   |                    |                            | D <                         |
| 000011    | 0F  | BH     |                    |                |                       | > FORW                  |                    |                            | D >                         |
| 111101    | 10  | CA     |                    |                |                       | PAUSE                   |                    |                            | D LOW/LIFT                  |
| 011101    | 11  | CB     | D 1                | D 1            |                       | 1                       |                    |                            |                             |
| 101101    | 12  | CC     | D 2                | D 2            |                       | 2                       |                    |                            |                             |
| 001101    | 13  | CD     | D 3                | D 3            |                       | 3                       |                    |                            |                             |
| 110101    | 14  | CE     | D 4                | D 4            |                       | 4                       |                    |                            |                             |
| 010101    | 15  | CF     | D 5                | D 5            |                       | 5                       |                    |                            |                             |
| 100101    | 16  | CG     | D 6                | D 6            |                       | 6                       |                    |                            |                             |
| 000101    | 17  | CH     | D 7                | D 7            |                       | 7                       |                    |                            |                             |
| 111001    | 18  | CA     | D 8                | D 8            |                       | 8                       |                    |                            |                             |
| 011001    | 19  | CB     | D 9                | D 9            |                       | 9                       |                    |                            |                             |
| 101001    | 1A  | CC     | D 10               | D 10           |                       | 0                       |                    |                            |                             |
| 001001    | 1B  | CD     | D 11               |                |                       | PREEMPH. ON             |                    |                            |                             |
| 110001    | 1C  | CE     | D 12               |                |                       | PREEMPH. OFF            |                    |                            |                             |
| 010001    | 1D  | CF     | D 13               |                |                       | LOCAL TIME              |                    |                            |                             |
| 100001    | 1E  | CG     | D 14               |                |                       | TOTAL TIME              |                    |                            |                             |
| 000001    | 1F  | CH     | D 15               |                |                       | PAUSE ON                |                    |                            |                             |
| 111110    | 20  | EA     | D 16               |                |                       | LOCATE                  |                    |                            |                             |
| 011110    | 21  | EB     | D 17               |                |                       | LOAD                    |                    |                            |                             |
| 101110    | 22  | EC     | D 18               |                |                       | AUTOSTP ON              |                    |                            |                             |
| 001110    | 23  | ED     | D 19               |                |                       | AUTOST. OFF             |                    |                            |                             |
| 110110    | 24  | EE     | D 20               |                |                       | PAUSE W/D M             |                    |                            |                             |
| 010110    | 25  | EF     | D SCAN LAST        |                |                       | PLAY NEXT               |                    |                            |                             |
| 100110    | 26  | EG     | D SCAN NEXT        | D SCAN NEXT    |                       | B226 IND. SCAN          |                    |                            |                             |
| 000110    | 27  | EH     | D +10/ON           | D ENTER        |                       | STOP                    |                    |                            |                             |
| 111010    | 28  | IA     | VOLUME --          |                |                       | TAPE MON 2              |                    |                            |                             |
| 011010    | 29  | IB     | VOLUME ++          |                |                       | LOUDNESS                |                    |                            |                             |
| 101010    | 2A  | IC     | TAPE 2             |                |                       | TAPE 2                  |                    |                            |                             |
| 001010    | 2B  | ID     | DISC               |                |                       | DISC                    |                    |                            |                             |
| 110010    | 2C  | IE     | BALANCE L          |                |                       | BALANCE L               |                    |                            |                             |
| 010010    | 2D  | IF     | BALANCE R          |                |                       | BALANCE R               |                    |                            |                             |
| 100010    | 2E  | IG     | VOLUME +           |                |                       | VOLUME +                |                    |                            |                             |
| 000010    | 2F  | IH     | VOLUME -           |                |                       | VOLUME -                |                    |                            |                             |
| 111100    | 30  | GA     | TAPE 1             |                |                       | TAPE 1                  |                    |                            |                             |
| 011100    | 31  | GB     | TUNER              |                |                       |                         |                    |                            |                             |
| 101100    | 32  | GC     | PHONO              |                |                       | PHONO                   |                    |                            |                             |
| 001100    | 33  | GD     | AUX                |                |                       |                         |                    |                            |                             |
| 110100    | 34  | GE     | -20dB              |                |                       | -20dB                   |                    |                            |                             |
| 010100    | 35  | GF     | PHONE              |                |                       | PHONE                   |                    |                            |                             |
| 100100    | 36  | GG     | REC=MON            |                |                       | D TAPE MON 1            |                    |                            |                             |
| 000100    | 37  | GH     |                    |                |                       |                         | PLAY/NEXT          |                            |                             |
| 111000    | 38  | HA     |                    |                |                       |                         |                    |                            |                             |
| 011000    | 39  | HB     | HIGH BLEND         |                |                       | HIGH BLEND              |                    |                            |                             |
| 101000    | 3A  | HC     | MUTING             |                |                       | MUTING                  |                    |                            |                             |
| 001000    | 3B  | HD     | REC CAL Key        |                |                       | D SPEAKERS A            |                    |                            |                             |
| 110000    | 3C  | HE     | STORE Key          |                |                       | STORE                   |                    |                            |                             |
| 010000    | 3D  | HF     | MONO Key           |                |                       | MONO                    |                    |                            |                             |
| 100000    | 3E  | HG     | ST ONLY Key        |                |                       | D SPEAKERS B            |                    |                            |                             |
| 000000    | 3F  | HH     | ANTENNA            |                |                       | TEST MODE               |                    |                            |                             |

2.2.3 Aufbau des IR-Code

IR-Code:

Impulszug-Diagramm

Der serielle Code besteht aus 4 "Adress-Bits" und 6 "Daten-Bits". Dazu kommen noch ein Startpuls und ein Stopp-Puls sowie ein Vorbereitungspuls.

Als Beispiel das "Wort" 1000110010 (Balance L)

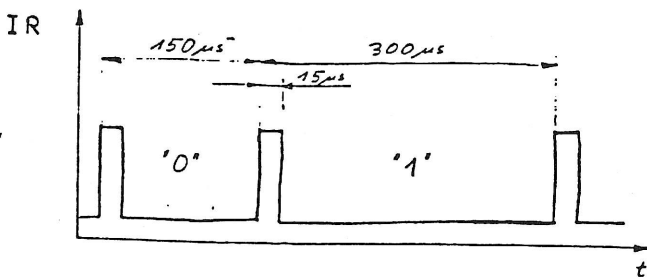


Fig. 2.4

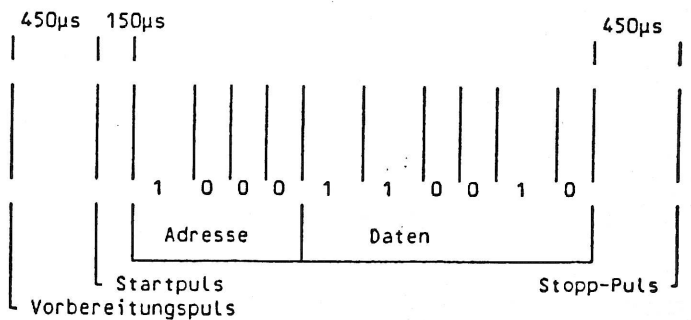


Fig. 2.5



