

TECHNICAL INFORMATION

56/77E

Replace TI 47/74 and TI 47/66

OUTPUT SIGNALS AND REMOTE CONTROL FACILITIES OF A80  
CHANNEL AMPLIFIERS MK I AND MK II (VU VERSION)

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Output signals on A 80 MK I channel amplifier

The basic board 1.080.880 is wired ex works according to the accompanying diagram 1. The switch board at the back of the base board is thus operative and the channel amplifier is ready to function with the STUDER remote control 1.228.100 or 101. This also corresponds to the diagram of the base board contained in the Manuals.

Irrespective of whether a remote control system is connected to the channel or not, the mode switch retains the functions shown in Table I.

Table 1: Output signals of A 80 MK I

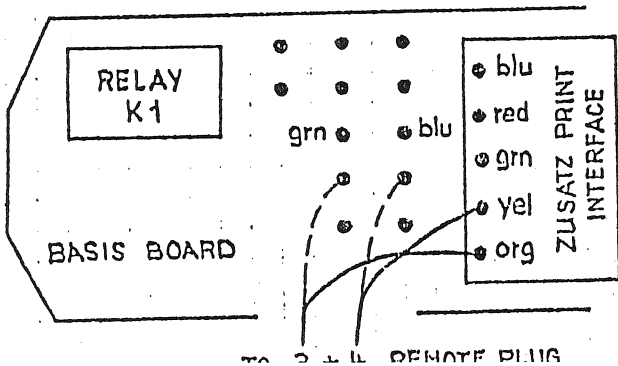
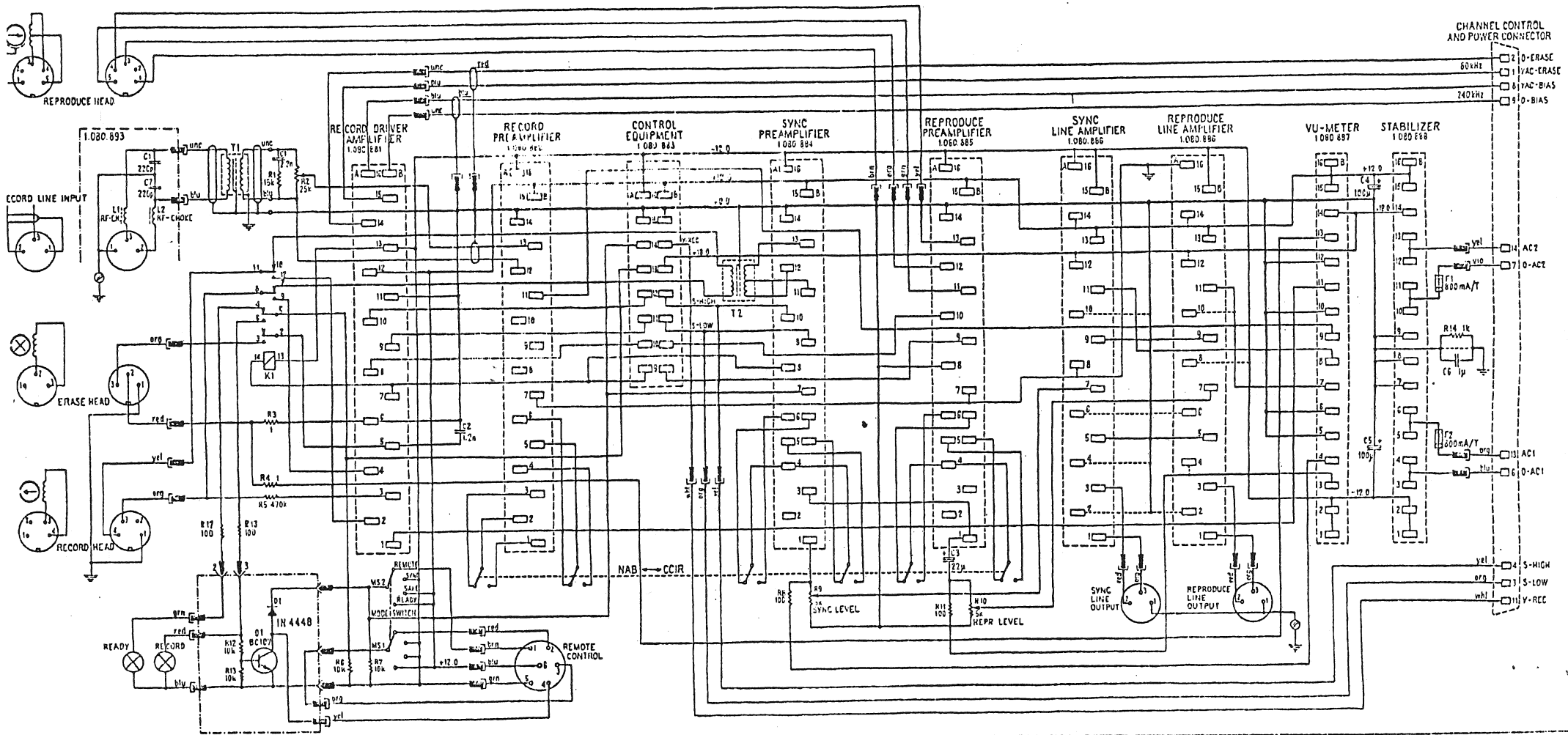
Mode switch at	SYNC output	REPROD. output	Record lamp	Ready lamp
SYNC	SYNC	SYNC		
SAFE	SYNC	REPROD		
READY	SYNC	REPROD		X
READY/REC	---	REPROD	X	

STUDER Remote Control Unit 1.228.100/101 in connection with A 80 MK I

STUDER REMOTE CONTROL UNIT					Amplifier outputs	
Push Button 1			Push Button 2		Sync. Output	Repro. Output
Rec	Ready	Safe	Sync.	Repro.		
		▼		▼	Synch	Repro
		▼	▼		Synch	Synch
	▼			▼	Synch	Repro
	▼		▼		Synch	Synch
▼				▼	0	Repro
▼			▼		0	0

STUDER Remote Control Unit 1.228.100/101 in connection with A 80 MK II (Switching Code 1.081.810)

STUDER REMOTE CONTROL UNIT					Amplifier outputs	
Push Button 1			Push Button 2		Sync. Output	Repro. Output
Rec	Ready	Safe	Sync.	Repro.		
		▼		▼	Synch	Repro
		▼	▼		Synch	Synch
	▼			▼	Input	Repro
	▼		▼		Input	Input
▼				▼	Input	Repro
▼			▼		Input	Input



Wenn mit der STUDER Fernsteuerung 1.228.100 oder 101 gearbeitet wird, muss der gelbe und orange Draht auf den Zusatz-Print (Schalter-Print) gesteckt sein. Dies entspricht der Ausführung ab Werk.

If the STUDER remote control 1.228.100 or 101 is used, the yellow and orange wire should be connected to the interface (Switching Code). This corresponds to the version supplied from the factory.

SCHEME 1

CHANNEL BASIS PRINTED CIRCUIT GR 51 EL  
A 80 VU MK I  
1.080.880

Modification A

If a remote control system other than the STUDER remote control system type 1.228.100 or 1.228.101 is connected to the A 80 MK I, the channel basic board 1.080.880 must be modified as follows:

- 1) Remove all amplifier modules from the A 80 by detaching the head cable and power cable and undoing the two screws behind each amplifier module.
- 2) Take off top and bottom covers so that the basic board can be modified from the rear.
- 3) Disconnect the orange and yellow wires on the small decoder print (switch board) and connect to the pins of the basic board as shown in diagram 2. The decoder print is then inoperative. By changing over the two cables, the record and ready lamps of the remote control unit are connected in parallel to the internal lamps (diagram 2).
- 4) Replace the covers and insert the amplifier modules as described in para. 1.3.1 and 1.3.2 in Manual A80.

## SIMPLE REMOTE AMPLIFIER CONTROL FOR A 80 MK I AND MK II

This arrangement is recommended if remote channel control is made by the user himself.

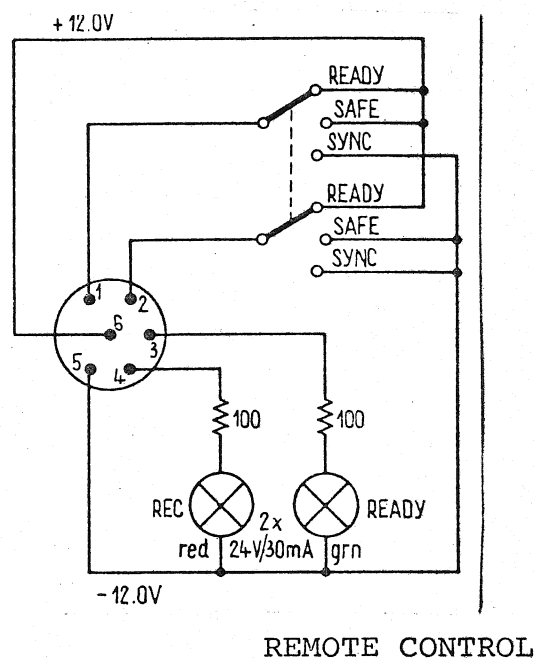
For A 80 MK I, Table 1 applies also to this kind of remote control.

For A 80 MK II, Tables 4, 5, 6 and 7 apply also to this kind of remote control.

CHASSIS RECEPTACLE  
TUCHEL No. 54.02.0256

CABLE RECEPTACLE  
TUCHEL No. 54.02.0250

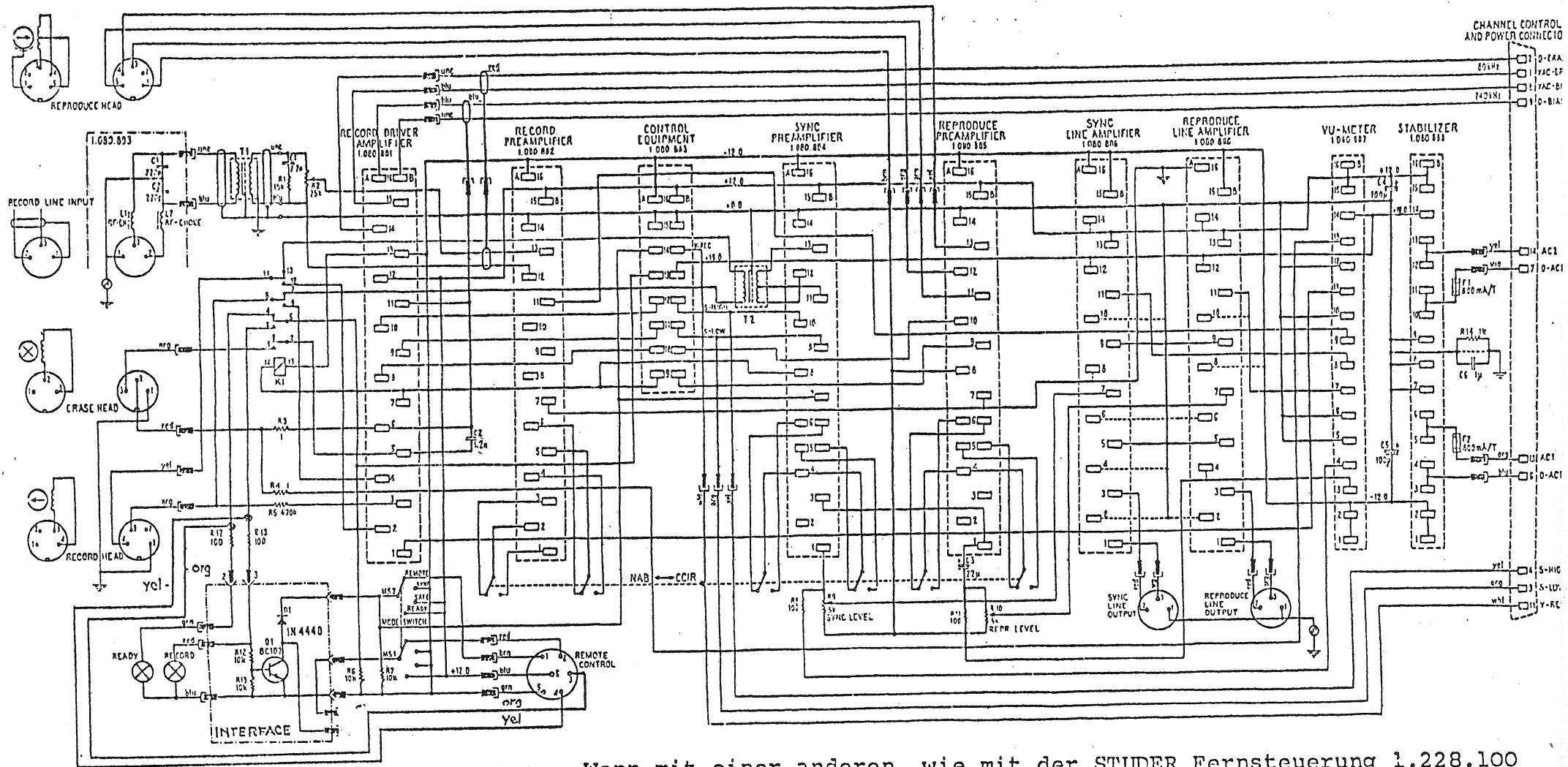
DIAGRAM 3



REMOTE CONTROL

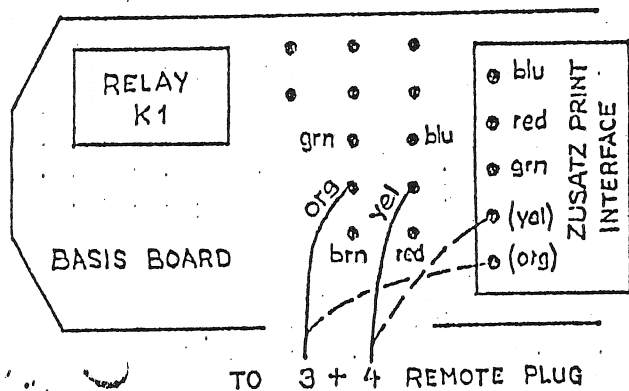
Modification A must be carried out on basic board 1.080.880 (to supply power to the lamps) before this remote control is connected to the A 80 MK I.

Before connecting this remote control to the A 80 MK II, check that the channel amplifiers of the A 80 are not equipped with switch board No. 1.081.810.

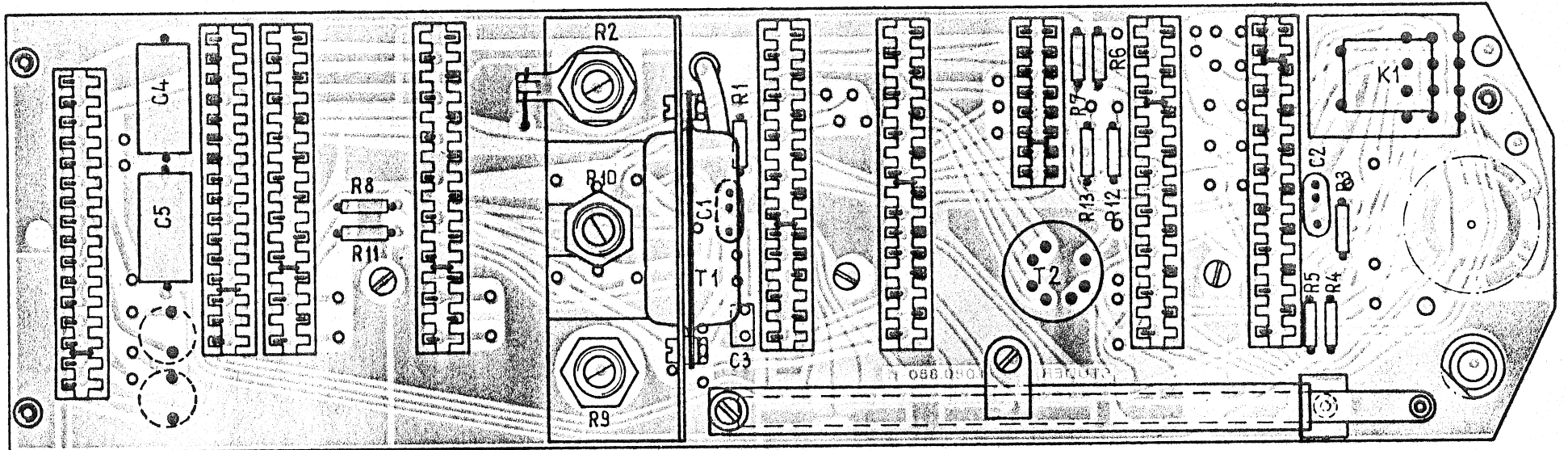


Wenn mit einer anderen, wie mit der STUDER Fernsteuerung 1.228.100 oder 101, gearbeitet wird, muss der gelbe und orange Draht wie auf der Skizze gezeigt umgesteckt werden.

If you are working with an other remote control as the STUDER type 1.228.100 or 101, you have to move the yellow and orange wire on the basis circuit as shown on the left side scetch.



SCHEME 2



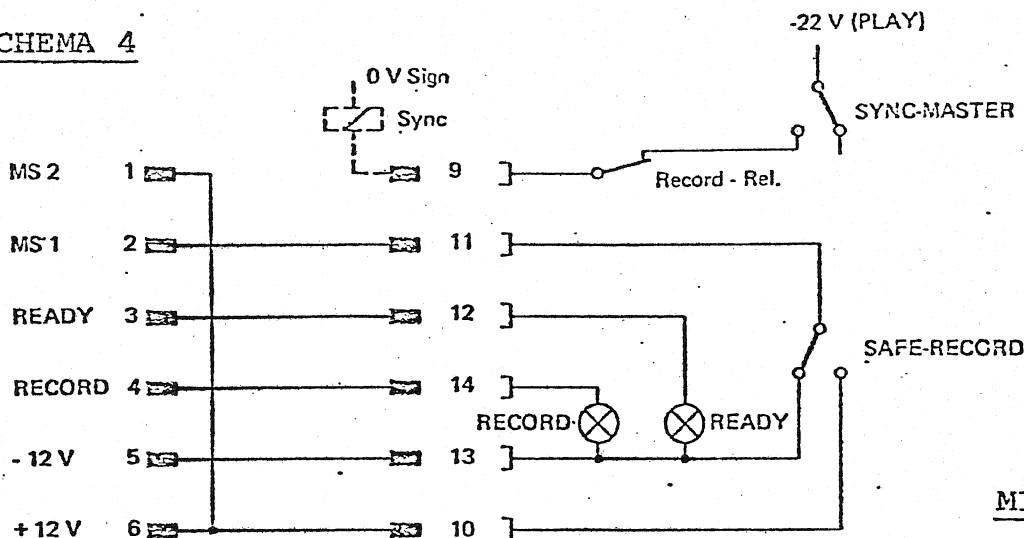
1.080.880 CHANNEL BASIS PRINTED CARD GR 51 EL 10 A 80 VU MK I



Remote control of A 80 VU amplifiers in STUDER mixing consoles

MS 2 is permanently at + 12 V, i.e. the sync-signal cannot appear at the REPRODUCE output.  
In the mixing console, only MS 1 is switched from SAFE to RECORD.

SCHEMA 4



MIXER TYP 189

KANAL-  
FERNSTEUER-  
STECKER A80

TUCHEL KUPPLUNG  
6 pol.  
54.02.0250

CHANNEL -  
REMOTE CONTROL  
RECEPTACLE

KABEL

AMPHENOL-  
MICRO RIBBON  
14 POL STECKER  
54.02.0150

CABLE

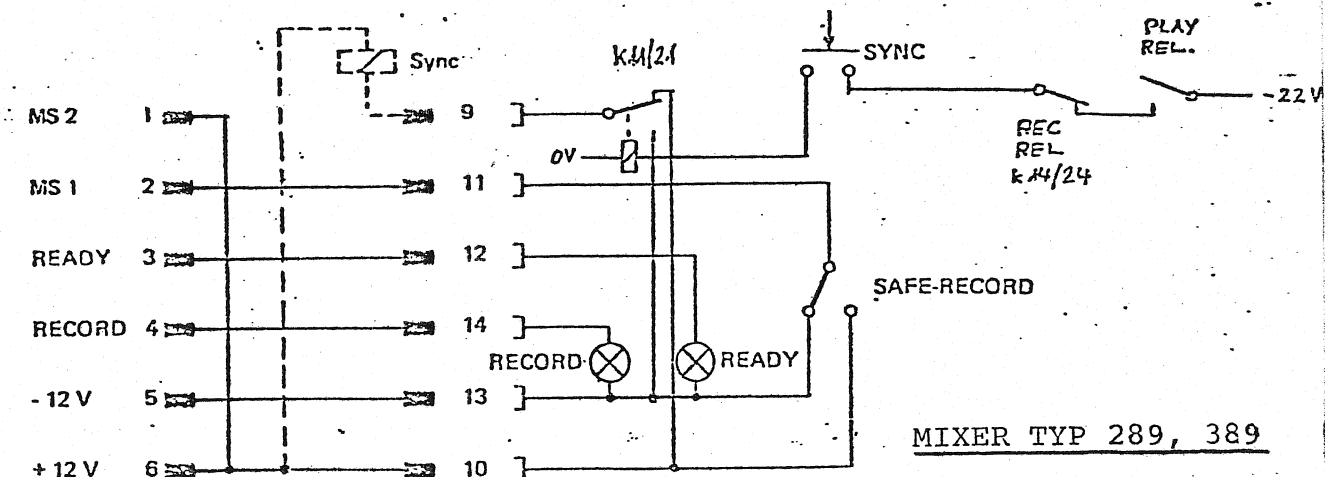
MODULATIONS-UND  
FERNSTEUER-  
STECKER PULT

AMPHENOL  
MICRO RIBBON  
14 POL KUPPLUNG  
54.02.0141

AUDIO - AND  
REMOTE CONTROL  
RECEPTACLE,  
CONSOLE

PULT

CONSOLE



MIXER TYP 289, 389

Modification A must be made to the basic board 1.080.880 before connecting this remote control to the A80 MK I.

Before connecting this remote control to the A 80 MK II, the VU amplifiers of the A 80 must be equipped with switch board type 1.081.812 (as supplied ex works).

A 80 VU AMPLIFIER REMOTE CONTROL IN STUDER MIXING CONSOLES

A 80 TAPE DECK	REM CONTR ON MIX.		MIXER REL. IN MIX. CONS.			MONITOR MIXER OUTPUT	A 80 VU CH. SIGNAL ON		CHANNEL IN MODE	A 80 MK I SIGNAL ON OUTP.		A 80 MK II CODE 1.081.812 SIGNAL ON OUTP.	
	SAFE / REC	MASTER / SYNC	K11	K12	K14		MS 1	MS 2		REPRO	SYNCH	REPRO	SYNCH
OFF	SAFE	MASTER	0	0	0	MASTER	-12 V	+12 V	READY	--	--	--	--
OFF	SAFE	SYNC	0	0	0	MASTER	-12 V	+12 V	READY	--	--	--	--
OFF	REC	MASTER	0	0	0	MASTER	+12 V	+12 V	REC	--	--	--	--
OFF	REC	SYNC	0	0	0	MASTER	+12 V	+12 V	REC	--	--	--	--
STOP	SAFE	MASTER	0	0	0	MASTER	-12 V	+12 V	READY	--	--	--	--
STOP	SAFE	SYNC	0	0	0	MASTER	-12 V	+12 V	READY	--	--	--	--
STOP	REC	MASTER	0	0	0	MASTER	+12 V	+12 V	REC	--	--	--	--
STOP	REC	SYNC	0	0	0	MASTER	+12 V	+12 V	REC	--	--	--	--
PLAY	SAFE	MASTER	0	1	0	--	-12 V	+12 V	READY	REPRO	SYNCH	REPRO	SYNCH
PLAY	SAFE	SYNC	1	0	0	SYNCH	-12 V	+12 V	READY	REPRO	SYNCH	REPRO	SYNCH
PLAY	REC	MASTER	0	0	0	MASTER	+12 V	+12 V	REC	REPRO	SYNCH	REPRO	SYNCH
PLAY	REC	SYNC	1	0	0	SYNCH	+12 V	+12 V	REC	REPRO	SYNCH	REPRO	SYNCH
RECORD	SAFE	MASTER	0	1	0	--	-12 V	+12 V	READY	REPRO	SYNCH	REPRO	SYNCH
RECORD	SAFE	SYNC	1	0	0	SYNCH	-12 V	+12 V	READY	REPRO	SYNCH	REPRO	SYNCH
RECORD	REC	MASTER	0	0	1	MASTER	+12 V	+12 V	REC	REPRO	--	REPRO	INPUT
RECORD	REC	SYNC	0	0	1	MASTER	+12 V	+12 V	REC	REPRO	--	REPRO	INPUT

OUTPUT SIGNALS AT A80/VU MK II AMPLIFIER

The MK II amplifier is more flexible than its predecessor as regards its remote-control facilities and the choice of different output signals to the two outputs REPRODUCE and SYNC. The aim of the improvement is to meet customer' needs as simply as possible.

With this in view, behind the control board 1.080.803 there is a switch board which, like the former, is plugged to the basic board of the amplifier.

In order to decide which switch board to use, answers must be obtained to the following questions:

- Is the STUDER remote-control unit being used of type 1.228.100 or 1.228.100?
- Is a remote-control facility used in the STUDER mixing console?
- Is a "home-made" remote control system based on the accompanying proposed layout diagram being used?
- What kind of signal output configuration is required by the user?

Unless requested otherwise, the amplifier is equipped with switch board 1.081.812.

Information on the switch boards obtainable to date are to be found in the accompanying diagrams and tables.

Modified types (suppression of switching clicks) have the number 1.081...., while earlier types are denoted 1.080....

Regensdorf, 12.7.1978 Pj/js

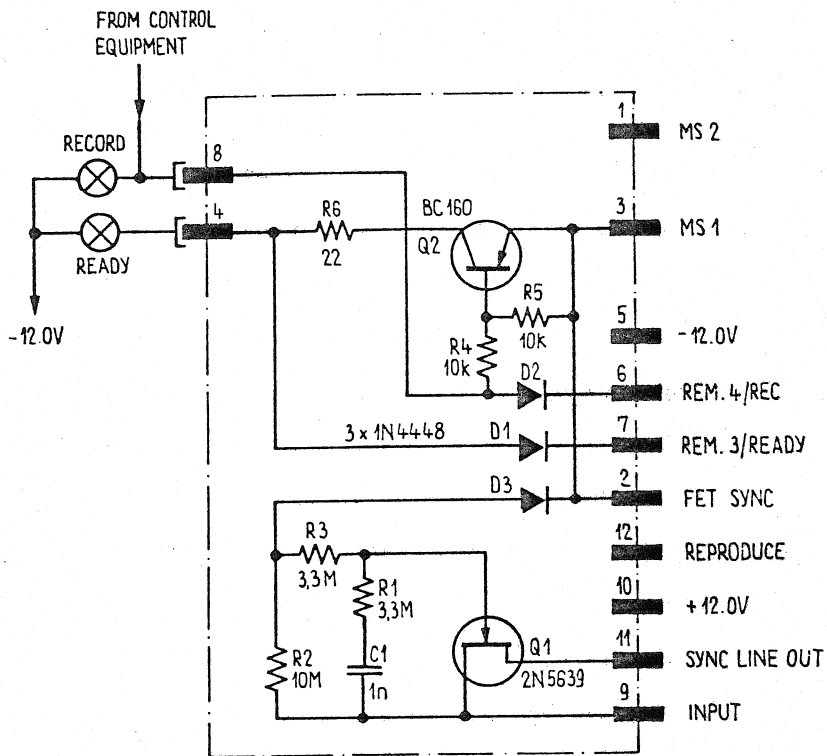
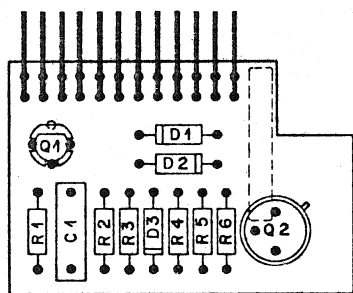
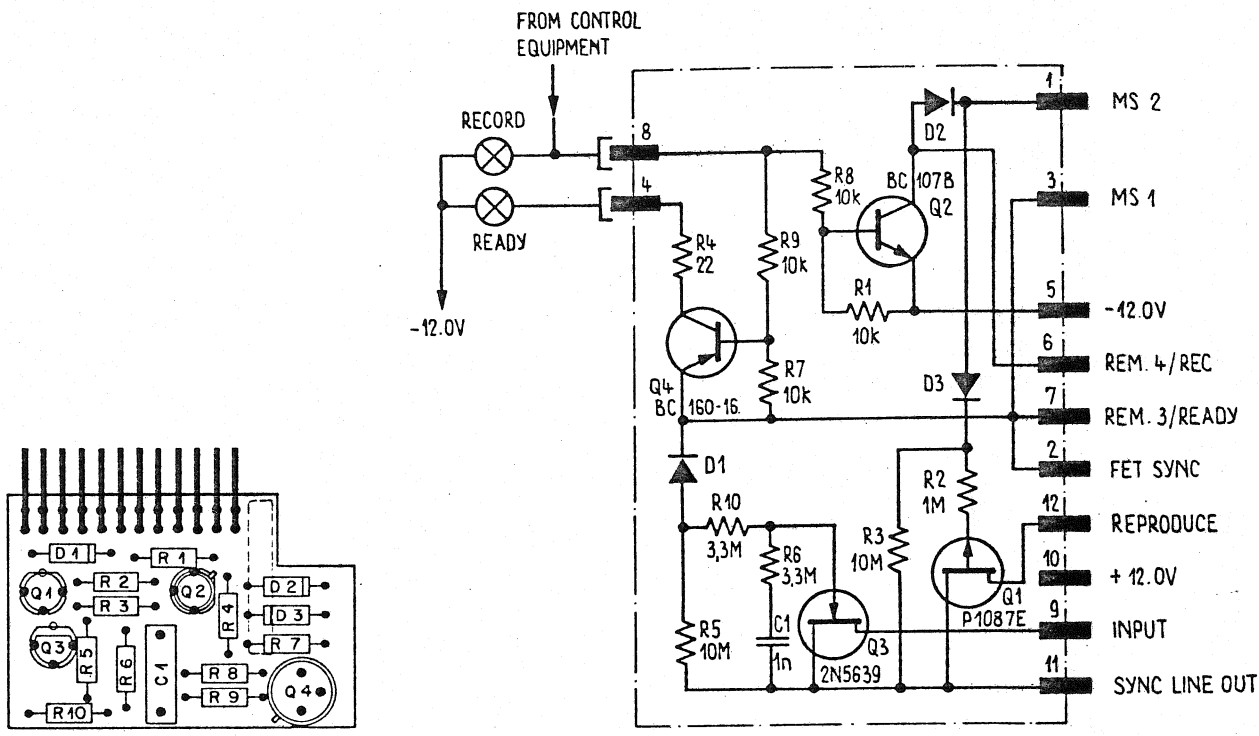


TABLE 4

SWITCH POSITION	REPRO OUTPUT	SYNC OUTPUT	READY LIGHT	RECORD LIGHT
SYNC	SYNC	SYNC	-	-
SAFE	REPRO	SYNC	-	-
READY	REPRO	INPUT	X	-
READY/REC	REPRO	INPUT	-	X

Not to be used in connection with STUDER REMOTE CONTROL

STUDER	1.081.809
SWITCHING CODE	
A80/VU MK II	ED 1 4.77



FUNCTION ON REMOTE CONTROL UNIT		AMPLIFIER OUTPUTS	
		SYNC OUTPUT	REPRODUCE OUTPUT
SAFE	REPRO	SYNC	REPRO
SAFE	SYNC	SYNC	SYNC
READY	REPRO	INPUT	REPRO
READY	SYNC	INPUT	INPUT
RECORD	REPRO	INPUT	REPRO
RECORD	SYNC	INPUT	INPUT

Use STUDER REMOTE CONTROL 1.228.100 and 1.228.101 only in connection with circuit 1.081.810

TABLE 5

SWITCH POSITION	REPRO OUTPUT	SYNC OUTPUT	READY LIGHT	RECORD LIGHT
SYNC	SYNC	SYNC	-	-
SAFE	REPRO	SYNC	-	-
READY	REPRO	INPUT	X	-
READY/REC	REPRO	INPUT	-	X

This truth table is valid if you use 1.081.810 switching code P.C. in connection with STUDER remote control 1.228.100 (8 channel) and no 1.228.101 (16 channels)

<b>STUDER</b>	<b>1.081.810</b>
<b>SWITCHING CODE</b>	
<b>A80/VU MK II</b>	<b>ED 1 4.77</b>

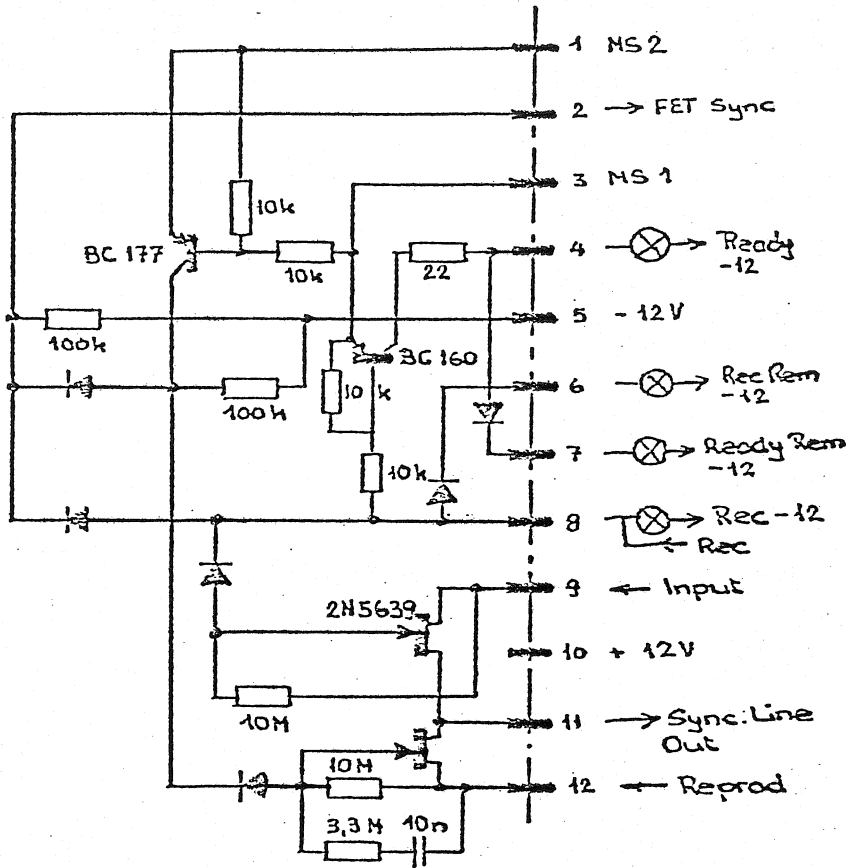
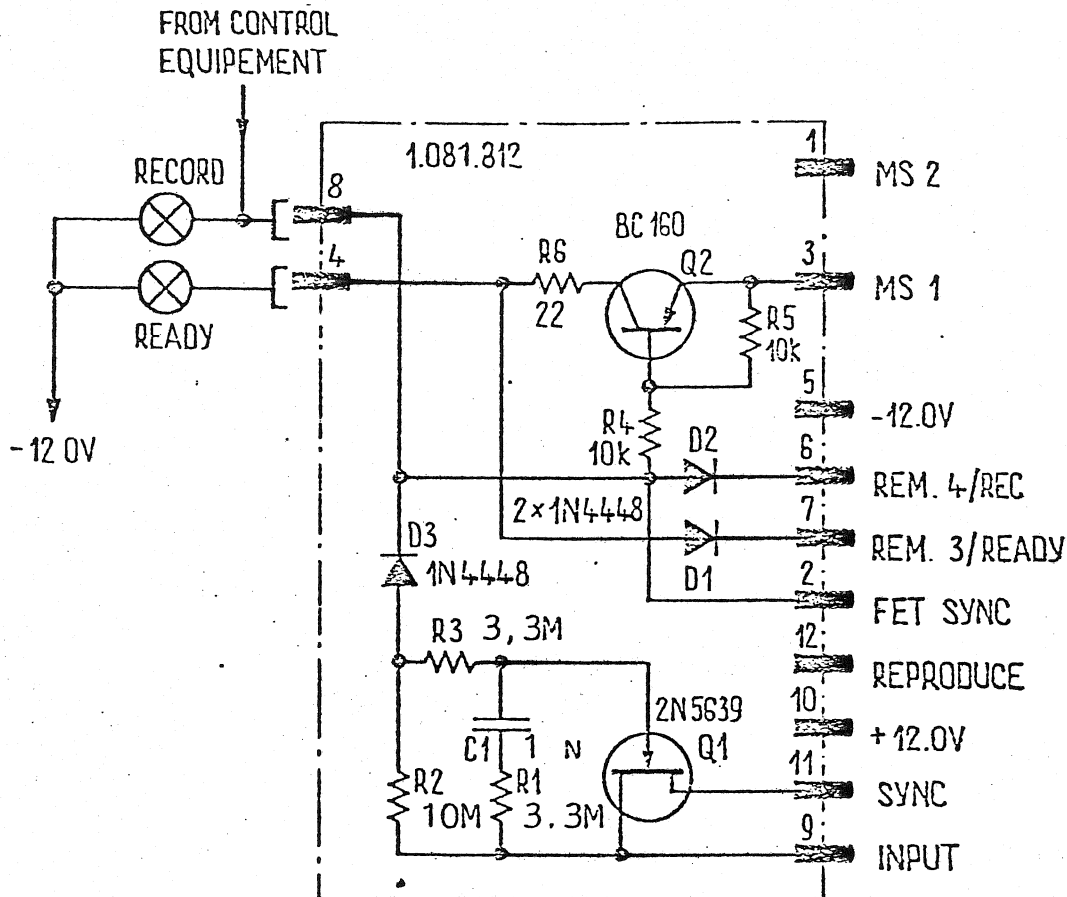


TABLE 6 SWITCHING CODE 1.081.811

SWITCH POSITION	REPROD. OUTPUT	SYNC OUTPUT	READY LIGHT	RECORD LIGHT
SYNC	SYNC	SYNC	- - -	- - -
SAFE	REPRO	REPRO	- - -	- - -
READY	REPRO	SYNC	X	- - -
READY/REC	REPRO	INPUT	- - -	X



SWITCH POSITION	REPRO OUTPUT	SYNC OUTPUT	READY LIGHT	RECORD LIGHT
SYNC	SYNC	SYNC	- - -	- - -
SAFE	REPRO	SYNC	- - -	- - -
READY	REPRO	SYNC	X	- - -
READY/REC	REPRO	INPUT	- - -	X

NOT TO BE USED WITH STUDER REMOTE CONTROL 1.228.100 / 1.228.101  
 BUT USE IN CONNECTION WITH STUDER AUDIO MIXING CONSOLE

TABLE 8

Note:

Replace resistors R7/R8 with a jumper wire.  
 This modification is required to maintain an equal output level in both Ready and Safe positions. (A)