

Modification of STUDER A 80/VU multitrack machines from
7,5/15 ips to speeds 15/30 ips

The parts required for this modification can be ordered according to enclosed part lists which is distinguishing between the MKI and MKII series.

Capstan motor:

The existing four pole motor is replaced by a two pole type.

Phase shift capacitors:

Should be changed according to page 5 enclosed.

Capstan servo print:

1.080.376 servo \pm 3% speed variation 7,5/15 ips.
1.080.374 servo \pm 7 half tones speed variation 7,5/15 ips.
1.080.372 servo \pm 7 half tones speed variation 15/30 ips.

Screen for capstan motor:

Is fitted between motor flange and tape transport to avoid magnetic fields influencing the heads.

Spooling motor card:

Print 1.080.385 does not allow paper basket operation.

Timing indicator:

Existing electronic indicators can be modified according to page 6 enclosed, mechanical clocks must be replaced.

Amplifier electronics MKI:

Record, Reproduce and Sync preamplifier cards must be replaced. (On special request a component kit to modify cards can be made available).

Amplifier electronics MKII:

Equalizer prints for preamplifier cards must be replaced.

Play solenoid:

Needs rewiring according to page 7 (Front deckplate must be taken off).

Modification Kits for changing speed from 7,5/15 ips to 15/30 ips on STUDER A 80/VU machines

A80/VU **MK I**

<u>parts required for modification to 15/30 ips</u>		<u>16-track</u>	<u>8-track</u>	<u>4-track</u>	<u>2-track</u>	<u>1-track</u>
		2"	2"	1" 1/2"	1/4"	1/4"
Capstan motor 1/2, 1/4 inch	1.021.177			1	1	1
Capstan motor 1 inch	1.021.178		1	1		
Capstan motor 2 inch	1.021.179	1				
Capaciter 4,3 uF	59.99.0452	1 ⁴⁾	1 ⁴⁾	1 ⁴⁾ 1 ⁴⁾	1 ⁴⁾	1 ⁴⁾
Capaciter 10 uF	59.14.1100	1 ⁴⁾	1 ⁴⁾	1 ⁴⁾ 1 ⁴⁾	1 ⁴⁾	1 ⁴⁾
Capstan print variable	1.080.372	1 ¹⁾	1 ¹⁾	1 ¹⁾ 1 ¹⁾	1 ¹⁾	1 ¹⁾
Screen for capstan motor	1.080.105-53	1	1	1 1	1	1
Spooling motor card 7,5-30"	1.080.384-12	1	1	1		
Spooling motor card 7,5-30"	1.080.385			1	1	1
Timing indicator mechanic.	1.080.213	1 ³⁾	1 ³⁾	1 ³⁾ 1 ³⁾	1 ²⁾	1 ²⁾
Record preamplifier	1.080.896	16	8	4 4	2	1
Reproduce preamplifier	1.080.895	16	8	4 4	2	1
Sync preamplifier	1.080.894	16	8	4 4	2	1
Speed sign 15/30"	4.105.597	1	1	1 1	1	1
Technical Information	50a/75	1	1	1 1	1	1

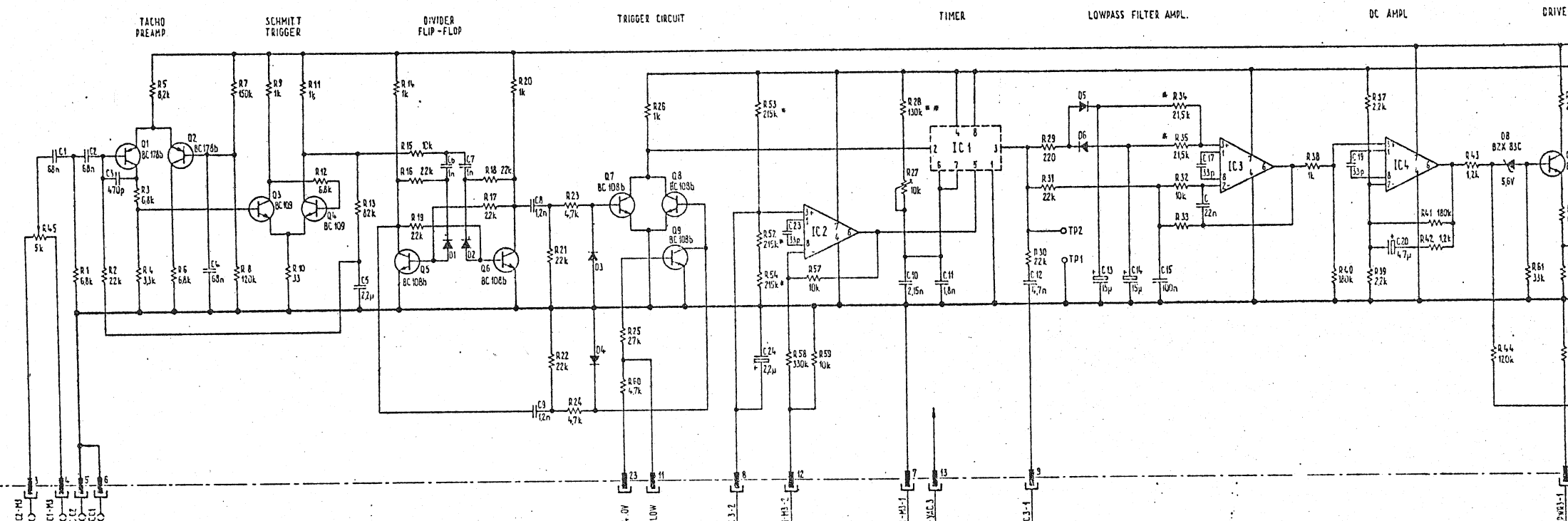
- 1) For large speed variation (+ 7 half tones) ask for potentiometer 1.080.080. Is 1.080.374 already provided, see conversion on page 4.
- 2) Should an electrical Timing indicator be desired type 1.228.216 must be ordered. A wiring kit 1.228.251 is needed should the serial number be lower than 383. Existing electronic indicator can be modified according to page 5.
- 3) Multitrack machines of later date are generally fitted with an electrical timing indicator which can be modified to higher speed. To Multitrack machines below serial number 383 a wiring kit 1.228.251 can be added in case a electrical timer is desired. Should S/N not be acceptable make sure that the fan blow is shielded with u-metal.
- 4) 60 Hz machines must be provided with capacitors according to page 5.

Modification Kits for changing speed from 7,5/15 ips to 15/30 ips on STUDER A 80/VU machines

A80/VU **MK II**

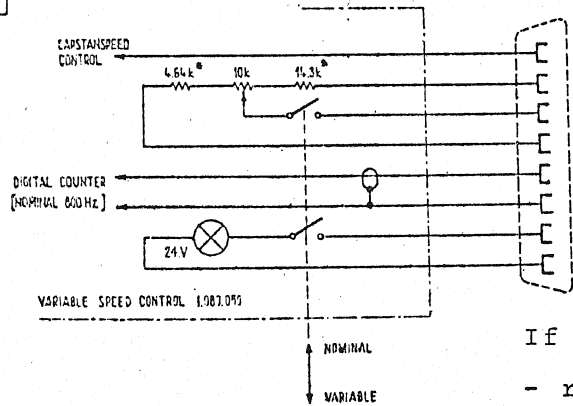
<u>parts required for modification to 15/30 ips</u>		<u>24-track</u>	<u>16-track</u>	<u>8-track</u>	<u>4-track</u>	<u>2-track</u>	<u>1-track</u>
		2"	2"	1"	1" 1/2"	1/4"	1/4"
Capstan motor 1/2, 1/4 inch	1.021.177				1	1	1
Capstan motor 1 inch	1.021.178			1	1		
Capstan motor 2 inch	1.021.179	1	1				
Capaciter 4,3 uF	59.99.0452	1 ⁴⁾	1 ⁴⁾	1 ⁴⁾	1 ⁴⁾ 1 ⁴⁾	1 ⁴⁾	1 ⁴⁾
Capaciter 10 uF	59.14.1100	1 ⁴⁾	1 ⁴⁾	1 ⁴⁾	1 ⁴⁾ 1 ⁴⁾	1 ⁴⁾	1 ⁴⁾
Capstan print	1.080.372	1 ¹⁾	1 ¹⁾	1 ¹⁾	1 ¹⁾ 1 ¹⁾	1 ¹⁾	1 ¹⁾
Screen for capstan motor	1.080.105.53	1	1	1	1 1	1	1
Spooling motor card 7,5-30"	1.080.384-12	1	1	1	1		
Spooling motor card 7,5-30"	1.080.385				1	1	1
Timing indicator mechanic.	1.080.213	1 ³⁾	1 ³⁾	1 ³⁾	1 ³⁾ 1 ³⁾	1 ²⁾	1 ²⁾
Reproduce Equalizer Print	1.080.875	24	16	8	4 4	2	1
Record Equalizer Print	1.080.873	24	16	8	4 4	2	1
Sync Equalizer Print	1.080.874	24	16	8	4 4	2	1
Speed sign	4.105.597	1	1	1	1 1	1	1
Technical information	50a/75	1	1	1	1 1	1	1

- 1) For large speed variation (+ 7 half tones) ask for potentiometer 1.080.080. Is 1.080.374 already provided, see conversion on page 4.
- 2) Should an electrical Timing indicator be desired type 1.228.216 must be ordered. A wiring kit 1.228.251 is needed should the serial number be lower than 383. Existing electronic indicator can be modified according to page 5.
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- 4) 60 Hz machines must be provided with capacitors according to page 5.



* R = MF ± 100 ppm
 ** R = MF ± 25 ppm
 IC1 = NE 555V
 IC2 = μA 74-8C
 IC3 = μA 74-8C
 IC4 = μA 74-8C

Capstan servo with variable speed.
 Control 7.5/15 ips 1.080.374

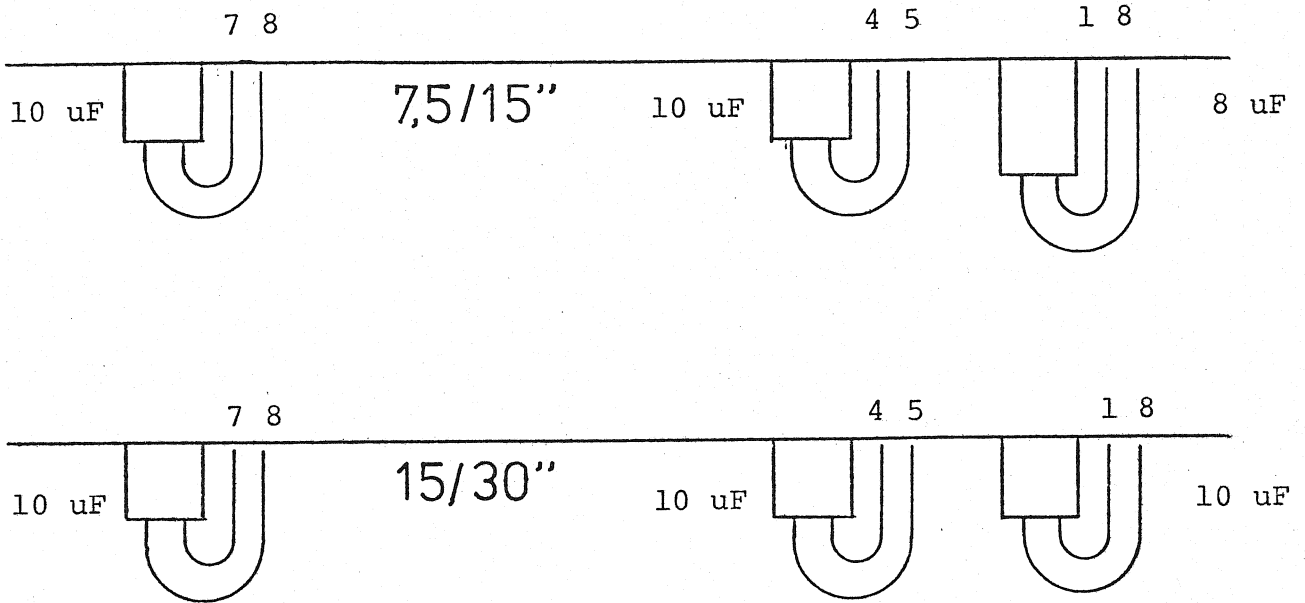


If mod. to 15/30 ips is desired following parts must be changed:

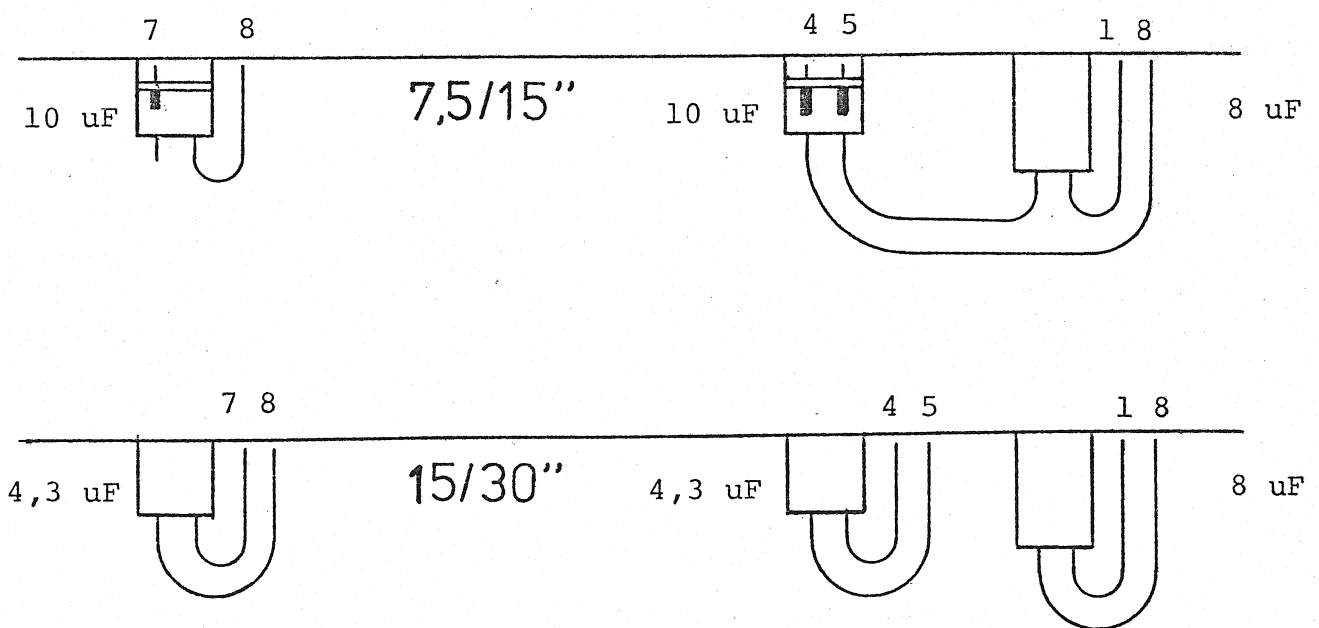
- resistor	r28	64,9 kohm	order number	57.99.0180
- potentiometer	r27	5 kohm	order number	58.01.3502
- card sign	1.080.372		order number	1.080.372 - 01

The Way the tape deck capacitors for the spooling motors and the capstan servo must be wired for different operating conditions.

50 Hz



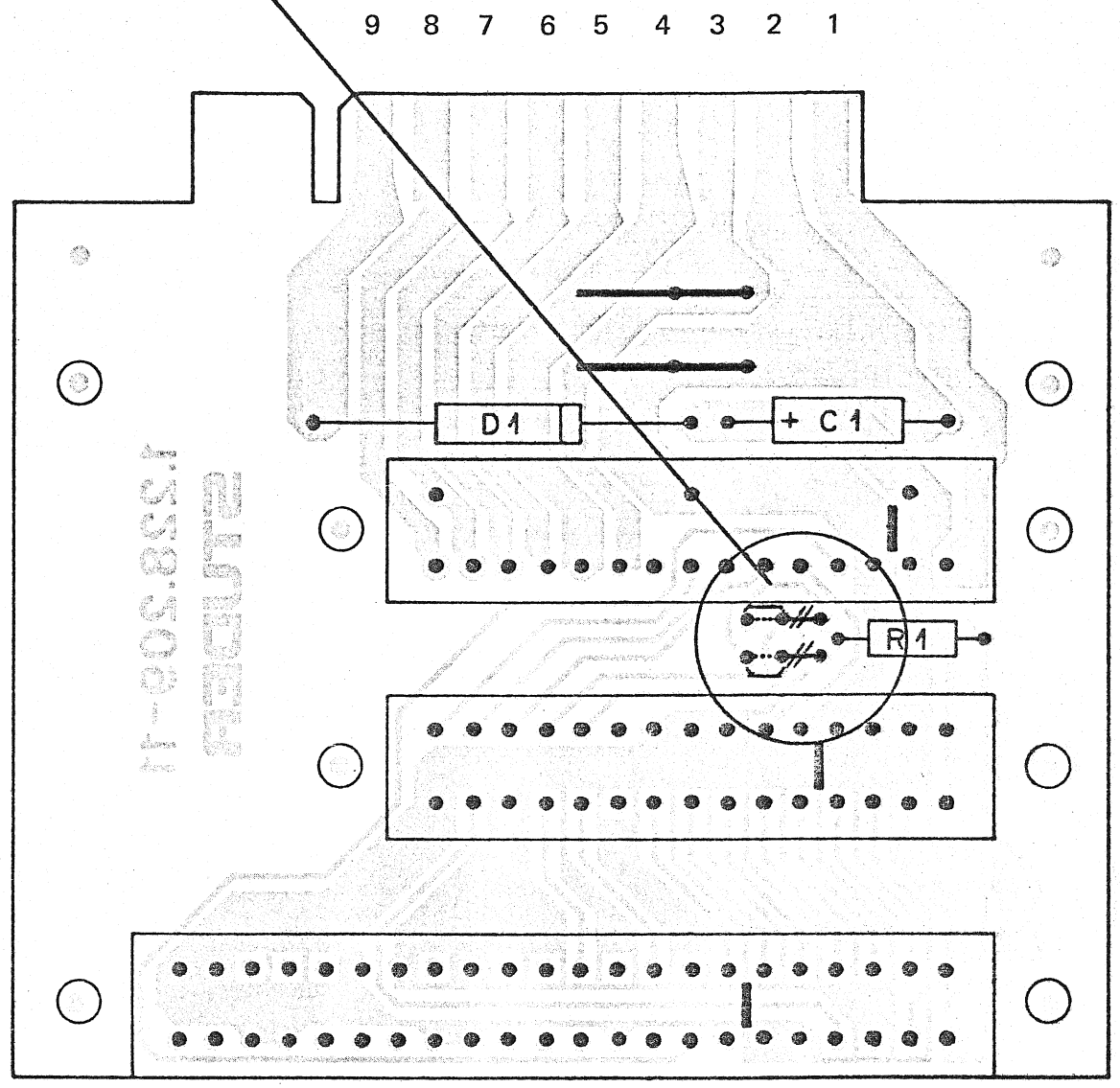
60 Hz



10	uF:	59.14.1100
8	uF:	59.14.3809
4,3	uF:	59.99.0452

Electronic-
Tape timer modification for speed 15/30 ips

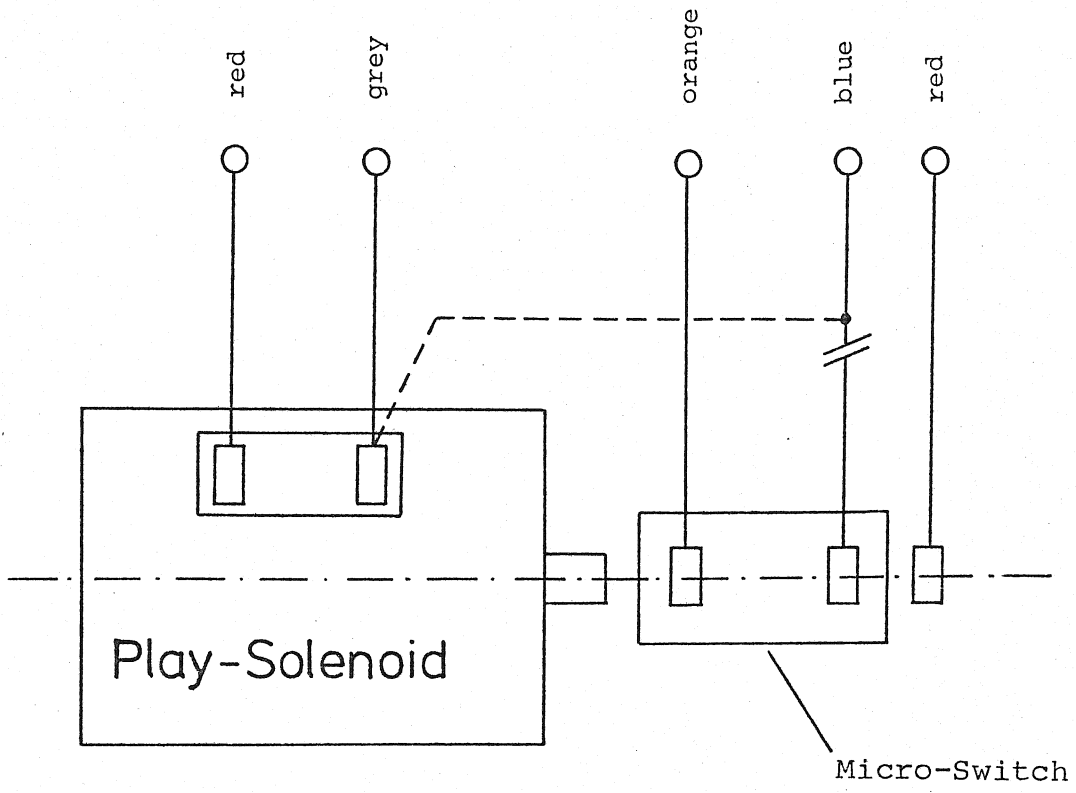
change wire bridges

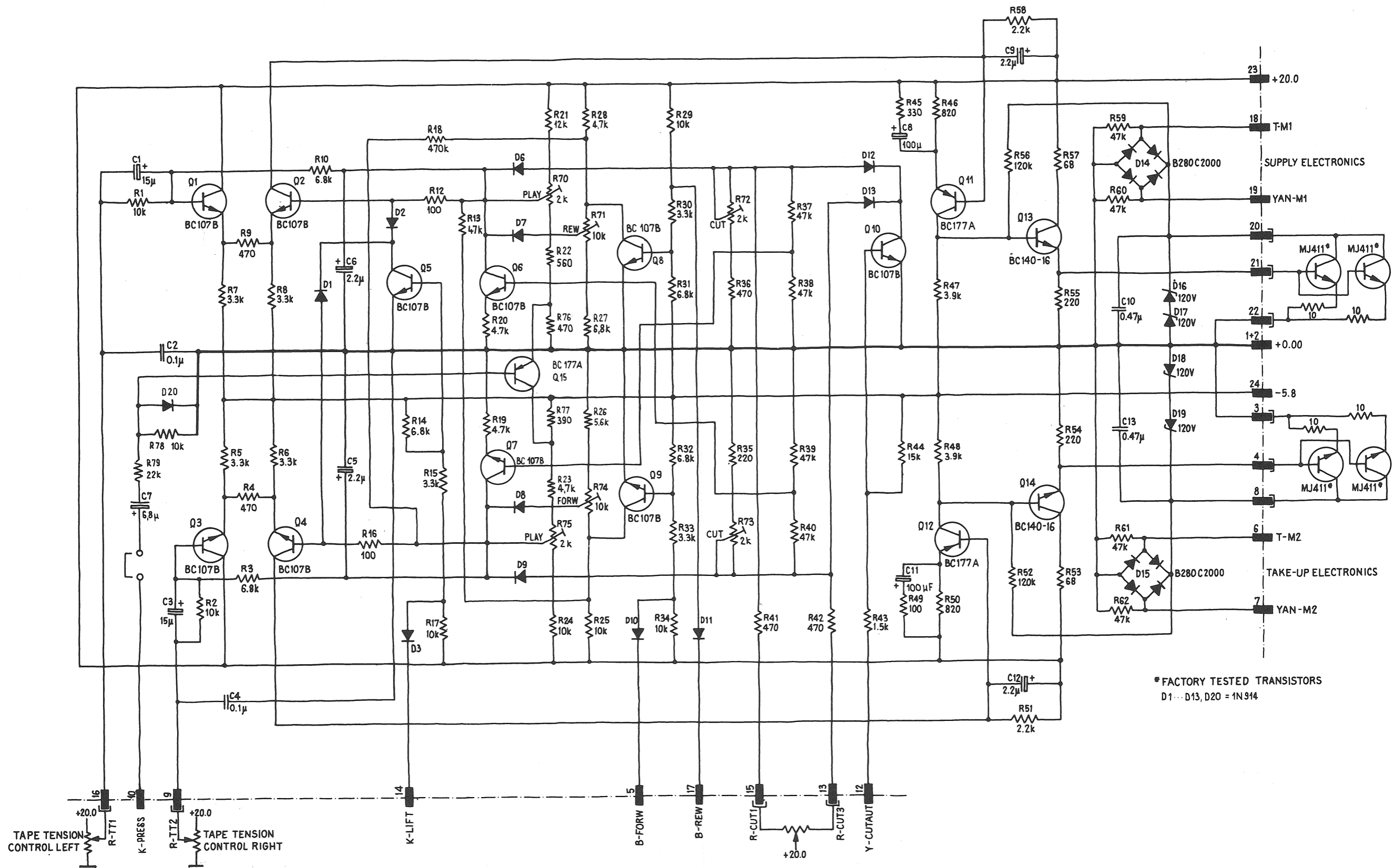


Counter Interconnector

1.228.209

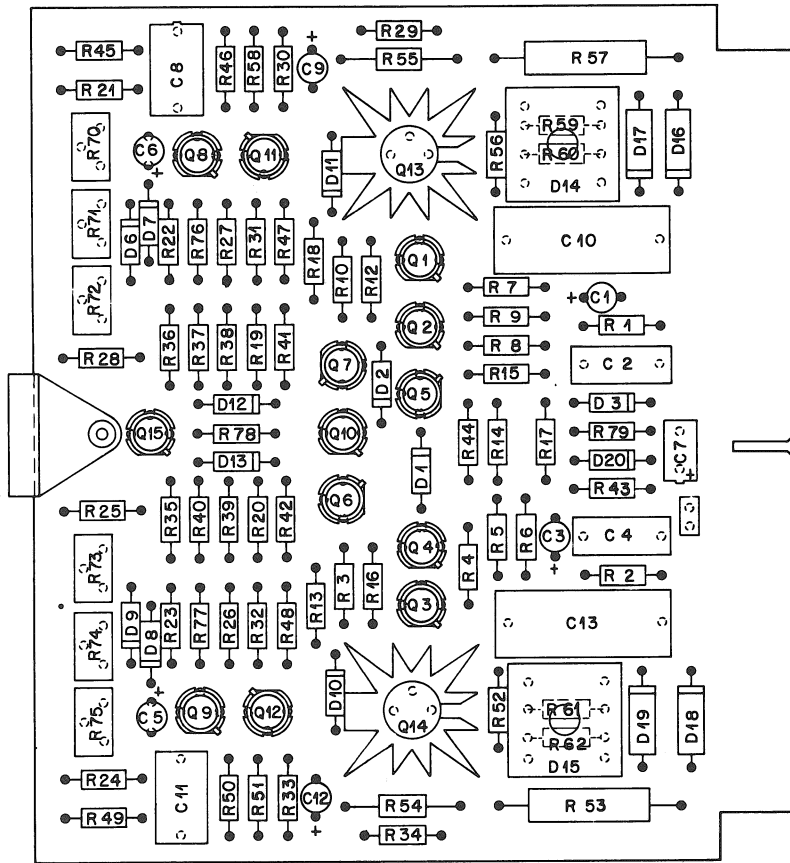
	FIRST	LAST	MISSING
C	1	1	-
D	1	1	-
R	1	1	-

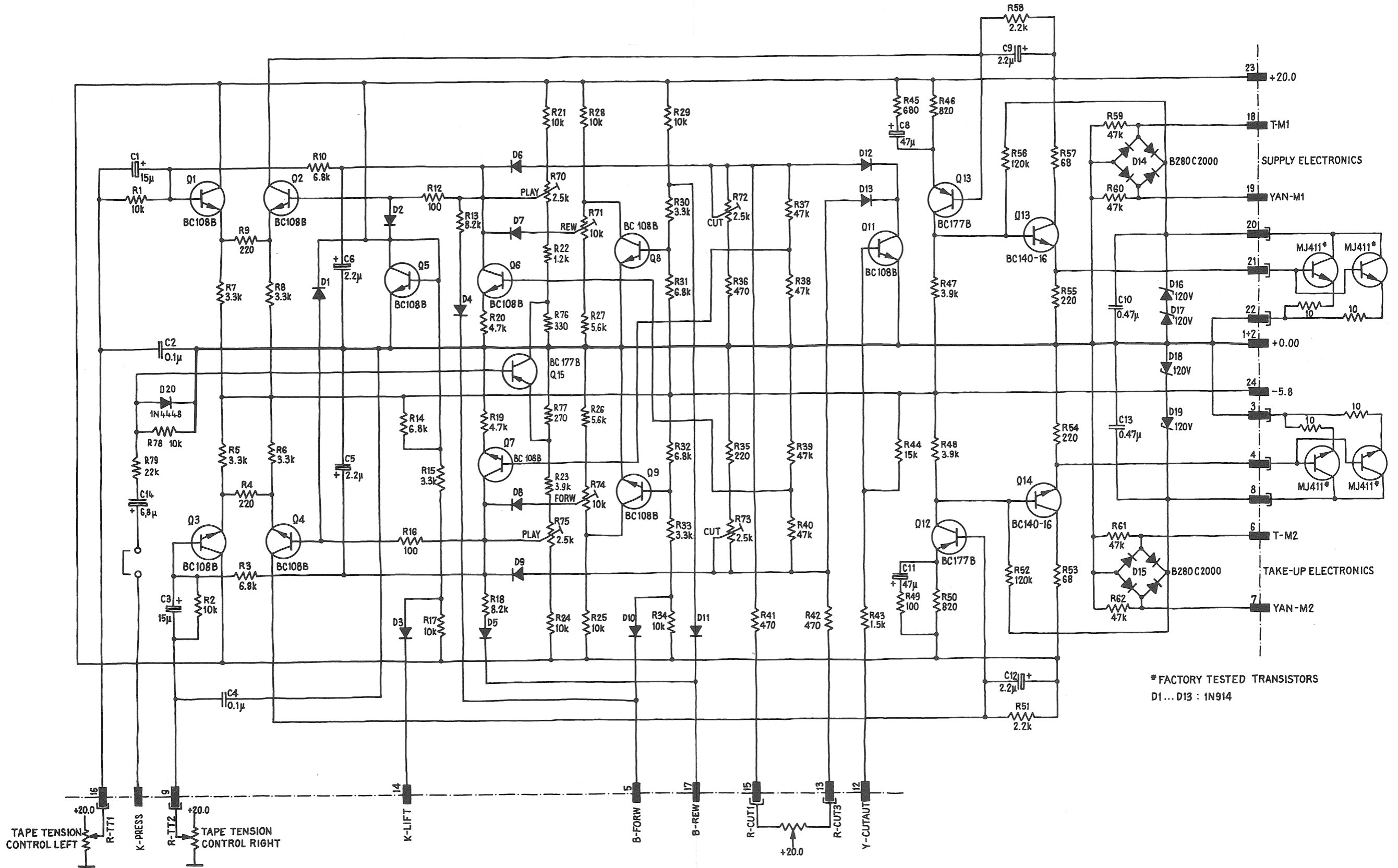




* FACTORY TESTED TRANSISTORS
D1...D13, D20 = 1N914

STUDER	1.080.385
SPOOLING MOTOR CONTROL	
7,5 ips.....30 ips	1/4" + 1/2"
A 80 R / A 80 VU MK II	ED 2 5.77

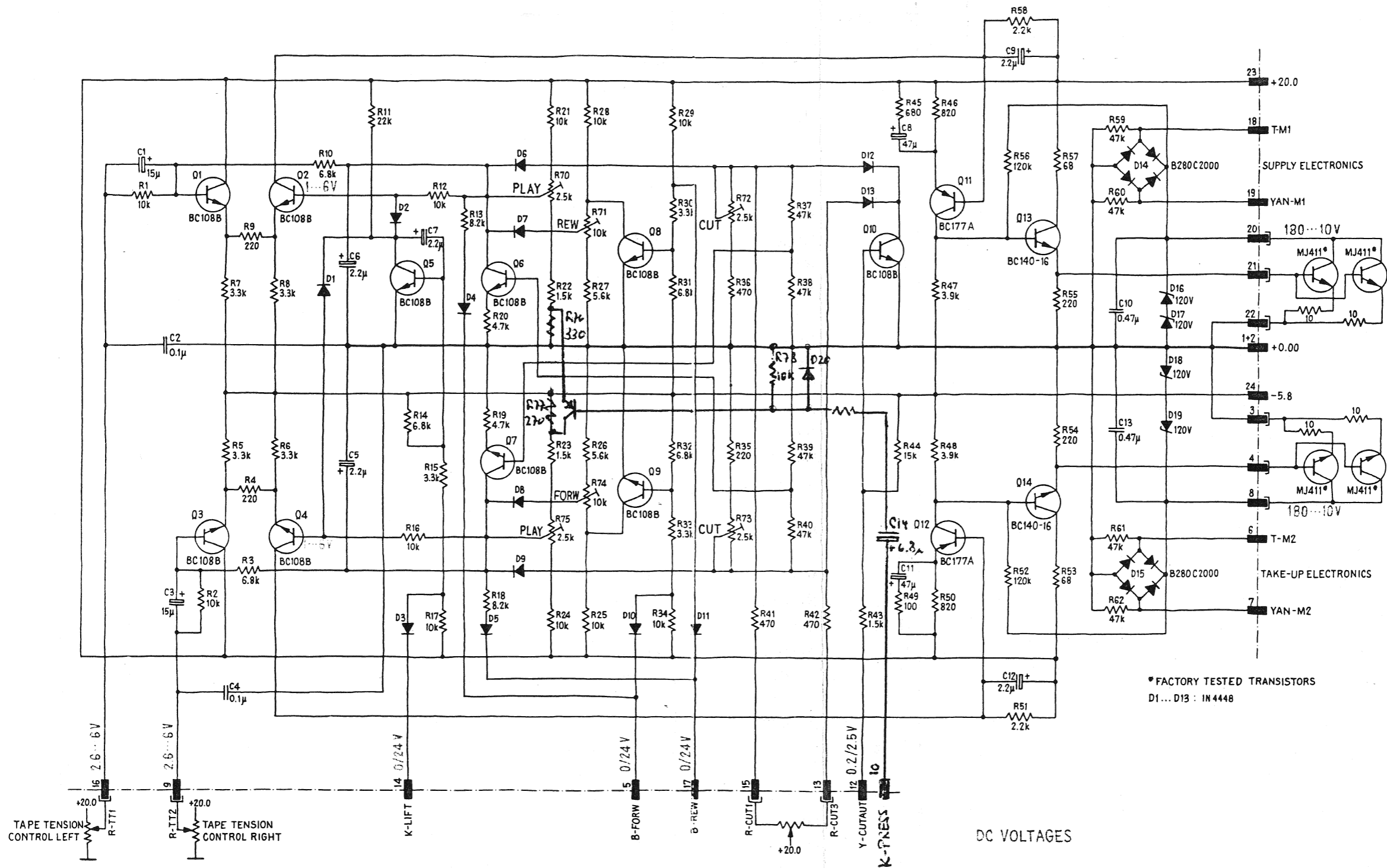




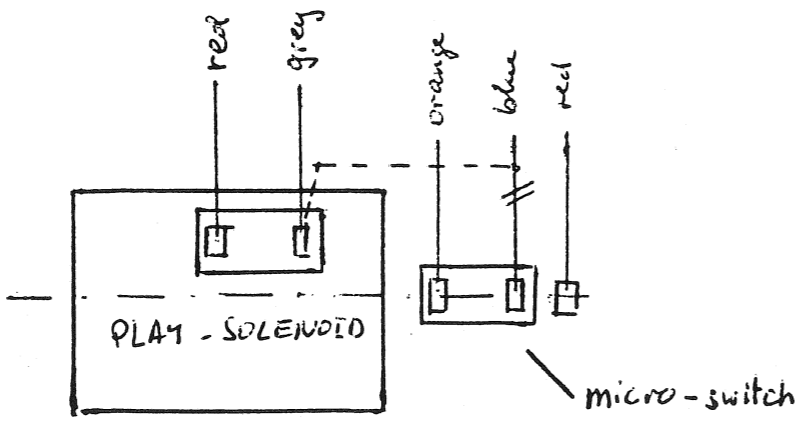
* FACTORY TESTED TRANSISTORS
 D1... D13 : 1N914

SPOOLING MOTOR CONTROL 1" + 2" VERSIONS 1.080.384

STUDER	1.080.384
SPOOLING MOTOR CONTROL 1" + 2"	
A80/VU MK I / MK II	ED 3 8.77



* FACTORY TESTED TRANSISTORS
D1...D13: IN4448



transfer blue, wire on micro switch of pinch roller solenoid (Y-ACCEL) to solenoid tag where grey wire is connected (K-PRESS).

