STUDER

PROFESSIONAL AUDIO EQUIPMENT

Service Information

B67 MODIFICATIONS

Service Information SI 58/81 E

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B67 MODIFICATIONS

Service Information SI 58/81 E

1.
B67 TAPE TRANSPORT CONTROL HEAVY OSCILLATION OF TAPE TENSION ARMS:

Depending on the position of the tape tension sensor arm, the voltage across C4 or C5 can be reversed, this may cause damage of the capacitors.

Note:

C4 and C5 only on 1.167.790.00, for 1.167.759.00 C3 and C4 has to be replaced.

This capacitor needs to be replaced by a special type which can stand a reversed voltage.

Required components:

2 Capacitors SAL-C 1 µF No. 59.26.9109

2.
MONITOR 1.081.900:

1) The power resistor R20/21 (22 Ohm) is mounted very closed to the front panel; if vibrations or schocks are applied to the panel, a short circuit between R20 and the panel (ground) can take place. To avoid this, the resistor must be provided with shrinking tubes.

2) To avoid switch-noise on the monitor loudspeaker following components have to be added:

   - 68 nF capacitor between pin 3 and 5
   - 68 nF capacitor between pin 3 and chassis

For details see enclosed drawing. (page 8)

Following components are needed:

- 2 x 68 nF No. 59.99.0205
- Soldering hook No. 29.26.1022

3.
CAPSTAN SPEED CONTROL BOARD 1.067.235.00
CAPSTAN MOTOR CONTROL BOARD 1.067.136.00

The capstan speed control board 1.067.235.00 and the capstan motor control board 1.067.136.00 are replaced by a new pc-boards.

IMPORTANT:

Each capstan speed control board has to be matched with his suitable capstan motor control board. See following table:

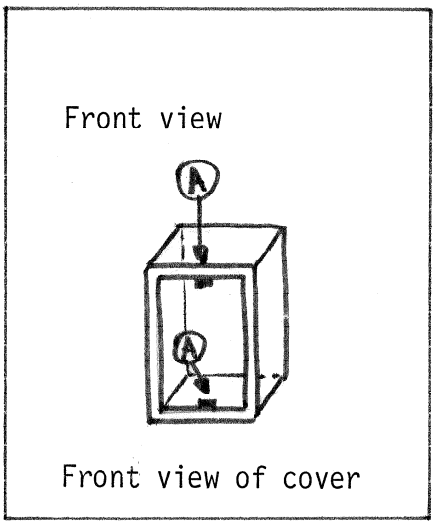
	Speed	Capstan speed control board	Capstan motor control board
OLD	3,75/7,5/15 ips	1.067.235.00	1.067.136.00
NEW	3,75/7,5/15 ips	1.167.770.00	1.167.775.00
NEW	7,5/15/30 ips	1.167.771.00	1.167.776.00

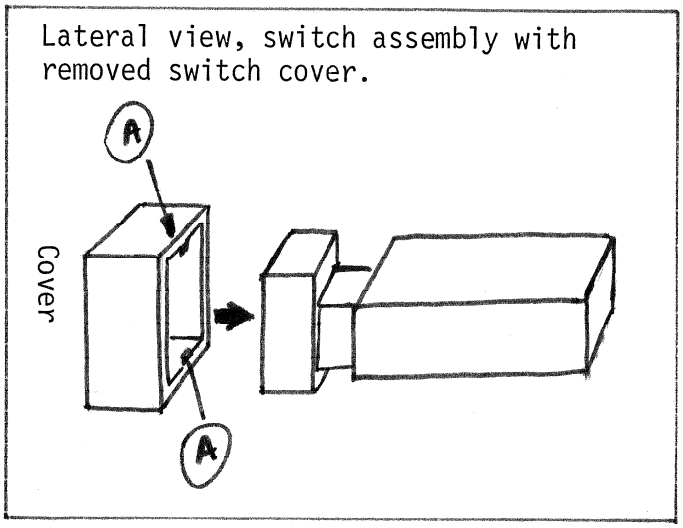
NOTE:

On the new capstan speed control board no more adjustments are required.

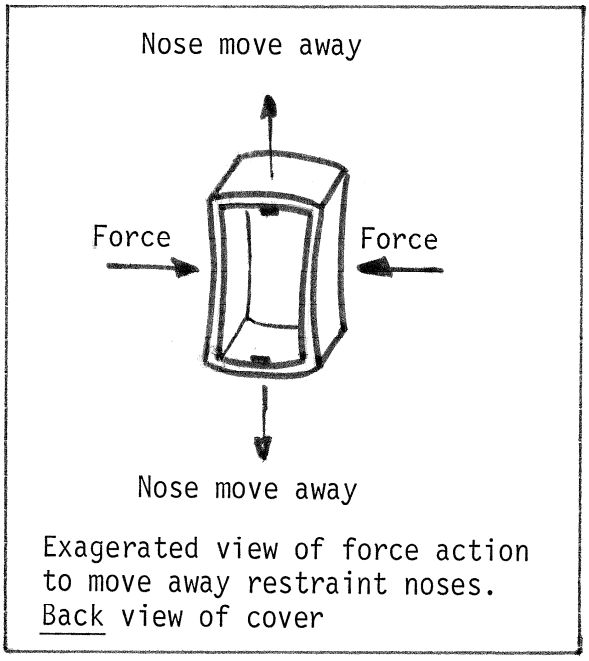
4. Difficult removing of push-button covers for changing blown lamps:

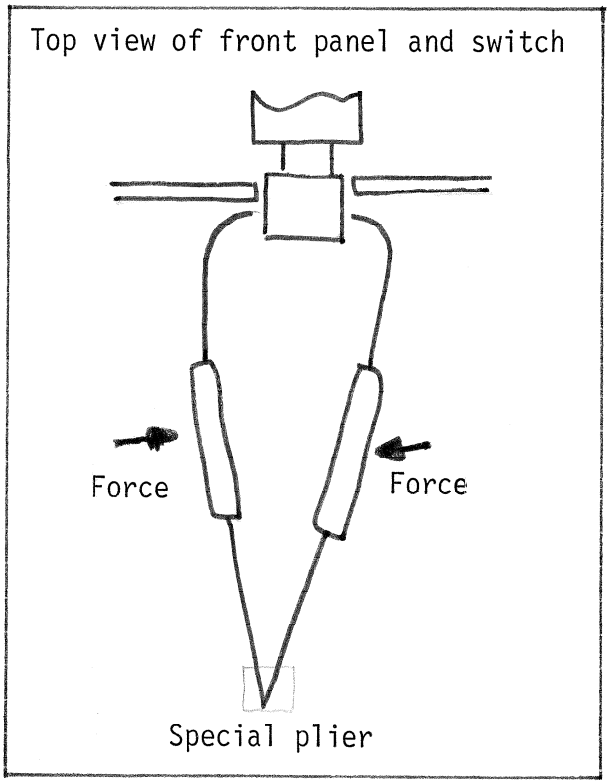
The push-button covers of tape transport control are hold to the switch by means of two restraint noses, (A) .





To remove these covers, a lateral force has to be applied on it. This lifts away the restraint noses that allows to slip away the cover.





The used instrument to apply this force, is a special insulation pliers, part No. 89.01.0253.

5.
REPRODUCE AMPLIFIER 1.167.710/715-81:

During changing the tape speed, IC3 can loose his stability for about 10 ms and generate a 300 Hz pulse pattern.

To this condition, C23 of 3,3 µ has been replaced by a normal 68 nF capacitor. See enclosed drawings! (page 9/10)

Required components:

1 x 59.99.0205 68 nF capacitor.

6.
BASIS BOARD B67 MK II:

A change of tape speed can generate an unpleasant crack in the audio path. To avoid this noise, a 68 nF capacitor has been added between each tape speed selection line and ground. The common point of the capacitors needs to be increased in diameter. (page 11)

Required components:

3 Capacitor 68 nF 59.99.0205.

7.
B67 TAPE LIFTER:

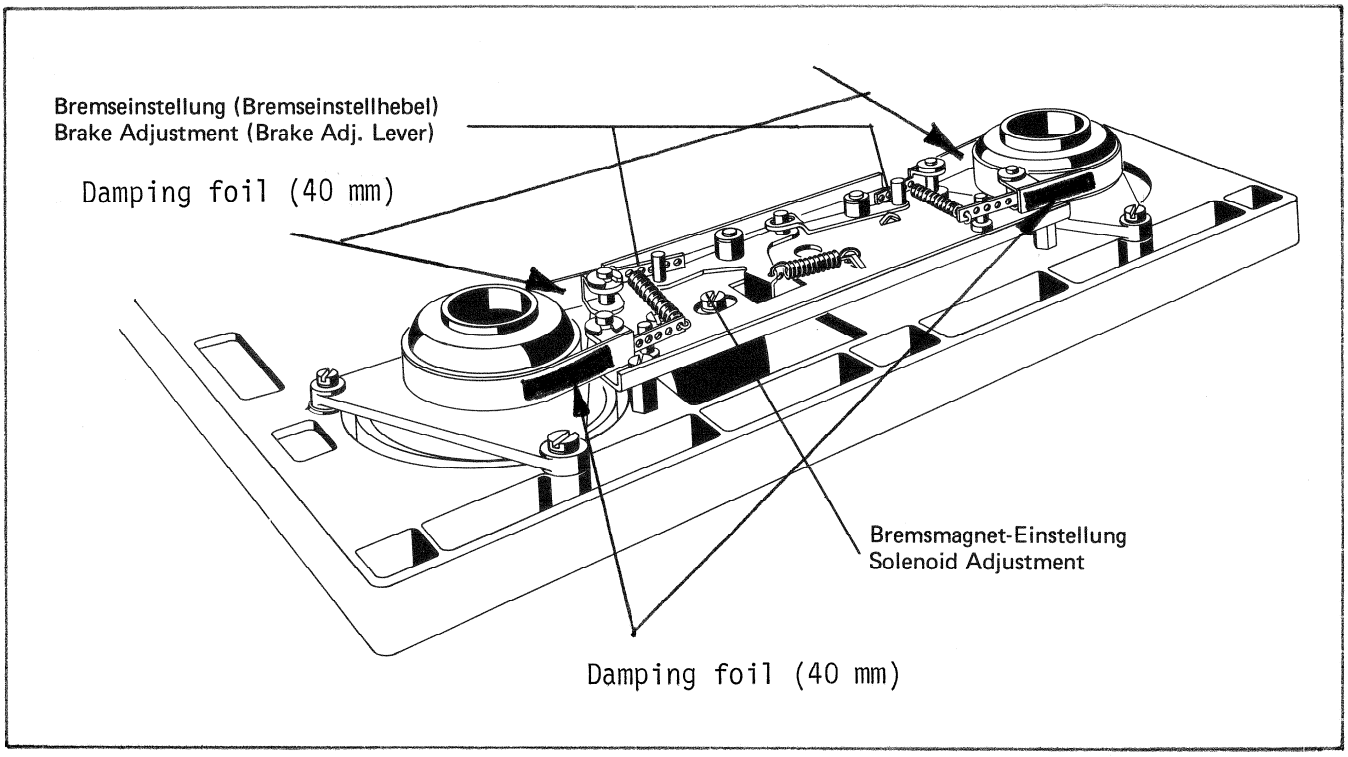
The plastic-bearing 1.020.820.06 of head block assembly that holds the driver-lever for the tape lift mechanics, are frequently broken. Now a new plastic bearing of heavier construction is available. The parts number remains the same, 1.020.820.06.

8.
B67 BRAKE:

To avoid squeezing noise during breaking, a stripe of damping foil can be added onto the brake band of the left and right brake. Stick 40 mm of foil onto brake bands shown.

Required material:

Damping foil ribbon 65.99.0144, supplied per meter.



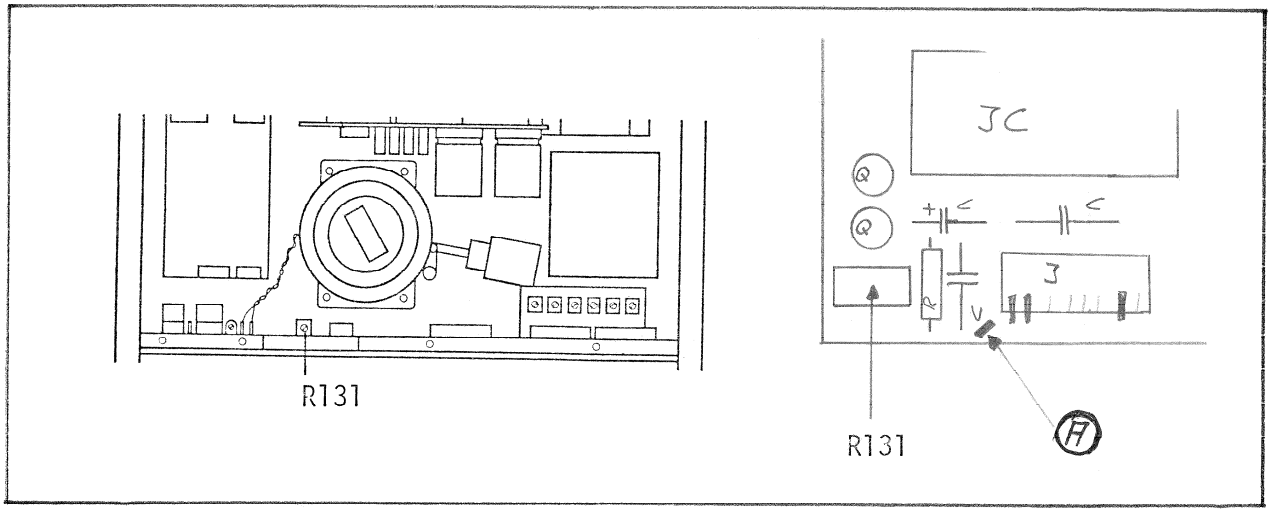
9.
NEW TAPE TRANSPORT CONTROL 1.167.759.00:

Adjustment of the infrared tape-end sensor.

Required instruments:

Multimeter 20 kOhm/V DC or better.

- Set multimeter to 5 V range
- Connect the positive input of multimeter on testpoint (A) and the negative to the ground.
- Thread transparent leader tape.
  There must be a voltage of less than 0,7 V DC at (A), adjustable with R131 (was R101 in the old board)
- With recording tape or non transparent leader tape, check whether the voltage is higher than 1,5 V DC. If after depressing "PLAY" the machines doesn't stop, readjust with R131.



10.
POLARIZATION OF CAPACITOR C7 or C21 ON MONO/STEREO SWITCH BOARDS 1.067.720 and 1.167.720:

When powering up any electronical system, the various voltages, not necessarely, rise together. As a result capacitors can be polarized reverse for a short period of time.

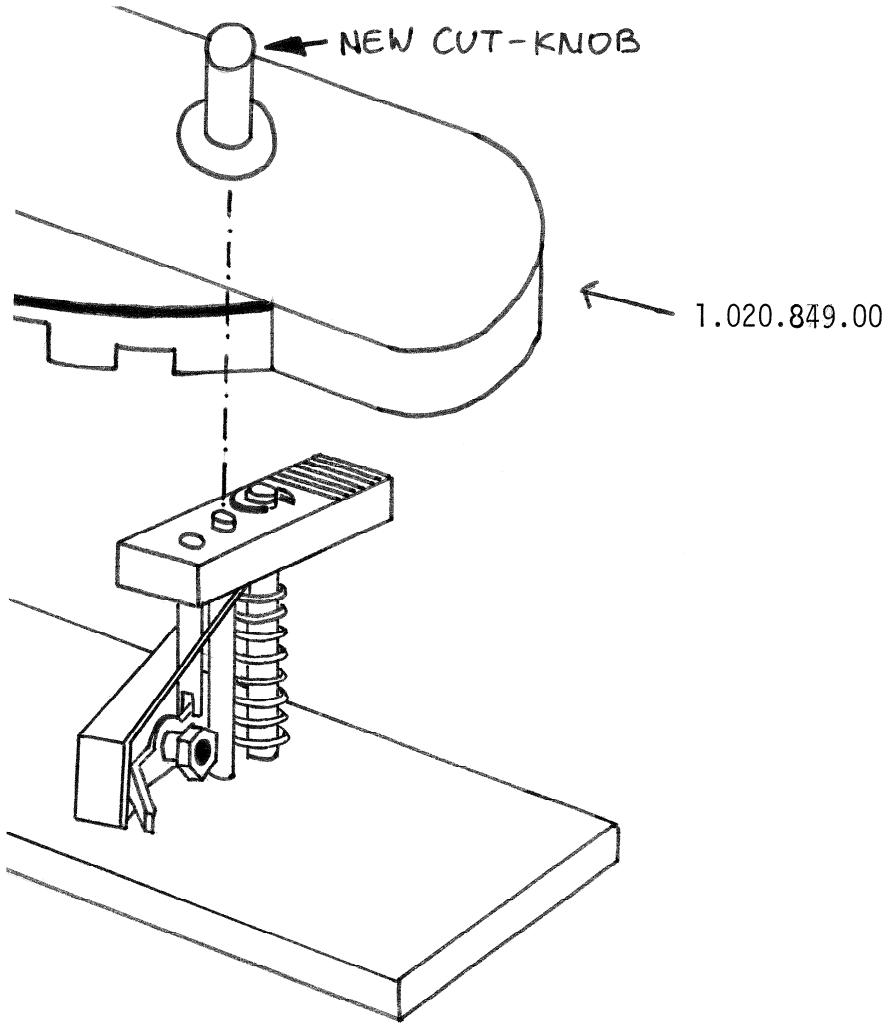
To avoid this, a diode needs to be connected in parallel across the affected capacitor. This modification will short-cut any reversed voltage and protect the capacitor. See enclosed diagram 1.167.720. (page 13)

Diode: General purpose diode 1N4448, Part No. 50.04.0125.

SCISSORS MECHANISM FOR HEAVY USE:

When using the transport for heavy editing work the lever mechanics can tend to become sticky.

For this reason a conversion is available which can be added also to existing transports. Ask for conversion kit No. 1.020.849.00.

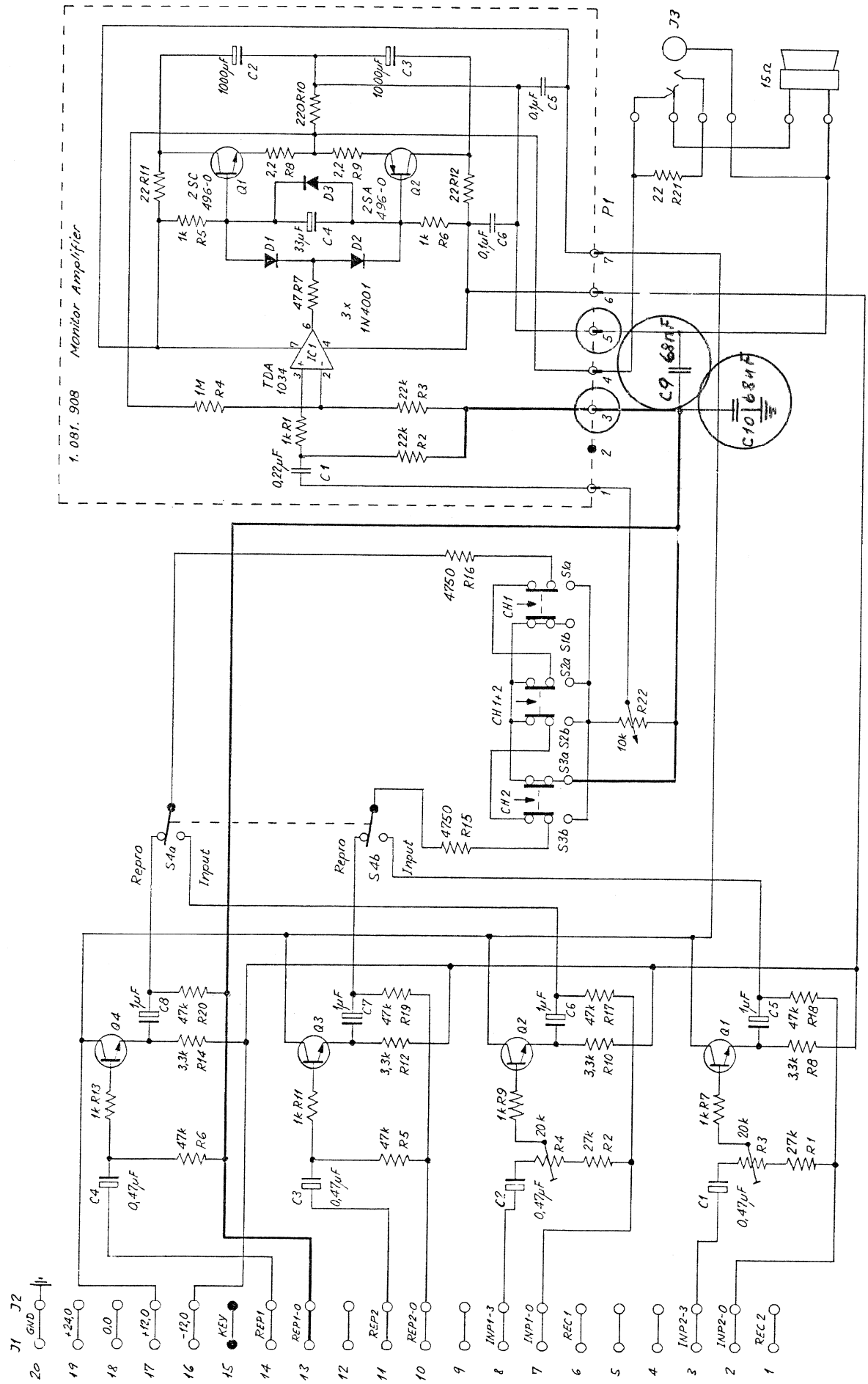


HEAD-BLOCK ASSY, PARTIAL VIEW

The conversion kit contains following items:

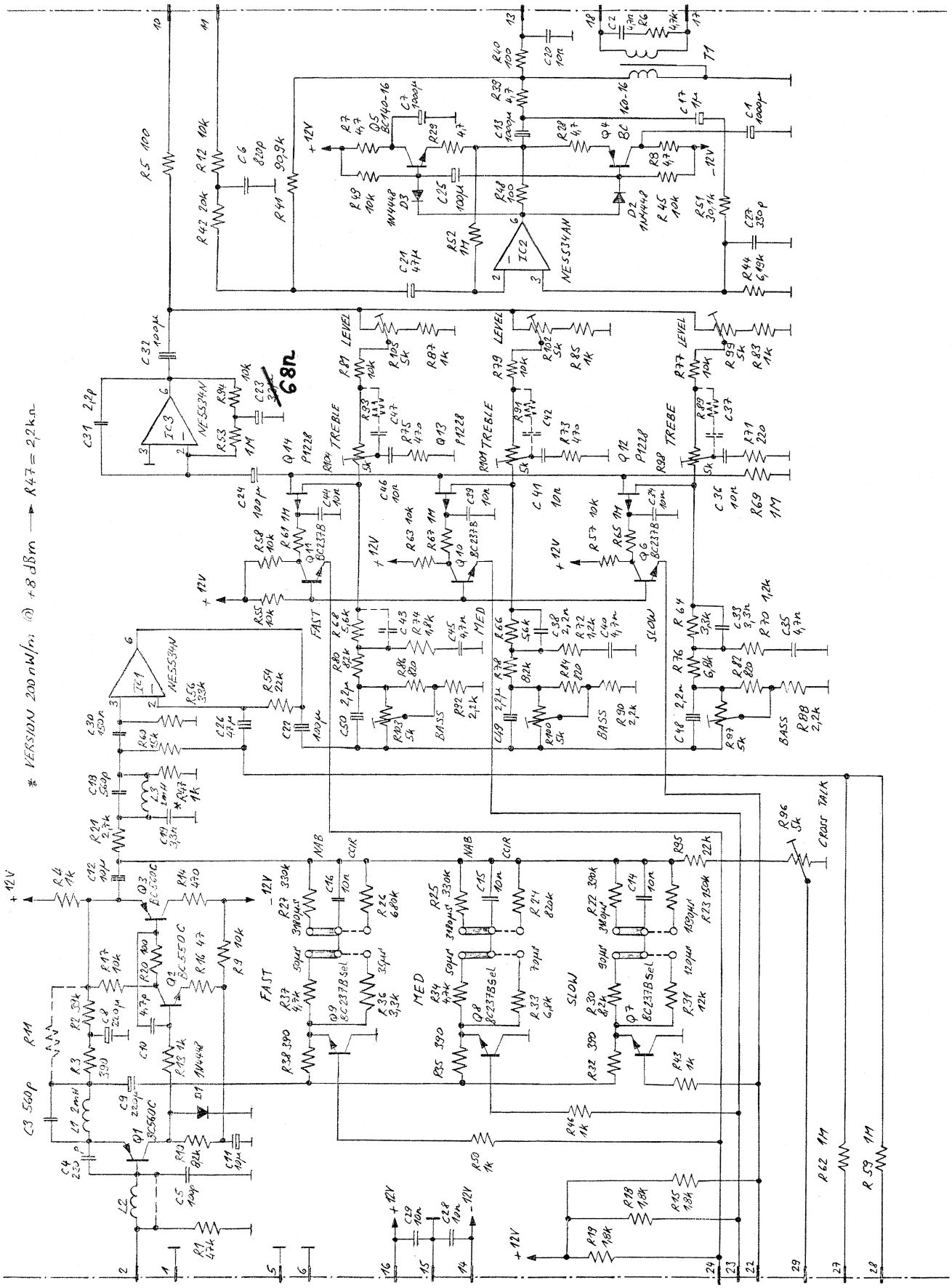
- new headblock cover (with additional hole)
- additional mechanics

In case many transports need to be converted the existing covers could be modified at works.

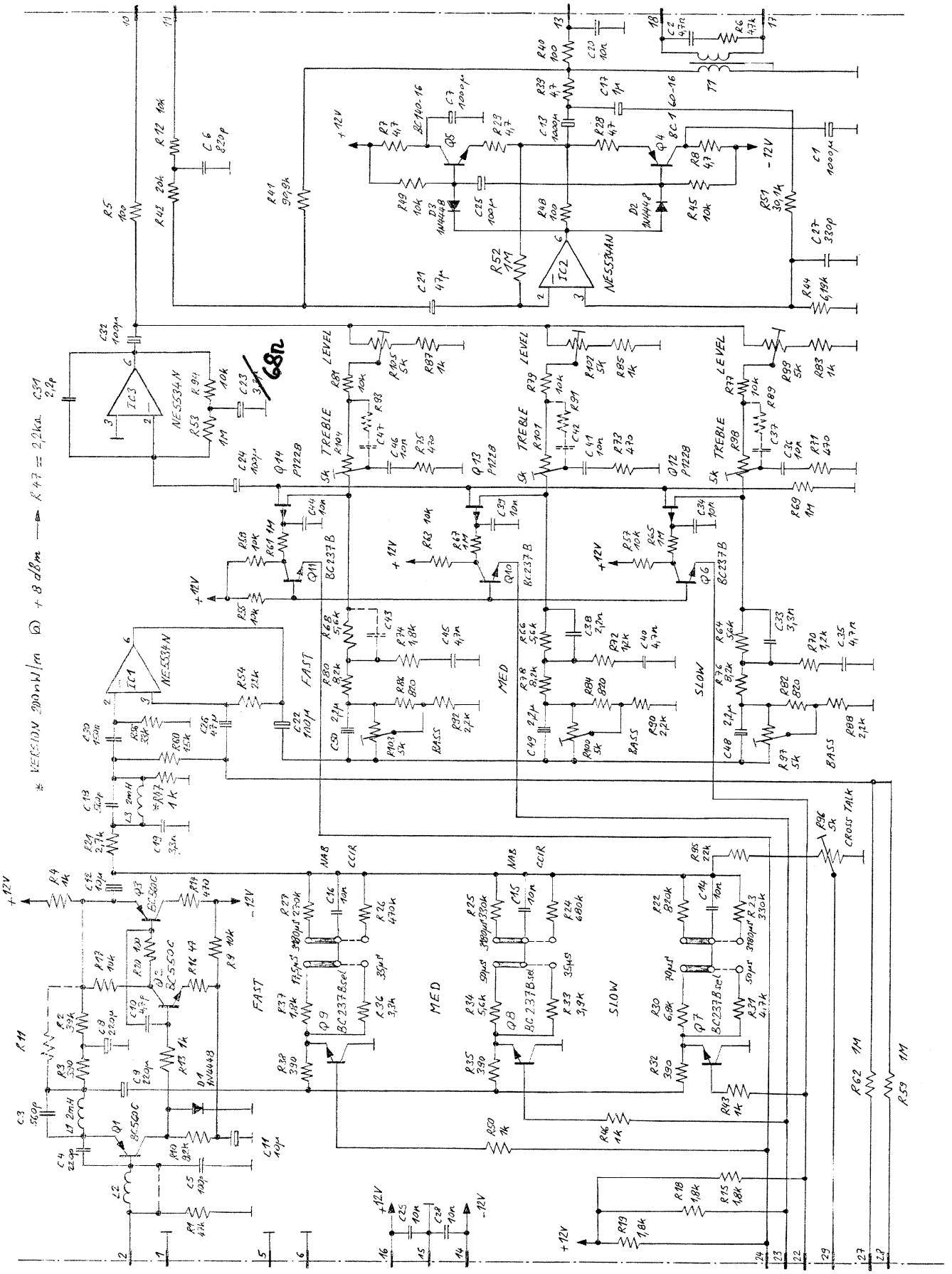


* With Monitor Amplifier 1. 081. 908

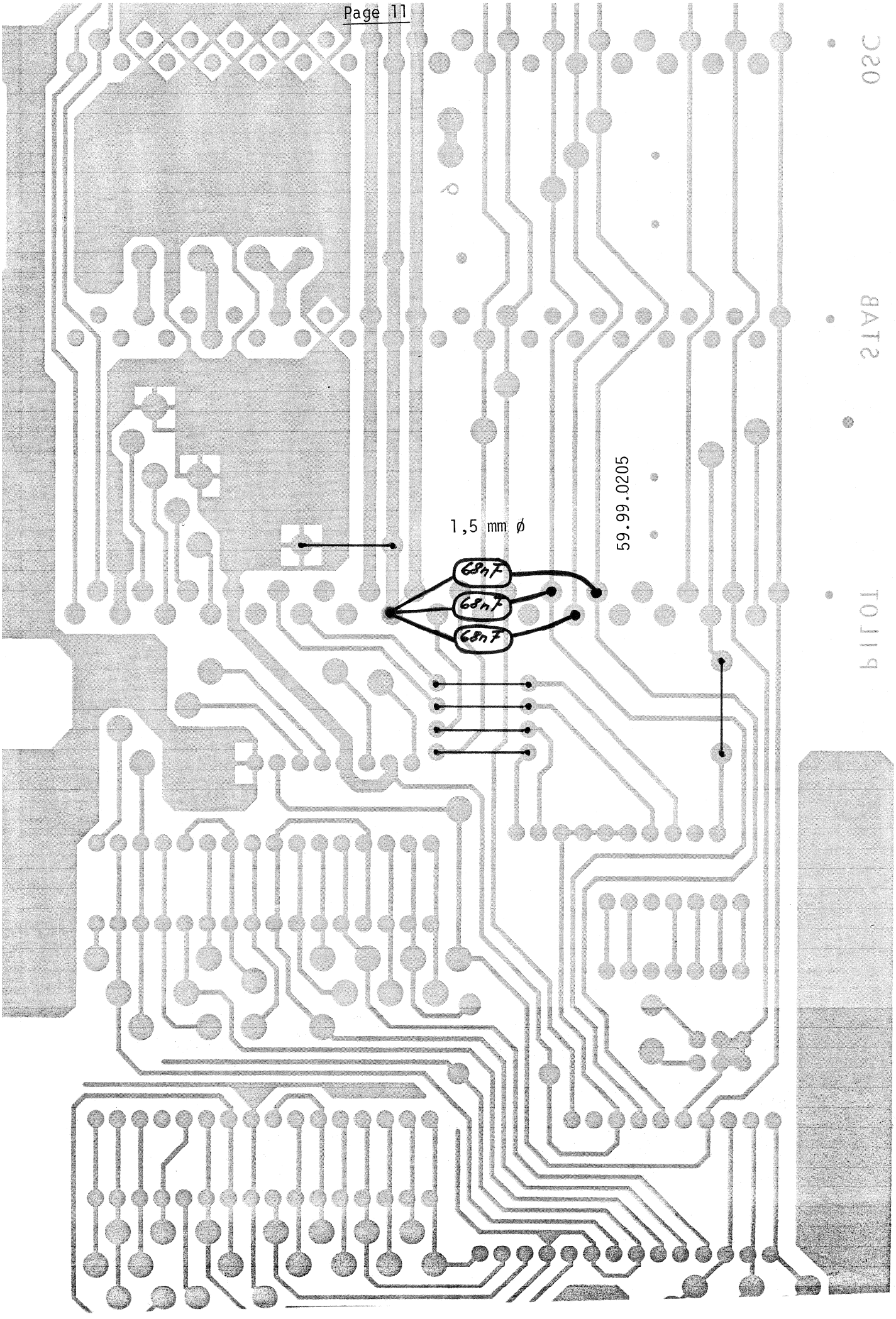
29.8.79	Buchmann L5	A80-RC, B67	
STUDER	Monitor- Panel -Board *	1.081.900-81	PAGE 1 OF 1

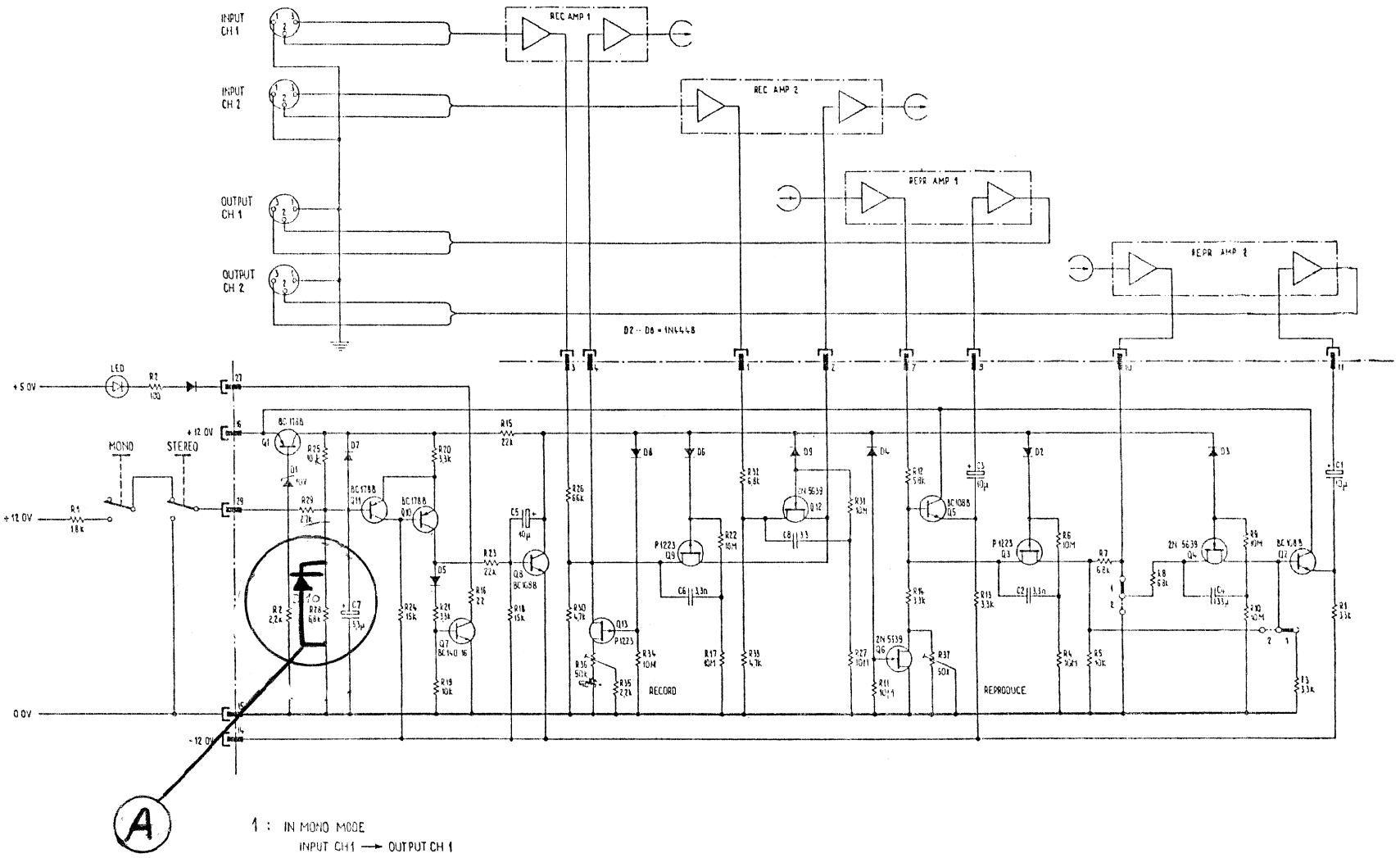


27.2.80	J.M. Egli	L5	B67 MK II, audio section		
STUDER	Reproduce Amplifier		SC	1.167.710-81	PAGE 1 OF 1



28.2.80	J.M. Egli	L5 B67 MK II, audio section			
STUDER	Reproduce Amplifier		SC	1.167.715-81	PAGE 1 OF 1


1,5 mm ø
68nF
68nF
68nF
59.99.0205
OSC
STAB
PILOT

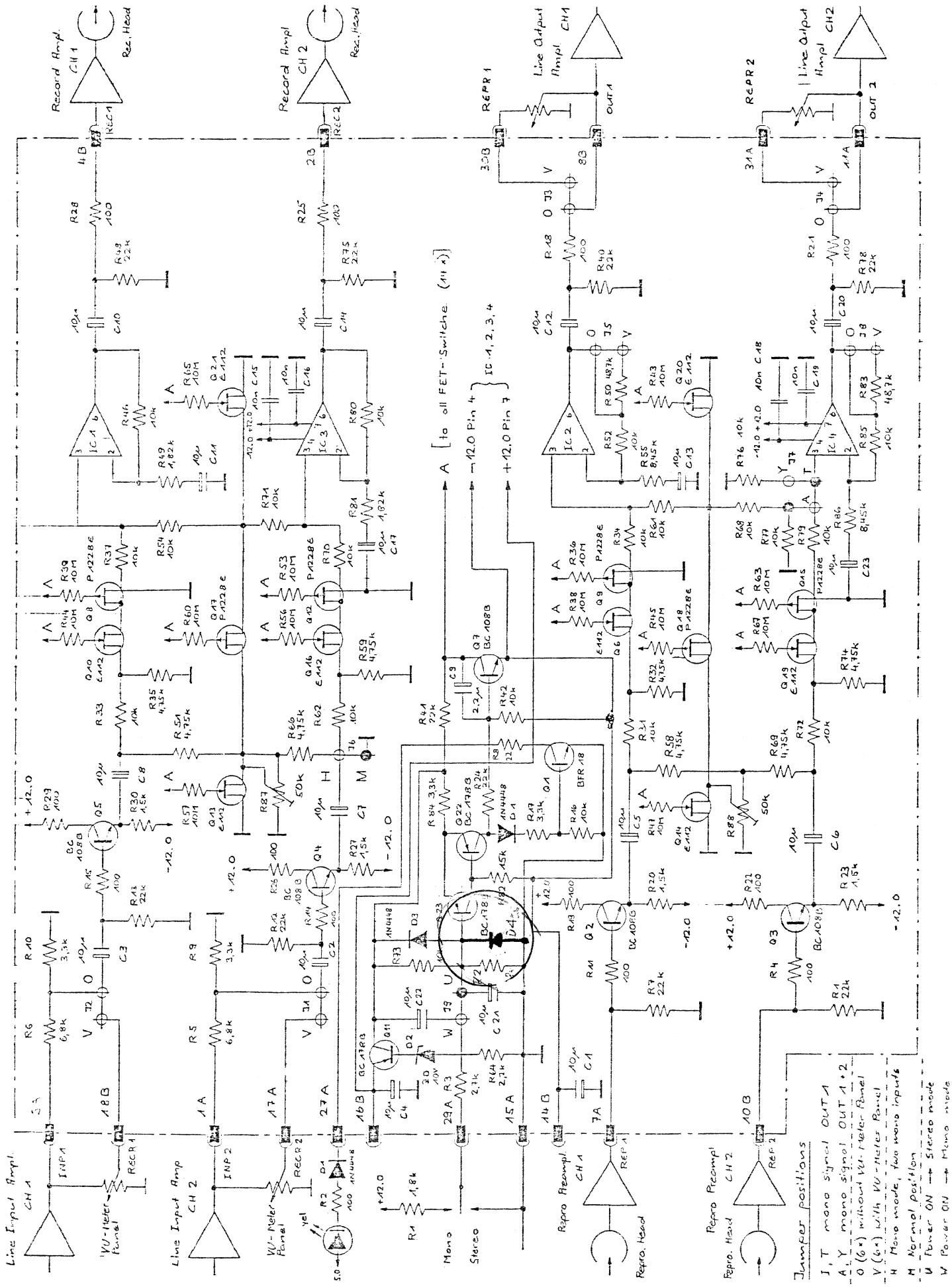


1 : IN MONO MODE
INPUT CH1 → OUTPUT CH 1

2 : IN MONO MODE
INPUT CH 1 → OUTPUT CH 1
AND
OUTPUT CH 2

STUDER 1.067.72(

MONO STEREO SWITCH



:: R. Schlatter Bezeichnung: Mono - Stereo Switch

Dat.: 21.10.78 Gerät: B 67 Nummer: 1.167.720

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