

Measuring Procedure for Tape Recorder
VU-Meter Panels without trimming
potentiometers for Record and Re-
produce level
Service Information SI 31/78 E

SERVICE INFORMATION

31/78 E

Measuring Procedure for Tape Recorder - VU Meter Panels
-without trimming potentiometers for Record and Reproduce-
Level.

1) Tape Recorders with NAB Equalization:

Place jumper plug in the VU-Meter Panel to the desired operation Level (6 dB below peak recording level). Marked 0, 4, 6 and 8 dBm.

Tape Recorder with CCIR Equalization:

Before you start the measuring procedure, place the jumper plug to the desired line level (Studio level). After the measuring procedure, place the jumper plug to 6 dB below line level to have 6 dB lead on the VU-Meter.

If the desired line level is not among the marked jumper plug positions, place the jumper plug to the next level position. The difference has to be equalized on the trimming potentiometer for the VU-Meter calibration.

2) Place the jumper plug "Load" only to ∞ Ohms if you use an external load of 200 Ohms or 600 Ohms during measuring procedure.

On the printed circuit in the VU-Meter Panel only a 600 Ohms load is available. For the CCIR 200 Ohms load, solder a 330 Ohms resistor in parallel to the 680 Ohms resistor.

3) Jumper Plug A - B

For the A 80: Jumper plug on B-position

For the B 67: Jumper plug on A-position.

- 4) Switch to CALIBRATION and REPRODUCE. Put the Test Tape on the machine (in accordance to the desired magnetic flux), set the potentiometer LEVEL on the REPRODUCE AMPLIFIER to the desired line level.

Switch to UNCAL and REPRODUCE, adjust the potentiometer REPRODUCE LEVEL on the front of the panel to the same output level.

- 5) From an external sine wave generator feed 1 kHz (CCIR) signal of studio line level or NAB operating level to the input of the machine.

B 67: Switch to CALIBRATION and INPUT. Set the trimming potentiometer PREADJUST on the RECORD AMPLIFIER to read the same level on the output as on the input. (Amplification = GAIN = 1).

Switch to UNCAL and INPUT, set the potentiometer RECORD LEVEL on the front of the panel to the same output level as in switch-position CALIBRATION.

- 6) Switch to CALIBRATION and REPRODUCE. Put the desired TAPE band on the machine in Record mode, adjust the potentiometer LEVEL on the RECORD AMPLIFIER to the same line level as in switch-position CALIBRATION and INPUT.

- 7) Calibrate the VU-Meter in the panel with the trimming potentiometer to 0 VU.

Measuring procedure for Tape Recorder - VU-Meter Panels equipped with trimming potentiometers for Record Level, Reproduce Level and VU-Meter calibration.

1) Tape Recorder with NAB equalization:

Before you start the measuring procedure, place the jumper plug in the VU-Meter Panel to the desired operation level (6 dB below Peak Level). Marked 0, 4, 6 and 8 dBm.

Tape Recorder with CCIR equalization:

Before you start the measuring procedure place the jumper plug to the desired line level (Studio level).

After the measuring procedure, place the jumper plug to 6 dB below line level to have 6 dB lead on the VU-Meter.

If the desired line level is not among the marked jumper plug positions, place the jumper plug to the next level position. The difference has to be equalized on the trimming potentiometer for the VU-Meter calibration.

- 2) Place the jumper plug "Load" only to ∞ Ohms if you use an external load of 200 Ohms or 600 Ohms during measuring procedure.

On the printed circuit in the VU-Meter panel only a 600 Ohms load is available. For the CCIR 200 Ohms load solder a 330 Ohms resistor in parallel to the 680 Ohms resistor.

3) Jumper Plug A - B:

For the A 80: Jumper plug on B-position

For the B 67: Jumper plug on A-position.

- 4) From an external sine wave generator feed a 1 kHz (CCIR) signal of studio line level to the input of the machine.

Switch to UNCAL and INPUT, set the potentiometer RECORD LEVEL on the panel to the same level on the output (Amplification = GAIN = 1) as on the input.

B 67: Set RECORD LEVEL potentiometer on panel to position 6 and adjust level on output to the same as on the input with trimming potentiometer PREADJ. on RECORD AMPLIFIER.

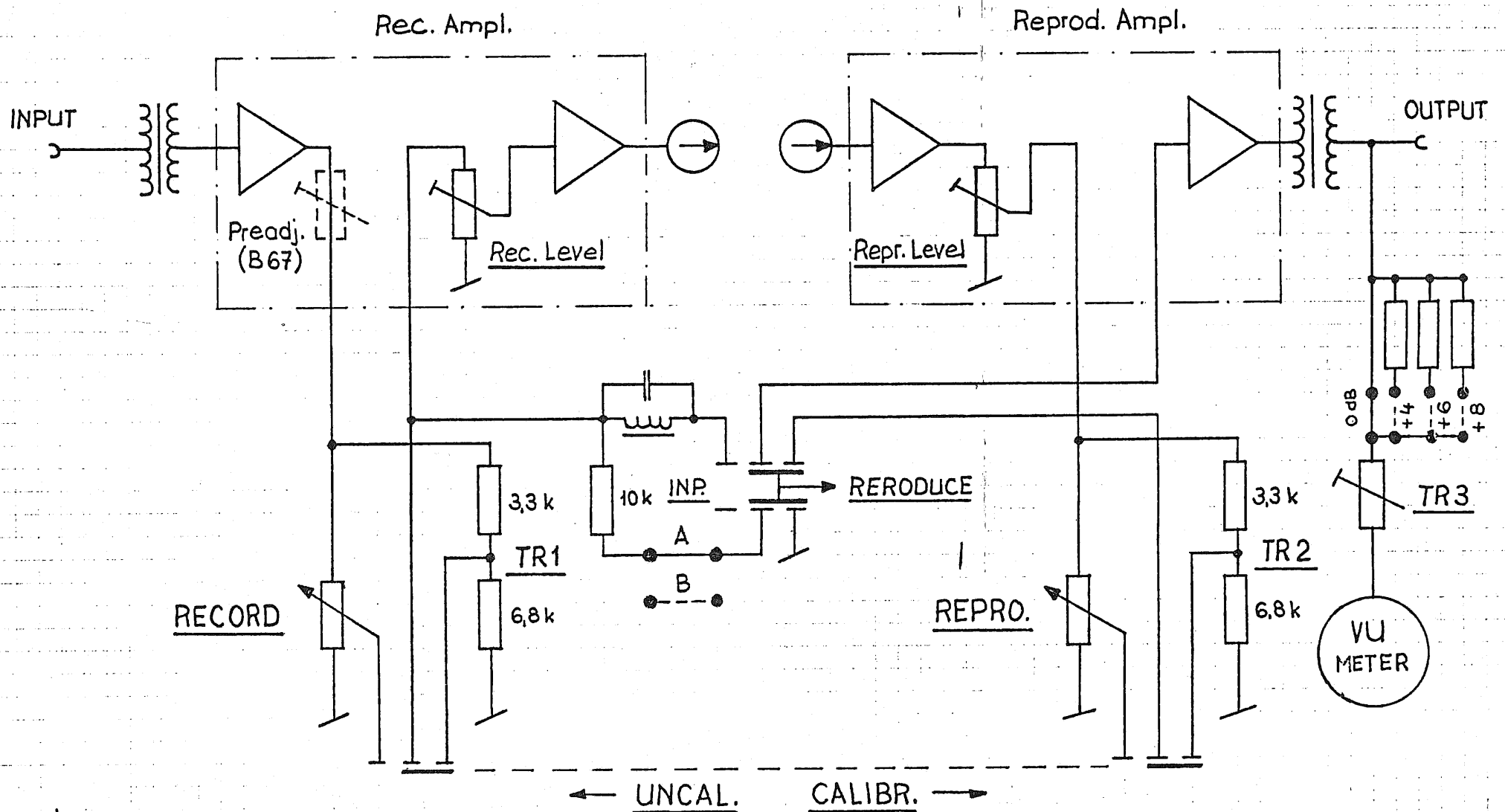
Switch to CALIBRATION and INPUT adjust the trimming potentiometer RECORD LEVEL (TR 1) in the panel to the same level on the output. Set the VU-Meter to 0 VU on the trimming potentiometer (TR 3) in the panel.

Set the potentiometer REPRODUCE LEVEL on the front to the same position as the potentiometer RECORD LEVEL.

- 5) Switch to UNCAL and REPRODUCE. Put the TEST TAPE on the machine (in accordance to the desired magnetic flux) set the potentiometer LEVEL on the REPRODUCE AMPLIFIER to the desired line level.

Switch to CALIBRATION and REPRODUCE. Set output level with TEST TAPE on trimming potentiometer REPRODUCE LEVEL (TR 2) in panel to the desired line level.

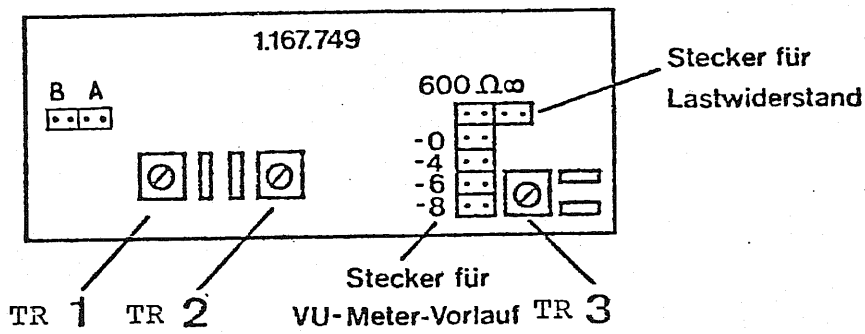
Switch to CALIBRATION and REPRODUCE. Put the desired TAPE band on the machine in Record mode, adjust on the potentiometer LEVEL on the RECORD AMPLIFIER the same line level on the output as on the input. (Amplification = GAIN = 1).



Bemerkung:

An Stelle der beiden Spannungs-Teiler 3,3k/6,8k sind in neueren Geräten Trimpot. (TR1, TR2) eingebaut.

Prinzip-Schema
Tonbandgeräte mit VU-Panel



B 67 - position A
 A 80 - position B

Fig.1

TR 1 - Record level cal.
 TR 2 - Reprod.level cal.
 TR 3 - VU-Meter cal.

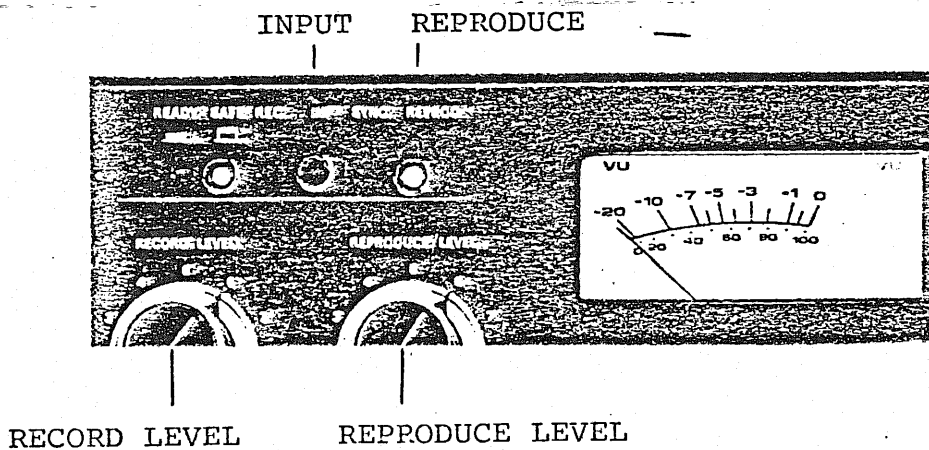


Fig.2

B 67

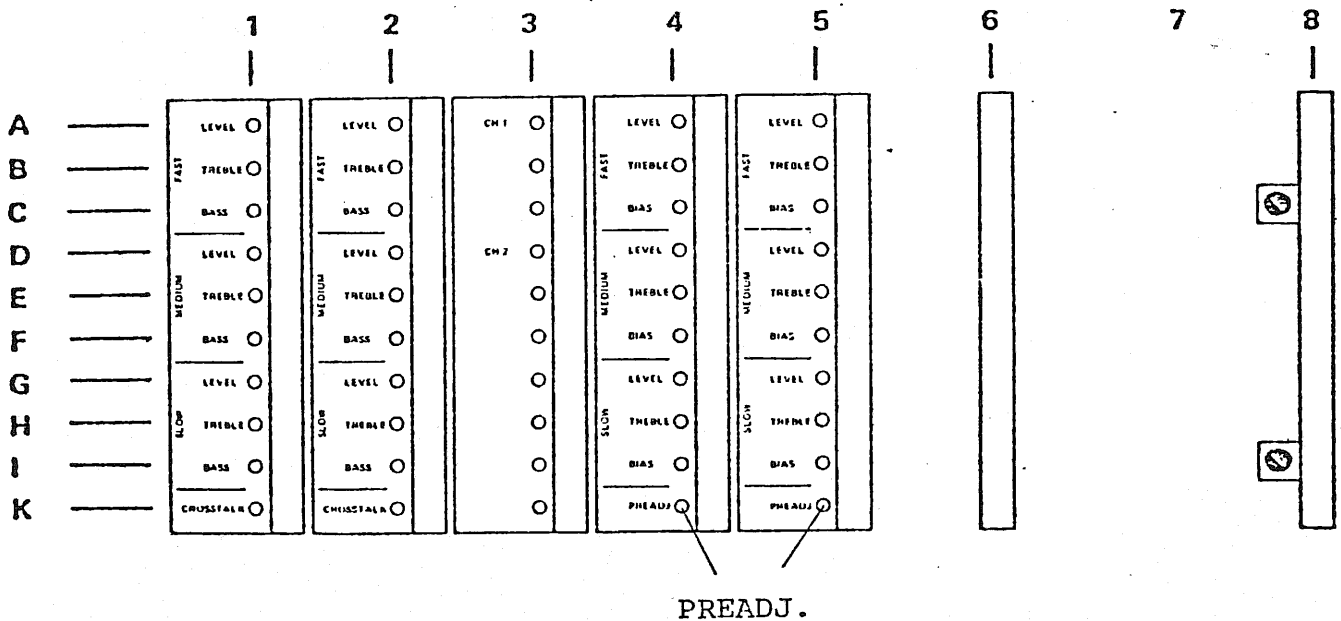


Fig.3