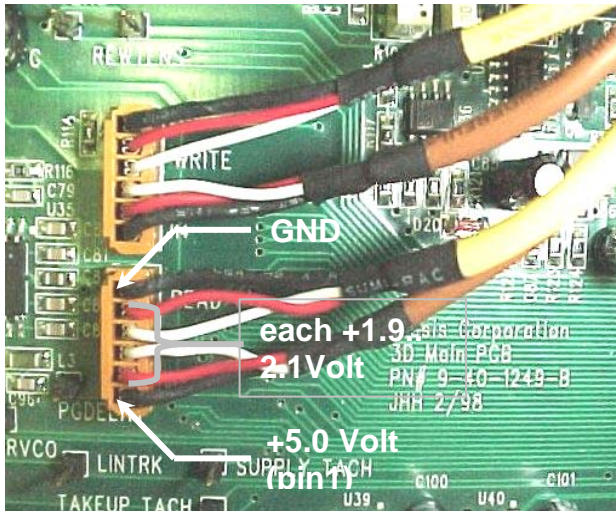


*Can't read format; Err7; excessive error rate (UTILITY 24)

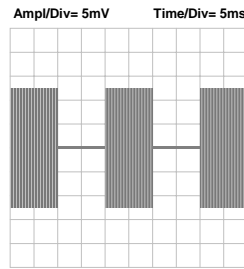
Introduction:

We recently discovered that the preamplifier could stop working or reduced gain and cause error messages as shown above*. This is known to be true in most cases but the following procedure should be carried out to verify the fact.

1. Clean heads carefully and play known performance reference tape. Check error rate.
2. Check for scratched or broken heads. If not broken then check read pre-amp. It might be damaged.
3. Check voltages and waveforms at J15 onto Main Board 1.864.120.XX (or J1 Pre-amp 1.864.031.00) and use Digital Multimeter and/or Scope. Follow the procedure:

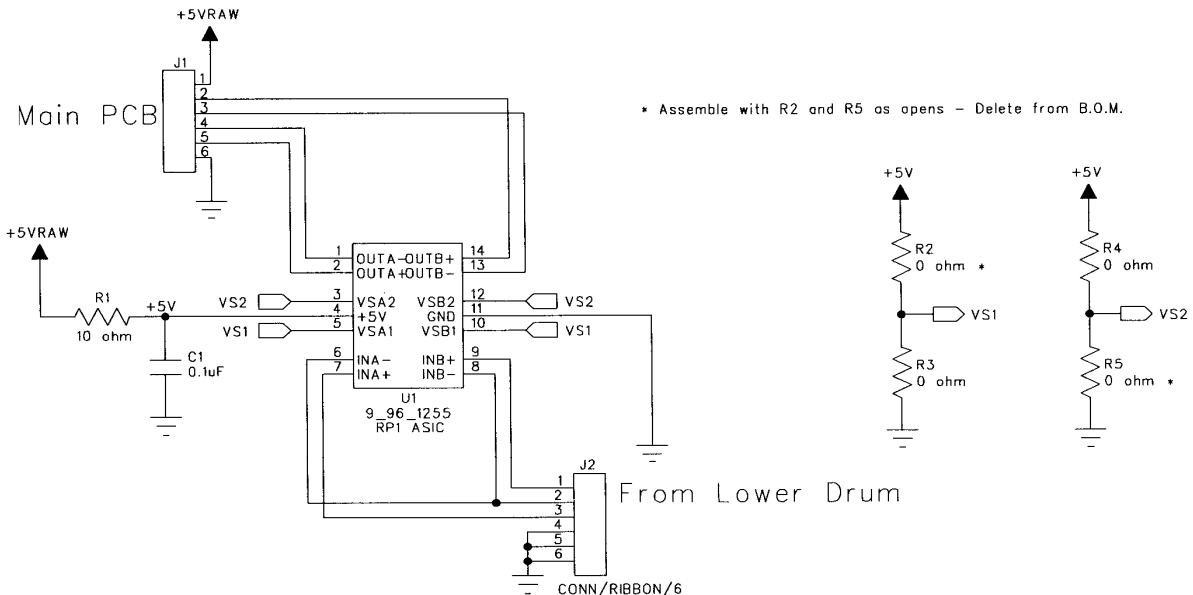


- Power on V-Eight.
- Verify DC-voltages at pins pair 2+3 and pins pair 4+5. Verify voltages around 1.9V. - 2.1Volts DC.
- Scope pins pair 2+3 (1st PB-head) and pin pair 4+5 (2nd PB-head). Check waveform as shown below during tape play back.
- If neither voltages nor waveforms are as shown then replace preamp (see next page).



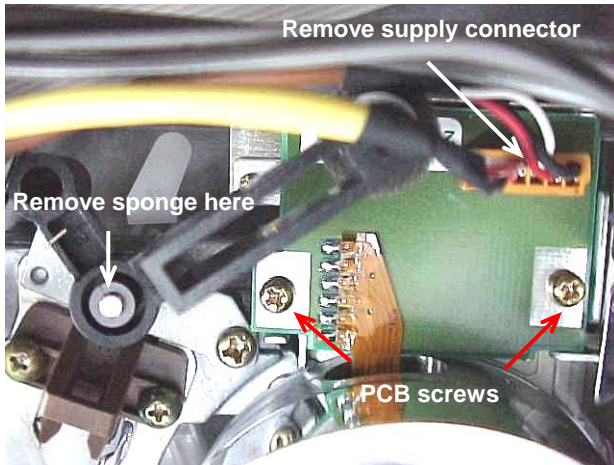
Note:
Waveform shows idealized wave form measured at pin pair 2+3 and pin 4+5 J15. Amplitude maybe little different in practice (+-15 %).

Connector onto Main Board 1.864.120.XX from Read preamp



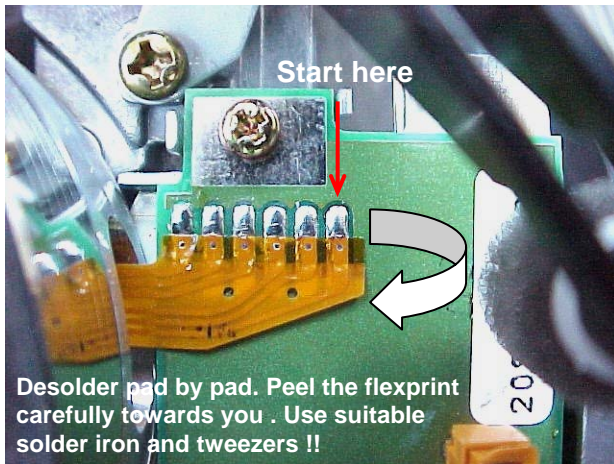
Schematic diagram read preamp 1.864.031.00. J1 is equal J15 onto Main Board 1.864.120.XX

Replacement of Read Preamp (1.864.031.00)



- Switch device off and remove all mains supply plugs.
- Remove top cover (six screws). The preamp is located above the head stack.
- Carefully remove plug from preamplifier circuit board.
- During the repair cycle remove the cleaning sponge completely (or as in the picture by fixing by a suitable means).
- Rotate device through 90 degrees for better access.

Position of the screws fixing the read preamp (marked by arrows)



- De-solder pad by pad with a suitable soldering iron. Using tweezers-peel thin flexprint PCB carefully off the main PCB. Start from the right hand side! Caution: Take care of sponge and adjacent cables!
- Remove both PCB screws (see position in picture above).
- Install new pre-amplifier PCB and replace screws.
- Carefully re-solder the flexible PCB in reverse order pad by pad (start at left-hand side). Note: Use solder sparingly and check every solder joint.
- Re-attach plug to the PCB.
- Bring cleaning sponge to its working position.
- Reconnect mains and power on equipment.
- Insert known reference tape again and check error rate. Error rates must be lower than 0009 in UTILITY 24 after successful change.

Show pads to the flex print

No further adjustments are need. Mount top cover. Repair is complete.

Spare parts

Description	Order number
Read Preamplifier PCB	1.864.031.00
Head cleaning unit, complete	10.864.030.02