

Service Memo for Tactile M 4000:

Problem: Start up problems

It may happen that you will have to start the console 3 or more times until it comes "to life".

This can have three reasons:

System does not start properly – previous settings are weird.

After switching ON the unit you see that only some of the inputs or outputs are active, i.e. the Channel ON LED's are ON only on some of the modules. Even after resetting or switching ON several times the system will not come back to normal functions.

Cure:

Please check the power supply M 490 for correct voltages.

Look for the digital PSU which is located on the opposite of the large heatsink.

When the M 490 lid is off, make sure to disconnect the PSU from the mains and clean it carefully with a vacuumcleaner and a small brush, as heatsinks etc. might be covered with dust etc.

1. The 5 V power supply in the M 490 is delivering a too low voltage, so the voltage will drop below 5 V when all units are connected.
Open the lid of the M 490 carefully when the system is ON and look for the switched PSU – directly behind the mains switch of the M 490.
On the rear end of that PSU you see the white multipin connector for the output voltage to the distribution PCB in the centre of the M 490.
Right next to that multipin connector you will see a small, yellow trim potentiometer. Take your millivoltmeter and put the probes into one of the first three and last three contacts of the multipin connector. Here you will have a reading of a value around 5 V. (+ or – 5V is not vital for that adjustment). Now take a small screwdriver and carefully adjust the 5V potentiometer to read about 5,15 to 5,20 V when all units are connected and the console is running.
2. The HDD in the M 440 is defective. You will hear the HDD quite clearly, as it will try to get access to the final infos of the START procedure, but it will not get there. First, please adjust the voltage of the 5V PSU as described above, but please switch the console OFF before you start, and disconnect all units from the PSU. Take you millivoltmeter and apply the probes to the multipin connector as described above.
Then switch ON the PSU only and read the voltage from the multipin connector. If it is below 5,10 V you should adjust the small yellow trim-pot to read about 5,25 to 5,3 V without any load. Then switch OFF the PSU, reconnect the M 420, M 430 and M 440 and start the console again.
3. One of the backup batteries in M 420, M 430 or M 440 is down, so the system can not start properly. Check the voltages in all three units directly on the connector to the PCB in the individual units. Your millivoltmeter should read 3,6 V on every battery-pack. If not, please buy a new one (NiCD, 3x 1,2 V cells, min. 600mA. It is better if you go for a higher capacity, i.e. 800 mA for M 430 and M 440, and 1500 mA. for the M 420 unit.)