

Things to be Considered when Replacing Main Board and/or Tape Drive

Introduction:

- An important feature of the ADAT system (Alesis M20 and Studer V-Eight) is the fact that formatted and recorded tapes can be exchanged between any units. This means that such an S-VHS tape can be recorded on one ADAT unit and played back without troubles on any other ADAT unit. In practice, every tape drive has a certain offset with respect to the "ADAT standard" tape. This offset value is called "PG Delay" and is different for every single drive. This value is determined in the factory and is noted on a sticker on the top of the tape drive.

5933

PG Delay sticker with the tape drive-specific PG Delay value

- This PG Delay value must be known to the CPU on the Main Board 1.864.120.XX for correct positioning of the record and playback heads!
- If no PG Delay sticker should be available on the tape drive, the PG Delay value can also be read out via the unit's display; refer to steps 3 and 4 of this instruction sheet. *Do this before replacing the Main Board!*
- We recommend to place additional stickers with the PG Delay value on top and/or the rear of the unit, as well as noting the value on a copy of the "Rep Sheet" in Appendix C of the Service Manual.

Problem:

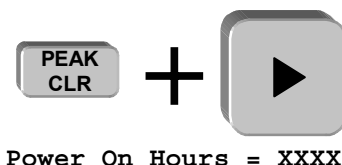
When replacing the Main Board 1.864.120.XX or the tape drive 1.864.030.XX, this PG Delay value must not be lost and has to be re-entered correctly after replacement. *If this is not considered, there will be compatibility problems in later use.* In addition, the CPU on the Main Board contains a power-on and drum head (play/record) time counter.

- When replacing the Main Board, the PG Delay value and the two counter readings must be noted before removing the Board!**

Instructions (valid from SW V3.00):

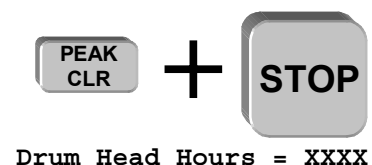
Note: For re-entering the Drum Head Hrs and Power-On Hrs counter values, a dongle called "M20 Service Key" on the SYNC OUT connector is required. During the procedure you will be asked to enter numerical values; these entries can be made only via the numerical key pad at the right of the front panel. These entries need not be terminated with ENTER.

- Checking "Power On Hours": Hold PEAK CLR key, and press forward wind key (▶). The display indicates for example: "Power On Hours = 1150".



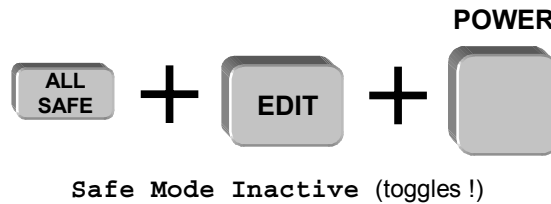
- Checking "Drum Head Hours": Hold down PEAK CLR key, and press STOP key. The display indicates for example: "Drum Head Hours = 0950".

Note these two values together with the unit's serial number found at the rear of the unit. We recommend to note the values on a copy of the "Rep Sheet" available in Appendix C of the V-Eight Service Manual.



- Before replacing the Main Board, the PG Delay value can be read out from the battery-buffered RAM via the display; after having replaced the Main Board, the PG Delay value must be re-entered to the RAM of the new Main Board. For both purposes, menu item 37 is provided.

The menu item for displaying and entering the PG Delay value can only be accessed if the unit is in "Safe Mode Inactive" status. Press the ALL SAFE and EDIT keys when powering the unit on, and hold them until "Locate 00" appears in the display.



- Repeatedly press the UTILITY key until "37 PG DELAY VALUE = XXXX" appears in the display. Note the displayed value in the "Rep Sheet" and, if desired, on stickers on the top cover and/or the rear panel of the recorder.

Notes:

If this menu item is not displayed, repeat the power-on procedure described in step 3. This procedure toggles the Safe Mode, i.e., it enables or disables the access to protected menu pages.

If desired, the menu item can also be accessed directly (instead of browsing through the different menus with the UTILITY key): hold UTILITY and press 3 followed by 7 on the numerical keypad.

- Enter the PG Delay value that has either been found on the new tape drive (after having replaced the drive) or that has been read out via the display (after having replaced the Main Board). In our example, this would be "5933".
- Press the UTILITY key in order to proceed to the menu item "38 POWER ON HRS = nnnn". Enter the Power On Hrs counter value that had been noted before; for our example (tape drive not replaced), this would be "1150". If the tape drive was replaced by a new one, enter "0000".
Note: The menu items 38 and 39 are only accessible if a dongle ("M20 Service Key") is plugged to the SYNC OUT connector.
- Press the UTILITY key in order to proceed to the menu item "39 DRUM HEAD HRS = nnnn". Enter the Drum Head Hrs counter value that had been noted before; for our example (tape drive not replaced), this would be "0950". If the tape drive was replaced by a new one, enter "0000".
- Power the unit off and disconnect the dongle from the SYNC OUT connector.
- Now repeat the power-on procedure according to step 3 for a last time.
Check: When browsing the menu with the UTILITY key, menu items above no. 26 must not be accessible. If they should be accessible nevertheless, just repeat step 3 once more.