MODEL: ATARI 410 Recorder   DATE: 11/17/82

USER

1. **New 410**

   Problem: Many ATARI cassette-based products have loading problems on the newer model of the 410 (with PAUSE and no carrying handle) but not on the older 410. The newer 410 has a more powerful amplifier which raises previously insignificant background noise to significant levels and causes error conditions when interpreted as data. All ATARI cassette-based products have been remastered and the finished goods stock was replaced as of March 1, 1982.

   Solution: Replace the media with inventory acquired after March 1, 1982.

2. **System Reset**

   Problem: Pressing SYSTEM RESET does not reset the data I/O line in POKEY. Subsequent use of CSAVE is unreliable because the data I/O line is not clear, POKEY sends garbage, and the data stored is unrecoverable.

   Solution: Avoid using SYSTEM RESET. Before using CSAVE or CLOAD, always execute a LPRINT command.

   NOTE: Executing a serial bus command properly resets POKEY and clears the data I/O line. The simplest serial bus command to execute is LPRINT. If a printer is not attached when the LPRINT is executed, an error 138 occurs. This occurence is normal and does not interfere with the reset of POKEY.

3. **Pre-recorded Tape Positioning**

   Problem: Tape is improperly positioned.

   Solution: Pre-recorded tapes should load properly if rewound completely. If not, manually wind the leader onto the take-up reel before attempting the load.

4. **User-Recorded Tape Positioning**

   Problem: Tape is improperly positioned relying on the counter.

   Solution: Store only one program per side of tape positioned manually at the end of the tape leader.

5. Faulty Pre-recorded Media

   Problem: Tapes produced in mass quantity are not individually verified to load successfuly because of sampling techniques.

   Solution: Replace the tape.

6. Faulty User-Recorded Media

   Problem: The oxide coating on audio cassette tape is subject to momentary dropouts that does not record data.

   Solution: Replace the tape.

7. Worn Media

   Problem: Tapes stretch and warp after prolonged normal usage.

   Solution: Replace the tape. Avoid leaving the PLAY, ADVANCE, and REWIND button engaged after tape movement is completed.

8. Magnetic Field

   Problem: Data is altered during transmission because of the 410 I/O cable's close proximity to a magnetic field.

   Solution: Do not set the 410 on or close to a TV or power transformer.

9. Vibration

   Problem: Data is altered during transmission because the 410 was bumped, moved, or jarred.

   Solution: Keep the 410 stationary during data transmission.

10. CRO^2 Tape

   Problem: The bias of CRO^2 tape is incompatible with the 410.

   Solution: Use normal ferrite audio tape.

SUBJECT:

138, 140, and 143 Errors

DESCRIPTION

It is a common occurrence for a customer to experience problems while trying to load cassette tapes with the 410 program recorder.

TROUBLESHOOTING

We have separated troubleshooting into two section: one for the servicer and one for the user. The user section has purposely been put on a separate page to allow copies to be made for distribution to users.

SERVICER

1. **Periodic Maintenance**

   Problem: Failure to perform periodic maintenance. Dirty pinch roller or capstan can cause uneven tape speed and damage media. Buildup of oxide residue on the read/write head can interfere with proper operation.

   Solution: Perform periodic maintenance as outlined in the 410 Operator's Manual.

2. **Peripheral Connection**

   Problems: The 410 is connected through a peripheral (810, 850, 820, 822) that does not properly pass on the signal to the console.

   Solution: Connect the 410 directly to the console and repair the defective peripheral.

3. **OS Revision B Incompatibility**

   Problem: The software is not compatible with Revision B of the OS. All ATARI software is fully compatible with Revisions A or B but some third party titles are not compatible.

Solution: The third party vendors usually are able to replace the software with an updated version. It is possible to determine what version of the OS is installed by checking memory location 58383. From BASIC: PRINT PEEK (58383) (RETURN). A value of 56 indicates Revision A whereas 0 indicates Revision B.

4.   PAL Operating System

Problem: An international PAL version of the OS is installed instead of domestic NTSC version.

Solution: Install a domestic 10K ROM. It is possible to determine what version of the OS is installed by checking memory location 58383. From BASIC: PRINT PEEK(58383) (RETURN). A value of 56 or 0 indicates NTSC whereas 249 indicates PAL.

5.   410 Motor Control

Problem: The console does not properly control the 410 motor. After a cold start in BASIC, merely pushing PLAY on the 410 should not cause the tape to begin moving, POKE 54018,52 should start the motor and POKE 54018,60 should stop the motor.

Solution: Check to see if transistor Q107 on the 800 or Q102 on the 400 motor control line is improperly shorted to ground.

6.   410

Problem: Faulty I/O cable, drive mechanism, or electronics, necessitates repair or replacement of the 410.

Solution: Follow the procedures in the Field Service Manual.

If you require further clarification call:

Inside California
(800) 672-1466

Outside California
(800) 538-1535