# AT-RMX64 RECORDER ALIGNMENT PROCEDURES

STEP 1:
Clean and demagnetize tape transport.

STEP 2:
After gently pulling off the 10 fader knobs, remove the two top panels. (Remove two LED displays attached to each panel and Switch Counter Unit from right panel).

STEP 3: TAPE SPEED ALIGNMENT
Place the SPEED switch in the 4.75 (up) position, with the PITCH control in the detent (center) position. While playing a mid-frequency tone from an alignment tape, monitor the TAPE OUT 1 jack with a frequency counter. Adjust the trim marked 4.75, located in the lower right-hand corner of the unit above the logic control board on the right rear wall. Switch the SPEED to 9.5 (down), and adjust the trim marked 9.5, located beside the other one, for twice the frequency marked on the tape.

STEP 4: AZIMUTH ALIGNMENT
Monitor the TAPE 1 & 2 out jacks using a dual-channel oscilloscope. With the speed in the 9.5 (down) position, play a high-frequency alignment tone between approximately 3 - 8 KHZ. Carefully rotate the azimuth adjustment screw, located on the left side of the record/play head, until the two wave forms on the oscilloscope are in phase and at their maximum amplitude. The jitter in the wave form is normal, and the best compromise position of the head should be found.

STEP 5: PLAYBACK LEVEL ALIGNMENT
Connect a voltmeter to TP9 located on the SUB 1 board. With the SPEED switch in the 4.75 (up) position, and while playing a Dolby B reference level alignment tape (Dolby B ON), adjust the trim (VR-11) located above TP9 for a 580mv RMS. Repeat for SUB 2. **NOTE: DOLBY TEST TAPE OUTPUT IS 1.23v RMS/+4dBm (+4dBm/1.23v RMS = 0VU FOR RECORDING INDUSTRY.**
Switch the SPEED switch to the 9.5 (down) position, and read the voltage at TP9 on the SUB 1 board. Connect the voltmeter to TP9 on the SUB 3 board, and adjust the associated trim **for the same value as just measured on the SUB 1 board (approximately 610mv.** Repeat for SUB 4.
With the meter switches in the TAPE (down) position, the VU meters should now read 0VU. If they do, proceed to STEP 6. If not, carefully remove the meter assembly from the unit. While playing the alignment tape, adjust the trims located on the meter board for a 0VU reading on all meters. Reassemble the meter assembly.

STEP 6: INPUT LEVEL
Set the RETURN 1 LEVEL control fully clockwise, and the PAN