

### **Why teach with a recorder©:**

I am flying naked (without any insurance) when I instruct. I have essentially done so for over 6500 hours of instruction. I feel that the tapes are my insurance policy. Several hundred students have tapes that would prove that I NEVER let a student make a turn without clearing. I give altitudes used during ground reference work on the tape so that we never get within 500' of persons, homes, or vehicles. We record all airwork as to location and altitude and turns to avoid clouds. All radio calls are recorded so that I have proof that everything was done according to the FARs, AIM and POH recommendations, etc. I teach by the book. I never teach a maneuver that is contrary to the POH recommendations, such as slipping with full flaps. I fly with the recorder in my lap so that I can feel when it stops and needs changing.

I have always tape recorded all that goes on in the cockpit so that the student has a record of what happened. Tapes make good playback of instruction and communications for student to hear while driving home from airport. Using this system there will be no aircraft noise on the tapes but all radio and cockpit conversations are recorded. This allows you to play back a tape to and from the airport. Take notes and prepare questions. Instructor should not have any objections since it is a record of doing his job well.

A tape recorder should be used during both ground and flight instruction. You will need a 4x6 type recorder with a mic jack at a cost between \$30 and \$60. The mini-recorders only run a half-hour and I have found that to be too short a time interval. At an electronics store you should buy a splitter to take both your head-phone jack and a patch cord to run to the recorder. The student provides recorder and 90 minute tapes. A slight increase in cost but a great increase in teaching efficiency. The recording allows student to play back pre-flight ground instruction, flight instruction, and post-flight critique. When they play back the tapes going to work etc. it gives them more insight into what I was saying and how it applied to the immediate situation. I couldn't see flight instructing any other way. If the student has future plans that may include instructing the tapes should be saved.

How you wire into the recorder depends on kind of inter-com you have. Portable 9V battery intercoms can be patched directly to recorder. Recorder must have 'mic' jack. Radio Shack has monaural splitter that will take your headset phone jack on one side. One end of patch cord goes into the splitter and the other end of the patch goes to the recorder. If you are flying with a stereo headset you will only hear through one ear of the headset. I once sent a headset back thinking it was the problem.

If your system is hardwired into the aircraft it will be 12V and will overdrive the recorder input. Put a 1-Meg resistor into the line inside the large phone jack and this will solve the problem. You have several options as to what cables to use. One is to get a plug reducer from standard to cassette size. They have 6-foot cables but half as much works best in the cockpit. They also have red-tipped resistance cables that can be used to cut down the amplification power of a hard-wired aircraft intercom's 12-volt system. Instead of the resistance cable you can solder a one-meg ohm resistor into the cable plug at one end to

accomplish the same thing. Suggest cutting 6' patch cable in half and making one for each intercom situation. In any event you should be using headsets if you value your hearing.

The tape makes good source of questions prior to next flight. The use of a tape recorder is the best way I know to improve learning and retention. This means the student can learn to fly for less money.

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