

---

## Important Information for Cassette Users

### Free Modification for LEVEL II Units

A modification that helps cassette loads in LEVEL II computers is available **free** to TRS-80 LEVEL II owners. This modification makes the volume setting less critical so that variations in different tapes usually will not require volume readjustments.

Some of the more recent LEVEL II Keyboard units have had this modification factory-installed. To see if the modification has been included in your computer, look at the catalog number on the bottom of the keyboard case. The modification has been made if the number ends in -1. For example, if the number is 26-1004-1, the modification has already been installed; if the number is 26-1004, the modification has not been installed.

If the number does not end in -1 and you have not already had the cassette modification installed by Radio Shack, you may arrange for installation at your local Radio Shack store.

### Using Your Cassette Deck

Many factors affect the performance of a cassette system. The most significant one is volume. Too low a volume may cause some of the information to be missed. Too high a volume may cause distortion and result in the transfer of background noise as valid information.

Three different cassette models have been supplied with the TRS-80 system – the CTR-40, CTR-41 and CTR-80. Each model has its own loading characteristics. The table below gives suggested volume ranges for each of the CTR models. Figures are for systems **without** the CLOAD modification.

Notice that volume ranges for LEVEL I and LEVEL II are different. This is because the LEVEL II data transfer rate is faster (500 baud vs. 250 baud). Also, notice that pre-recorded Radio Shack programs need a slightly **higher** volume setting than that required by your own CSAVED tapes. The pre-recorded tapes are produced with high-speed audio equipment at a slightly lower level than the CSAVE process provides.

RECORDER MODEL	USER-GENERATED TAPES		PRE-RECORDED RADIO SHACK TAPES	
	LEVEL I	LEVEL II	LEVEL I	LEVEL II
CTR-40	YELLOW LINE	RED LINE	YELLOW LINE	RED LINE
CTR-41	6 – 8	4 – 6	6½ – 8½	5 – 7
CTR-80	4½ – 6½	3 – 5	5½ – 7½	2½ – 5

Recommended Volume Settings for RADIO SHACK Cassette Decks

(With CTR-40 and CTR 80, to increase volume, turn the control to the left. With CTR-41, turn control to the right.)

---

---

When information is being loaded from the cassette tape, two asterisks will appear on the screen. The one on the right will flash on or off each time a new line of data or program is read in. If the asterisks do not appear, or the one on the right does not flash, then the volume setting is probably too low. If the asterisks appear but one is not flashing, try increasing the volume setting. Use the reset button to stop the cassette and return control to you if loading problems occur.

Radio Shack programs are recorded at least twice on each tape (usually once on each side). You should do the same when you record programs on tape. This will give you a back-up if one does not load properly or if it becomes damaged.

**Important Note:** The CTR-41 requires that you keep the supplied "dummy plug" in the MIC jack at all times. However, the CTR-40 and the CTR-80 should never be used with the "dummy plug."

#### LEVEL I

Sometimes you will get an error message during an attempted CLOAD. This means that some information was lost or garbled. Adjust the volume level slightly and try again.

#### LEVEL II

In case of an error message, proceed as above. In LEVEL II, there is also a rare case in which the program has not loaded correctly *even though no error is generated*. So, after CLOADing a program, be sure to LIST it. If some data was garbled, then at some point in the listing, the display will be filled with meaningless words and characters. Adjust the volume and try again.

### Hints and Tips

Computer tapes should be stored in a relatively dust-free area (a cassette case is recommended) and protected from high temperatures. Magnetic and electrical fields may alter recorded information, so avoid them (i.e. household appliances, power sources such as transformers and television sets, etc.).

The cassette deck supplied with the TRS-80 is very compatible with the system and will perform its duties with great success. To keep the cassette deck in top condition and thus minimize your problems, you should periodically perform some routine maintenance on it. Dirty heads can cause as much as a 50% loss in volume. Also, heads become magnetized with use and may cause distortion. We recommend that you clean the head, capstan and pinch roller after every four hours of operation. Heads on new recorders should always be cleaned before use.

**Note:** Cassette cleaning and demagnetizing accessories are available from your local Radio Shack store.

---