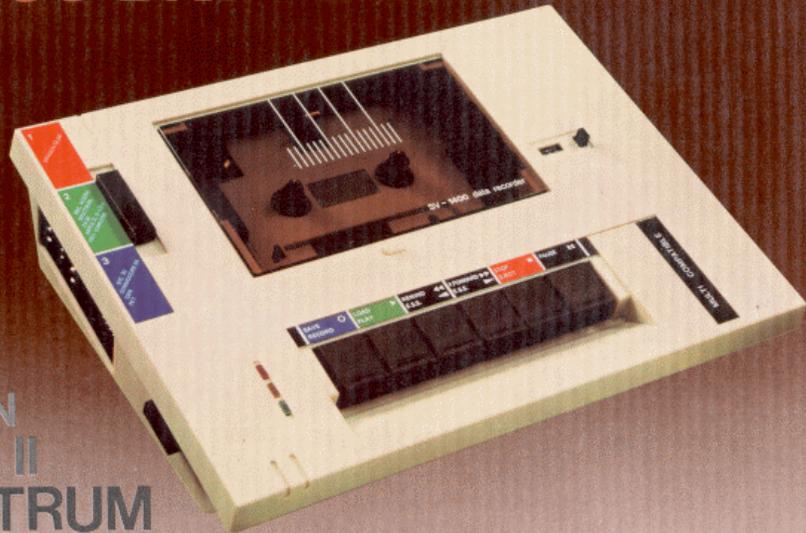


SV-1400 DATA RECORDER



FOR USE WITH:

PET
ZX 81

VIC 20

DRAGON

APPLE II

SPECTRUM

B. B. C. MICRO

MSX COMPUTERS

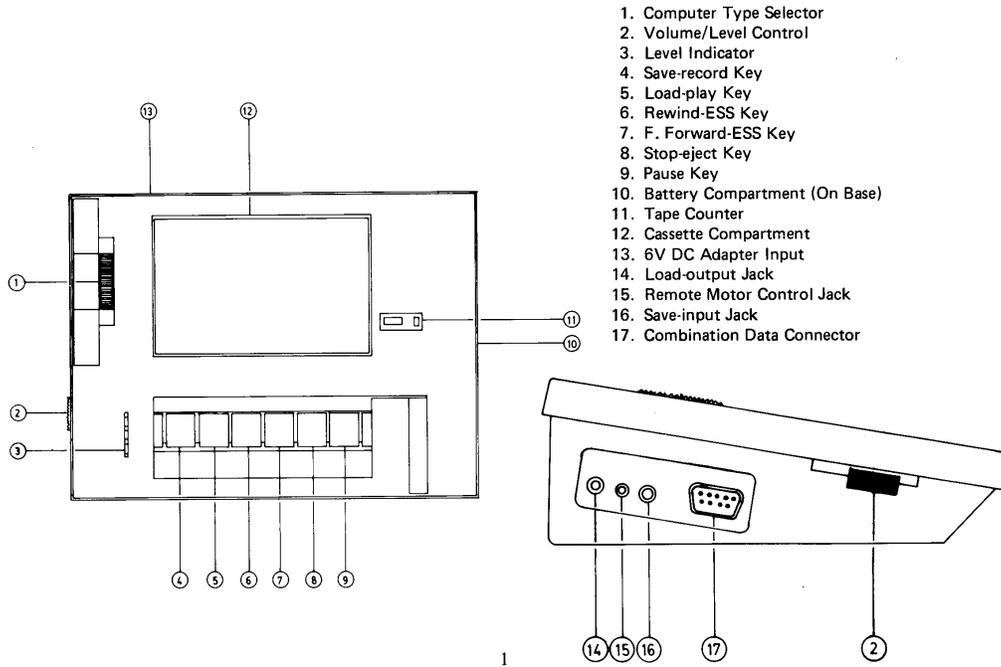
COMMODORE 64

IMPROVED
DATA
INTEGRITY

Scanned and converted to pdf by HansO, 2002



SV 1400 DATA RECORDER



1. Introduction

The SV1400 Data Recorder is the first in the new generation of high program- and data-reliability Data Cassette Recorders. Its special multi-standard construction suits it to the vast majority of home computers now and in the future. A machine especially designed for high reliability data storage, it has advanced circuits to store on tape and then read back programs (in whatever language) and data.

Its special LED display circuit allows you to easily set the sliding volume control for best performance. The ESS (Electronic Search System) allows you to search rapidly through the tape for programs and data. Convenience is enhanced with remote motor control by the computer. The set also features a mains adapter jack to save batteries.

2. Power Supply

2.1 Battery Operation:

Open the battery compartment on the right hand underside of the data recorder.

Insert four new AM3 or 'AA' size batteries. Make sure that they are all inserted the correct way round and replace the compartment cover. Alkaline batteries give best results.

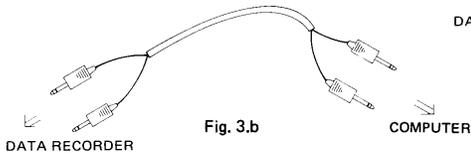
Set the computer type selector switch (1) to position 3.

Make sure the power to the computer is switched off.

Connect the cassette lead to the cassette connector of the computer and to the combination connector (17) of the data recorder.

The connector will only fit one way round so if it does not go in with gentle pressure do not force it. Check that it is the correct way round and try again. See fig. 3.a.

**3.2 Spectrum, ZX81, ZX80
BBC computer, Acorn
Apple II, II+, IIe
and similar computers**



Set the computer type selector switch (1) to position 2.

Make sure the power to the computer is switched off.

Connect the Output or Mic connector of the computer to the Save-Input jack (16) of the data recorder.

2.2 External power supply (mains adapter):

First check that your adapter is set to 6 volt output and that the centre hole is negative.

Connect the adapter to the 6V mains adapter input (13) at the rear of the data recorder.

Plug the mains adapter into a household mains outlet.

Note: Do not leave the mains adapter plugged into the mains outlet for long periods when not in use.

3. Connecting The Data Recorder To Your Computer

**3.1 Commodore 64
VIC 20
PET, CBM 4032, etc.**

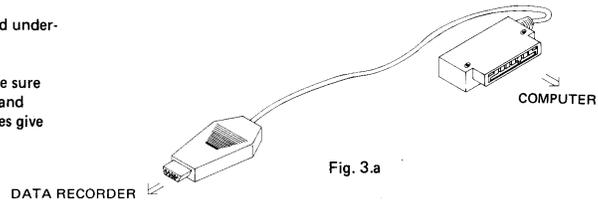


Fig. 3.a

2

Connect the Input or Ear connector of the computer to the Load-Output jack (14) of the data recorder. See fig. 3.b.

3.3 Spectravideo 318, 328, 328B

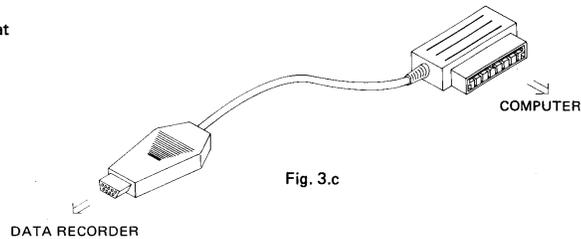


Fig. 3.c

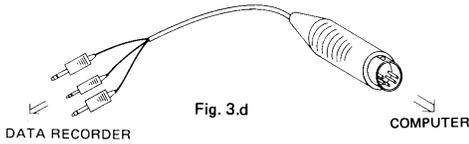
Set the computer type selector switch (1) to position 2.

Make sure the power to the computer is switched off.

Connect the special cable for Spectravideo computers to the cassette connector and to the combination connector (17) of the data recorder. This connector will only fit one way round so if it does not go in with gentle pressure do not force it. Check that it is the correct way round and try again. See fig. 3.c.

3

3.4 Dragon 32 and 64



- Set the computer type selector switch (1) to position 1.
- Connect the five-pin DIN plug to the cassette port of the computer
- Connect the Ear plug to the Load-Output jack (14).
- Connect the Mic plug to the Save-Input jack (16).

The third plug which is smaller than the other two should now be connected to the Remote motor control jack (15) of the data recorder. See fig. 3.d.

3.5 Others

Most other computers will use similar connections to either the Spectrum or Apple II.

Follow the instructions above as appropriate (Section 3.2).

4

When the recording is complete press the Stop-Eject key (8) to stop the data recorder.

5. Loading Programs And Data From Cassette Tape

Follow the instructions in your computer manual for loading programs from cassette.

See also appendix at the back of this manual.

Insert a cassette tape with a program on it into the cassette compartment and close the door. Rewind if necessary.

Make sure the computer is ready to accept the program and press the Load-Play key (5).

If your computer does not use the Remote motor control the tape will start running. If your computer uses the Remote motor control jack the tape will start running when the computer instructs it to.

Slide the Volume/Level Control (2) so that both the green and yellow lights shine steadily once you have started loading the actual program. Most computers load reliably with this setting. If your computer does not load, you need to find the best Volume for your computer. Start with the volume level control just over half way up and adjust as required until you find the best level for your computer.

5

4. Saving Programs And Data On Cassette

Press the Stop-Eject key (8) to open the cassette compartment (12).

Insert a fresh good quality cassette tape (eg. TDK D-C60) and close the door by pressing firmly but gently on the top.

Note: Do not use cheap, low quality cassette tapes for data recording. Chromium dioxide, Ferrichrome or Metal cassettes are NOT recommended.

Rewind the tape by pressing the Rewind-Review key (6).

Follow the instructions in your computer manual for saving program to cassette. See also appendix at the back of this manual.

Press the Save-Record key (4) until it locks down.

If your computer does not use the Remote motor control the tape will start moving and the record level indicator (3) will light up as soon as your computer output begins. If your computer uses the Remote motor control the tape will start to move when instructed by the computer.

No Volume-Level control adjustment is necessary on computers except the Dragon series.

Dragon Computers only:

Adjust the Volume-Level control (2) until the green and yellow lights on the Level Indicator (3) come on.

Pre-recorded tapes may occasionally demand some adjustment of the Volume/Level control.

When loading is complete press the Stop-Eject key (8) to stop the tape.

6. F. Forward and Rewind

To wind the tape quickly to the start of a program use the F. Forward-ESS key (7) to wind the tape forward or the Rewind-ESS key (6) to wind back. Do not press one after the other without stopping the tape first or the tape may become tangled.

7. Pausing The Tape

If you are loading or saving more than one copy of a program or multiple sets of data you can use the Pause key (9) to stop the tape for a short time. Press the Pause key again to continue.

8. Using The Tape Counter

If you make more than one recording on a tape make a note of the starting position on the counter when starting to save each program. Whenever you put a tape into the data recorder rewind it to the beginning using the Rewind-ESS key (6) and reset the counter to all zeros by pressing the button alongside. If you follow this simple procedure you will always be able to easily find a program on a tape.

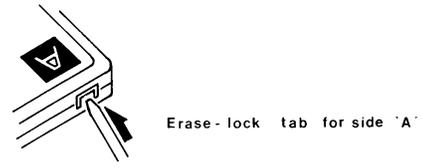
9. E.S.S. (Electronic Search System)

With the ESS you can quickly find a program when you have not used the tape counter. Press and hold down the Load-Play key and then press the F. Forward-ESS key (7) or Rewind-ESS key (6). There is a hiss and the Level indicators shine as the ESS circuits scan past programs and data, silence and no light in the gaps in between. This allows you to quickly scan through the tape. You can conveniently determine where the recording ends and save more from there on.

10. Write-protecting Your Tapes

To protect against accidental erasure by recording over an important program, remove the tab from the rear of the cassette with a small screwdriver or nail file. When the cassette is held with the recorded side up, the tab to remove is on the left rear edge of the cassette. If you want to record on the tape again later, use a piece of adhesive tape to cover the hole. See fig. 10.a.

Fig. 10.a



To make the heads easier to reach remove the batteries and mains adapter and press the Load-Play key to move the mechanism into view.

Carefully clean the heads, pinch roller and capstan shaft. Do not use a tape until the cleaning solution has completely evaporated.

13. Cleaning The Cabinet

Clean the cabinet with a slightly moist cloth and a drop of mild detergent solution. Do not use solvents such as alcohol, acetone or thinners as they may damage the finish of the cabinet.

14. Specifications

- Cassette : Philips Compact Cassette system; eg. TDK D-C60. Do not use Metal, Chromium or Ferrichrome.
- Sockets : 3.5mm dia. — Save-Input
3.5mm dia. — Load-Output
2.5mm dia. for computer remote control.
9 pin miniature 'D' connector for Commodore and Spectravideo computers
- Circuits : digital and analog IC's
- Display : 3 LED's
- Acoustics : Piezo-electric transducer
- Controls : 6 keys, 1 slider, 1 selector

11. Important Notes

Always store your tapes in their protective cases to keep dust and dirt out.

Keep tapes away from direct sunlight, heat or moisture. Never put a tape close to a loudspeaker or other magnetic fields like electric motors.

Never put a tape on or close to a television or video monitor they both generate magnetic fields that can erase tapes.

When using your data recorder keep it away from televisions, video monitors, mains adapters and power supplies, including the computer power supply.

Do not touch the record-playback head with any metallic object.

12. Maintenance Of The Mechanism

Keeping your data recorder in good condition is important. If a tiny part of a music tape is missing it would probably not be noticed but if a very small part of a recorded program is not recorded properly the program may be destroyed. Do not leave it in the sun or near a radiator.

The record-playback and erase heads can be cleaned periodically with a cotton bud moistened with head cleaner solution.

If the heads are very dirty you can use isopropyl alcohol to remove stubborn dirt.

- Temperature range : 0-35 degrees C
- Batteries : 4xAM3 (AA size, alkaline recommended)
- Mains adapter : 6 VDC 300 mA min, centre negative (not supplied)
- Dimensions : 220mm x 165mm x 58mm
- Weight : 1 kg
- Cables available : Cable for Commodore computers no. DCR-C-C (optional)
Cable for Spectravideo computers no. DCR-C-S (optional)
Cable for Spectrum/Apple computers no. DCR-C-A (optional)

APPENDIX

Examples of using the data recorder to save and load programs.

SPECTRUM

Type in a simple program such as

```
10 CLS
20 PRINT "HELLO"
30 END
```

Type SAVE "TEST" (do not press ENTER)
Press the Save-Record key of the data recorder until it locks down.

PRESS ENTER

You will see the message "Start tape, then press any key" and then press any key. When the cursor returns press Stop-Eject on the data recorder.

Now type NEW and press ENTER to clear the program from memory.

Type LIST or RUN to check that the program is gone.

To retrieve the program from cassette.

Type LOAD "TEST" (do not press ENTER)

Rewind the tape and press the Load-Play key. Wait about two seconds and press ENTER.

"TEST" will be displayed when found.

When loading is complete the cursor returns. Press the Stop-Eject key to stop the data recorder. You can now run or list the program to check that it has been retrieved correctly.

Followed by

O.K.

SEARCHING FOR TEST

FOUND TEST

Then press the  key on the computer

READY

Press the Stop-Eject key to stop the data recorder.

Type LIST and RETURN

you will see your test program back on screen, retrieved from the tape.

BBC COMPUTER

Type in a simple program such as

```
10 CLS
20 PRINT "HELLO"
30 END
```

Type

SAVE "TEST" and press RETURN

the display will show

RECORD then RETURN

Press the Save-Record key on the data recorder until it locks down then press RETURN.

Type NEW and press RETURN to clear the program from memory

COMMODORE

Type in a simple program such as

```
10 PRINT "HELLO"
20 END
```

Type SAVE "TEST" and press RETURN
The display will show

PRESS RECORD AND PLAY ON TAPE

or

PRESS PLAY AND RECORD ON TAPE NO. 1

Press the Save-Record key of the data recorder until it locks down. The display will show O.K.

SAVING TEST or WRITING TEST

When saving is complete the display will show

READY

Press the Stop-Eject key on the data recorder

Now type NEW and press RETURN to clear the program from memory. Type LIST and RETURN to check the program is gone.

To retrieve the program from the cassette rewind the tape to the beginning and press the Load-Play key.

Type LOAD "TEST" and press RETURN; the display will show

PRESS PLAY ON TAPE

or

PRESS PLAY ON TAPE NO. 1

To retrieve the program from the cassette, rewind the tape to the beginning and press the Load-Play key.

Type

LOAD "TEST" and press RETURN

The display will show

SEARCHING

LOADING

When loading is complete the prompt > will appear. You can now run or list the program to check that it has been retrieved correctly.

Note: You can use CHAIN instead of LOAD, in which case the program will automatically run after loading is complete.