

AccessionIndex: TCD-SCSS-T.20160425.002

Accession Date: 25-Apr-2016

Accession By: Paul O'Kane

Object name: Data General DG One Portable Computer

Vintage: c.1984

Synopsis: Early portable computer, model DG1/2T. S/N: 0054285.

Description:

Data General Corporation, Southboro, Massachusetts 01772, USA, was founded in 1968 by engineers from Digital Equipment Corporation, including a brilliant engineer, Edson de Castro, chief engineer for DEC's PDP-8. It began making its *Nova* line of 16-bit minicomputers with an accumulator-oriented architecture (a la PDP-8), the minicomputer era minimalist equivalent of the 6502 microprocessor of the personal computer era. Despite its early success, Data General lost its way both in the personal computer era and with the ascendancy of more general register-oriented architectures, then was badly affected by Motorola's withdrawal of its 88000 microprocessor, and finally was taken over by EMC in 1999.

The DG1/2T portable computer was released in September 1984. It is said to have been the first IBM-compatible personal computer with a full-size (11") LCD display and the first to use the new 3.5-inch floppy-disk drives. However, it was relatively heavy, weighing about 9 pounds, so whilst it had the form factor of a modern laptop, it nevertheless cannot be equated to a laptop. At ^{US}\$2895 it was also very expensive.

It used a 4.0MHz CMOS Intel i80C88 CPU, and so was compatible with IBM PCs and could run MSDOS, but did not have a PC-compatible ISA expansion bus. In addition, although its usual monochrome backlit green LCD display supported either 25 rows of 80 characters or 640 × 200 CGA graphics, and was quite large for the time, it had very poor contrast (an alternative power-hungry electroluminescent amber display was available, but entailed sacrificing the battery pack). Moreover, its serial ports were incompatible with those of an IBM PC. As a result the DG1/2T was a disappointingly unsuccessful product based on a very good concept.

The base model had 128kB of memory (about 40kB was used as video memory), one 3.5-inch floppy-disk drive, and a 79-key full-stroke keyboard. Memory could be expanded to 512MB, and a modem, second floppy-disk drive or a hard-disk (*'fixed disk'*) could be added. The battery pack (said to consist of C-size NiCad cells soldered together) gave about eight hours of run time, and used an external 6.4V charger.

The DG1/2T in this collection was made in about 1987. It is complete with power supply, owner's manual and original carrying-case, and is in good working order, although it needs to be connected to the power supply for 10 to 15 minutes before it will boot, as its internal battery no longer holds a charge. It runs MSDOS 3.3, with a 20MB hard disk and a 720kB floppy-disk drive. It has an LCD screen that has no backlight and is easy to read in bright light, but difficult otherwise. Note the backlight when present was not turned on by default during boot, so *'Cmd'* & *'+'* were needed to enable the backlight, and *'Cmd'* & *'PgUp'* to increase contrast.

Many thanks to Paul O'Kane, a TCD Engineering School graduate, who donated the items, which he first owned when working in Data General Ireland in 1988-1990.

The documentation is properly part of the Literature category of this catalog, but is listed below for convenience.

Trivia: for a taste of Data General, read Tracy Kidder's "The Soul of a New Machine"

Accession Index	Object with Identification
TCD-SCSS-T.20160425.002.001	Data General DG1/2T Portable Computer. S/N: 0054285
TCD-SCSS-T.20160425.002.002	Data General DG1/2T Portable Computer Power Supply. S/N: ???
TCD-SCSS-T.20160425.002.003	Data General DG1/2T Portable Computer Carrying-Case.
TCD-SCSS-V.20160425.001	Data General One Model 2T Owner's Manual, Rev.02, P/N: 0690000233, Data General Corporation, Japan, August 1987.

Also see related documents in associated folder in this catalog.

References:

1. Wikipedia, *Data General-One*, see:
https://en.wikipedia.org/wiki/Data_General-One
Last browsed to on 7-Jun-2016.
2. Data General, *Data General One Model 2T Owner's Manual*, Rev.02, P/N:
0690000233, Data General Corporation, Japan, August 1987.
3. Tracy Kidder, *The Soul of a New Machine*, Modern Library, ISBN 978-0-316-
49170-9, July 1981.



*Figure 1: Data General DG1/2T front three-quarter view
Photograph courtesy Paul O'Kane*



Figure 2: Data General DG1/2T left side view



Figure 3: Data General DG1/2T right side view



Figure 4: Data General DG1/2T rear view



Figure 5: Data General DG1/2T left rear closeup



Figure 6: Data General DG1/2T right rear closeup



Figure 7: Data General DG1/2T bottom view

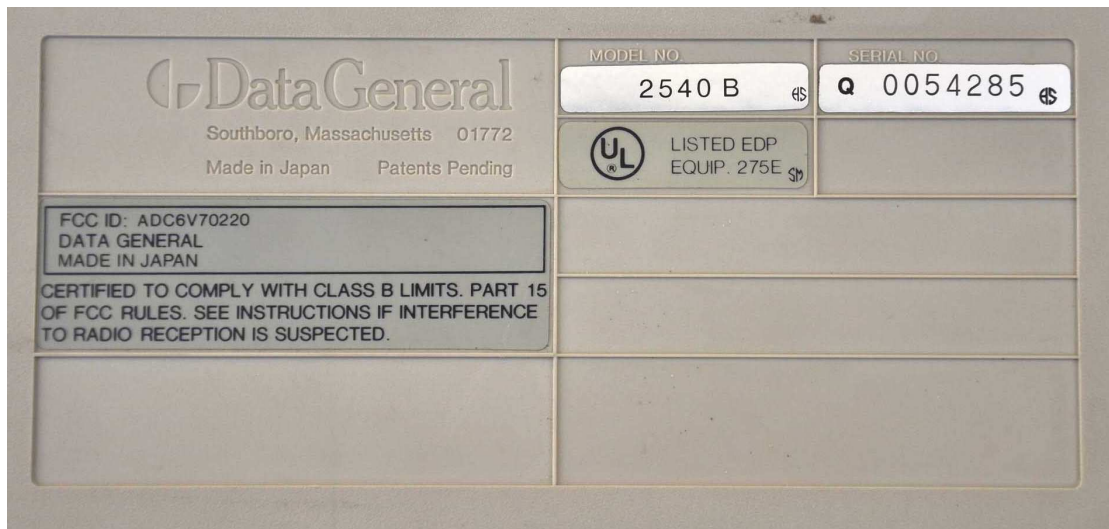


Figure 8: Data General DG1/2T manufacturing label
Photograph courtesy Paul O’Kane
Model: 2540B, S/N: 0054285

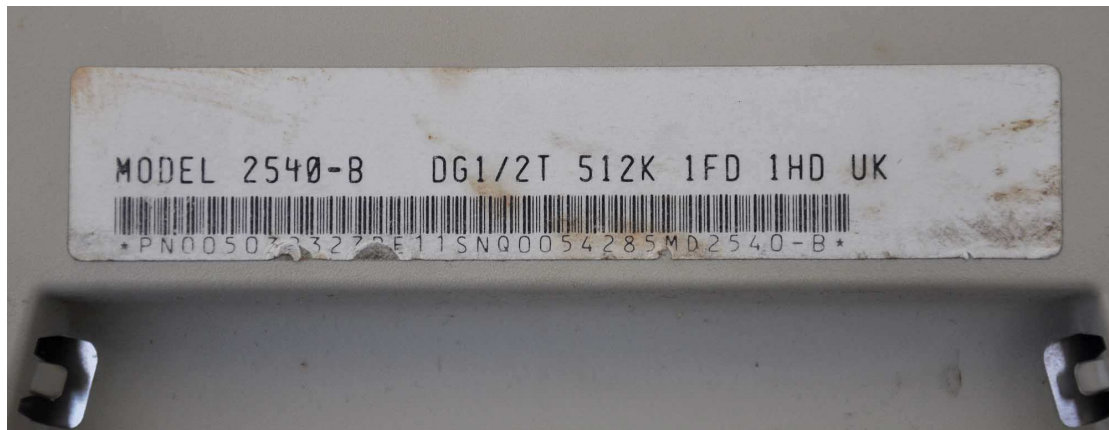
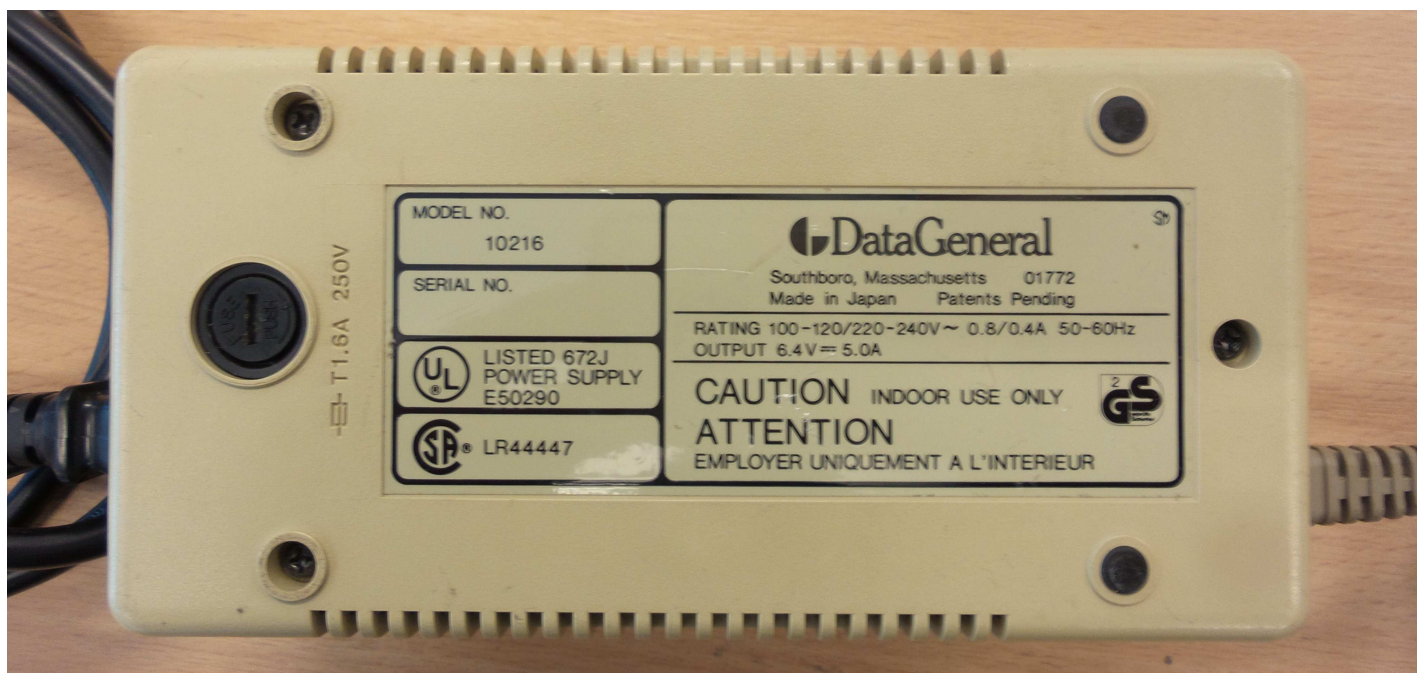


Figure 9: Data General DG1/2T secondary manufacturing label
“Model 2540-B DG1/2T 512K 1FD 1HD UK”
i.e. model 2540B DG1/2T 512kB memory, 1 x floppy disk, 1 x hard disk, made in UK
Photograph courtesy Paul O’Kane



Figure 10: Data General DG1/2T power supply



*Figure 11: Data General DG1/2T power supply manufacturing label
Model: 10216, S/N: ???*



Figure 12: Data General DG1/2T carrying case

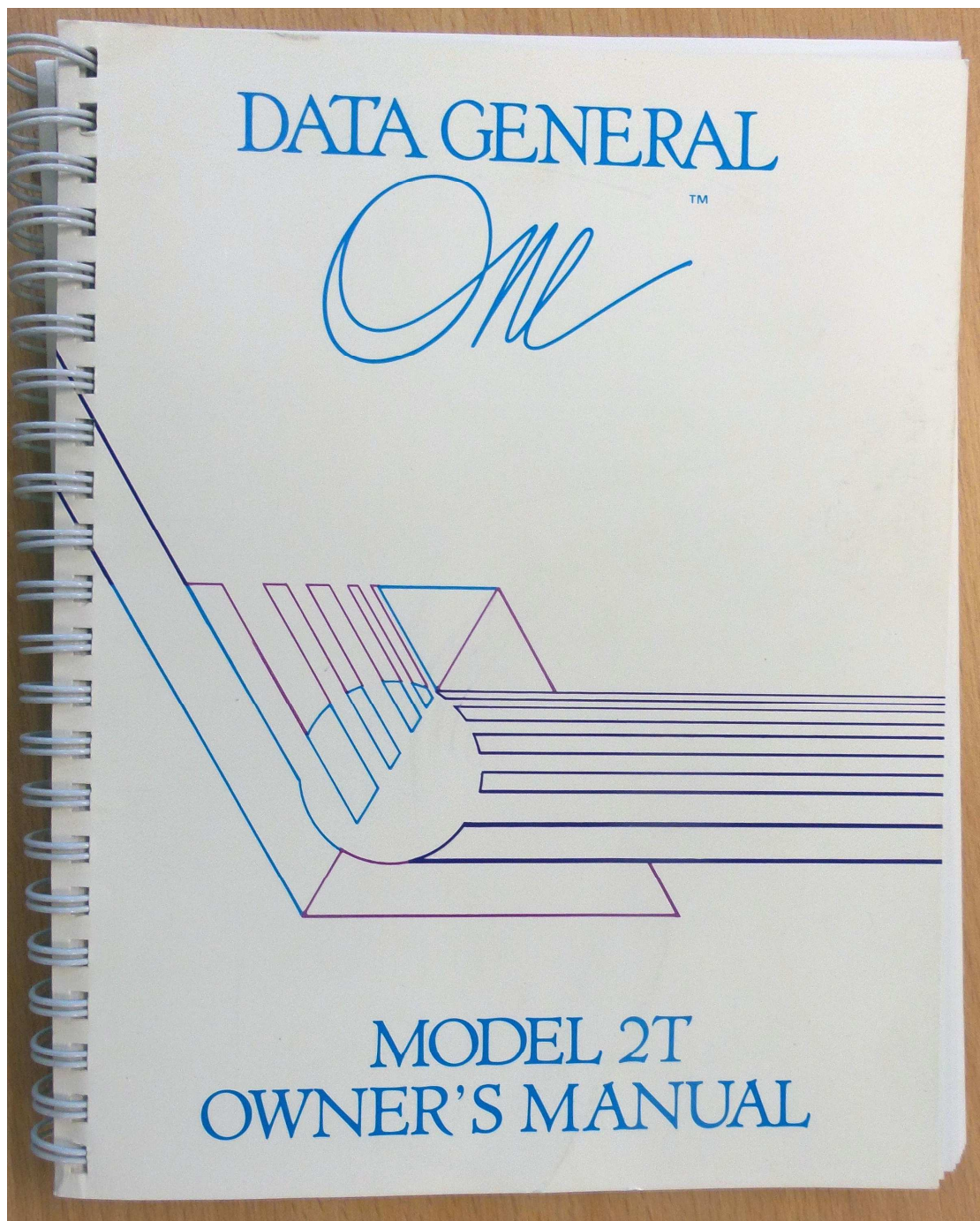


Figure 13: Data General DG1/2T owner's manual, Front Page

FCC Notice

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient the receiving antenna.

Move the computer away from the receiver. Relocate the computer with respect to the receiver.

Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems."

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

WARNING

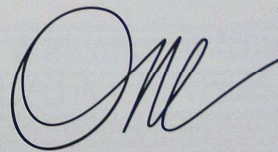
THIS EQUIPMENT HAS BEEN CERTIFIED TO COMPLY WITH THE LIMITS FOR A CLASS B COMPUTING DEVICE, PURSUANT TO SUBPART J OF PART 15 OF FCC RULES. ONLY PERIPHERALS (COMPUTER INPUT/OUTPUT DEVICES, TERMINALS, PRINTERS, ETC.) CERTIFIED TO COMPLY WITH THE CLASS B LIMITS MAY BE ATTACHED TO THIS COMPUTER. OPERATION WITH NON-CERTIFIED PERIPHERALS OR WITH UNSHIELDED INTERCONNECTING CABLES IS LIKELY TO RESULT IN INTERFERENCE TO RADIO AND TV RECEPTION.

The following FCC identification numbers can be used with the DATA GENERAL/One™ Model 2T.

ADC6V7300021619
ADC96F1200021619
ADC6V7030113
ADC6V7010913
ADC6L53724032218
ADC6L56224032218
ADC6V711160104

Certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. See instructions if interference to radio reception is suspected.

DATA GENERAL



MODEL 2T OWNER'S MANUAL

 Data General

Figure 14: Data General DG1/2T owner's manual, Title Pages page 1 and 2

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DATA GENERAL/ONE™ MODEL 2T OWNER'S MANUAL

Ordering No. 069-000233
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Printed in Japan
Rev. 02, August 1987

Welcome to Your DATA GENERAL

Model 2T Personal System

The DATA GENERAL/One Model 2T personal system is a compact, portable computer with the power and features of larger desktop systems. It comes with the industry-standard MS™-DOS operating system and 512 kilobytes of memory. The basic unit also includes a full-sized display screen, a keyboard, and an internal diskette drive — all in a package that weighs less than 12 pounds. Your system is equipped with one of two types of screens: a backlit "LCD" (liquid crystal display) or a light-emitting "EL" (electroluminescent) display. If you have the Model 2T-LCD system, a battery pack is included.

The DATA GENERAL/One Model 2T personal system has built-in software for running diagnostics and functioning as a computer terminal. You can also expand your system to include an external numeric keypad, a printer, a built-in modem, a second internal diskette drive or a fixed disk, an external 5 1/4" diskette drive, added memory, and other options to make your Model 2T a comprehensive system.

069-000233

Figure 15: Data General DG1/2T owner's manual, Title Pages page 3 and 4

Using this Manual

Various type styles are used throughout the manual to indicate different kinds of information.

This type identifies system messages and prompts, as well as what you type at the keyboard.

Bold type highlights words with special meaning or importance.

When you see an instruction such as "Press key1-key2," it means you should press the first key and hold it down, then press the second key. For example, "Press Ctrl-P" means you should press and hold the Ctrl key while simultaneously pressing the P key. Similarly, "Press Ctrl-Alt-Del" tells you to press Del while holding down the Ctrl and Alt keys.

The following chart shows what you'll find in each chapter, and whether you're likely to need to read respective chapters.

Chapter	What it's about	Who should read it
Introduction	Getting your system ready for use; adjusting your LCD screen back-lighting	Everyone
1	How to set certain system values, back up your MS-DOS system and application diskettes, prepare an optional fixed disk for use, and run application programs	Everyone
2	Operating your personal system on batteries and traveling with your system	Everyone
3	How to use the keyboard	Everyone
4	Using MS-DOS to manage files and your personal system	Anyone not familiar with MS-DOS
5	How to use the internal modem and communications software, and how to connect the communications hardware components	Anyone who has an optional internal modem
6	Connecting a printer and setting the system defaults	Anyone who has a printer

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Chapter	What it's about	Who should read it
7	How to set system defaults for the 5 1/4" diskette drive; how to use 5 1/4" diskettes	Anyone who has the optional 5 1/4" diskette subsystem
8	How to diagnose and fix problems, use power-on and extended diagnostics, and respond to common MS-DOS error messages	Skim or read this chapter as needed.
A	Accessories, options, and supplies for your personal system	Everyone
B	Built-in functions, default settings, and menu options explained	Everyone
C	Internal modem commands and registers	Anyone who has the optional internal modem
D	How to install options	Anyone who is using optional cards
E	ASCII conversion chart	Experienced users who need to generate or process characters by their hexadecimal or decimal equivalents
F	Information on the United Kingdom keyboard	United Kingdom personal system users
G	Environmental requirements	Everyone
H	Disk drive configuration and bootstrap information	Very experienced users
Glossary	Terms used in this manual	Anyone unfamiliar with the terminology

069-000233

Figure 16: Data General DG1/2T owner's manual, Title Pages page 5 and 6

NOTE: This manual is written for persons who want to run off-the-shelf applications software. If you want to program your personal system, order the optional manual, Programmer's Reference for MS-DOS (069-100157).

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Introduction Getting Ready to Use Your Personal System

Now that you've unpacked your DATA GENERAL/One Model 2T, you have a system, an AC adapter, your documentation, and an MS-DOS diskette ready to use. This introduction tells you how to assemble these elements so you can operate your computer. Remember to save the carton and all packing materials that came with your unit; you will need them if you ever have to reship the unit.

CAUTION: Do not try to disassemble your personal system. Only a Data General Corporation service representative should do this. You can, however, enhance your personal system by adding options at designated slots. See Appendix D for information on installing options.

Figure 20: Data General DG1/2T owner's manual, Contents Pages page vi and Introduction Page 1