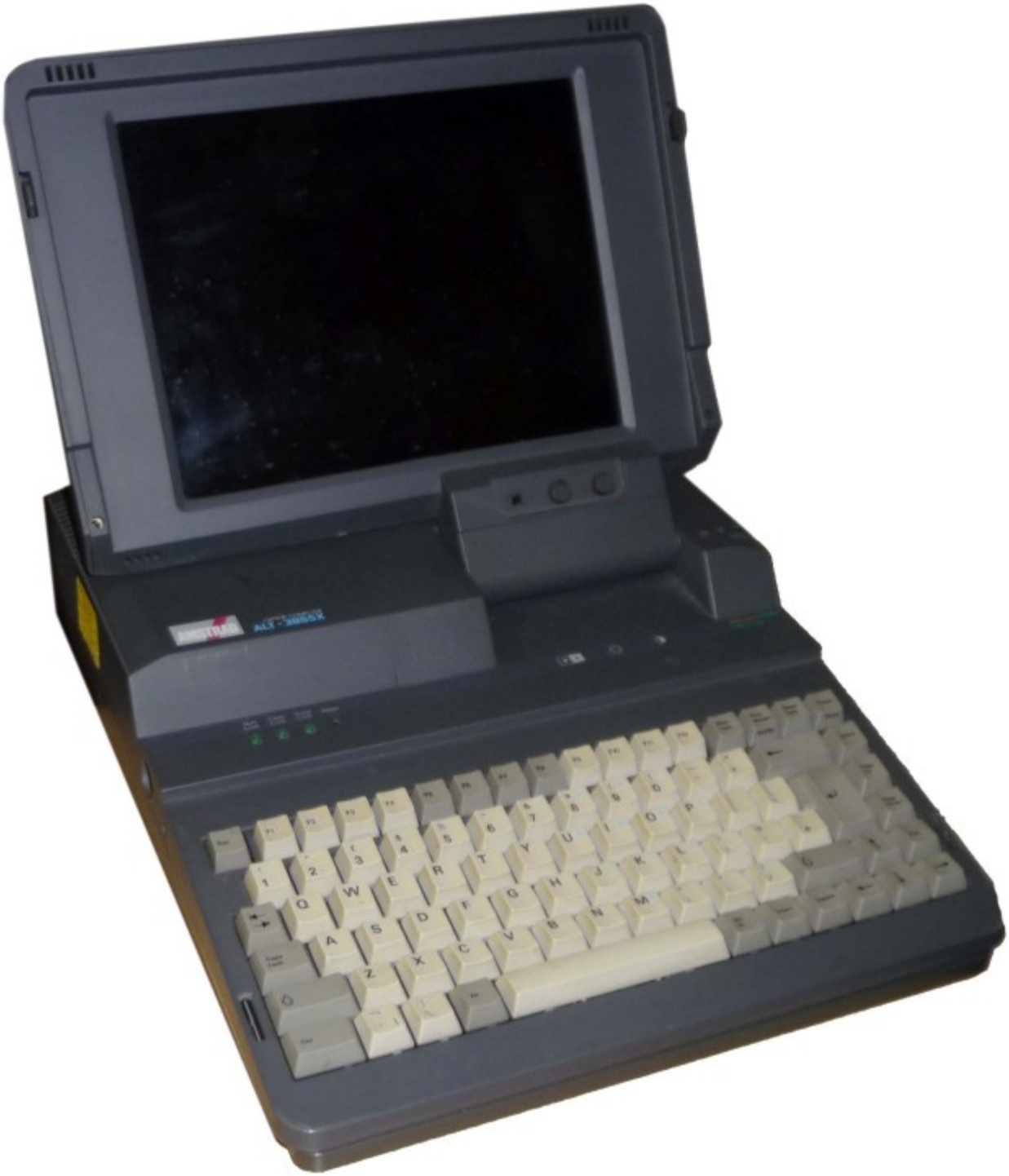
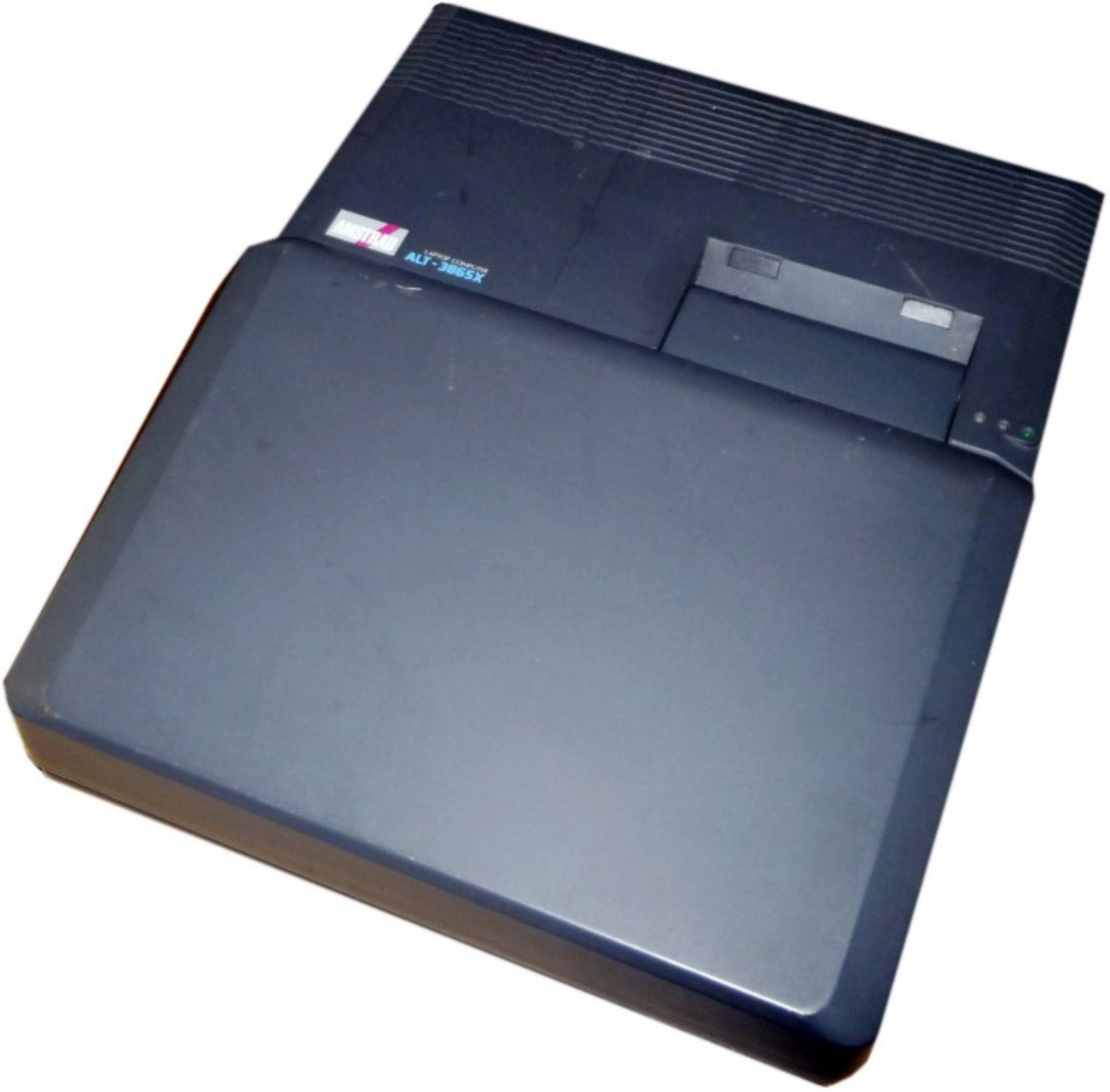
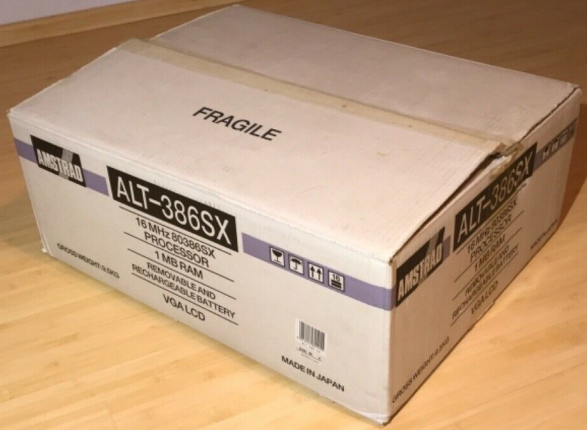
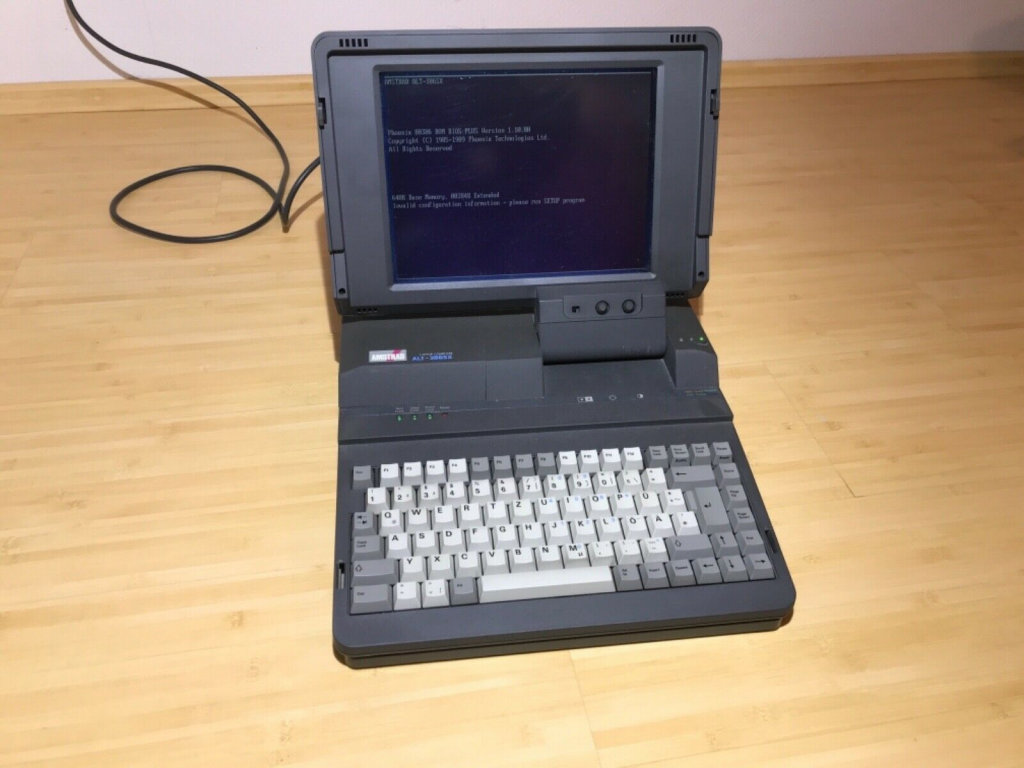
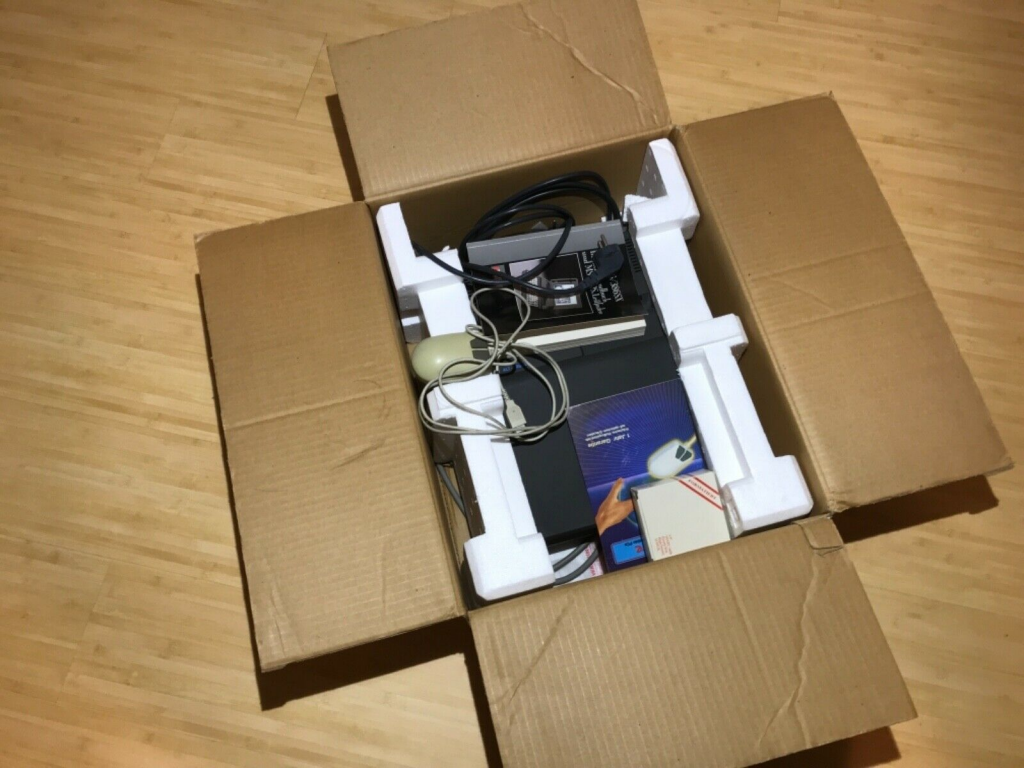
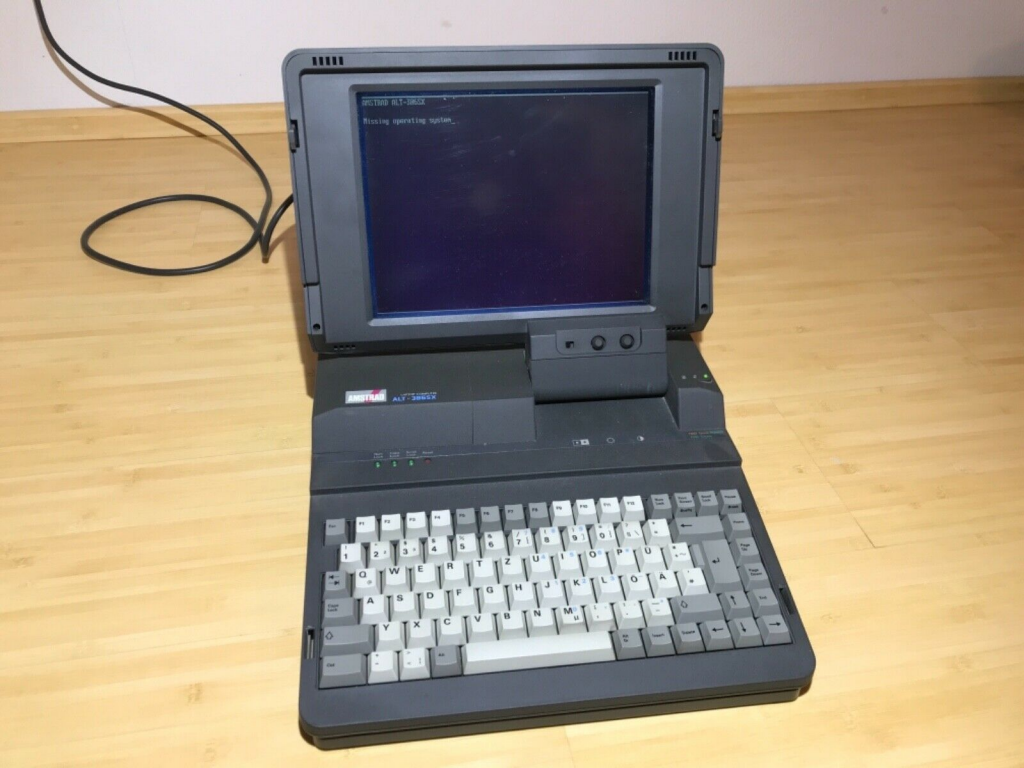

AMSTRAD
ALT 386SX

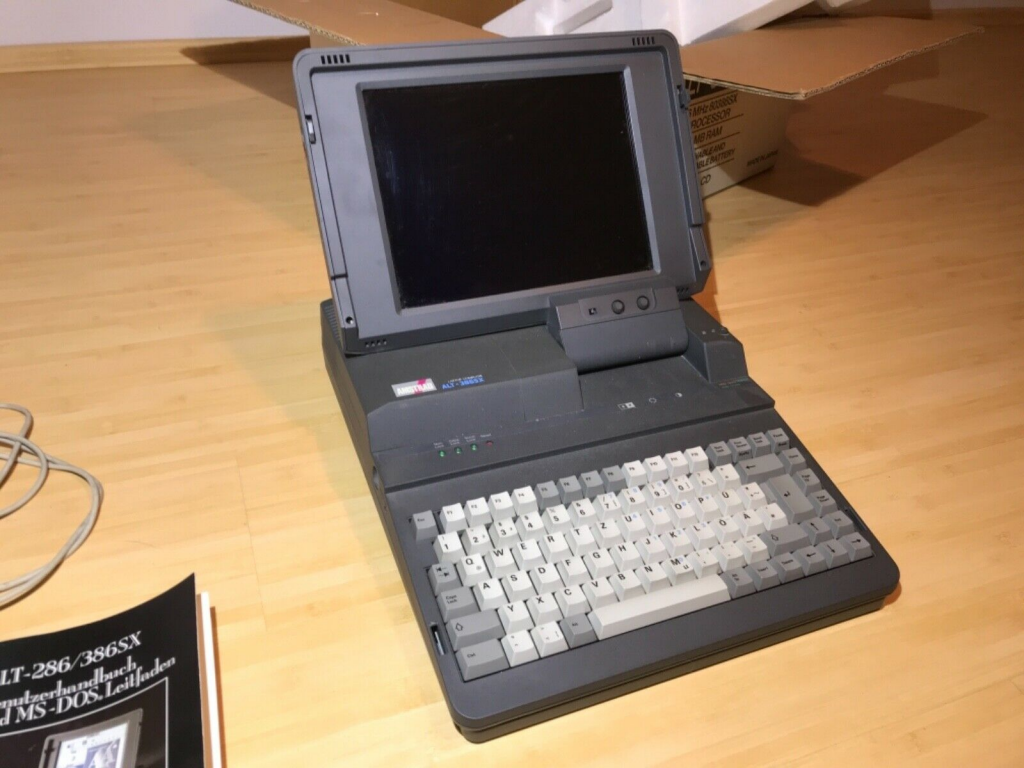

LAPTOP COMPUTER
ALT-386SX

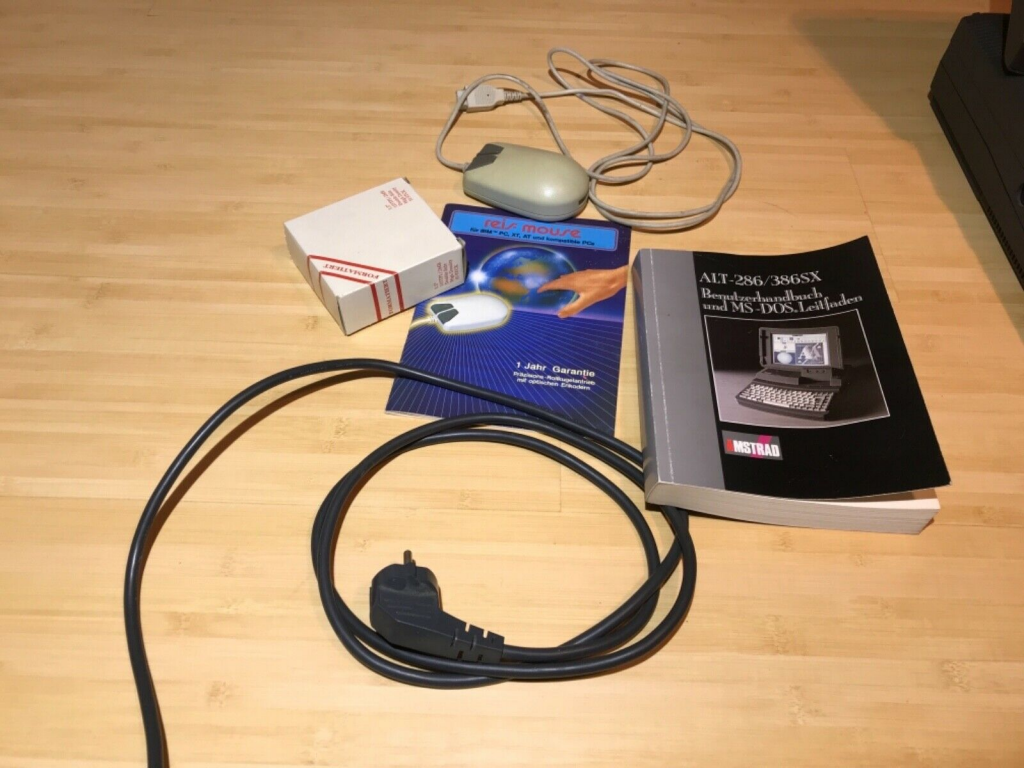

FRAGILE
AMSTRAD
ALT-386SX
16 MHz 80386SX
PROCESSOR
1 MEG RAM
REMOVABLE AND
RECHARGEABLE BATTERY
VGA LCD
MADE IN JAPAN
AMSTRAD
ALT-386SX

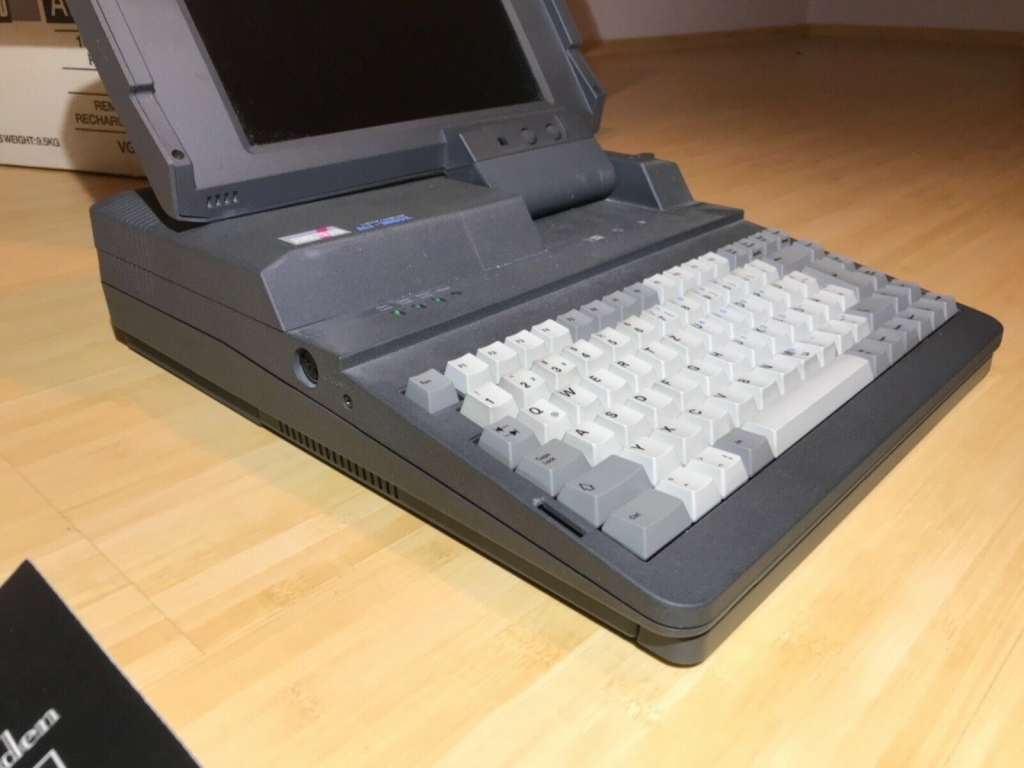

AMSTRAD
ALT 3000

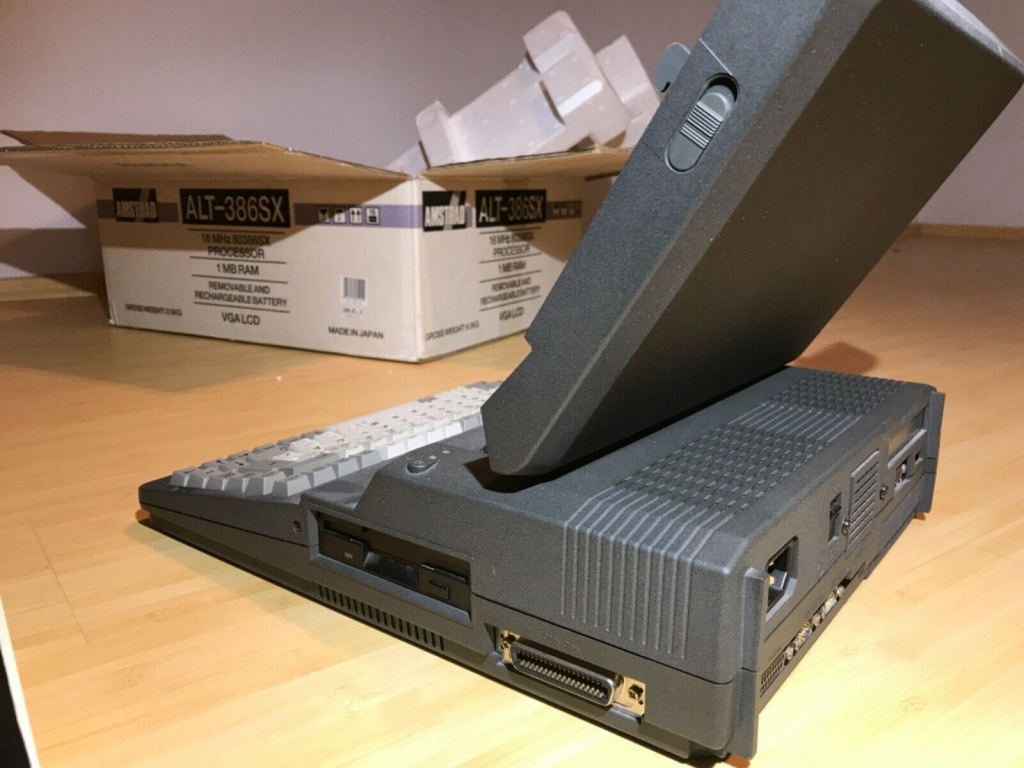


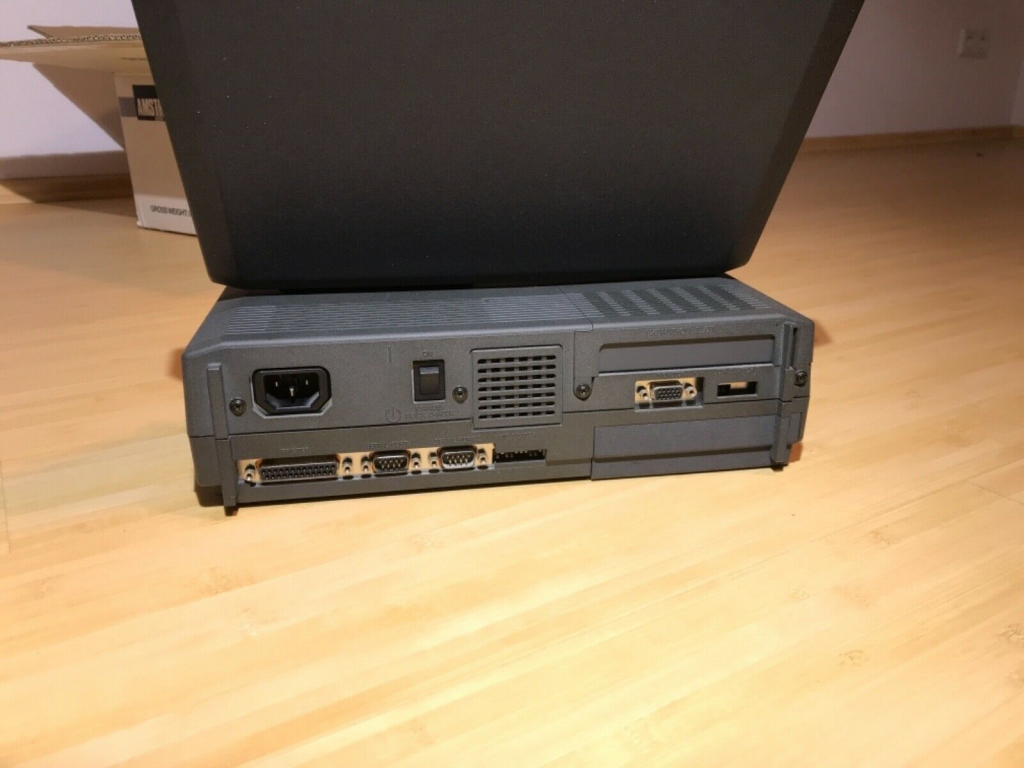

AMSTRAD ALT-386SX
Missing operating system_
AMSTRAD
ALT-386SX

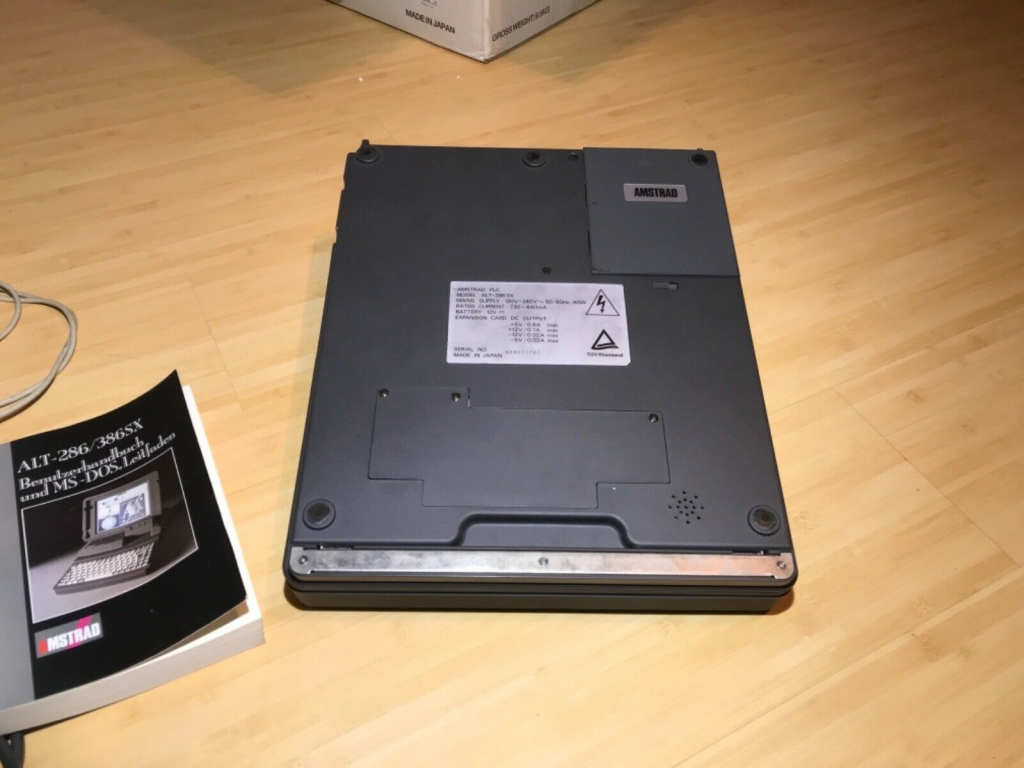

LT-286/386SX
rganizerhandbuch
d MS-DOS-Leitfaden


ALT-286/386SX
Benutzerhandbuch
und MS-DOS-Leitfaden
MISTRAD
1 Jahr Garantie




AMSTRAD
ALT-386SX
16 MHz 80386SX
PROCESSOR
1 MB RAM
REMOVABLE AND
RECHARGEABLE BATTERY
VGA LCD
MADE IN JAPAN
AMSTRAD
ALT-386SX
16 MHz 80386SX
PROCESSOR
1 MB RAM
VGA LCD




AMSTRAD
AMSTRAD PLC
MODEL ALT-386SX
RATED VOLTAGE 220V~240V~ 50/60Hz 60W
RATED CURRENT 720~440mA
BATTERY 12V ⎓
EXPANSION CARD DC OUTPUT
+5V 0.6A max
-5V 0.02A max
+12V 0.02A max
-5V 0.02A max
SERIAL NO.
MADE IN JAPAN
TÜV Rheinland
ALT-286/386SX
Benutzerhandbuch
und MS-DOS Leitfaden
AMSTRAD

Amstrad ALT-386SX Laptop Computer - Computer

3-4 minutes

The ALT-386SX dates from 1988 and is a laptop computer based on the Intel 80386SX (so without the mathematical coprocessor built-in) with a clock speed of 16 megahertz. There is version on the market that is almost identical to the 386SX but based on the Intel 80286 (AT) processor, with the type designation ALT 286. I obtained one during the HCC!dagen 2006 and will investigate it (to be continued). The facts and figures on this page only relate to the 386SX version, although these can also apply to the ALT-286. The computers look identical and use, at least, the same battery pack and share the User manual and even the Service manual (that we also have) which indicates that many parts can be exchanged between the two models. The 286 comes with a 20 megabytes hard disc and the 386SX with an 80 or a 170 megabytes hard disc.

A characteristic design feature of this laptop is the single eccentrically fitted hinge on the Liquid Crystal Display (LCD screen). Instead of in the middle, as you would expect, this is fitted to the extreme right of the base unit.

MODEL	ALT386SX
Processor	80386SX
Speed	16MHz (switchable !0 8MHz)
RAM	1Mb {2Mb and 4Mb upgrades
Expansion Slot	1 x 16-bit, half length

Power Save Features Power down of LCD & HDD after user
Hard Disk 40Mb (25ms access time)
Floppy Drive 1 x 3.5" x 1.44Mb
External Floppy Drive 1 x 3,5" x 720Kb or 1.44Mb
Graphics VGA/EGA/CGA/MOA/Hercules
Parallel Port I x 25-pin D-type
Serial Port 2 x 9-pm D-type
Keyboard 85-key, integrated numeric Keypad, 12 function keys Maths co-processor Socket available
System Reset Switch Available
External interlaces VGA Monitor Port
Supplied Software MS-DOS 3 30 Operating System

DIMENSIONS

Width 318mm
Depth 380mm
Weight 7.00Kg (inc. battery pack} 6.00Kg {without battery pack

SCREEN

Type Backlit LCD
Dimensions 223 x 169rnm
Resolution 640 x 480 pixels

Made in Japan. Our machine has a serial number of N15136136 A and was kindly donated by Tom Armitstead

Manufacturer: Amstrad
Date: 1988

Comment on This Page

This exhibit has a reference ID of **CH31788**. Please quote this reference ID in any communication with the Centre for Computing History.

kdelaney.neocities.org

7-9 minutes

This page is not affiliated with or endorsed by Amstrad or Sky PLC.

Specs

CPU	386SX* 16MHz (Switchable to 8Mhz)
RAM	1MB, expandable to 2MB or 4MB
FDD (A)	3.5" HD 1.4MB
HDD (#1)	40MB[?] (Type 17)
Video	VGA-compatible with socket for external monitor
Screen	Backlit, 640x480, 32 grays, STN
Keyboard	85-key internal, AT-compatible socket
Ports	1x DB-25 Parallel, 2x DE-9 Serial
Expansion	1 half-length 16-bit ISA slot
Battery	2400mAh 12V Battery Pack, "2 hours usage"
Supplied Software	MS-DOS 3.30, video soft-switch utility, memory utility

*Unlike on the 486, SX here means a 286-style 16-bit bus, 386s never had onboard FPUs. Since other models had 286s, Amstrad probably chose the SX to reuse the same motherboard design.

Screws

All screws are M3 Phillips, units in millimeters

Exterior

Location	Qty.	Pitch	Len.
Under handle	4	1.5	8
Under and near battery	2	1.5	12
Corner bottom	1	1.5	35
Middle bottom	1	0.5	6
Power socket (pan-head)	2	0.5	8
Card bay (pan-head)	2	0.5	10
Sides	2	0.5	4
Memory/ Coprocessor hatch	3	0.5	6

Interior

Location	Qty.	Pitch	Len.
FD caddy rear (w/ ground wire)	1	1.5	8
FD caddy sides (w/ washers)	4	0.5	8
vga to power tab, vga side	1	1.5	8
vga to power tab, power side (w/ washers)	1	0.5	8
HD caddy	4	1.5	5
Memory/ Coprocessor board	5	1.5	8

Batteries

Clock: 3 nicad cells, 3.6v 400mAh. Likely to leak, replace immediately! Soldered to motherboard in bottom of case. May be trickle-charged while unit is powered?

Power: 10 nicad cells, 12v, 2400mAh. Charging regulated by inline thermostats.

Floppy Disk

Internal

Normally, all the odd pins of a floppy cable are ground or not connected, but here some of them supply power.

1	NC	**2**	HD/NORM
3	NC	**4**	NC
5	+5V	**6**	NC
7	+5V	**8**	IDX
9	+5V	**10**	DR0
11	+5V	**12**	DR1
13	GND	**14**	MR1
15	GND	**16**	MR0
17	GND	**18**	FDIRC
19	GND	**20**	FSTEP
21	GND	**22**	FWD
23	GND	**24**	FWE
25	GND	**26**	FTK0

27	GND	**28**	FWP
29	NC	**30**	FRDD
31	NC	**32**	FWS
33	NC	**34**	DCHG

Pin #1 is bottom-left when looking at back of drive. The key on the drive end of the cable is on the top, but a standard drive/cable would have it on the bottom. The location of the pins on the drive are the same, however.

External

1	GND	**19**	HD/NORM
2	GND	**20**	NC
3	GND	**21**	NC
4	GND	**22**	IDX
5	GND	**23**	DR0
6	GND	**24**	DR1
7	GND	**25**	NC
8	GND	**26**	MR1
9	GND	**27**	FDIRC
10	GND	**28**	FSTEP
11	GND	**29**	FWD
12	GND	**30**	FWE
13	GND	**31**	FTK0

14	GND	**32**	FWP
15	GND	**33**	FRDD
16	GND	**34**	FWS
17	GND	**35**	DCHG
18	NC	**36**	GND

Hard Disk

The harddrive appears to be standard IDE/PATA drive, except that the Molex connector is unused—the power is supplied by a more compact 3 pin connector.

1	+5V
2	+12V
3	GND

The BIOS definitely does not support LBA, and normally uses preset drive parameters—Type 17 appears to work on mine—but some of the sets are configurable for other CHS values.

Power Supply

Motherboard

1	+5V
2	+5V
3	+12V
4	-12V
5	-24V

6	GND
7	GND

Indicators

1	Quick
2	Trickle
3	Power
4	Off Alarm
5	GND

Battery Pack

1	Charge
2	Discharge
3	NC
4	GND

Fan

1	+12V Fan
2	NC
3	GND

Keyboard Shortcuts

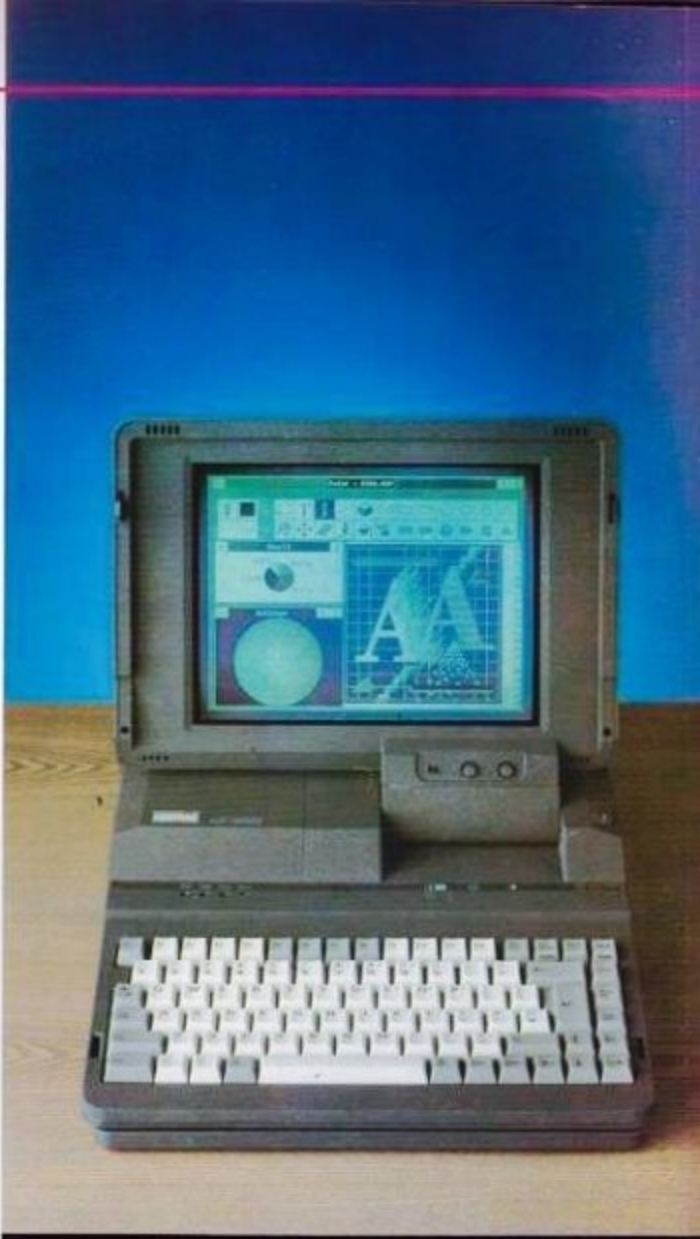
Most of these are provided by the VGA soft-switch utility.

Key	Mnemonic	Description
Ctrl+**Alt**+**S**	Enter Setup (built-in)	Enter BIOS setup from DOS
Ctrl+**Shift**+**A**	Automap colors	Toggle automatic mapping of textmode colors to grays
Ctrl+**Shift**+**B**	Bold letters	Toggle displaying bright-colored letters in a bold font
Ctrl+**Shift**+**C**	Centering	Change position of non-expanded picture on screen
Ctrl+**Shift**+**D**	Display switch	Switch between LCD and external monitor
Ctrl+**Shift**+**E**	Expand mode	Toggle stretching of 200/400 line modes to full screen
Ctrl+**Shift**+**F**	Frame color	Change color of frame around non-expanded picture
Ctrl+**Shift**+**R**	Reverse video	Invert image, swapping black with white, etc.
Ctrl+**Shift**+**S**	Screen power	Turn LCD on or off
Ctrl+**Shift**+**W**	Width fixup	???

AMSTRAD

ALT-286 & ALT-386SX

- Επεξεργαστής 80 286 ή 80386SX στα 16MHz
- Μνήμη RAM 1MB Επέκταση on-board σε 2MB ή 4MB
- Μια θύρα επέκτασης half length (ISA), 16-bit
- Οθόνη Υψηλής ανάλυσης backlit VGA LCD
- Σκληροί δίσκοι 40MB (ALT-386SX) και 20MB (ALT-286)
- Δυνατότητα οικονομίας ρεύματος λειτουργίας οθόνης και σκληρού δίσκου
- Ένα floppy drive 3,5" 1,44 MB
- Έξοδος για σύνδεση εξωτερικού drive 3,5" ή 5,25"
- Τροφοδοσία με ρεύμα ή επαναφορτιζόμενη φορητή μπαταρία
- Μετασχηματιστής με φορτιστή μπαταρίας
- Εύκολη επέκταση
- Υποδοχή Μαθηματικού συν-επεξεργαστή
- Εργονομικό σχεδιασμένο πληκτρολόγιο με 12 πλήκτρα λειτουργιών
- Με εξαρτήματα που αποτελούν διομηχανικά standards



ΟΙ ΦΟΡΗΤΟΙ ΕΠΑΓΓΕΛΜΑΤΙΕΣ

Ασύγκριτοι!
Με VGA και σκληρό δίσκο!
Οι φορητοί που δεν φοβούνται το μέλλον!

AMSTRAD