Philips PTS 6000 Peripherals

The type and load of data processing in a terminal system as required by banks differ considerably. There is thus a need for different types of peripherals. The Philips PTS 6000 system therefore provides a range of peripherals which allow for the development of special terminal systems to meet specific situations.

These peripherals are tape units, disk units, matrix line printers, card readers, console typewriters and magnetic tape cassettes.

TAPE UNITS

Although the Philips PTS 6000 terminal computers are designed for on-line working with a bank main computer, such an arrangement may not be efficient or economic, due to the reliability or the high cost of dedicated telephone lines. To meet such situations, Philips provide magnetic tape units for transferring data on cassette to standard ½ inch tapes, which can be physically transported to a central computer or EDP facility. A magnetic tape unit can also be used as a data carrier in situations where the capacity of the magnetic tape cassette is insufficient.

DISKS

Again, the ability to work on-line with a main computer is an essential feature when the main computer is used to store all customer's files. However, decentralised files may be kept because of local administrative requirements. For example, each bank of a group sharing a centralised EDP facility may be legally required to maintain its own customers' files. In addition, decentralisation decreases the bank's vulnerability to disturbances in the central system, such as caused by strikes for example.

Decentralised files are conveniently maintained in the disk units, each of which can store some 5M bytes.

PRINTERS

A large terminal system may require a local bulk-printing facility for the production of daily and monthly journals, tables, statistical information, etc. Such a facility is also essential for a program development system.

For these reasons, the Philips PTS 6000 system includes a medium-speed, highly reliable, matrix line printer.

CARD READERS

A well-designed bank terminal system not only looks to the future — it accommodates the past as well. Compatibility with existing main computers is one example of this, and another is the inclusion in the system of a card reader. This unit provides an interface with programming systems for entry from source decks, where punched cards are still in common use.

CONSOLE TYPEWRITERS

Check out and program testing is, naturally, an important part of a working bank terminal system. For this purpose, Philips offers a console typewriter, which extends the communication possibilities between the terminal computer and its programming unit.

MAGNETIC TAPE CASSETTES

Each terminal computer is equipped with magnetic tape cassette units for data logging and program storage. These units are described in the chapters on the Philips PTS 6000 terminal computers, since they are regarded as an essential part of these computers.
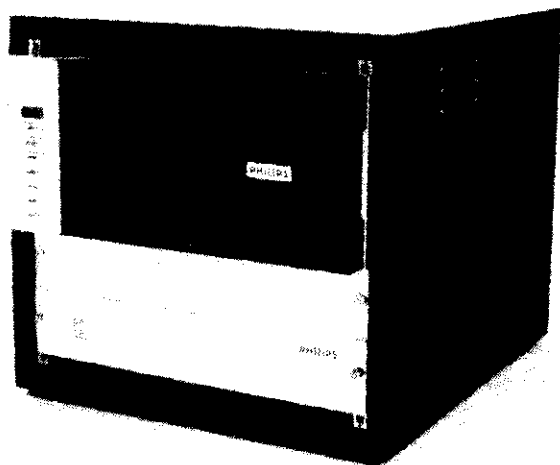
FLEXIBLE DISK UNITS

Each terminal computer can be equipped with flexible disk units for data logging and program storage.

Not all peripherals will be found in every bank, but they provide the "rounding off" essential for a fully-developed bank terminal system.

PHILIPS PTS 6000 TERMINAL SYSTEM

Philips PTS 6164 Magnetic Tape Unit Assembly

The tape drive unit is mounted in a separate table-top cabinet. The phase encoding recording mode is employed on 9 channels at a density of 1600 bpi, and reels up to 7 inch diameter can be accepted. The read/write speed is 20kb/s.

OPTIONS/USER ADAPTATIONS
The text panel is adaptable in that it can be supplied to the customer's specification.

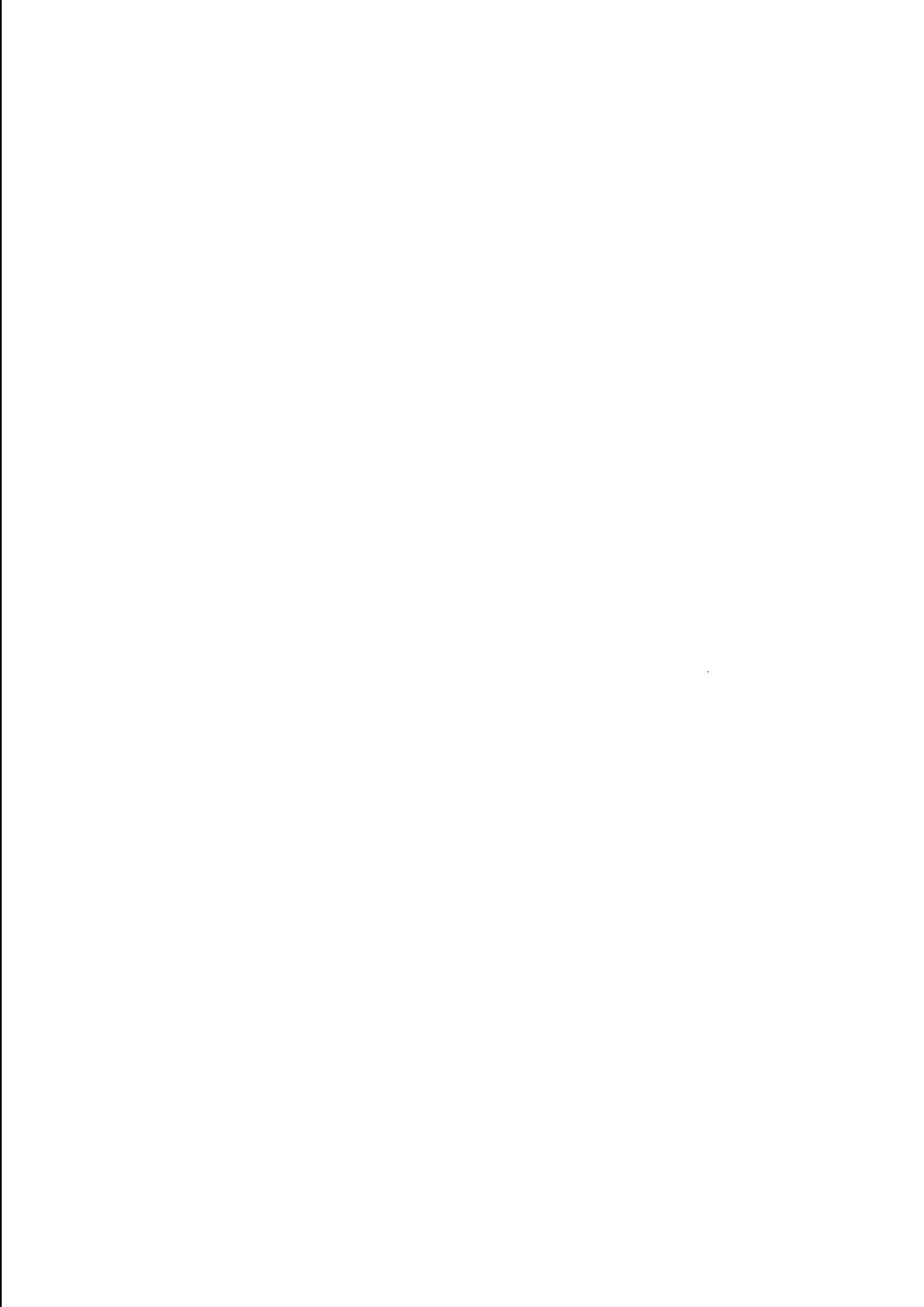If required, an 800 bpi version may be offered.

CONNECTIONS
The PTS 6164 Magnetic Tape Unit Assembly is connected via two 3m cables to the channel unit CHM, which is mounted in the rack of the Philips PTS 6110 terminal computer.

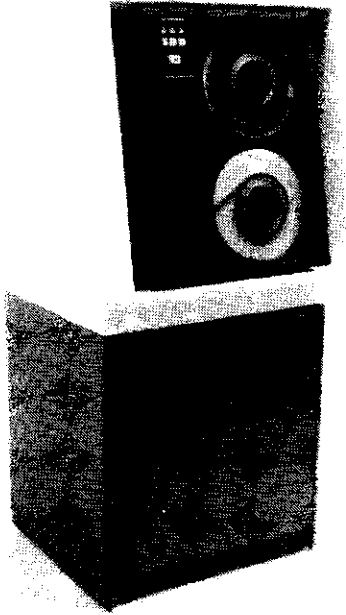The unit has its own power supply which is connected via a 2,5m safety-earthed cable to the mains.

TECHNICAL SUMMARY

Character code	ISO7 or EBCDIC
Recording mode	PE (c.f. ANSI, X3,39-1973)
Tape speed	12,5 ips at 1600 bpi
Recording density	1600 bpi
No. of read/write heads	9
Tape reel diameter	7 inches (max.)
Read/write speed	20kb/s
Rewind speed	50 ips
Start/stop time at 12,5 ips	30 ± 2ms
Start/stop distance	0,19 ± 0,02 inches
Block length	200 bytes of 8 bits (max.)
Beginning of tape (BOT) and End of tape (EOT) detectors	Photo electric (IBM compatible)
Dimensions (including CHM)	545 x 465 x 635 mm (WxHxD)
Weight	48kg
Power supply	220V ± 10%, 50Hz ± 4%, 220VA

Environmental conditions	in operation	during storage
Temperature	+15 to +35°C	-40 to +70°C
Humidity	20 to 80%	20 to 95%
Heat dissipation	< 220W	

INTRODUCTION AND APPLICATIONS
The Philips PTS 6164 Magnetic Tape Unit Assembly is a peripheral to the Philips PTS 6110 Terminal Computer, and is mainly used for

- data interchange with other systems

  transfer of data from cassette to tape and vice versa

- data logging

  Data on a cassette are read by PTS 6162 (PTS 6161)/Digital Cassette Recorder and are recorded by standard ½ inch magnetic tape by the PTS 6164, or vice versa.

PRODUCT DESCRIPTION
The Philips PTS 6164 Magnetic Tape Unit Assembly comcomprises

- ½ inch Magnetic Tape Unit (MTU) in a separate housing

- Channel Unit (CHM) mounted in the Terminal Computer PTS 6110

- Text panel on the control panel of the Terminal Computer (in English)

- Connecting cables.

PHILIPS PTS 6000 TERMINAL SYSTEM

Philips PTS 6872 Magnetic Tape Unit

INTRODUCTION AND APPLICATIONS

The Philips PTS 6872 Magnetic Tape Unit is a peripheral
to the Philips PTS 6810 Terminal Computer, and is mainly
used for:

- data interchange with other systems

- transfer of data from cassette to tape and vice versa

- logging, in data communication systems

- back up for disk files

- program carrier

The Philips PTS 6872 handles standard ½ inch tapes. It
can hold up to 30M bytes of information at maximum block
length and tape length.

PRODUCT DESCRIPTION

The Philips PTS 6872 consists of a

- ½ inch magnetic tape drive

- Formatter.

The Philips PTS 6872 handles standard ½ inch tapes —
9 channels, phase encoded with 1600 bpi.
Maximum reel diameter is 10,5 inches.
The magnetic tape unit is mounted in a free-standing
cabinet.
The read/write speed is 40 kb/s.

CONNECTIONS

The Philips PTS 6872 Magnetic Tape Unit is connected to
the PTS 6810 Terminal Computer via the PTS 6842 Channel
Unit for Magnetic Tape with a 3m long cable. Two magnetic
tape units may be connected in series to one channel unit.
Only the first connected magnetic tape unit need include a
formatter.

Power is fed from the normal mains supply via a
standard, safety-earthed, 2,5m long cable.

It is necessary that the terminal computer includes a
Philips PTS 6827 Multiplexer in order to connect a
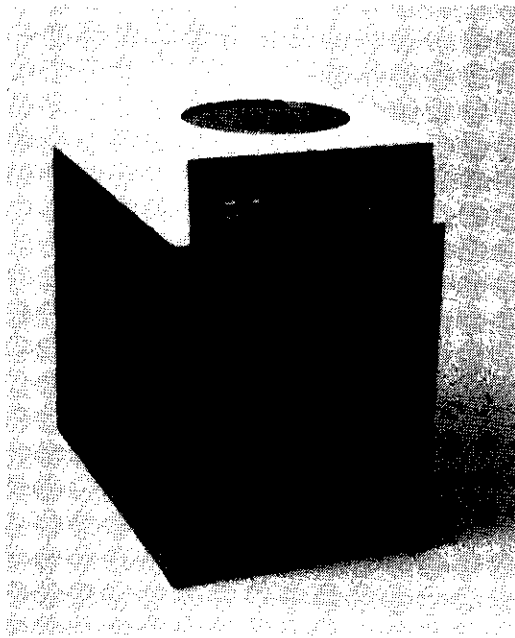PTS 6872 Magnetic Tape Unit.

TECHNICAL SUMMARY

Character code	ISO7 or EBCDIC
Recording mode	PE (c.f. ANSI, X3, 39-1973)
Tape speed	25 ips
Recording density	1600 bpi, phase encoded
No. of read/write heads	9
Tape reel diameter	6,5 inch (min.) 10,5 inch (max.)
Tape length	730 m (max.)
Read/write speed	40 k bytes/s
Rewind speed	200 ips (average)
Stop/start time	15 ms ± 1 ms
Maximum block length	2048 characters of 8 bits
Minimum block length	18 characters of 8 bits
Beginning of tape (BOT) & End of tape (EOT) detectors	Photoelectric, IBM compatible
Dimensions (including cabinet)	1450 x 650 x 720 mm (HxWxD)
Weight	180 kg (excluding formatter) 191 kg (including formatter)
Power supply	220V ± 10%, 50Hz ± 4%, single phase
Power rating	400VA (including formatter) 300VA (excluding formatter)
Type number	PTS 6872/001 (with formatter) PTS 6872/002 (without formatter)

Environmental conditions	in operation	during storage
Temperature	+15 to +35°C	-40 to +70°C
Humidity	20 to 80%	20 to 95%
Heat dissipation	< 330W (including formatter)	
	< 250W (excluding formatter)	

Philips PTS 6875 Disk Unit

SOFTWARE

The software for the Philips PTS 6875 disk unit comprises:

— an initial program loader

— library management

— data management

With the initial program loader it is possible to load programs from the disk into the Philips PTS 6810 Terminal Computer for direct execution.

The library management allows storage and maintenance of systems programs, such as utilities, and user programs on the disk file.

Data management allows data to be stored and accessed on the disk file. Data files may be organised as sequential, random and indexed random. Data management routines are provided to read, write, rewrite and delete records from the files. Special utilities are provided for creation, deletion and reorganisation of files. In the data management software, special provisions are made to allow access to one file, and even to one record of that file, by more than one terminal station simultaneously. An exclusive access facility prohibits updating of one record by more than one terminal at the same time. Records may be blocked or unblocked with a maximum block length of 400 characters. Data are accessed in a logical sequence, which is uncoupled from their physical sequence. This guarantees the fastest possible access, as with sequential dump of a data file, for example.

INTRODUCTION AND APPLICATIONS

The Philips PTS 6875 Disk Unit is a peripheral to the Philips PTS 6810 Terminal Computer, mainly for on-line storage of data files. It can also hold systems and application programs and is indispensable in the Philips PTS 6000 program development system.

The disk unit is connected to the Terminal Computer via the Channel Unit for Disk Units, Philips PTS 6844.

PRODUCT DESCRIPTION

The Philips PTS 6875 is a cartridge disk unit, mounted in a free-standing cabinet. The unit contains two disks comprising one fixed and one removeable cartridge. Each disk has a capacity of 2,66 M bytes formatted or 3,1 M bytes unformatted. The disk unit is of the moving head type, with an average positioning time of 30 ms and an average rotational delay of 12,5 ms.

The Disk Unit is connected to the Philips PTS 6810 Terminal Computer via the Philips PTS 6844 Channel Unit for Disk Unit. Two disk units can be connected to one channel unit. Data transfer between the disk and the terminal computer is at a rate of 312 000 bytes a second.

CONNECTIONS

The Philips PTS 6875 Disk Unit is connected by a cable to the Philips PTS 6810 Terminal Computer via the Channel Unit for Disk Units, Philips PTS 6844. Two disk units may be connected to one Channel Unit.

The total cable length is 3,5m. The free cable length (between computer and disk unit) is 2m for the first unit and 1,75m for the second unit.

Power for the disk unit is obtained from the mains via a standard cable 2,5m long with safety earth.

Connection of a disk unit requires the presence of the Philips PTS 6827 Multiplexer in the terminal computer.

Philips PTS 6875 Disk Unit

TECHNICAL SUMMARY

Number of disks	2, one fixed and one removeable cartridge
Recording surfaces	4
Tracks per surface	204
Number of sectors per track	16
Sector length	408 bytes
Storage capacity,	
unformatted	3,1 M bytes
formatted	2,66 M bytes
Rotational speed	2400 rpm
Rotational time	25 ms
Positioning times	10 ms (cylinder to cylinder)
	30 ms average
	60 ms maximum
Average rotational delay	12,5 ms
Data transfer rate	312 000 bytes/s
Type of cartridge	IBM 5440 type
Dimensions	
height	860 mm
width	545 mm
depth	850 mm
weight	80 kg
Power requirements	220V $\pm$ 10%, 50Hz $\pm$ 2%, 500VA

Environmental conditions	in operation	during storage
Temperature	+16 to +38°C	-15 to +65°C
Humidity	20 to 80%	5 to 90%
Heat dissipation	< 400W	

Data subject to change without notice

Philips PTS 6876 Disc Unit
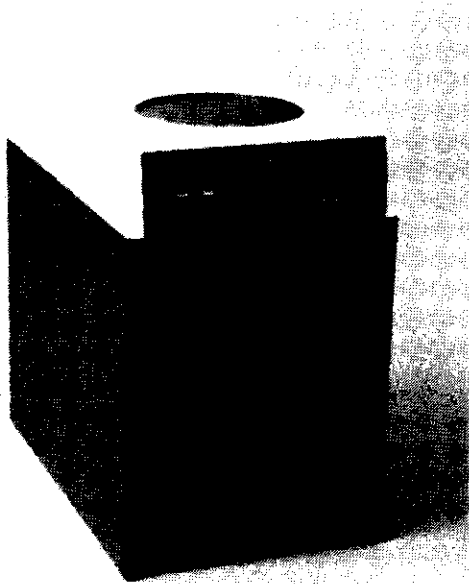
INTRODUCTION AND APPLICATIONS

The Philips PTS 6876 Disc Unit is a peripheral device in the Philips PTS 6800 Terminal Computer System, mainly for on-line storage of data files. It can also hold system and application programs and is indispensable during program development.

PRODUCT DESCRIPTION

The Philips PTS 6876 is a cartridge disc unit, mounted in a free-standing cabinet. The unit contains two discs comprising one fixed and one removable in a cartridge. Each disc has a capacity of 5,32 M bytes formatted or 6,25 M bytes unformatted. The disc unit is of the moving head type, with an average positioning time of 35 ms and an average rotational delay of 12,5 ms.

The Disc Unit is connected to the Philips PTS 6800 terminal computers via the Philips PTS 6844 Channel Unit for Disc Unit, which is housed in the cabinet of the terminal computer. Two disc units can be connected to one channel unit. Data transfer between the disc and the terminal computer is at a rate of 312 500 bytes/second.

Software

The software for the Philips PTS 6876 Disc Unit comprises

— an initial program loader

— memory management

— data management

— library management

With the initial program loader it is possible to load programs from the disc into the Philips PTS 6800 terminal computers for direct execution.

The memory management supports programs, using the disc as extended memory. With this overlay feature several large application programs are handled simultaneously.

Data management allows data to be stored and accessed on the disc file. Data files may be organized as sequential, random and indexed random. Data management routines are provided to read, write, rewrite and delete records from the files. Special utilities are provided for creation, deletion and reorganization of files. In the data management software, special provisions are made to allow access to one file, and even to one record of that file, by more than one terminal station simultaneously. An exclusive access facility prohibits updating of one record by more than one terminal at the same time. Records may be blocked or unblocked with a maximum block length of 400 characters. Data are accessed in a logical sequence, which is uncoupled from their physical sequence. This guarantees the fastest possible access, as with sequential dump of a data file, for example.

The library management allows storage and maintenance of system programs, such as utilities, and user programs on the disc file as well as development of application programs.

CONNECTIONS

The Philips PTS 6876 Disc Unit is cable connected to the Philips PTS 6800 terminal computers via the Channel Unit for Disc Unit, Philips PTS 6844. Two disc units may be connected to one channel unit. The channel unit is housed in the cabinet of the terminal computer.

The distance between the terminal computer and the disc unit must not exceed 2.3 meters, though the total signal cable length is 3.5 meters.

Each disc unit has its own standard mains cable, 3 meters long, with safety earth.

Connection of a disc unit requires the presence of the Philips PTS 6827 Input/Output Processor in the terminal computer.

Philips PTS 6876 Disc Unit

TECHNICAL SUMMARY

Number of discs	2, one fixed and one removable in a cartridge
Recording surfaces	4
Tracks per surface	400 + 8 spare tracks
Number of sectors per track	16
Sector length	412 bytes
Storage capacity,	
unformatted	12.5 M bytes total, 6.25 M bytes/disc
formatted	5.32 M bytes/disc
Rotational speed	2400 rpm
Rotational time	25 ms
Positioning times	10 ms (cylinder to cylinder)
	35 ms average
	60 ms maximum
Average rotational delay	12,5 ms
Data transfer rate	312 500 bytes/s
Cartridge	IBM 5440 type
Dimensions	
height	860 mm
width	545 mm
depth	850 mm
weight	80 kg
Power requirements	200-240V ±10%, 50 Hz±3%
	100-127V ±10%, 60 Hz±3%
	1200 VA

Environmental conditions	in operation	during storage
Temperature	+ 15 to + 35°C	− 40 to + 70°C
Humidity	15 to 80%	15 to 90%

Philips PTS 6879 Flexible Disc Unit
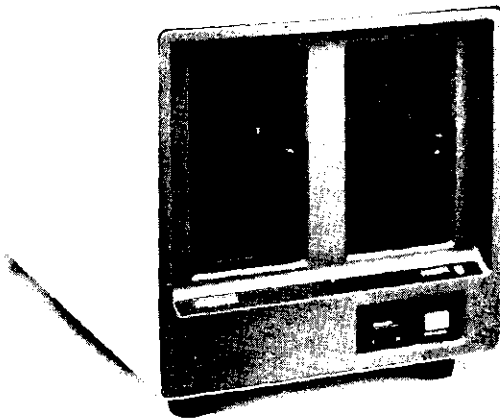
INTRODUCTION AND APPLICATION

The Philips PTS 6879 Flexible Disc Unit is a peripheral device in the Philips PTS 6800 Terminal Computer System. It can be used

- for program loading
- as back-up medium
- as data file medium
- as data interchange medium

Examples of Flexible Disc applications in the Philips PTS 6000 system are

- sequential files for data storage
- simple files requiring random or indexed random access, e.g. bad accounts list
- program overlays
- storage of application programs
- off-loading — to handle peak loads in a data communication network

PRODUCT DESCRIPTION

The Philips PTS 6879 Flexible Disc Unit is a stand alone table top unit, which houses one or two flexible disc drives in a metallic cover. The drives are vertically positioned and the discs

are easy to access. Also included is a power supply unit that supplies power to both drives.

On the physical level PTS 6879 FDU is compatible to IBM 3740. The Flexible Disc meets the physical and magnetic requirements as specified in ISO-standard ISO/TC 97/SC11.

On the logical level two different labelling systems are available, IBM- and TOSS-labelled discs.

The IBM-label is ideal for data interchange to and from systems other than PTS 6000. Data is recorded in EBCDIC-code and is converted to ASCII-code in the PTS 6000 system.

Note, however, that only sequential access is supported.

The TOSS-label is recommended when the Flexible Disc is only to be used within PTS 6000 systems.

For TOSS-labelled discs the following functions are supported by system software:

- sequential, random and indexed random access methods
- program loading
- overlay techniques

For IBM-labelled discs only sequential access is supported.

OPTIONS/USER ADAPTATIONS

The Philips PTS 6879 Flexible Disc Unit can be equipped with one or two disc drives.

CONNECTIONS

The Philips PTS 6879 Flexible Disc Unit is cable connected to the Philips PTS 6810 terminal computer via a channel unit for Flexible Disc, Philips PTS 6868 CHFD, which is housed in the cabinet of the terminal computer.

Philips PTS 6879 Flexible Disc Unit

TECHNICAL SUMMARY

Capacity, unformatted:	3.2 Mbit
Capacity, formatted:	250 Kbytes
Rotating speed:	360 rev/min
Packing density, outer track:	1836 BPI
Packing density, inner track:	3268 BPI
Track density:	48 tracks/inch
No. of tracks:	77
Sector per track:	26
Sector length:	128 bytes
Head positioning time:	$10 \times n + 10$ ms (n = No. of tracks)
Latency time:	83.3 ms
Average positioning time:	260 ms
Cartridge:	ISO TC97 SC11 (e.g. IBM 3740 type diskette)
Transfer rate:	250 K bit/sec.
Dimensions	
height	400 mm
width	375 mm
depth	595 mm
weight	
with one drive	36 kg
with two drives	39 kg
Power consumption	
with one drive	175 W
with two drives	210 W
Power requirements	200-240 V +10%, 50 Hz ±3% 100-127 V ±10%, 60 Hz ±3%

Environmental conditions	in operation	during storage
Temperature	+15 to +35°C	−40 to +70°C
Humidity	15 to 80%	15 to 90%

Philips PTS 6881 Matrix Line Printer
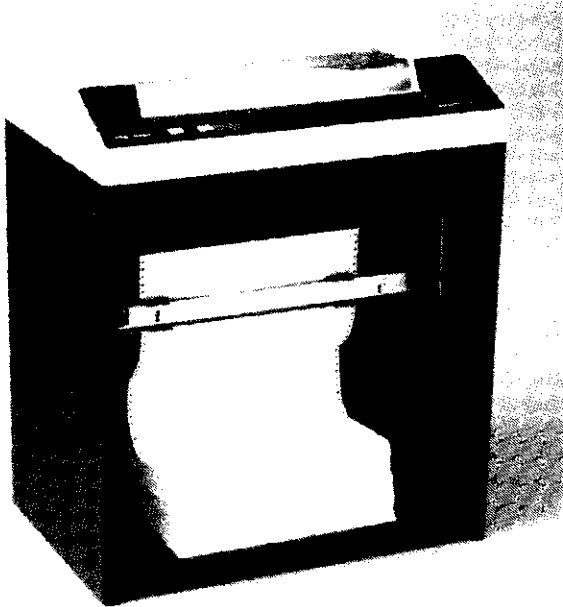
INTRODUCTION AND APPLICATIONS

The Philips PTS 6881 Matrix Line Printer is a peripheral
device to the Philips PTS 6810 Terminal Computer. It can
be used in back-office applications such as printing of daily
and monthly journals, tables, invoices, statistical informa-
tion, etc and in systems for program development.

PRODUCT DESCRIPTION

The Philips PTS 6881 Matrix Line Printer is a stand-alone,
self-contained matrix printer requiring only normal office
environment. It is easy to operate with simple push-button
controls and has a printing speed of 200 lines per minute
with a maximum of 132 characters per line.

Output is produced on continuous fan-fold paper
that is automatically fed through the printer. One original
and four copies can be produced simultaneously, and the
pin feed mechanism can be easily adjusted for paper widths
from 100 to 440 mm.

System software

The Philips PTS 6881 Matrix Line Printer is controlled via a
driver under TOSS in the Philips 6810 Terminal Computer
and connected to the processing unit (CPU) via a channel
unit.

Commands

— Basic Write
The requested number of characters is transmitted to
the matrix line printer without any check.

— Standard Write
The requested number of characters is transmitted to
the matrix line printer. They must be within /20-/5F.
Before the text, control characters such as CR/LF
and top of form can be inserted in the transmit buffer.

Size

The driver takes 100 16-bit words in the Philips PTS 6810
Terminal Computer.

OPTIONS/USER ADAPTATIONS

— Ten national versions of the ISO character repertoire
are available.

— Perforation step-over mechanism.
With this mechanism, which can be set to step
between 4 and 12 inches in half-inch increments,
automatic form control is performed.

CONNECTIONS

The Philips PTS 6881 is connected to the Philips PTS 6810
Terminal Computer via a channel unit, either Philips
PTS 6843-001 CHLP or Philips PTS 6847-001 CHCD with
the use of a 5m long cable.

Power for the Matrix line printer is obtained from the
normal mains supply via a standard cable, 2,5m long
with safety earths.

The Philips PTS 6843-001 CHLP allows the connec-
tion of one line printer. The PTS 6847-001 CHCD allows
the connection of one line printer and one Philips PTS
6885 Card Reader.

The channel unit is housed in the cabinet of the
PTS 6810 Terminal Computer.

Philips PTS 6881 Matrix Line Printer

TECHNICAL SUMMARY

Printing technique	matrix, impact , 9x9 dots
Printing speed	200 lines/minute
Print positions	132 characters/line
Character repertoire	64 characters in ten national variations (ISO)
Character spacing	10 characters/inch
Line spacing	6 lines/inch, standard
Paper feed	Two paper tractors, pin feed
Form feed	Perforation step-over mechanism, 11 inch standard
Paper advance speed	
Single line	25 ms/line
Multiple lines	11 inches/s
Paper out detection	30 cm below print line
Tractor adjustments	
Left tractor	12,5 mm range
Right tractor	From 100 mm up to 440 mm (ECMA/TC/14/69/16)
Number of copies	1 + 4
Type	Fan-fold, edge-perforated continous forms
Width	100 to 440 mm
Height	11 inches, standard
Ink ribbon	
Type	Industry standard 1/2 inch ribbon
Reels	IBM-1443 compatible
Dimensions	
height	825 mm
width	700 mm
depth	460 mm
weight	80 kg (approx.)
Power requirements	220 V ± 10%, 50 Hz ± 2%, 300 VA

Environmental conditions	in operation	during storage
Temperature	+ 15 to + 35°C	-40 to + 70°C
Humidity	20 to 80%	20 to 95%
Heat dissipation	250W	

Philips PTS 6881 Matrix Line Printer

Character set and code table

	2	3	4	5
0	SP	0	a2	P
1	!	1	A	Q
2	"	2	B	R
3	a1	3	C	S
4	$	4	D	T
5	%	5	E	U
6	&	6	F	V
7	'	7	G	W
8	(	8	H	X
9	)	9	I	Y
A	*	:	J	Z
B	+	;	K	a3
C	'	<	L	a4
D	—	=	M	a5
E	.	>	N	∧
F	/	?	O	—

National variations applicable to the countries:	a1	a2	a3	a4	a5
	23	40	5B	5C	5D
D/A/L/CH Germany, Austria, Luxemburg, Switzerland	#	§	Ä	Ö	Ü
GB/NL/B Great Britain, Netherlands, Belgium	£	@	[	\	]
F/CH/B/L France, Switzerland, Belgium, Luxemburg	£	à	°	ç	§
E Spain, Argentina, Venezuela	£	@	[	Ñ	]
I/CH Italy, Switzerland	£	§	°	ç	É
S/SF Sweden, Finland	#	É	Ä	Ö	Å
DK/N Denmark, Norway	£	@	Æ	Ø	Å
P Portugal, Brazil	£	@	Ã	Ç	Õ
US USA, Canada, Australia	#	@	[	\	]
YU Yugoslavia	£	§	Ć	Č	Š

Philips PTS 6882 Matrix Line Printer

The requested number of characters is transmitted to the matrix line printer without any check.

— Standard Write

The requested number of characters is transmitted to the matrix line printer. They must be within /20-/5F. Before the text, control characters such as CR/LF and top of form can be inserted in the transmit buffer.
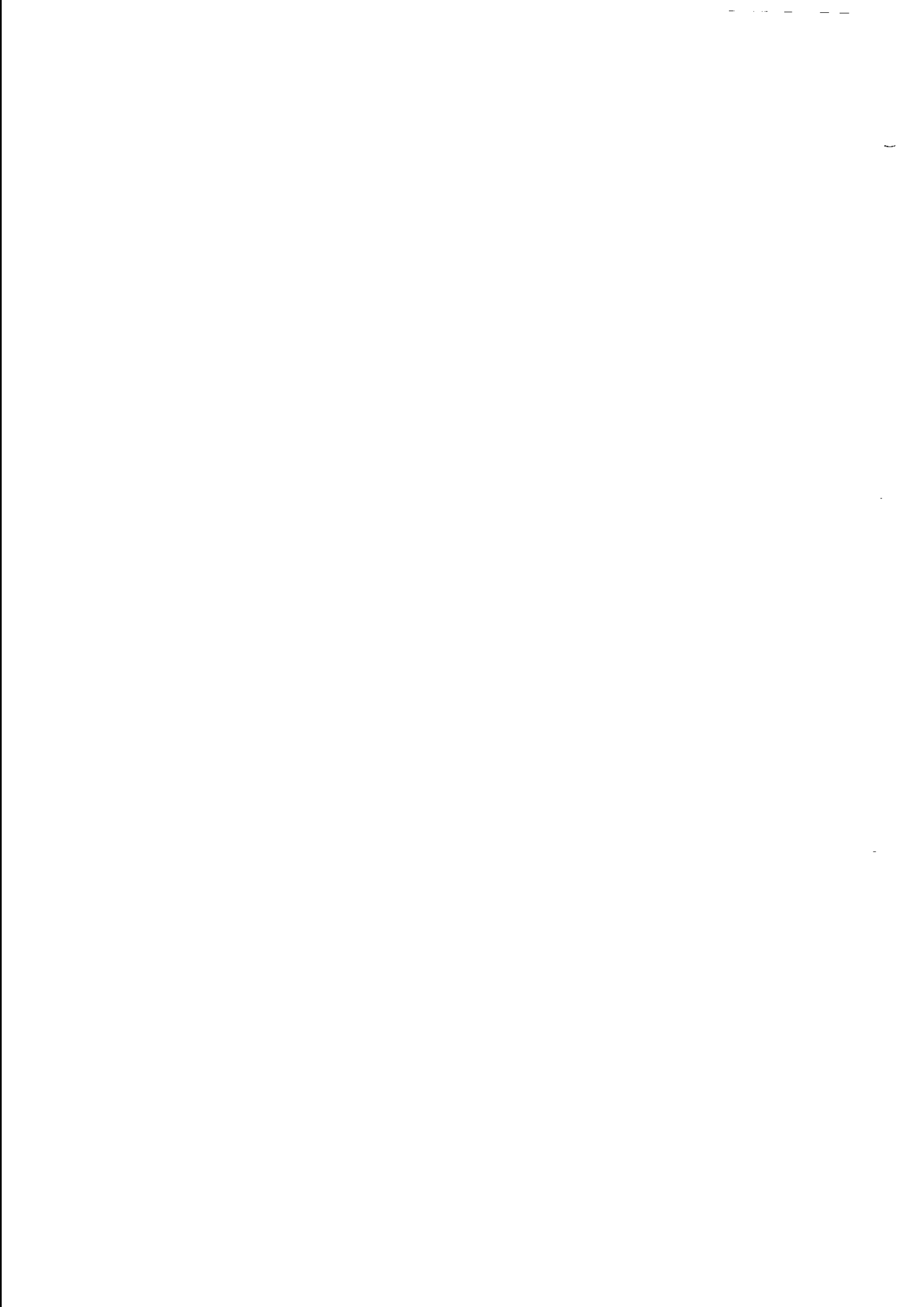
OPTIONS/USER ADAPTATIONS

— Ten national versions of the ISO character repertoire are available.

CONNECTIONS

The Philips PTS 6882 Matrix Line Printer is connected to a Philips PTS 6800 Terminal Computer via the channel unit PTS 6847 CHCD with the use of a 5 meters long cable. The channel unit is housed in the cabinet of the terminal computer.
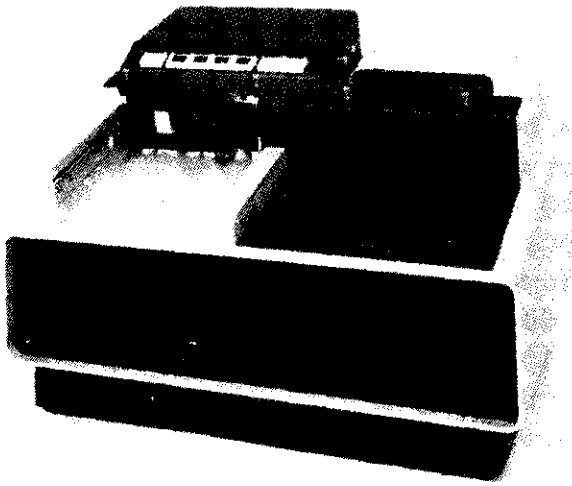
The distance between the terminal computer and the line printer must not exceed 4 meters.

Power for the matrix line printer is obtained from the normal mains supply via a standard mains cable, 4 m long, with safety earth.

INTRODUCTION AND APPLICATIONS

The Philips PTS 6882 Matrix Line Printer is a peripheral device in the Philips PTS 6800 Terminal Computer System. It can be used in back-office applications such as printing of daily and monthly journals, tables, invoices, statistical information, etc and in systems for program development.

PRODUCT DESCRIPTION

The Philips PTS 6882 Matrix Line Printer is a stand-alone, self-contained matrix printer. It is easy to operate with simple push-button controls and has a printing speed of 400 lines per minute with a maximum of 132 characters per line.

Output is produced on continuous fan-fold paper that is automatically fed through the printer. One original and four copies can be produced simultaneously, and the pin feed mechanism can be easily adjusted for paper widths from 100 to 440 mm.

Software

The Matrix Line Printer Philips PTS 6882 is controlled via the standard system software by the following commands

— Basic Write

Philips PTS 6885 Card Reader

TECHNICAL SUMMARY

Reading speed	300 cards/minute
Reading time	200 ms (incl. transport time)
Reading mode	column by column
Card specification	80 columns (ISO R1681 & ISO R 1682)
Hopper capacity	1000 cards (ANSI X3.11-1969)
Stacker capacity	1000 cards (ANSI X3.21-1967)
Dimensions	
height	415 mm
width	590 mm
depth	460 mm
weight	35 kg
Power	230V ± 10%, 50Hz ± 2% single phase, at start 1650VA, continuous 600VA

Environmental conditions	in operation	during storage
Temperature	+15 to +35°C	-32 to +58°C
Humidity	30 to 80%	20 to 95%
Heat dissipation	< 400 W	

Cards	
Temperature	+18 to +24°C
Humidity	40 to 60%

INTRODUCTION AND APPLICATIONS

The Philips PTS 6885 Card Reader is a peripheral to the Philips PTS 6810 Terminal Computer and is normally used in a programming system for entry from source decks, where punched cards are still in common use.

It may also be used for entry of batch data.

PRODUCT DESCRIPTION

The Philips PTS 6885 Card Reader is a table-top card reader, which can read standard 80 column punched cards at a speed of 300 cards per minute.

The reader is connected to the Terminal Computer PTS 6810 via the Channel Unit for Line Printer and card reader, Philips PTS 6847, to which at the same time a Philips PTS 6881 Matrix Line Printer may be connected.

Both hopper and stacker have a capacity of 1000 cards.
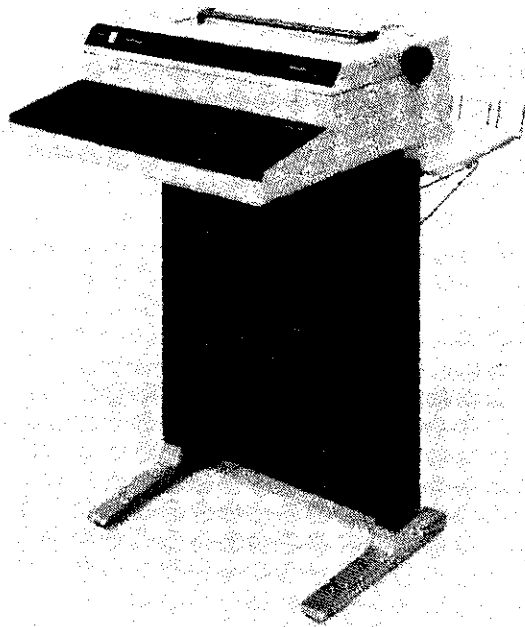
CONNECTIONS

The Philips PTS 6885 Card Reader is connected to the Philips PTS 6810 Terminal Computer via the Channel Unit for Line Printer and Card Reader PTS 6847 with a 5m cable.

Power is obtained from the normal mains via a standard 2,5 m cable with safety earth.

Data subject to change without notice
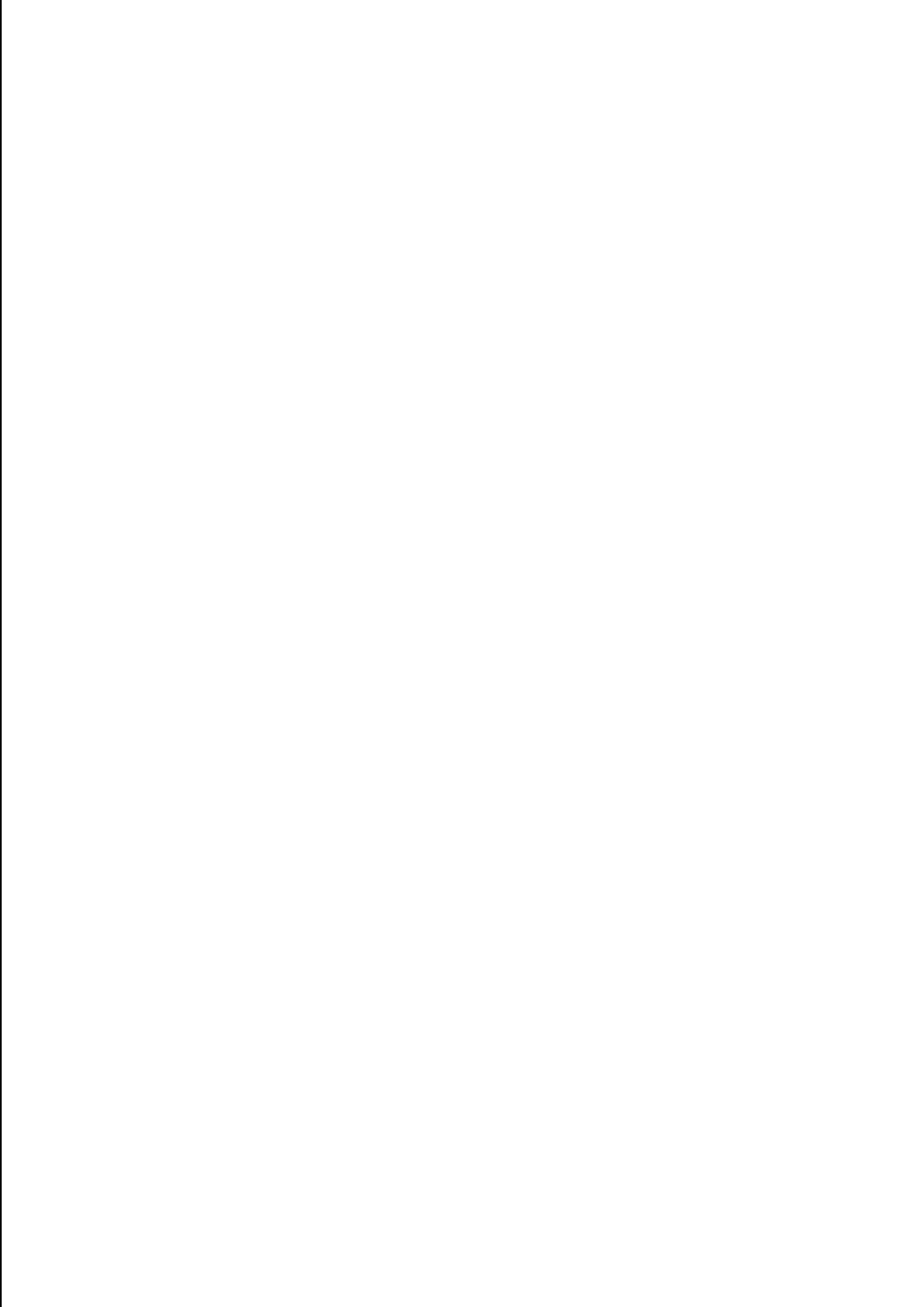
Philips PTS 6862 Console Typewriter

INTRODUCTION AND APPLICATIONS

The Philips PTS 6862 Console Typewriter extends the communication possibilities between the programmer of the Philips PTS 6810 Terminal Computer and the terminal computer itself. It is mainly used for program check out and program testing, and is therefore a desirable part of a Philips PTS 6810 test and development system.

PRODUCT DESCRIPTION

The console typewriter consists of:

- Basic Printer Unit
- Platen/pinfeed 110 ch
- Line interface TTY
- Character Generator ASCII
- Keyboard — keytop layout standard TTY
- Blank text panel
- Buzzer
- Cable 7,5 m
- Power cable 2,5 m

FUNCTIONS

The printing speed is 10 ch/s. The TTY-interface is adapted to 110 baud current loop, 2-wired half duplex.

A total of 64 characters, including space ISO-7 standard, are printable in a matrix of normally 7 x 9 dots.

The buzzer gives an acoustic alarm with a duration of approximately 100 ms upon software command.

The printer is provided with an indicator lamp and one switch for "power ON/OFF".

The printer also has a push-button for "paper run".

Line spacing control is located under the front cover.

Line spacing is switchable between 3, 4 and 6 lines/inch.

To make the last printed character visible the print head advances one step if no new data reaches the printer within approximately 0,7 seconds. When printing recontinues the print head is reversed one step before printing starts.

OPTIONS/USER ADAPTATIONS

An optional free-standing floor pedestal can be supplied for the Philips PTS 6862.

CONNECTIONS

The Philips PTS 6862 is connected via a 7,5 m cable to the TTY interface of the central processing unit of the Philips PTS 6810. Power is obtained from the normal mains via a standard 2,5 m cable with safety earth.

TECHNICAL SUMMARY

Printer:

Number of columns	110 char/line
Character space	1/10 in.
	Accumulative error max. 0,4%
Character repertoire	ISO-7 64 characters, space incl
Character font	Matrix font, vertical max. eight positions with 0,4 mm spacing, horizontal max. 14 positions with 0,18 mm spacing. The font is formed by 7 x 9 dots and controlled by the character generator.
Character size	About 2,8 x 1,9 mm (7 x 9 matrix)
Printing speed	10 ch/s
Carriage return speed	100 ch/s + max. 0,2 s/line
Line space	1/3, 1/4 or 1/6 inch, manually switchable.

PHILIPS PTS 6000 TERMINAL SYSTEM

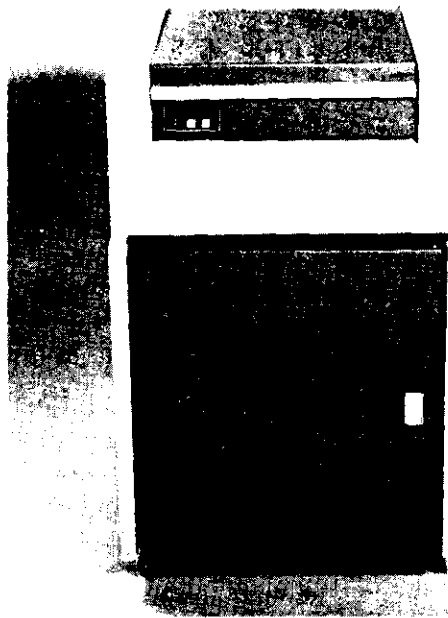## Philips PTS 6862 Console Typewriter
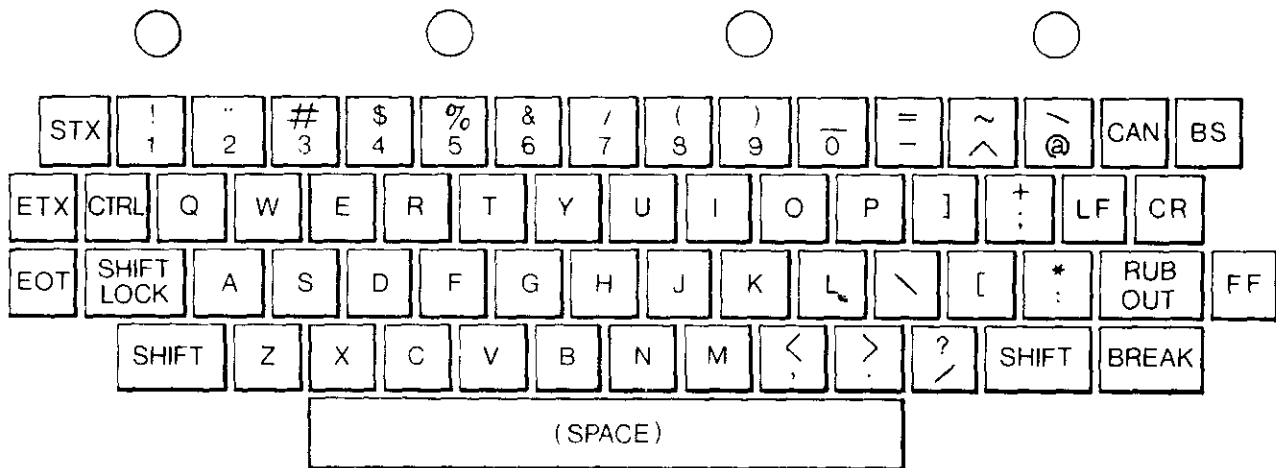
Keyboard layout

Paper:
Paper type	Pin-feed, fan-folded
Distance between pins	Horizontal 314,3 mm
	Vertical 12,7 mm (1/2 inch)
Pin hole diameter	5/32 inch
Paper weight	Single sheet
	45 g/m^2 to 110g/m^2
	65 g/m^2 is recommended
	Paper sets
	original + 3 copies about
	4 × 60 g with max. 3 × 25
	g/m^2 carbon paper
Ink ribbon	one colour, 8 mm nylon
	ribbon No.20
Dimensions	
width	510 mm, platen knob excluded
depth	310 mm
height	170 mm
weight	20 kg
Power	Built-in power supply 220V
	and 50Hz, 130VA (max.)
Environmental	
conditions	in operation during storage
Temperature	+15 to +35°C -40 to +70°C
Humidity	20 to 80% 20 to 95%
Heat dissipation	standby, approx. 70W
	printing, max. 20W

Code table

	0	1	2	3	4	5	6	7
0			SP	0	@	P	`	P
1			!	1	A	Q	A	Q
2	STX		"	2	B	R	B	R
3	ETX		#	3	C	S	C	S
4	EOT		$	4	D	T	D	T
5			%	5	E	U	E	U
6			&	6	F	V	F	V
7			'	7	G	W	G	W
8	BS	CAN	(	8	H	X	H	X
9			)	9	I	Y	I	Y
A	LF		*	:	J	Z	J	Z
B			+	;	K	[	K	[
C	FF		,	<	L	\	L	\
D	CR		–	=	M	]	M	]
E			.	>	N	^	N	~
F			/	?	O	—	O	RUB OUT

Philips PTS 6877 Disc Unit

Software

The software for the Philips PTS 6877 Disc Unit comprises

– memory management
– data management

The memory management supports programs, using the disc as extended memory. With this overlay feature several large application programs are handled simultaneously.

Data management allows data to be stored and accessed on the disc file. Data files may be organized as sequential, random and indexed random. Data management routines are provided to read, write, rewrite and delete records from the files. Special utilities are provided for creation, deletion and reorganization of files. In the data management software, special provisions are made to allow access to one file, and even to one record of that file, by more than one terminal station simultaneously. An exclusive access facility prohibits updating for one record by more than one terminal at the same time. Records may be blocked or unblocked with a block length in multiples of 256 characters. Data are accessed in a logical sequence, which is uncoupled from their physical sequence. This guarantees the fastest possible access, as with sequential dump of a data file, for example.

The Philips PTS 6877 Disc Unit is a peripheral device in the Philips PTS 6800 Terminal Computer System, mainly for on-line storage of data files. It can also hold system and application programs and is indispensable during program development.

PRODUCT DESCRIPTION

The Philips PTS 6877 is a disc unit for removable disc pack mounted in a free-standing desk height cabinet. The unit contains one removable disc pack of five discs. Each disc pack has a capacity of 80 M bytes unformatted. The disc unit is of the moving head type, with an average access time of 30 ms.

The Disc Unit is connected to the Philips PTS 6820 terminal computers via the Philips PTS 6845 Channel Unit for Disc Unit, which is housed in the cabinet for the terminal computer. Two disc units can be connected to one channel unit. Data transfer between the disc and the terminal computer is at a rate of 9.67 M bits/second.

CONFIGURATION

THE Philips PTS 6877 Disc Unit is cable connected to the Philips PTS 6820 terminal computer via the Channel Unit for Disc Unit, Philips PTS 6845. Two disc units may be connected to one channel unit. The channel unit is housed in the cabinet of the terminal computer.
Each disc unit has its own standard mains cable, 3 meters long, with safety earth.

Philips PTS 6877 Disc Unit

TECHNICAL SUMMARY

Number of discs	One removable disc pack
Recording surfaces	5
Servo surfaces	1
Tracks per surface	822

Storage capacity
   unformatted
   formatted
	
	80 Mbytes
	72 Mbytes

Rotational speed	3600 ms average
Positioning times	30 ms average 55 ms maximum
Average rotational delay	8.3 ms
Data transfer rate	9.67 MHz bit rate
Cartridge	CDC 9877
Mains requirements	220/240 V, 50 Hz 100/120 V, 60 Hz

Environmental conditions	Temperature
	   In operation +15 to +32°C
	   During storage −40 to +70°C
	Humidity
	   In operation 20 to 80% RH
	   During storage 15 to 90% RH

Altitude	2000 m above sea level
Static discharge	4 kV
Dimensions	height 920 mm width 560 mm depth 915 mm
Weight	155 kg