

**Functional Description  
User Manual**

## 8.2 MOBY STG D handheld terminal

### Application area

The STG D is a powerful mobile handheld terminal for the MOBY D identification system for applications in the warehouse, logistics, distribution and service fields. The service and test unit (STG D) is an indispensable tool for commissioning and testing. All MOBY D data storage units can be read or written contact-free.



Figure 8-1 MOBY STG D handheld terminal

### Design and function

The mobile STG D handheld terminal comprises a basic unit (based on PSION Workabout<sup>mx</sup>) and an attachable compact write/read head. It has a splashproof enclosure (IP54), 240 × 100 pixels LCD display, alphanumeric keypad and various interfaces (for EEPROM card, battery charging, RS 232/TTL for MOBY D read head, battery charging interface incl. RS 232 for the PC link etc.)

The supplied MOBY software (memory card) provides service and test functions for reading, writing, etc. of all MOBY D data storage units:

- Reading data from the data storage unit
- Writing data to the data storage unit
- Reading and displaying the UID number of the data storage unit
- Displaying and editing the data in hexadecimal or ASCII format
- Activating/deactivating password protection

On the basis of the optional C library, custom applications including a customized user interface for the reading/writing of data storage units can be very easily programmed. Various different development tools for the PC and a wide selection of accessories are available directly from PSION. This solution opens up new applications in the field of logistics and distribution. The handheld terminal for example allows for the offline recording and processing of commissioning data, which can then be forwarded to a PC/computer with a defined time delay.

### Optional components

(to be found on the Internet at <http://www.pSION.com/industrial/>)

- 3link adapter cable to the PC for easy exchange of data between the PC and PSION Workabout<sup>mx</sup>
- PSION Workabout<sup>mx</sup> basic unit with large-area function keys and number pad
- Additional memory card with up to 8 MB memory
- Docking station including rapid charger and software for convenient exchange of data between the PSION Workabout<sup>mx</sup> and the PC.

### System prerequisites

When using the library for SIBO 'C' (SIBO 'C' is the C development environment for the PSION Workabout), the following requirements must be met:

- **PC**  
The 'C development package for the PSION Workabout' must be installed on the PC. The development package must be obtained directly from PSION (see: <http://www.pSION.com/industrial/>).
- **Handheld terminal**  
PSION Workabout with wall bracket and power supply unit.  
The MOBY handheld terminal STG D should preferably be used here.
- **PC cable**  
For connecting to the PC, you will need a 3link adapter cable from PSION (see: <http://www.pSION.com/industrial/>).  
The cable is only required if it is not included in the C development package.
- **C library**  
The following files are required: MOBY\_D.H,  
MOBY\_STG.LIB. They are supplied with the CD *RFID Systems Software & Documentation*.

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#### Note

The development of applications in the Basic programming language OVAL is also possible in principle. It is however not possible to use the MOBY library.

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## Hardware

The following figure shows the main hardware interfaces that you can use when writing your applications.

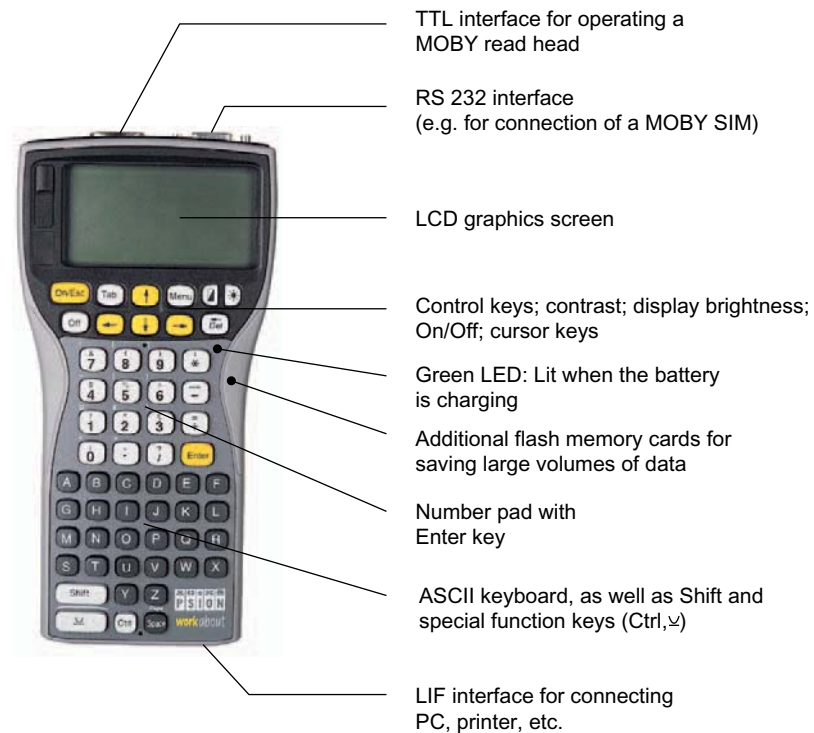


Figure 8-2 Hardware structure of the STG D

If you use a different type of PSION Workabout, additional interfaces will be available to you, such as:

- Infrared interface
- Numerical keypad and function keys

## Ordering data

Table 8-6 Ordering data for STG D

	Order no.
Mobile handheld terminal STG D basic unit (PSION Workabout <sup>mx</sup> ) with MOBY D write/read head, battery, standard software incl. STG functionality on EEPROM card, operating instructions, without charger.	6GT2603-0AA00
Charger for a mobile, handheld terminal, incl. plug-in power supply 230 V AC	6GT2303-1DA00
Accessories:	
MOBY D write/read head, 13.56 MHz without software and without reference manual	6GT2603-1AA00
Memory card with STG software as well as filehandler software for MOBY D, E, F, I and U, incl. operating instructions	6GT2303-1CA00
C library for MOBY D, E, F, I and U for the development of customer-specific screen dialogs, without development tools, incl. reference manual	6GT2381-1AB00
Spare rechargeable battery	6GT2094-0AB00 or 2 AA batteries (Ni-Cd, Ni-MH, alkaline)
Additional PSION components (e.g. 3link cable, C development environment)	Through local suppliers or PSION ( <a href="http://www.pSION.com/industrial/">http://www.pSION.com/industrial/</a> )

## Technical data

Table 8-7 Technical data for STG D handheld terminal

<b>Hardware</b>	
Processor	NEC V30mx 27.68 MHz (80C86 compatible)
RAM	2 MB; of which approx. 1.8 MB freely assignable
ROM	2 MB for operating system
User Program	256 KB (with MOBY service and test program)
Screen	Graphic LCD screen with 240 x 100 pixels; gray scale; selectable backlighting
Keyboard	Alphanumeric with 57 keys
Sound	Piezzo signal transmitter
Power Supply	Ni-Cd battery pack with 2 cells of type AA (850 mAh) Fast-charge capability; automatic shutdown
Service life	20 hours (inactive read head, unlit display) 4.5 hours (active read head, unlit display) 10 hours (inactive read head, display lit)
interfaces	LIF interface (Low Insertion Force interface) for battery charging and communication with PC and printer (3link cable not included); RS 232 and TTL interface for connecting a MOBY read head
Security	Locking mechanism for battery and program memory
<b>Software</b>	
Operating system	EPOC/16 multitasking, graphics support, GUI interface; interpreter similar to MS-DOS
File management	MS-DOS compatible
Integrated software	MOBY service and test program; table calculation; database; pocket calculator; communication
MOBY STG program	Read, write, erase MDS, read MDS UID; store and load MDS data; menu language English or German; input and display of data in ASCII or HEX

Technical data	Complete unit (incl. rechargeable batteries)	Read head
Dimensions (in mm)	260 x 90 x 35	90 x 64 x 35
Weight	Approx. 440 g	Approx. 110 g
Temperature		
• Operation	-20 to +60°C	
• During storage	-25 to +80°C (without battery)	
Relative humidity	0 % to 90 %, no condensation	
Degree of protection	IP54 (splash-proof)	
Impact resistance	Max. drop onto concrete: 1 m	
EMV	EN 55022	
Approval	CE FCC, IC	
Electrostatic; RF; EFT	IEC 801-2; IEC 801-3; IEC 801-4	
<b>RF write/read head</b>		
MOBY D	13.56 MHz	
Maximum read/write distances	MDS type	Distance in mm
	D100	60
	D124	25
	D139	60
	D160	25

FCC-Information:

FCC ID: NXW-MOBYDSTG

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
- (1) This device may not cause harmful interference, and  (2) this device must accept any interference received, including interference that may cause undesired operation.
- Usually this is followed by the following FCC caution:
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's  authority to operate this equipment.

IC-Information:

IC.267X-MOBYDSTG

- "Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this  device must accept any interference, including interference that may cause undesired operation of the device."
- Usually this is followed by the following RSS caution:
- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's  authority to operate this equipment.