User Manual 手冊

Advanced Performance Line

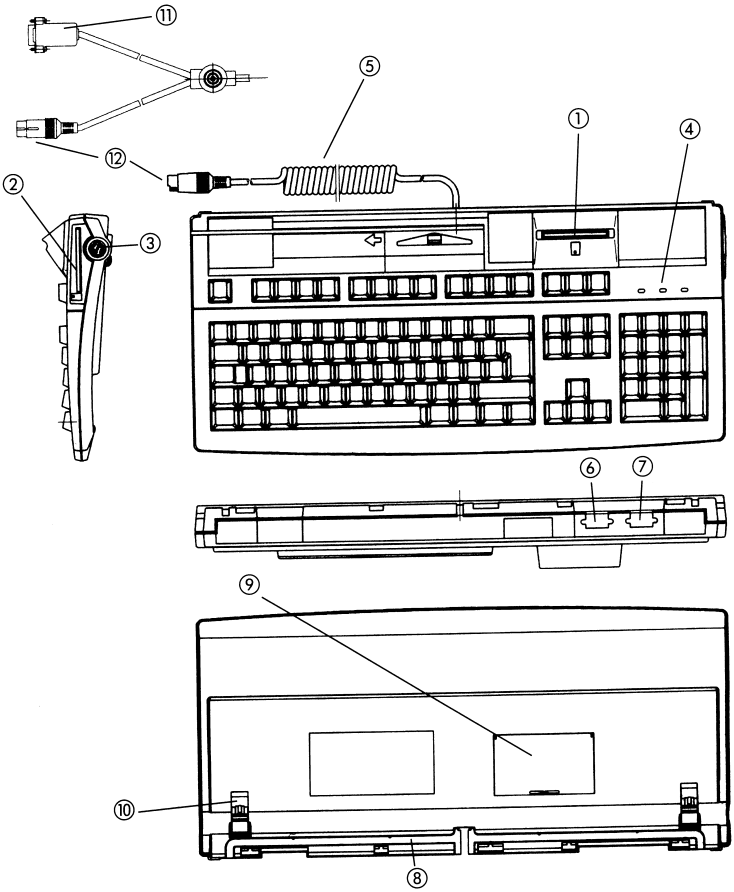
Printed on recycled paper.

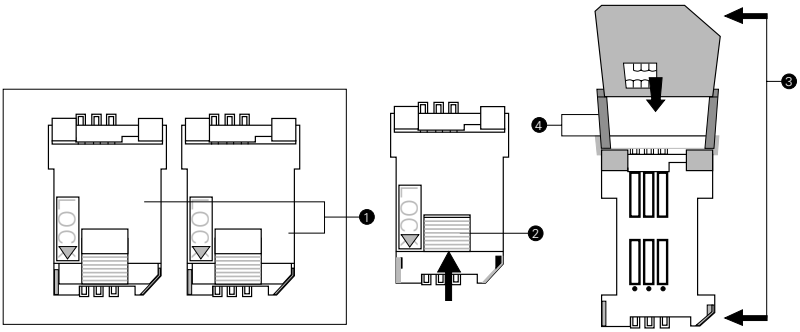
Table of Contents – 目錄

English Page

Plug Ins ___ III
Key to diagram ___ 2
Application of this manual ___ 3
Examples of layouts ___ 4-6
1. General Advice ___ 7
2. Introduction ___ 7
2.1 General Description ___ 7
2.2 Description of the magnetic stripe card reader ___ 7
2.3 Description of the barcode reader ___ 8
2.4 Description of the smart card reader ___ 8
2.5 G 80-8212: keylock switch ___ 8
2.6 Model 8100 series; touchpad ___ 8
2.7 G 81-8308 ___ 8
2.8 Model Core Plus ___ 8
3. Installation ___ 8
3.1 System requirements ___ 8
3.2 Software ___ 9
4. Programming ___ 9
4.1 Definition of terms header and terminator ___ 9
4.2 Programming the magnetic card reader and barcode unit ___ 9
4.3 Programming the free programmable keys ___ 10
4.4 Programming examples ___ 22
4.5 Example for programming a free programmable key ___ 23
4.6 G 81-8308: keyboard with 24 free programmable keys ___ 24
5. Using the magnetic stripe card reader ___ 26
5.1 Cleaning the magnetic head ___ 26
6. Connecting of barcode reading devices (Versions with barcode option only) ___ 26
7. Using the integrated smart card teminals ___ 27
7.1 Inserting the smartcard ___ 27
7.2 Inserting plug in cards ___ 28
8. Firmware ___ 28
9. Status indicators ___ 28
10. Technical specifications ___ 28
10.1 Technical specifications for the keyboard ___ 28
10.2 Technical specifications magnetic swipe card reader ___ 29
10.3 Technical specifications for the barcode decoder unit ___ 29
10.4 Technical specifications for the smart card terminal ___ 29
10.5 Technical specifications for touchpad ___ 29
11. Troubleshooting ___ 30
12. Optional accessoires ___ 31

Chinese ___ 32


⑪
⑤
①
④
⑫
②
③
⑥
⑦
⑨
⑩
⑧


❶
❷
❸
❹

Key to diagram

➪ Figure page III

Keyboard 8000 series
Front of keyboard

① Vertical smart card slot (G 81-8900)
② Horizontal smart card slot (G 81-8901)
③ Barcode connector, 6pol
right (Barcode 2)
④ LEDs indicating status of keyboard
and function
⑤ Keyboard cable and plug

Rear side of keyboard 8000 series

⑥ Barcode connector, 9pol
right (Barcode !)
⑦ RS 232 connector

Bottomside of keyboard 8000 series

⑧ Cable channel
⑨ Plug in housing cover
⑩ Adjustable feet
⑪ Smart card terminal interface (RS 232)
9- pin SUB-D plug
⑫ Keyboard plug DIN or mini DIN

➪ Fold out front and back page of manual

Keyboard 8000 series and 7000 series
Plug ins

❶ Plug in housing
❷ Locking device
❸ Bevelled edges
❹ Guide channel

➪ Figure page IV

Keyboard 7000 series
Front of keyboard

① Vertical smart card slot
② LEDs indicating status of keyboard and
function
③ Keyboard cable and plug

Rear side of keyboard 7000 series

④ Barcode connector, 9pol
right (Barcode 1)
⑤ RS 232 connector
⑥ Barcode connector, 6pol
right (Barcode 2)

Bottomside of keyboard 7000 series
⑦ Cable channel
⑧ Plug in housing cover
⑨ Adjustable feet
⑩ Smart card terminal interface (RS 232)
⑪ 9- pin SUB-D plug
Keyboard plug DIN or mini DIN

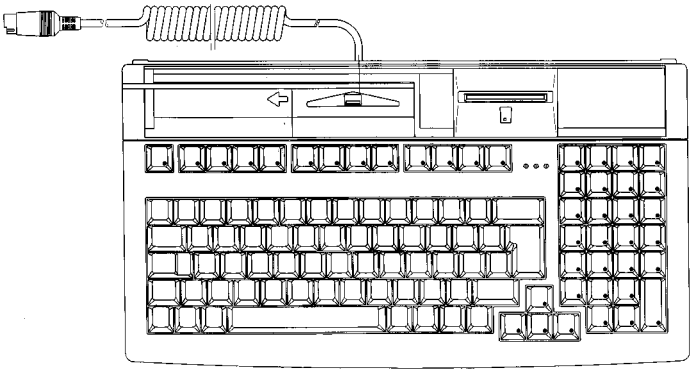
Developed above all with professional typing applications in mind, Cherry keyboards fulfill all important requirements posed by the market and ergonomics. They embody mature innovative and user-friendly technology that is optimally suited for successful office and dataprocessing.

Applications of this manual

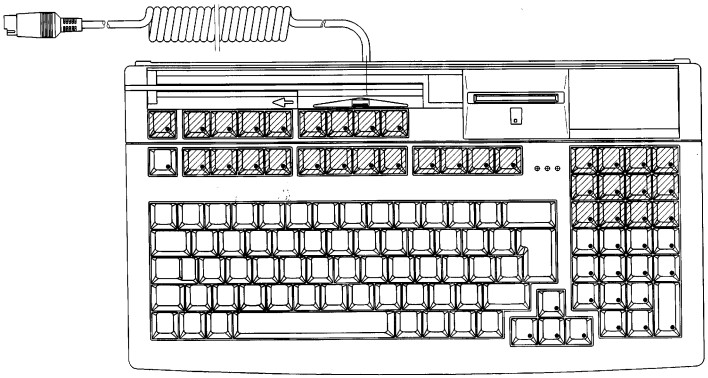
This manual is applicable to keyboards of series 7000 and 8000, G 80 as well as G 81-8308. The keyboard layouts shown depict the positioning of the freely programmable function keys as well as the integrated card reading devices, which differ according to the various moolets.

Examples of layouts:

Ex. G 81-7002



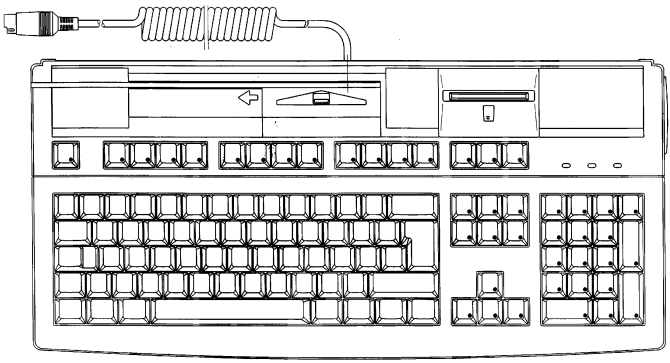
Ex. G 80-7009



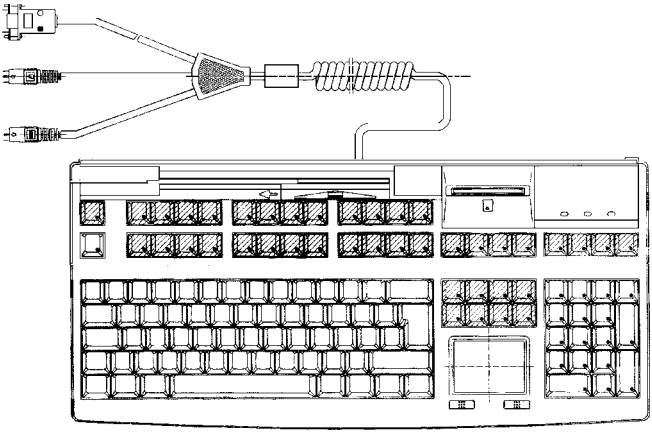
relegendable keycaps

● free programmable keycaps

Ex. G81-8002



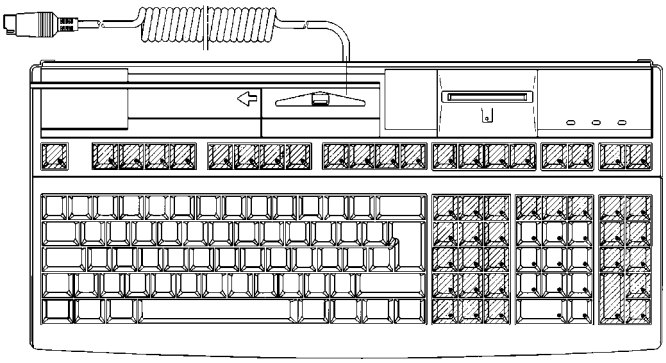
Ex. G80-8109



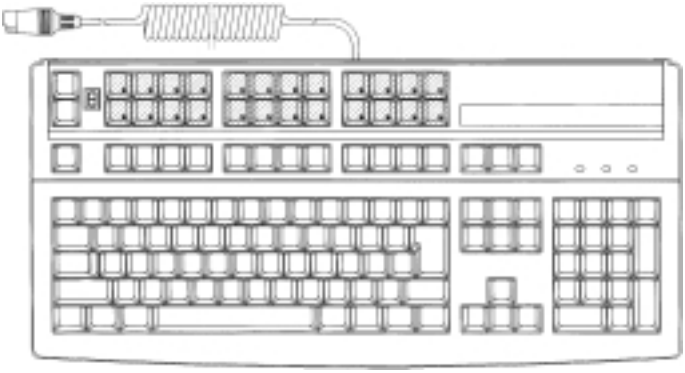
relegendable keycaps

● free programmable keycaps

Ex. G80-8202



Ex. G81-8308



relegendable keycaps

● free programmable keycaps

1.General Advice

Cherry continually optimizes its products in accordance with technological developments. We therefore reserve the right to make any technical alterations. The establishment of reliability as well as the definition of technical details takes place according to Cherry's internal examinations, which comply with generally recognized regulations or standards. Requirements which deviate from these norms are to be covered through the determined operating conditions by the user. If necessary, we are also available to help. Improper handling, storage, external influences and/or further processing can lead to disturbances and defects during use. We stress that we do not grant any warranty or accept any liability if our product is altered by the user, the exception being that this is released expressly in writing for the specific case of use. This is also especially valid if repairs and maintenance work have not been carried out by trained personnel. To avoid danger of explosion, the optional lithium battery may only be exchanged by an expert. Possible compensation claims against us whatever the legal are out of the question as long as they do not concern intent or negligence on our behalf. The abovementioned restriction does not apply to compensation claims, according to the Product Liability Law. The following operating instructions are only valid for the accompanying product.

Please look in the Internet (http://www.cherry.de) for the most up-to-date information.

2. Introduction

2.1 General Description

The Cherry G 81-8000 (standard format) and G 81-7000 (19" compact format) as 8100, CorePlus and 8300 are a new generation of chip card reader keyboards. With this keyboard chip cards, magnetic cards and barcode readers, plug ins and touchpad can be handled within one application.

2.2 Description of the magnetic stripe card reader

The integrated swipe-type magnetic stripe card reader is capable of reading all magnetic stripe card types described in DIN ISO 7812. The versions with a 3-track magnetic card allow the possibility to read the max. 3 tracks separately, in pairs or all together. The selection of the tracks can be chosen by the user. The 2-track versions offer the possibility to read the tracks separately or simultaneously. The magnetic card data is converted to the conresponding keyboard scan codes and then transmitted via the keyboard interface to the computer.

2.3 Description of the barcode reader

The keyboards with barcode option are equipped with an integrated barcode decoder. With this barcode decoder and a reading device, it is possible to decode the following barcode types: Code 39, Code 93, Code 11, Code 16K, Plessey, MSI, Industrial 2/5, Matrix 2/5, Interleaved 2/5, Codabar, Code 128, UPC/EAN/JAN. Detection of the various barcode types is automatic. The barcode reader data is converted to the corresponding keyboard scan codes and then transmitted to the computer via the keyboard interface.

2.4 Description of the smart card reader

The integrated smart card reader is capable of reading and writing smart cards of DIN ISO/IEC 7816.

2.5 G 80-8212: keylock switch

Depending on the position of the keylock switch, the following codes are returned:

Lock position (L):	E0	16	E0	F0	16
Operator position (O):	E0	1E	E0	F0	1E
Manager position (M):	E0	26	E0	F0	26
Aux 1 position (1):	E0	25	E0	F0	25
Aux 2 position (2):	E0	00	E0	F0	00

2.6 Model 8100 series: touchpad

This family of keyboards also includes a touchpad, intended as a substitute for a mouse. The touchpad is compatible with PS/2 and serial (RS 232) ports. An adapter is required in order to connect the keyboard to an RS 232 interface (cf. Accessories)

2.7 G 81-8308

Keyboard with 24 programmable keys, each with ten programmable levels (cf. also section 4.6)

2.8 Model Core Plus

Keyboard with integrated smartcard terminal based on GEMCORE from Gemplus. The keyboard can incorporate any or all of the following components: 2 main cards, 4 SIMM modules, 4 Mbit flash RAM for data, 128 Kbit RAM, real time clock, battery-backed buffer for RTC and RAM, RS 232 interface. Power is supplied through the keyboard port. You can obtain the required driver software from Gemplus under http://www.gemplus.com

3. Installation

3.1 System requirements

The keyboard has been developed for operation together with an IBM, AT, PS/2 or 100% compatible computer.

Warning!

Smartcards contain data that may have considerable (financial) value, as well as personal secret (cryptographic) keycodes:

➪ Take precautions against theft and misuse!

To install the keyboard, proceed as follows:

➪ Switch your computer off
➪ Unplug the old keyboard (for versions with touchpad also the

mouse)
- ➪ Plug in the Cherry keyboard
- ➪ For versions with Smart card reader: connect 9-pin SUB-D plug to the RS 232 port (for versions with touchpad the 6-pin Mini-Din plug)
- ➪ Switch your computer back on

After being powered up, the computer and the keyboard perform a self-test. Once the self-test has been successfully completed and the operating system has been loaded, you can begin working with the new keyboard. Please check to make sure that the keyboard works properly. If an error message is displayed or meaningless characters are displayed on screen after the computer is switched on, please check to make sure that the keyboard is properly connected to the computer.

3.2. Software

The keyboard comes complete with configuration software. This utility allows you to store and manage various keyboard configurations, and also to configure any supplementary keyboard features (e.g. barcode readers, magnetic card scanners, programmable function keys (PF) and so on) to suit your individual preferences or requirements. The G81-8308 keyboard family also comes with Cherry's TAP utility. This program shows you the current configuration and layout of the ten storage layers available for each programmable key on the keyboard. Software updates and version upgrades can be obtained from Cherry's Internet website at http://www.cherry.de.

Note

Launching the configuration software automatically disables the manual keyboard programming function.

4. Programming

4.1 Definition of terms header and terminator

Header: The header indicates the start of a containing data from the magnetic card reader or the barcode reader. The header code is a code sequence being transmitted first over the keyboard interface prior to sending the actual magnetic card reader or barcode reader data.
Terminator: The terminator indicates the end of a transmission containing data from the magnetic card reader or the barcode reader. The terminator code is a code sequence being transmitted over the keyboard interface after sending the actual magnetic card reader or barcode reader data.

4.2 Programming the magnetic card reader and barcode unit

If you want to enter the programming menu scan the "Enter Prog Mode" label or press the 6 mode keys (SHIFT left,

SHIFT right, CTRL left, CTRL right, ALT left, ALT right) at the same time for at least 3 seconds. The keyboard will perform two beeps to indicate that the programming menu has been entered or left. When you entered the menu a short beep will indicate a valid input and a long beep will indicate a wrong input. If you want to exit the programming menu scan the “Exit Prog Mode” label or press the space bar. It is helpful to run an editor program on your PC while programming the keyboard to get all status messages onto the screen.

4.3 Programming the free programmable keys
(without G 81-8308)

If you want to enter the programming menu for the free programmable keys scan the “Enter Prog Mode” label or press the 6 mode keys (SHIFT left, SHIFT right, CTRL left, CTRL right, ALT left, ALT right) at the same time for at least 3 seconds. The keyboard will perform two beeps to indicate that the programming menu has been entered. Select the free programmable key you like to program by pressing. Type the keystring you like to program. It is possible to program all keys or key combinations up to a stringlength of 16 characters. To finish the string press the key you like to programm for a second time. If you want to exit the programming menu scan the "Exit Prog Mode" label or press the space bar.

The following list shows the options of the programming menu.

Refer chapter 4.4 for some examples.

Option	1st	2nd	3rd	Default
Code 39				
Decoding enabled	A	1	Y/N	Y
Start/Stop Charakter included	A	2	Y/N	N
Check Digit required	A	3	Y/N	N
Check Digit included	A	4	Y/N	N
Full ASCII selected	A	5	Y/N	N
Adaptive Algorithm selected	A	6	Y/N	N
Append Option selected	A	7	Y/N	N
Code 128				
Mode A	C	1	Y/N	Y
Mode B	C	2	Y/N	Y
Mode C	C	3	Y/N	Y
Leading FNC1 required	C	4	Y/N	N
FNC Digit included	C	5	Y/N	N
Codabar				
Decoding enabled	F	1	Y/N	Y
Start & Stop Character included	F	2	Y/N	N
Concatenation enabled	F	3	Y/N	Y
Concatenation required	F	4	Y/N	N
Interleaved 2/5				
Decoding enabled	I	1	Y/N	Y
Check Digit	I	2	Y/N	N
required	I	3	Y/N	N
Check Digit included	I	4	Y/N	N
Adaptive Algorithm Selected				
Industrial 2/5				
Streight 2/5 Decoding enabled	S	1	Y/N	Y
IATA 2/5 Decoding enabled	S	2	Y/N	Y
IATA 2/5 Mod7 Check Digit required	S	3	Y/N	N
MSI				
Decoding enabled	M	1	Y/N	Y
Plessey				
Decoding enabled	P	1	Y/N	Y

Comment

Start/Stop character in output string transmitted
Only label with check digit accepted
Check digit transmitted if available
Extendend Code 39 option selected
Aggressive algorithm which accepts dirty or bad labels (greater tolerance).
Chaining of Code 39 labels possible.

Special character set selected
Special character set selected
Special character set selected
Only label with leading FNC 1 accepted
FNCx character transmitted if available

Start/Stop character in output string transmitted
Chaining of labels possible
Chaining of labels required

Only label with check digit accepted
Check digit transmitted if available
Aggressive algorithm which accepts dirty or bad labels (greater tolerance)

Only label with check digit accepted

Option	1st	2nd	3rd	Default
Matrix 2/5				
Decoding enabled	X	1	Y/N	Y
Code 93				
Decoding enabled	G	1	Y/N	Y
Code 11				
Decoding enabled	H	1	Y/N	Y
Only one Check Digit required	H	2	Y/N	N
Code 16K				
Decoding enabled	K	1	Y/N	Y
Leading FNC1 required	K	2	Y/N	N
FNC Digit included	K	3	Y/N	N
Click on each row	K	4	Y/N	N
EAN/JAN				
EAN 13 Decoding enabled	E	1	Y/N	Y
EAN 8 Decoding enabled	E	2	Y/N	Y
Check Digit included	E	3	Y/N	Y
UPC/EAN Addendum required	E	4	Y/N	N
EAN 2-Digit Addendum enabled	E	5	Y/N	Y
EAN 5-Digit Addendum enabled	E	6	Y/N	Y
UPC				
UPC-A Decoding enabled	U	1	Y/N	Y
UPC-E0 Decoding enabled	U	2	Y/N	Y
UPC-E1 Decoding enabled	U	3	Y/N	Y
UPC-E Data Expand to A-Format	U	4	Y/N	N
Exp. Format: System Digit included	U	5	Y/N	Y
Exp. Format. Check Digit included	U	6	Y/N	Y
Compressed Format: System Digit included	U	7	Y/N	Y
Compressed Format: Check Digit included	U	8	Y/N	Y
2-Digit Addendum enabled	U	9	Y/N	Y
5-Digit Addendum enabled	U	0	Y/N	Y

Option	1st	2nd	3rd	4th	5th
Min/Max length					
Min Length	A-U	O	0-9	0-9	0-9
Max Length	A-U	B	0-9	0-9	0-9

Comment

Only label with one check digit accepted

Only label with leading FNC1 accepted
FNCx character transmitted if available
Click on every successfully read row

Output with check digit
Only labels with supplemental accepted
2 digit supplemental enabled
5 digit supplemental enabled

12 digit UPC-A Code enabled
Output with zero suppression
Output with non zero suppression
8 digit label expand to 12 digit output
Expanded Format with system digit
Expanded Format with check digit
Compressed Format (8 digit) with system digit
Compressed Format (8 digit) with check digit
2 digit supplemental enabled
5 digit supplemental enabled

Comment

Option	1st	2nd	3rd	Default
Barcode/ Header & Terminator				
Barcode 1 Header Enable/Disable	Q	1	Y/N	N
Barcode 2 Header Enable/Disable	Q	2	Y/N	N
Define and Enable Barcode 1 Header	Q	3	–	not def.
Define and Enable Barcode 2 Header	Q	4	–	not def.
Barcode 1 Terminator Enable/Disable	T	1	Y/N	N
Barcode 2 Terminator Enable/Disable	T	2	Y/N	N
Define and Enable Barcode 1 Terminator	T	3	–	not def.
Define and Enable Barcode 2 Terminator	T	4	–	nor def.
Magnetic card/ Header & Terminator				
Track 1 header Enable/Disable	V	1	Y/N	N
Track 2 header Enable/Disable	V	2	Y/N	N
Track 3 header Enable/Disable	V	3	Y/N	N
Track 4 header Enable/Disable	V	4	Y/N	N
Define and Enable Track 1 Header	V	5	–	not def.
Define and Enable Track 2 Header	V	6	–	not def.
Define and Enable Track 3 Header	V	7	–	not def.
Define and Enable Track 4 Header	V	8	–	not def.
Track 1 Terminator Enable/Disable	W	1	Y/N	N
Track 2 Terminator Enable/Disable	W	2	Y/N	N
Track 3 Terminator Enable/Disable	W	3	Y/N	N
Track 4 Terminator Enable/Disable	W	4	Y/N	N
Define and Enable Track 1 Terminator	W	5	–	not def.
Define and Enable Track 2 Terminator	W	6	–	not def.
Define and Enable Track 3 Terminator	W	7	–	not def.
Define and Enable Track 4 Terminator	W	8	–	not def.

Comment

After 1st label and 2nd label you can enter the header/terminator string. End of string: Enter key (NUM Pad).
After 1st label and 2nd label you can enter the header/terminator string. End of string: Enter key (NUM Pad).

After 1st label and 2nd label you can enter the header/terminator string. End of string: Enter key (NUM Pad).
After 1st label and 2nd label you can enter the header/terminator string. End of string: Enter key (NUM Pad).

After 1st key and 2nd key you can enter the header/terminator string. End of string: Enter key (NUM Pad)
After 1st key and 2nd key you can enter the header/terminator string. End of string: Enter key (NUM Pad)
After 1st key and 2nd key you can enter the header/terminator string. End of string: Enter key (NUM Pad)
After 1st key and 2nd key you can enter the header/terminator string. End of string: Enter key (NUM Pad)

After 1st key and 2nd key you can enter the header/terminator string. End of string: Enter key (NUM Pad)
After 1st key and 2nd key you can enter the header/terminator string. End of string: Enter key (NUM Pad)
After 1st key and 2nd key you can enter the header/terminator string. End of string: Enter key (NUM Pad)
After 1st key and 2nd key you can enter the header/terminator string. End of string: Enter key (NUM Pad)

Option	1st	2nd	3rd	Default
Barcode Options				
Code ID (WA)	R	1	Y/N	N
Code ID (AIM)	R	2	Y/N	N
Modifier (AIM)	R	3	Y/N	N
Laser voting	R	4	Y/N	Y
Beep on good read	R	5	Y/N	Y
Set Code Options to default	R	6	–	–
Disable Code Options	R	7	–	–
Magnetic Card Options				
Track 1 reading Enable/Disable	J	1	Y/N	Y
Track 2 reading Enable/Disable	J	2	Y/N	Y
Track 3 reading Enable/Disable	J	3	Y/N	Y
Track 4 reading Enable/Disable	J	4	Y/N	N
Stop character check	J	5	Y/N	Y
LRC character check	J	6	Y/N	Y
Send immediate	J	7	Y/N	Y
Keyboard Options				
Define Delay Time	Z	1	0-9	6
Downcode only Enable/Disable	Z	2	Y/N	N
Keyclick Enable/Disable	Z	3	Y/N	N
Online Programming Enable/Disable	Z	4	Y/N	Y
Configuration output	Z	5	–	–

Comment

Code ID Welch Allyn transmitted, see PROG-MENU
Code ID AIM transmitted, see PROG-MENU
AIM Modifier transmitted, see PROG-MENU
Keyboard will compare 3 consecutive laser scans before output

Only Barcode options affected
Only Barcode options affected

Stop character test while reading magnetic card reader
LRC test while reading magnetic card data
Immediate output of magnetic card data

Delay time for barcode and magnetic-card output in milliseconds
(time in beetween the codes)
If enabled no upcode is sent at barcode and magnetic-card output

If enabled the selected options in the menuing mode will be sent to the system

Rev. 0.1 27/11/97	Options(ID:WA/AIM)	Label	Label	Barcodes
PROG-MENU for Cherry AP-Keyboards	Decoding enabled (b / A)	1	Yes * / No	Code 39 (A)
	Start / Stop Character included	2	Yes / No*	
	Check Digit required	3	Yes / No*	
	Check Digit included	4	Yes / No*	
	Full ASCII selected	5	Yes / No*	
	Adaptive Algorithm selected	6	Yes / No*	
	Append Option	7	Yes / No*	
Enter Prog-mode (Press 6 Mode Keys Shift, Ctrl,Alt, L/R)	Mode A (j / C)	1	Yes * / No	Code 128 (C)
	Mode B	2	Yes * / No	
	Mode C	3	Yes * / No	
	Leading FNC1 required	4	Yes / No*	
	FNC Digit included	5	Yes / No*	
* marked values are default values	Decoding enabled (a / F)	1	Yes * / No	Codabar (F)
	Start / Stop Character included	2	Yes / No*	
	Concatenation enabled	3	Yes * / No	
	Concatenation required	4	Yes / No*	
	Decoding enabled (e / I)	1	Yes * / No	I 2/5 (I)
	Check Digit required	2	Yes / No*	
	Check Digit included	3	Yes / No*	
	Adaptive Algorithm selected	4	Yes / No*	
	Straight 2/5 Decoding enabled (f / S)	1	Yes * / No	Industrial 2/5 (S)
	IATA 2/5 (2-bar 2/5) Decoding enabled	2	Yes * / No	
	IATA Simple Mod7 Check D. required	3	Yes / No*	
	Decoding enabled (g / M)	1	Yes * / No	MSI (M)
	Decoding enabled (n / P)	1	Yes * / No	Plessey (P)
	Decoding enabled (m / X)	1	Yes * / No	Matrix 2/5(X)
	Decoding enabled (i / G)	1	Yes * / No	Code 93 (G)
	Decoding enabled (h / H)	1	Yes * / No	Code 11 (H)
	Only 1 Check Digit required	2	Yes / No*	
	Decoding enabled (o / K)	1	Yes * / No	Code 16K (K)
	Leading FNC1 required	2	Yes / No*	
	FNC Character included	3	Yes / No*	
	Click on each Row	4	Yes / No *	
You can use this menu with keyboard only, press the char in brackets instead of barcodes.	EAN 13 Decoding enabled (d / E)	1	Yes * / No	EAN / JAN (E)
	EAN 8 Decoding enabled	2	Yes * / No	
	Check Digit included	3	Yes * / No	
	UPC/EAN Addendum required	4	Yes / No*	
	EAN 2-Digit Addendum enabled	5	Yes * / No	
	EAN 5-Digit Addendum enabled	6	Yes * / No	
Exit Prog-mode ('Space')	UPC-A Decoding enabled (c / E)	1	Yes * / No	UPC (U)
	UPC-E0 Decoding enabled	2	Yes * / No	
	UPC-E1 Decoding enabled	3	Yes * / No	
	UPC-E Data Expand to A-Format	4	Yes / No*	
	Exp. Format: System Digit included	5	Yes * / No	
	Exp. Format: Check Digit included	6	Yes * / No	
	Comp. Format: System Digit included	7	Yes * / No	
	Comp. Format: Check Digit included	8	Yes * / No	
	2-Digit Addendum enabled	9	Yes * / No	
	5-Digit Addendum enabled	0	Yes * / No	

Lenght	Optionlabel	Options	Label	Label	Features
Min: 01* Max: 48*	Min (O)	Barcode1 Header en. 9 pin.D-Sub Barcode2 Header en. 6 pin.DIN Def. & en. Barcode1 Header Def. & en. Barcode2 Header	1 2 3 4	Yes / No * Yes / No * - -	Barcode Header (Q)
Min: 00* Max: 128*	Max (B)	Barcode1 Terminator en. 9pin. Barcode2 Terminator en. 6 pin. Def. & en. Barcode1 Term. Def. & en. Barcode2 Term.	1 2 3 4	Yes / No * Yes / No * - -	Barcode Terminator (T)
Min: 01* Max: 60*	1	Track1 Header enable Track2 Header enable Track3 Header enable Track4 Header enable	1 2 3 4	Yes / No * Yes / No * Yes / No * Yes / No *	Magnetic-Card Header (V)
Min: 04* Max: 80*	2	Def. & en. Track1 Header Def. & en. Track2 Header Def. & en. Track3 Header Def. & en. Track4 Header	5 6 7 8	- - - -	
Min: 03* Max: 48*	3	Track1 Terminator enable Track2 Terminator enable Track3 Terminator enable	1 2 3	Yes / No * Yes / No * Yes / No *	Magnetic-Card Terminator (W)
Min: 03* Max: 60*	4	Track4 Terminator enable Def. & en. Track1 Term. Def. & en. Track2 Term.	4 5 6	Yes / No * - -	
Min: 03* Max: 60*	5	Def. & en. Track3 Term. Def. & en. Track4 Term.	7 8	- -	
Min: 03* Max: 48*	6	Define Delay Time Send only Downcode Keyklick enable	1 2 3	0 - 9 Yes / No * Yes / No *	Keyboard Options (Z)
Min: 01* Max: 64*	7	Online Programming Configuration Output	4 5	Yes */ No -	
Min: 03* Max: 64*	8	Track 1 decoding Track 2 decoding Track 3 decoding	1 2 3	Yes */ No Yes */ No Yes */ No	Magnetic-Card Options (J)
Min: 00* Max: 154*	9	Track 4 decoding Stop character check LRC character check Send immediate	4 5 6 7	Yes / No* Yes */ No Yes */ No Yes */ No	
Fix Length: 8 / 13	0	TRIOVING Card decodimg SIPASS Card decoding Bidirectional reading Driver Licence decoding ISO Card decoding	1 2 3 4 5	Yes / No * Yes / No * Yes / No * Yes / No * Yes */ No	Magnetic Card Options (D)
Fix Length: 8 / 13	Yes (Y) No (N)	Code ID (WA) Code ID (AIM) Modifier (AIM) Laser voting Beep on good read Set Code Options to default Disable Code Options Autodetection enable Barcode1=Wand, 2=Laser 9 pin. Barcode1=Laser, 2=Wand 6 pin.	1 2 3 4 5 6 7 8 8 8	Yes / No * Yes / No * Yes / No * Yes */ No Yes */ No - - 1 * 2 3	Barcode Options (R)

4.4 Programming examples

Examples for barcode programming

Example 1:
Setting barcode options to default.
For setting the barcode options to default status proceed as follows:
1. Press the six mode keys (SHIFT left, SHIFT right, CTRL left, CTRL right, ALT left, ALT right) for at least 3 seconds to enter the programming mode (Keyboard beep, menu entry on screen).
2. Press the “R”-key.
3. Press the “6”-key
4. Press the Space-key to exit the programming mode.

Example 2:
Enable/Disable Code 39 decoding (via keyboard). To enable/disable the barcode CODE 39 proceed as follows:
1. Press the six mode keys (SHIFT left, SHIFT right, CTRL left, CTRL right, ALT left, ALT right) for at least 3 seconds to enter the programming mode (Keyboard beep, menu entry on screen).
2. Press the “A”-key.
3. Press the “1”-key.
4. Press the “Y”-key to enable the decoding of Code 39. If you would like to disable the decoding press the “N”-key.
5. Press the Space-key to exit the programming mode.

Example 3:
Define and Enable barcode header 1. To define and enable a barcode header proceed as follows:
1. Press the six mode keys (SHIFT left, SHIFT right, CTRL left, CTRL right, ALT left, ALT right) for at least 3 seconds to enter the programming mode (Keyboard beep, menu entry on screen).
2. Press the “Q”-key.
3. Press the “3”-key.
4. Type in the keystring you like to program (e.g. “BH1”). To finish the string press the Enter-key at the numeric key pad.
5. Press the Space-key to exit the programming mode.

Example 4:
Define and Enable barcode terminator 1. To define and enable a barcode terminator proceed as follows:
1. Press the 6 mode keys (SHIFT left, SHIFT right, CTRL left, CTRL right, ALT left, ALT right) for at least 3 seconds to enter the programming mode (Keyboard beep, menu entry on screen).
2. Press the “T”-key.
3. Press the “3”-key.
4. Type in the keystring you like to program. To finish the string press the Enter key at the numeric key pad.
5. Press the Space-key to exit the programming mode.

Examples for magnetic card reader programming

Example 1:
Enable/Disable magnetic card reader track 1 decoding.
To enable/disable the magnetic card reader proceed as follows:
1. Press the six mode keys (SHIFT left, SHIFT right, CTRL left, CTRL right, ALT left, ALT right) for at least 3 seconds to enter the programming mode

(Keyboard beep, menu entry on screen).
2. Press the “J”-key.
3. Press the “1”-key.
4. Press the “Y”-key to enable the magnetic card reader. If you would like to disable the magnetic card reader press the “N”-key.
5. Press the Space-key to exit the programming mode.

Example 2:
Define and Enable magnetic card reader track 1 header. To define and enable the header for the magnetic card track 1 proceed as follows:
1. Press the six mode keys (SHIFT left, SHIFT right, CTRL left, CTRL right, ALT left, ALT right) for at least 3 seconds to enter the programming mode (Keyboard beep, menu entry on screen).
2. Press the “V”-key.
3. Press the “5”-key.
4. Type in the keystring you like to program (e.g. “MH1”). To finish the string press the Enter key at the numeric key pad.
5. Press the space-key to exit the programming mode.

Example 3: Define and Enable magnetic card reader track 1 terminator. To define and enable the terminator for the magnetic card reader track 1 proceed as follows:
1. Press the six mode keys (SHIFT left, SHIFT right, CTRL left, CTRL right, ALT left, ALT right) for at least 3 seconds to enter the programming mode (Keyboard beep, menu entry on screen).
2. Press the “w”-key.
3. Press the “5”-key.
4. Type in the keystring you like to program. To finish the string press the selected free programmable key again.
5. Press the Space-key to exit the programming mode.

4.5 Example for programming a free programmable key

(without G 81-8308)

To program a string on the "Break" key (key-no. 126) proceed as follows:
1. Press the six mode keys (SHIFT left, SHIFT right, CRTL right, ALT left, ALT right) for at least 3 seconds to enter the programming mode (keyboard beep, menu entry on screen).
2. Press the "Break" key.
3. Type the keystring you like to program (maximal 16 characters). To finish the string press the ”Break“ key at the numeric key pad.
4. Press the Space-key to exit the programming mode.

4.6 G 81-8308: Keyboard with 24 free programmable keys

Programming the programmable keys

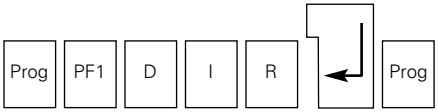
Each of the 24 freely programmable keys – PF1 through PF24 – can be used to store any desired key sequences in 10 different layers.

Per key and level 128 Byte (approx. 64 characters) ar available to be freely programmed. To do so, proceed as follows:

- ➪ Press the "Prog. key". Decimalpoint at 7 Segment Layer flashes (Programming mode). The active Layer is indicated with the numbers 0-9. With pressing the Layer in combination with the keys F1-F10 (see Changing the storage layer) the layer can be free chosen.
- ➪ Press the key you want to program (PF1-PF24)
- ➪ Enter the desired key sequence
- ➪ If you want to program another key, press the desired key (PF1-PF24)
- ➪ Enter the key sequence

- ➪ Press the "Prog key" again to end programming mode (Decimalpoint at 7-Segment-Display turns off)

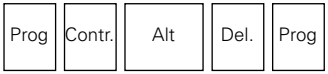
Example: You want to store the DOS command "dir" under the freely programmable key PF1. Press the following keys in the indicated order one after another:



As you enter the key sequence to be stored, the characters are simultaneously output to the system and displayed on the screen to let you keep track of what has already been entered. While you are programming the keyboard, the key sequences to be stored are simultaneously output to the system, so if you are running a text editor or word processing program you can double-check the character strings on-screen. In other words, programming is done "online".

Deleting all stored key sequence of one Layer

- ➪ Press the "Prog. key", Decimalpoint flashes
- ➪ Press Control, Alt and Delete simultaneous:



- ➪ Press the "Prog. key" again to end programming mode.

Outputting the stored key sequences

When any of the storage keys PF1 through PF24 is pressed, the key sequence stored under it in the currently selected storage layer is sent out to the system.

Example: You want to output the key sequence that is stored under PF1. Press the following key:

PF1

Changing the storage layer

The active layer is shown at the 7-Segment-Display. If you want to change the layer proceed as follows:

- ➪ Press the layer key(Layer number is flashing)
- ➪ Choose the Layer by pressing one of the keys F1-F10 (see list).
  New Layer is shown permanently.

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
1	2	3	4	5	6	7	8	9	0

Temporarily changing the storage layer

You can temporarily change to a higher layer by pressing one or more of the three mode keys in the lower left-hand corner of the keyboard (Shift, Alt and Ctrl). The change only remains in effect until the depressed mode keys are released again. The previously valid layer is then in effect again.
The following values are possible:

Alt key:	Up 1 layer
Shift key:	Up 2 layers
Ctrl kay:	Up 4 layers

These keys can also be combined to advance the layer by any value between 1 and 7, e.g. Alt + Ctrl = up 5 layers.
Example: You are in storage layer “0” and want to output the key sequence that is stored under PF1 in layer 3.
Press the following keys simultaneous:

Alt ⇧ PF1

Setting the data transfer rate

The speed at which the stored key sequences are transmitted to the system can be set to any of 12 different rates to meet the requirements of certain system types and/or software. This is done by delaying each code by a certain amount of time.

To stipulate the delay time, proceed as follows:

- ➪ Press the “Prog. key”: Decimalpoint flashes
- ➪ Press one of the keys between F1 and F12 to set the desired delay time (the LED then turns off again)
- ➪ To exit this function press the “Prog. key“ again. Decimalpoint turns off.

The corresponding delay times are as follows:

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
delay time (msec):											
0	2	4	6	8	10	20	30	50	70	100	200

Example:
You want to slow the rate at which the stored key sequences are output, and decide to stipulate a delay of approx. 30 msec after each key code.
Please press the following keys one after another:

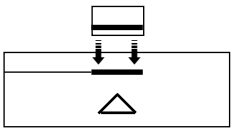
Prog	F8	Prog

Note

If you press a programmable function key (PF) while the "Scroll Lock" or "Num Lock" keys are activated, you may find that the PF fails to reactivate itself after outputting its stored code. This happens when the delay setting is too short. You can resolve the problem by setting a longer delay.

5. Using the magnetic stripe card reader

When inserting a card into the swipe reader, the magnetic stripe must point downwards towards the keyboard as shown in the diagram below (see arrow). Slide the magnetic stripe card through the reader from right to left at a constant, moderate speed. An audible signal is emitted if the card has been correctly read.



If more than 3 consecutive attempts to read a card fail, check the following:
➪ Does the keyboard function without any fault?
➪ Was the card drawn through the card reader at a relatively constant speed? Try it again at different speeds.
➪ Has data been written on the card using the DIN ISO 7812 standard?
➪ Is the track selected present on the card?
➪ Is the magnetic stripe card damaged or soiled, this preventing it from being read?

5.1 Cleaning the magnetic head

The magnetic head cannot be cleaned using any aggressive solvent such as alcohol or isopropanol.

Attention!

Do not use any easily flammable fluids near open flame!

6. Connection of barcode reading devices (Versions with barcode option only)

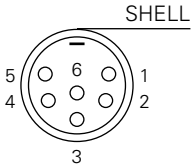
The following barcode reading devices can be connected to the keyboard:
- Barcode wands with high, medium or low resolution
- Barcode slot readers
- CCD scanners
- Laser guns
- All barcode reading devices that are equipped with a wand-signal or laser emulation feature.

Note:

Default factory setting is laser emulation. Up to two scanner units may be connected at any one time. In addition to scanners supplied by Cherry, the keyboards are also plug-compatible with many other barcode readers. When connecting barcode readers – in particular laser guns – ensure compliance with manufacturers' safety guidelines. Barcode readers should not draw more than 150 mA of current.

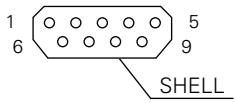
The following diagrams show the barcode connector pin assignments:

6-POL. DIN 240°



SOCKET
1 +5V
2 Video In 2
3 GND
4 Enable Out 2
5 Trigger In 2
6 NC (Good Read Out 2)
Shield GND

9-pol. SUB-D CONNECTOR S7a male



(Front view)

1 NC
2 Video In 1
3 Good Read Out 1
4 +5V
5 Trigger In 1
6 Enable Out 1
7 GND
8 GND
9 +5V
Shield GND

When connecting a barcode reading device, please proceed as follows:

➪ Switch the computer off
➪ Plug the connector of the barcode reading device into the provided socket on the righthand side of the keyboard housing.
➪ Switch the computer back on.

7. Using the integrated smart card terminals

7.1 Inserting the smartcard

A symbol on the housing indicates which way round to insert the smartcard:

Vertical smartcard slot:
Insert the smartcard with the chip underneath, pointing towards the user.

Horizontal smartcard slot:
Insert the smartcard with the chip uppermost and on the left.

To ensure that the smartcard makes proper contact with the terminal, insert it by exerting steady pressure until it snaps into position.

7.2 Inserting plug in cards

In addition to standard cards formats, smaller cards are also frequently used for financial transactions and security systems. These cards rarely need to be swapped out. Known as plug in cards, they can be inserted into the underside of the keyboard housing.

Warning!

Voltage spikes in the plug in socket may destroy the plug in card, causing all data to be lost.

- ➪ Always switch off the PC before inserting or swapping a plug in card.
- ➪ Fold out the diagram in the front of the user manual
- ➪ Turn the keyboard over (⑧ cable duct uppermost; cf. diagram).
- ➪ Gently push down the fin on the cover ⑨ and open the cover.
- ➪ Open the plug in housing ❶ inside. To do so, push the locking device ❷ upwards in the direction of the arrow and carefully open the lid.
- ➪ If the plug in card was dlivered in a carier card, remove the plug in card from its carrier card.

Please refer to the relevant software documentation for instructions on assigning plug in cards to the appropriate plug in housing!

Make sure you insert the card the right way up! plug in cards should be inserted straight edge first and with the chip uppermost ❸.

8. Firmware

The keyboard is equipped with a standard firmware for handling all readers and keyfunctions.
On request it is possible to modify this firmware in accordance with the supplier.

9. Status indicatores

Whenever the PC is switched on or rebooted, the keyboard performs a self diagnostic test: all LEDs flash once briefly. In normal operation the LEDs indicate the status of the keyboard. While new software is being installed the middle LED flashes on as a status indicator.

10. Technical specifications

10.1 Technical specifications of the keyboard

Voltage: + 5 V/DC ±5% SELV

Current input: max. 200 mA (without barcode reader unit).

Typematic function: All keys have an autorepeat function. Delays and frequency can be set from the system (in PC mode they are fixed at 10 Hz after a 500 ms delay)

Reset at power-on: Keyboard generates a power-on reset automatically.

Keyboard self-test: When current is applied or at system's request, keyboard

performs a self-diagnostic test. If test is completed successfully, keyboard returns the hex code AA. All other codes are interpreted as errors.

- Storage temperature: -20°C to +60°C
- Operating temperature: 0°C to +50°C
- Interface:
  IBM compatible keyboard interface;
  5-pin DIN 180° plug
  serial interface
  9-pin SUB-D connector
- Data output: Open collector TTL
- Data format: Data is transferred to/from keyboard in IBM synchronous format.
- Data buffer: All codes are stored in a buffer prior to transfer
- Dimensions:
  Keyboard familiy 8000:
  470 x 220 x 63 mm
  Keyboard familiy 7000:
  405 x 220 x 63 mm

10.2 Technical specifications for magnetic swipe card reader

- Scanning speed: 3 - 125 ips at 75 bpi
  3 - 50 ips at 210 bpi (ips=inches per second, bpi=bits per inch)
- Service life of magnetic scanning head: 400 000 scanning cycles.
  Decoding complies with DIN ISO 7812.

10.3 Technical specifications of the barcode decoder unit

The barcode decoder decodes inputs from non-triggered and triggered barcode readers, distinguishing the following barcode symbol systems automatically and bidirectionally. The decoder software accepts barcode scanning speeds of between 3 and 400 inches per second (7 to 1000 cm/s) from any source.

The following barcode types are recognized and decoded automatically: Code 39, Code 93, Code 11, Code 16K, Plessey, MSI, Indurstial 2/5, Matrix 2/5, Interleaved 2/5, Codabar, Code 128, UPC/EAN/JAN

10.4 Technical specification for smart card terminal

- Plug-in reader: Life expectancy of smartcard reader: 200 scanning cycles.

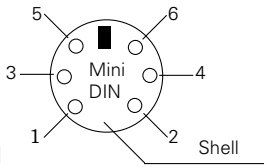
10.5 Technical specifications for touchpad

PS/2 touchpad

- Power supply: +5 V/DC ±10%
- Current input: max. 2,75 mA in operation

Connector pinouts

	Mini DIN connector
Data	1
nc	2
GND	3
+5V	4
Clock	5
nc	6
Shield	shell

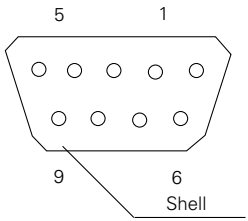


- Interface: PS/2 (compatible with Microsoft or IBM PS/2 mouse drivers), X/Y resolution: 500 dpi= 20 dots/mm (graphic tablet mode)

RS 232 serial touchpad

- Power supply:
  Positive: +6 to +15 V/DC through RTS and DTR
  Negative: -6 to -15 V/DC through RXC
- Reactance oft RTS driver: min 150 Ω max. 300 Ω
- Power supply (via RTS): 15 mA ± 12 V/DC
- Power supply: All signals comply with RS 232 specification E/A-232 D
- Connector pinout

	DIN connector
TxD	2
RxD	3
DTR	4
GND	5
RTS	7
nc	9
Shield	shell
DSR	6
CTS	8
Shield	1



- Interface: RS 232 serial, X/Y resolution: 500 dpi= 20 dots/mm (graphic tablet mode)

Integrated „Synaptics“ touchpad

Further information on Synaptics website on the Internet at http://www.synaptics.com

11. Troubleshooting

Warning

Any attempt on the part of the user to repair a fault may damage or destroy the keyboard’s integrated electronic components

➪ Do not attempt to open and repair the keyboard yourself.

Error messages on powering up or scrambled characters on the screen:

➪ Check the connection between the keyboard and the computer system

- If the keyboard is not working properly:

➪ Check all connections; loose cables and connectors are a common source of faults

- If the magnetic swipe card is not working properly:

➪ Follow the procedure described in section 5, then try again.

- If the barcode reader is not working properly:

➪ Follow the procedure described in section 6, then try again or consult your barcode reader manual

- If the smart card terminal is not working properly:

➪ Check that the smart card is positioned correctly in the reader; make sure it is fully inserted and the right way round.

➪ Check the interface (port) settings in the software on the PC and change them if necessary.

➪ Reboot the PC and note down the flashing code (cf. Status Indicators), call a service engineer, or see point 7 and try again.

➪ Check the smart card’s functions and type.

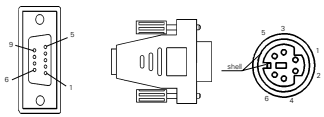
- Entering numbers dont work:
➪ Do not use the numeric pad for entering numbers
- The keyboard creates a "peep" after reading the magnetic card:
➪ To stop peeping chance the programming mode
- If the touchpad fails to respond:
➪ Check all connections and reboot the PC
➪ The problem could be due to incompatible drivers. Check with your dealer, or else download the original Synaptics drivers form the Synaptics website on the Internet:
http://www.synaptics.com

12. Optional accessories

Adapter 5 pin connector - 6 pin Mini DIN connector (no. 617-0580)

Adapter 6 pin Mini DIN connector - 5 pin DIN connector (no. 617-0848)

Adapter Touchpad PS/2, RS 232
(no. 617-1615)



Extension lead (no. 617-0969)

Barcode wands:
infrared:

- low resolution,	(no. 630-0476)
- medium resolution,	(no. 630-0475)
- high resolution	(no. 630-0474)

Barcode wands,
redlight:

- low resolution,	(no. 630-0473)
- medium resolution,	(no. 630-0417)
- high resolution	(no. 630-0472)

Touchreader	(no. 630-0477)
Laserscanner	(no. 630-0478)

Download software:
http://www.cherry.de

Evaluation Kit for smart card terminal
G 99-1499 ZUB

圖面索引

圖形第Ⅲ頁

鍵盤 8000 系列之鍵盤正面

1. 垂直型智慧卡槽（G81-8900）
2. 水平型智慧卡槽（G81-8901）
3. 條碼連接器 6 pol right（條碼 2）
4. LED 顯示鍵盤狀態和功能
5. 鍵盤電線和插頭

鍵盤 8000 系列後面

6. 條碼連接器 9 pol right（條碼 1）
7. RS232 連接器

鍵盤 8000 系列底面

8. 電線通道
9. 插座蓋
10. 可調整腳
11. 智慧卡終端介面卡（RS232）9 pin SUB-D 插頭
12. 鍵盤插頭 DIN 或 MINI DIN

使用手冊摺疊前頁與後面

鍵盤 8000 系列和 7000 系列

1. 插座
2. 上鎖裝置
3. 斜角邊
4. 指引通道

圖形第Ⅳ頁

鍵盤 7000 系列之鍵盤正面

1. 垂直型智慧槽
2. LED 顯示鍵盤狀態和功能
3. 鍵盤電線和插頭

鍵盤 7000 系列之鍵盤後面

4. 條碼連接器 9 pol right（條碼 1）
5. RS232 連接器
6. 條碼連接器 6 pol right （條碼 2）

鍵盤 7000 系列之鍵盤底面

7. 電線通道
8. 插座蓋

9. 可調整腳
10.智慧卡終端介面卡（RS232）
11.9 pin SUB-D 插頭 鍵盤插頭DIN或 mini Din
P2.
以上言發全為專業打字應用，Cherry 鍵盤符合且滿足市場和人體工學所有需求。此種創新且易於使用的技術是用於辦公室和資料處理的最佳選擇

本使用手冊的應用
本使用手冊適用於 7000 和 8000 系列的鍵盤，G80 和 G81-8308 系列的鍵盤適用。鍵盤設計顯示程式化功能鍵和整合卡識別裝置的位置，而此一部份隨著鍵盤型式的不同而有不同。

1　一般注意事項

Cherry 隨著技術發展而增進其產品，我們因此保留任何技術更改的權利。可靠度的建立和技術定義仍依據 Cherry 內部檢測而來，這與一般承認的規範獲頒準是一致的。使用者若有特殊規範需求，如有需要，Cherry 十分樂意提供專業上的幫助。不適當的運送、儲存、外在影響或進一步的處理會導致使用時干擾或斜疵的產生。我們強調如果是因為使用者更改我們的產品，則我們不提供任何保證或可靠度的受理，除非有書面證明是特殊的案例。而如果維修工作並非由受過訓練的專業人員所處理時，則上述情形也特別有效。為了避免危險，離電池的更換需由專家來處理。只要是忽略我們的代表性或不在意我們的意圖，則任何對我們的賠償請求無論是否為合法均是不可能的。以上限制並不適用於依照產品可靠度法（The product Liability Law）內規定的賠償請求。下列的操作規範僅對相對的產品有效。

2　簡介

2.1 一般說明

Cherry G81-8000（標準型）和 G81-7000（19”小巧型），8100 CorePlus 和 8300 是晶片卡識別鍵盤的新一代鍵盤。此一系列鍵盤將晶片卡、磁卡、條碼識別器、插頭組合（Plug ins）和觸摸式墊子（touch pad）等功能完全整合在一起

2.2 磁卡識別器簡述

整合刷卡是磁卡識別器可判讀的所有符合 DIN ISO7812 的磁卡三軌磁卡版本可分別、成對或最多 3 軌的讀取，此部份可由使用者依其需要來選取。二軌磁卡版本可分別或同時讀取，磁卡資料先被轉會成相對的鍵盤掃描碼而後在經由鍵盤介面傳給電腦

2.3 條碼識別器簡述

如果選擇有條碼識別器的鍵盤，則需附有整合條碼的解碼器，由此條碼解碼器和判讀裝置，對於以下形式的條碼可做判讀功用，Code39、Code33、Code11、Code16K、Plessey、MIS、Industrial 2/5、Matrix 2/5、Interleaved 2/5、Code bar、Code128、UPC/EAV/JAN，而不同形式的真測是自動的條碼識別器資料先被轉會成相對的掃描碼而後經由鍵盤介面卡傳給電腦

2.4 智慧卡簡述

整合智慧卡識別器可用於 DIN ISO/IEC 7816 型式的讀和寫智慧卡。

2.5 G80-8212 鎖鍵開關（keylock switch）

不同鎖鍵開關的位置可由以下不同碼得知

上鎖位置（L）E0 16 E0 F0 16

操作位置（O）E0 1E E0 F0 1E

掌控位置（M）E0 26 E0 F0 26

輔助 1 位置（1）E0 25 E0 F0 25

輔助 2 位置（2）E0 0D E0 F0 0D

2.6 8100 系列:觸摸墊子（touchpad）

此一系列的鍵盤也包括觸摸墊子，此取代了一般滑鼠的作用。這一觸摸墊子和 PS/2 與 RS232 埠是相容的。為了鍵盤能和 RS232 介面卡相連接，轉換器（adapter）是必備的（參考附件部份）。

2.7 G81-8308

鍵盤有 24 個可程式鍵,每依個均有 10 個可程式階(programmable level)（請參考 4.6 節）

2.8 Core Olus 型

有整合智慧卡終端的鍵盤乃是基於 Gemplus 而來的 GemCore 鍵盤可與以下任何或全部元件互動 4M bit 資料用快閃 RAM，128K bit RAM。真時時鐘（Real time Clock），RTC 和 RAM 的電池暫緩器，RS232 介面，電源乃由鍵盤埠提供，您可以從網路 http://www.gemplus.com下的 Gemplus 下載驅動軟體。

3 安裝

3.1 系統需求

此系列鍵盤可適用於 IBM、AT、PS/2 或 100%相容電腦。

3.2 警告

智慧卡內含的資料可能是金融數目或個人密碼

→請特別小心以防小偷或盜用

以下為安裝鍵盤的流程

→將您的電腦開機

→插上 Cherry 鍵盤

→若有智慧卡識別器：連上 9 pin sub-D 插頭到 RS232 埠（適用於觸摸式墊子和 6 pin mini DIN Plus）

→將您的電腦重新開機重新接上電源時，電腦和鍵盤會有自我檢測的功能，一旦自我檢測完成且操作系統被啟動，您便可以開始使用這一新鍵盤，請檢查以確定鍵盤作良好。如果開機後螢幕上顯示錯誤訊息或無意義字元，此時您必須檢查並確定鍵盤是否適當的在與電腦相連接。

3.2 軟體

鍵盤內有 configuration 軟體，此種設計使您可儲存和掌理不同的鍵盤configuration，同時configure任何附加的鍵盤特性，例如條碼識別器，磁卡掃描器可程式功能鍵（PF）和適合您個人的喜好或需求和 10 儲存層的設計可適用每個鍵盤的可程式鍵，軟體濫版本的更新請上 Cherry 網站，網址：http://www.cherry.de

注意：

啟動 cherry 軟體會自動讓手動鍵盤程式功能無法動作

4 程式

4.1 讀寫頭（header）和終端器（terminator）定義

讀寫頭（header）：讀寫頭顯示從磁卡識別器條碼識別器內含資料的起始。讀寫頭碼是一數列碼，其傳遞由鍵盤介面先送出真正得磁卡識別器或條碼識別器資料

終端器（terminator）：終端器顯示從磁卡識別器或條碼識別器內容資料的結終端器碼事一數列碼，其傳遞由鍵盤介面送初真正的磁卡識別器

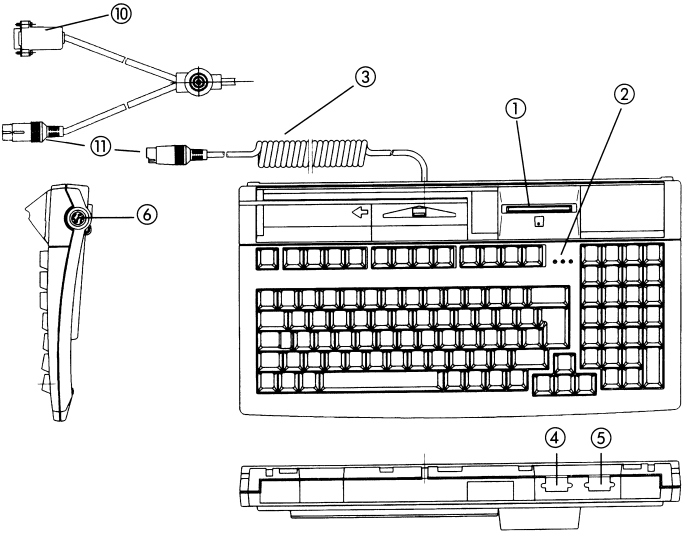
或條碼識別器資料

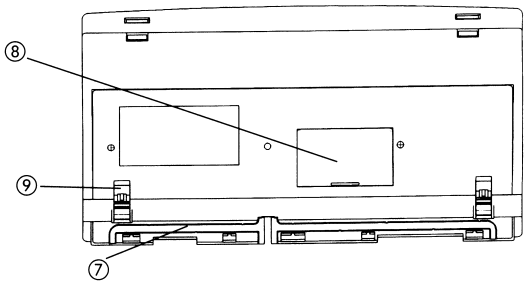
4.2 磁卡識別器和條碼裝置(barcode unit)的程式化(programming)

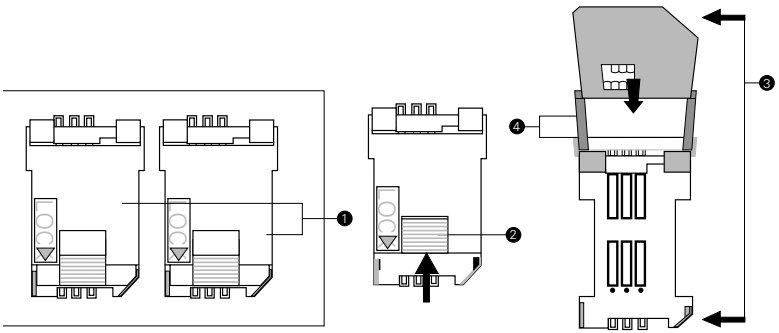
如果您想要進入程式選項(mean)請掃描"Exit Prog Mode"標示成按空白鍵。當程式化鍵獲取所有狀態資訊在您的個人電腦螢幕上，這是非常易於修改程式的。

4.3 程式化自由可程式化鍵(Programming the free program)(不含G81-8308)

如果您是為了自由可程式化鍵而想要進入程式選項，請掃描到"Exit Prog Mode"標示或同時按下以下6個模式鍵(shift left、shift right、ctrl left、ctrl right、alt left、alt right)3秒以上。這時鍵盤會有嗶嗶兩聲顯示您已進入程式選項，選擇您想要的自由可程式化鍵按下,輸入最多含有16個位元的字串，當輸入完後按鍵約一秒鐘時間，如果您想要離開程式選項，請掃描到"Exit Prog Mode"標示或按空白鍵，下表表示程式選項的選擇。請參考4.4節的一些例子。


⑩
③
①
②
⑪
⑥
④
⑤


⑧
⑨
⑦


❶
❷
❸
❹

Canadian Radio Interference Regulations

Notice of CSA C 108.8 (DOC Jan. 1989)
This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.
Le present appareil numenque n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numenques de la classe B precrites dans le Reglement sur le brouillage radioelectrique edicte par le mitstere des Communications du Canada.

Hinweis zum GS-Zeichen

Aufgrund der Position der Nulltaste des numerischen Bereiches ist die Tastatur für Saldiertätigkeiten, die überwiegend blind erfolgen, in Deutschland nicht anzuwenden. Eine Tastatur mit nicht deutscher Tastenknopfbelegung ist in Deutschland aufgrund der Zeichenbelegung (nach DIN 2137 Teil 2) nicht für den Dauereinsatz in Bildschirmarbeitsplätzen zu verwenden.Um die Anforderungen für das GS-Zeichen auf der Basis DIN EN 9241-4 (1999-01) zu erfüllen, ist eine Tastenrückinformation erforderlich. Um diese im Bedarfsfall zu realisieren, ist das Betriebssystem anzupassen bzw. durch eine entsprechende Shareware/Freeware zu modifizieren.

CE Declaration of Conformity

We, Cherry GmbH, declare that the Keyboards 7000/8000, are in conformance with: Low Voltage Directive 73/23/EEC tested in accordance with EN 60950. Also that the EMC Directive 89/336/EEC has been fullfilled to IEC 801-2 (1991) Level 2 and IEC 801-3 (1994) Level 2 within EN 50082-1: 1992 and that EN 55022 1987 Class B has been conformed too. Tested in accordance with Cherry's standard test procedure.

Federal Communications Commission (FCC) Radio Frequency Interference Statement

Information to the user: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Caution: Cherry is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by Cherry! Such unauthorized modifications, substitutions, or attachments may void the user's authority to operate the equipment. The correction of interferences caused by such unauthorized modifications, substitutions, or attachments will be the responsibility of the user. Use only shilded interface cables to ensure compliance.

Cherry GmbH
Cherrystrasse
D-91275 Auerbach/Opf.
Hotline (49) 9643 18-206
Telefax (49) 9643 18-262
Internet: www.cherry.de

644-0130.03
CDV. 2.5
Errors, omissions and technical
modifications excepted.
Printed in Germany.
E, Ch., Jul. '01, 45330343
10, Münch