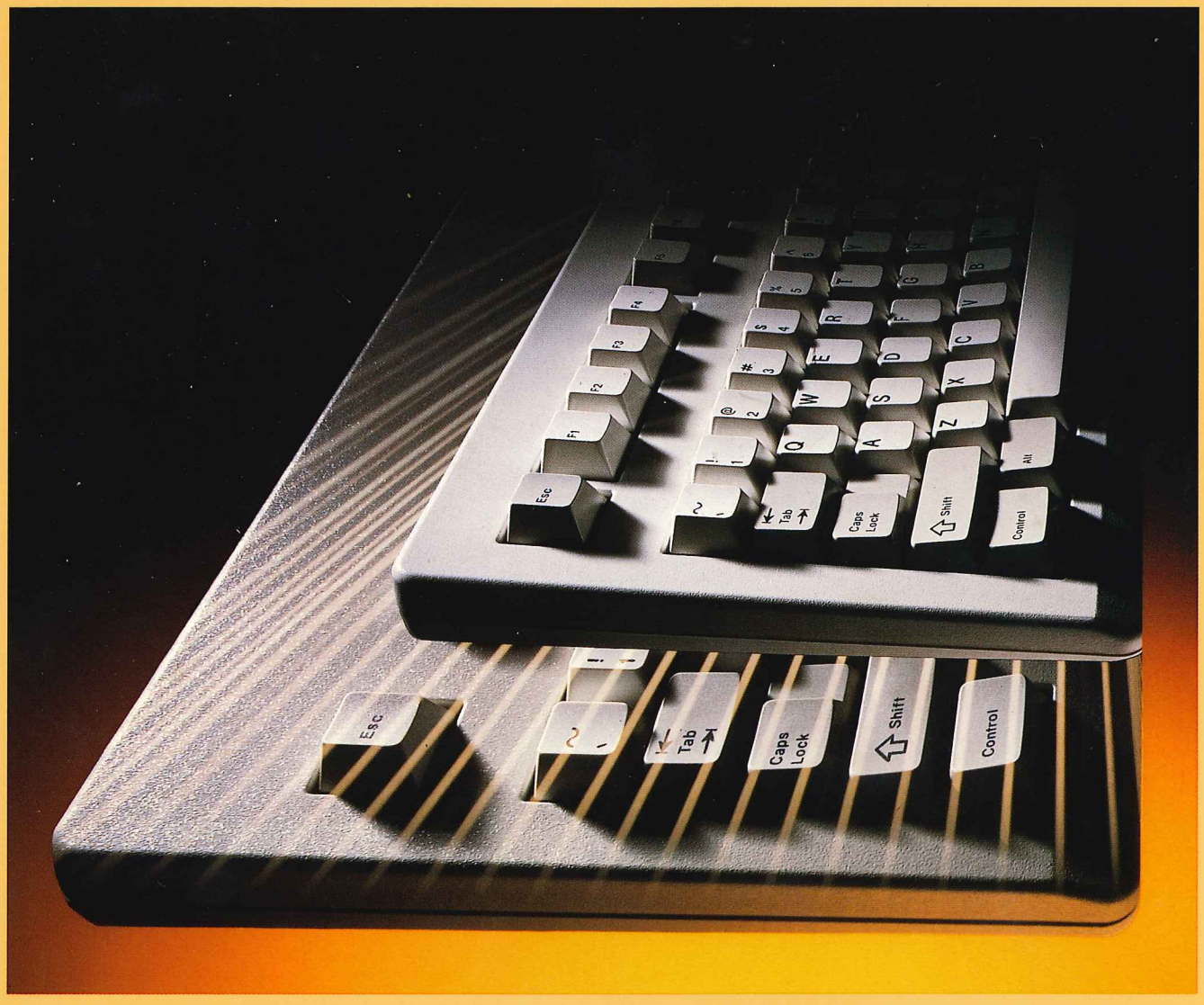
Rack Mounting

CHERRY

G 80-1800

IBM* compatible Multi-Function Keyboard with 101 or 102 Keys. For IBM* PC, PC/XT, PC/AT, PS/2 and compatible Systems.

* Registered Trademark of International Business Machines Corp.



Printed on special bio-degradable paper.

Main Advantages

- US-English version (101 keys) for IBM* PC, PC/XT, PC/AT, PS/2 and compatible models.
- Other language versions (102 keys) for IBM* PC, PC/XT, (with Cherry keyboard driver), PC/AT, PS/2 and compatible models.
- Sliding switch for selection of model for PC, XT or XT 286, AT, PS/2.
- LED indicators show selected mode.
- Superior Cherry MX keys with »Gold Crosspoint« Contacts.
- Reliable positive contact eliminates input errors.
- Reliability: MCBF = 1×10^9 operations.
  MTBF ≧ 80.000 hours.
- Long Life expectancy of individual keys:
  $> 50 \times 10^6$ operations.
- Includes housing and cable.
- Rugged mechanical construction.
- Fatigue-free operation with no risk of multiple actuation, achieved by means of ergonomic cylindrical key set.
- 4-mm full-travel keyswitches.
- "Deep dish" sculptured keycaps for the F and J index finger locations and a dimple on the 5 in the numeric pad for quick and accurate homing when touch-typing.
- 2-shot molded keycaps are matt-finished to prevent glare, wear-resistant and easy to clean.
- Light keycap body color with darker legends (beige-grey, white-grey).
- Materials comply with UL 94.

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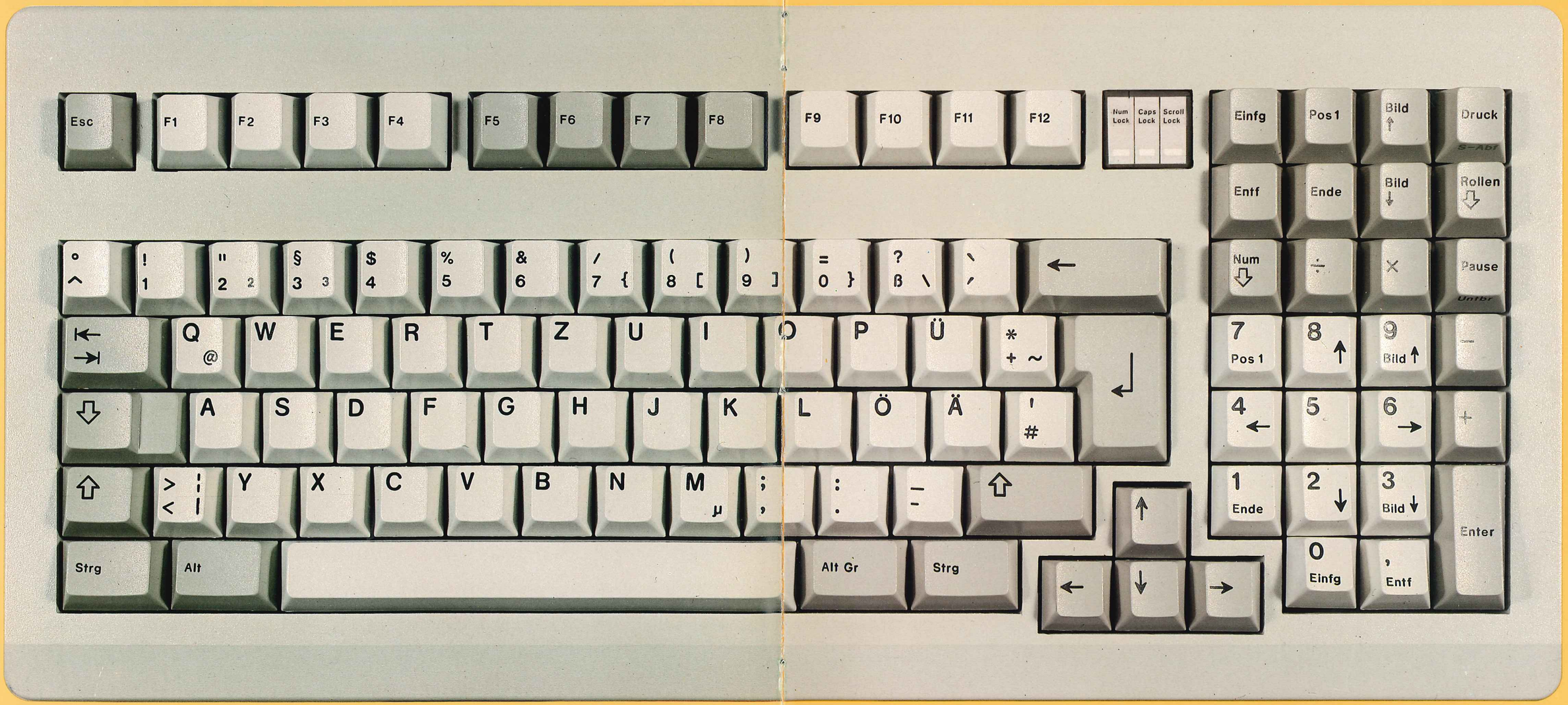


Important Features

- The alphanumeric key layout of the 102-key version conforms with the most recent German norm Fu 21, namely DIN 2137 Sheet 2 dated October 1988 Fu 21: "German keyboard for word and data processing and extensions thereof (characters for standard depiction of weights and measures)"; the international characters use the standard ASCII code in compliance with DIN 66003 and DIN 66303.
- The 101-key version utilizes international ASCII characters in compliance with DIN 66003 and DIN 66303.
- This keyboard's compact dimensions make it ideally suited for portable computers and use in 19" enclosures.
- Choice of three different actuation types: linear feel, soft tactile feedback, and tactile "click".
- Mechanical keys with »Gold Crosspoint« Contacts.
- Super low profile, minimum height.
- Height of 3rd key row is 30 mm (measured from table top with keyboard in flat position), conforming to the most recent research results on ergonomic requirements for display workstations.
  6° angled stems.
- Separate cursor pad.
- Synchronous data format.
- N-key rollover in alpha keypad (main QWERT section).
- Power supply + 5 V.
- Autorepeat, programmable from system (in AT mode only).
- Available key layouts: US-international, German, French.
  Additional versions available on request.
- Standard keycap colors: beige-grey (code U9), white-grey (code L9).
- Life expectancy of each keymodule: 50×10^6 operations.
- Electromagnetic compatibility (EMC):
  – ESD (in compliance with IEC 801-2): 15 kV
  – RFI/EMI: – Post-Vfg. 1046/1984 (VDE 0871 Class B)
  – FCC Part 15, Subpart J, Class B.
  – CISPR 22/EN 55022
- Safety: CSA C 22.2 No. 220 DIN VDE 0805/05.90
  UL 478 EN 60 950:1988
  IEC 950:1986

FCC Part 15 Subpart J Class B | Post Vfg. 1046/1984 (VDE 0871, Klasse B) | CISPR 22/ EN 55022

- Ergonomics: ZH/1/618/10.80

Technical Specifications

Power supply:
+ 5 V DC, current consumption 200 mA max. typ.

Interface:
Bidirectional, serial synchronous. The keyboard communicates with the system via the clock and data lines.

Data format:
Data transfer to and from the keyboard is in synchronous IBM format.
AT, PS/2 and XT 286 mode: idle state = data and clock lines HIGH.
PC, XT mode: idle state = data line LOW, clock line HIGH.

Data output:
Open drain.

Data buffer: All codes are buffered prior to output (buffer capacity 16 bytes).

Keyboard input sequence:
Alpha N-key rollover. Generation of "ghost" characters is prevented by use of a segmented input sequence lock.

Autorepeat:
All keys are equipped with automatic repeat function except Break-key. The delay time and rate of repetition can be programmed from the system (in AT mode only; in PC mode the output code repeats at 11 cycles per second after a delay of 500 ms).

Power-up reset:
The keyboard triggers an automatic power-up reset.

Keyboard self-test:
Upon power-up or if requested by system, the keyboard performs a self-test routine. If no faults are detected, the keyboard transmits the hexadecimal code "AA". Any other code is interpreted to mean the keyboard is defective.
LED status indication for NUM LOCK, CAPS LOCK and SCROLL LOCK.

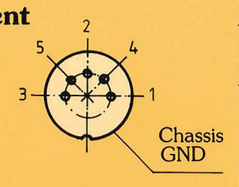
Temperature ranges:
Storage temperature: –40° C (–40° F) to +65° C (149° F).
Operating temperature: 0° C (+32° F) bis +50° C (+122° F).

Connector Cable

2-m coiled cable, stone-grey,
with 5-pin DIN connector.

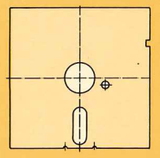
Connector Pin Assignment

Pin	Assignment
1	CLOCK
2	DATA
3	–
4	GND
5	+5 V



Keyboard Drivers

A set of keyboard driver programs is available for PC/AT systems running under MS-DOS.



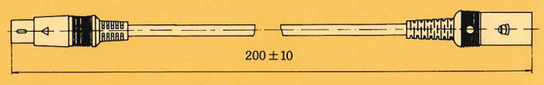
Mode Selector Switch

XT 286/AT/PS/2
PC/XT

Part No. 650-0001

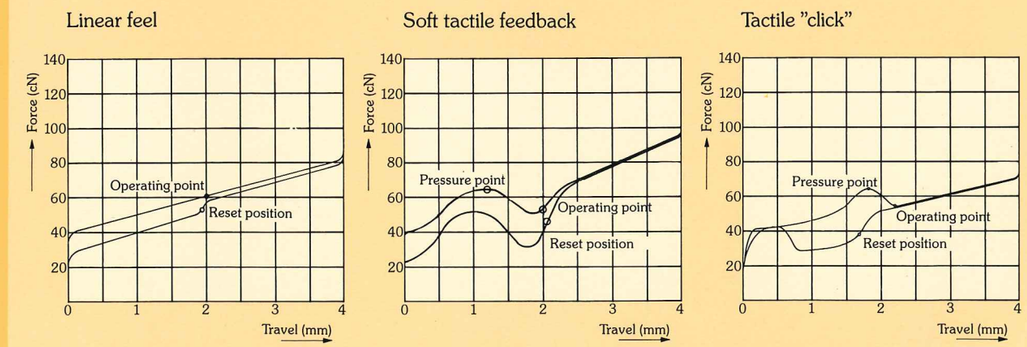
Adapter for PS/2 Systems

Diode coupling Pin				Mini DIN plug Pin
2	←	DATA	→	1
3	←	SPARE	→	2
4	←	GND	→	3
5	←	+5 V	→	4
1	←	CLOCK	→	5
/	←	SPARE	→	6
shell	←	shield	→	shell

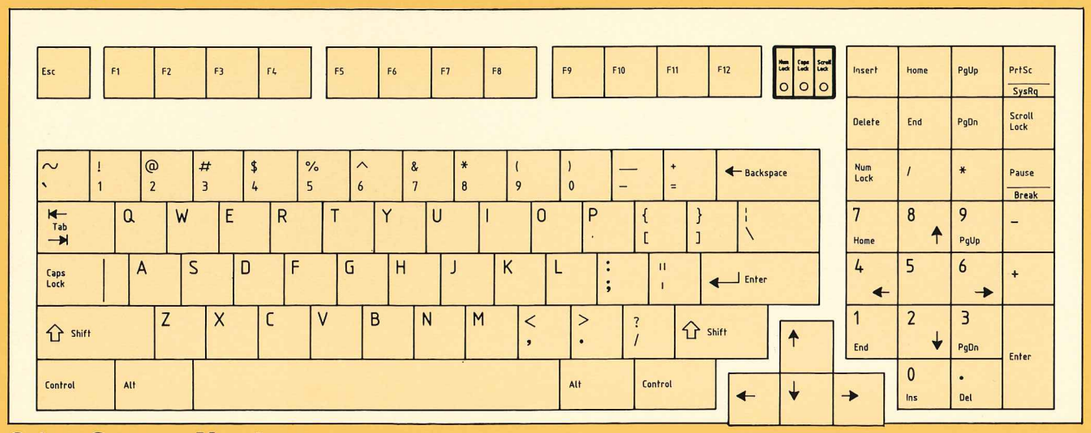


Part No. 617-0580

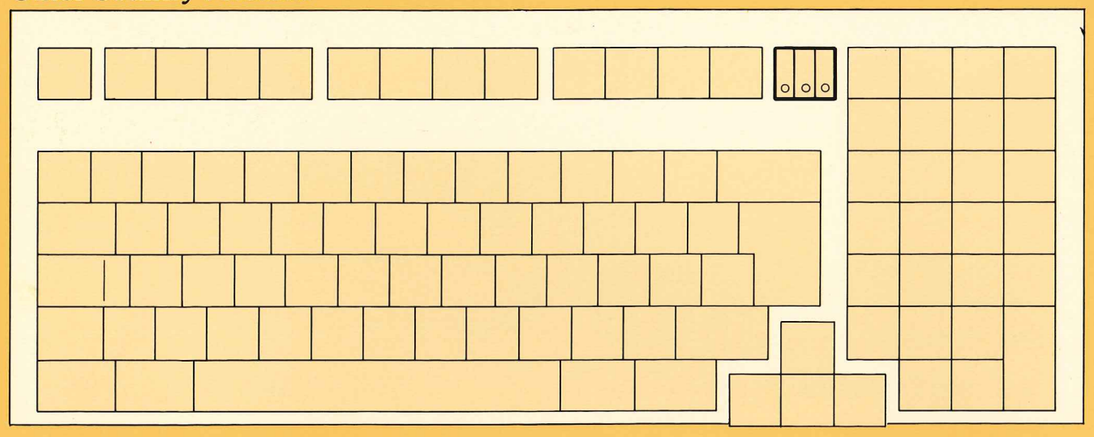
Force/Travel Diagrams



US-English Layout



Other Country Versions

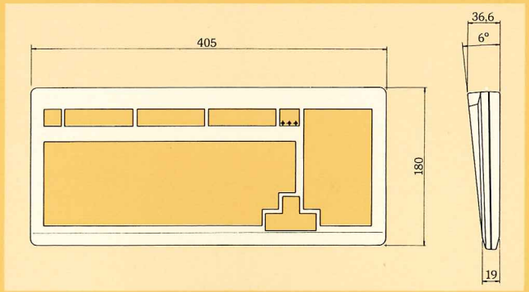


For detailed information regarding specific country layouts please refer to our brochure "Multi Function Keyboards-Layouts".

Important notice for users

All of the information contained in this brochure is valid at the time of printing only. We reserve the right to make technical changes without notice.
The indicated data and texts are intended exclusively to describe the products, and do not constitute any legal guarantee whatsoever of any attributes or characteristics.
The life of products and the definitions applied to technical information are based on tests that have been performed in-house by Cherry along the lines of generally acknowledged standards and/or codes. If products are to be used under conditions deviating from those of the tests, then it is to the user to make sure that they operate reliably under the actual conditions of use. We are willing to provide assistance for this case to case.
Improper handling, storage, manipulation and further processing can result in defects, damage and disturbances during use.
We call attention to the fact that we disclaim and all warranties and liability in the event that our products changed by users, unless such changes have been explicitly approved by us in writing for the specific application in question. This applies in particular whenever repairs and maintenance work have been improperly performed.
No damage claims against us – no matter on what legal grounds – are admissible unless we are found guilty of wilfulness or gross negligence.
However, this restriction does not apply to claims for damages asserted under the terms of the Product Liability Law (Produkthaftungsgesetz).
With the issuance of this brochure, all previous brochures covering the products described in it lose their validity.

»Ergo« Housing



Part Numbers

Layout	Linear feel	Soft tactile feedback	Tactile "click"
	»Ergo« housing		
US-internat.	G 80-1800 HAU	G 80-1800 HEU	G 80-1800 HFU
German	G 80-1800 HAD	G 80-1800 HED	G 80-1800 HFD
French	G 80-1800 HAF	G 80-1800 HEF	G 80-1800 HFF

»Prism« Housing

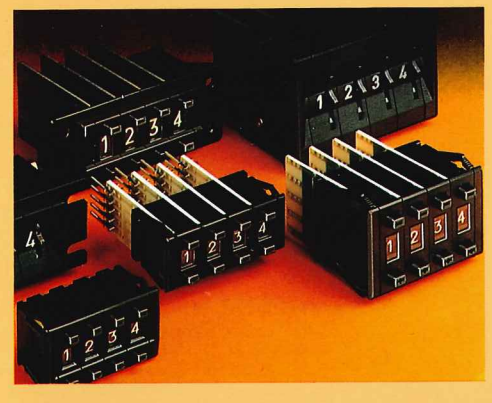
Besides the modern »Ergo« housing, the equally attractive »Prism« housing is also available for the Cherry 1800. This version differs from the former in that all of the edges of the upper housing surface are beveled.

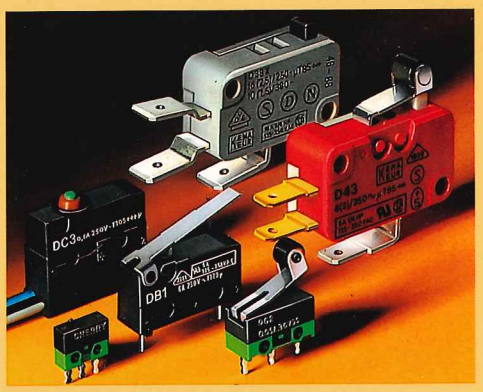
CHERRY®

Electrotechnical and Electronic Products for the Future.

Keyboards of high technology and excellent quality.
With high switching reliability even during speed typing. Standard or customized, intelligent or non-encoded versions. Connectable to all popular EDP systems. Modern design. Harmoneous colours. Variety of sizes and heights. Ergonomic styling. With or without housing.

Keymodules. For high technology keyboards.
M 8, M 9, MX. Keyswitches with exceptional performance. High switching reliability through »Gold Crosspoint« contacts. Low profile design. Excellent touch feeling. Variety of keycap styles and colours. Ideal for ergonomically designed keyboards.

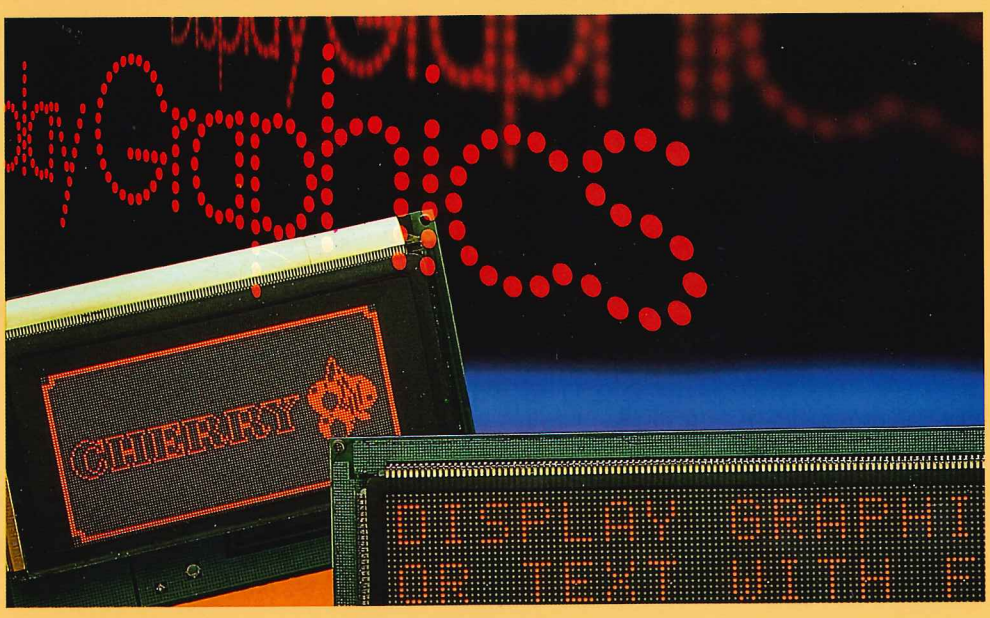




Selector switches with proven reliability and long life.
Available in many standard and customized codes. Thumbwheel, leverwheel or pushwheel versions. Gang assemblies. Solderpins, connectors or plain soldering. Standard, miniature and subminiature sizes. Also illuminated through LEDs or lamps. Customized lettering and stop limitation available.

Snap switches for the future.
For precise switching and high reliability. Large range of standard and non-standard models. Many different connecting possibilities. Standard, miniature and subminiature sizes. And a large number of auxiliary actuators.

New generation displays.
For text and graphic applications. With continuous brightness of all letters. Stable display picture. Long life. Slim profile. Light weight. Low power consumption.



Printed in Federal Republic of Germany/Imprimé en République fédérale d'Allemagne · 1409 · UK · February 1991 · 2 · Mün · Copyright by Cherry Mikroschalter GmbH

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