CHERRY

G80-3190

IBM*-compatible Multi-Function Keyboard with integrated Magnetic Card Swipe Reader and freely programmable Function Keys.

* IBM registered trademark of the International Business Machines Corporation.

Printed on special environmentally friendly paper.

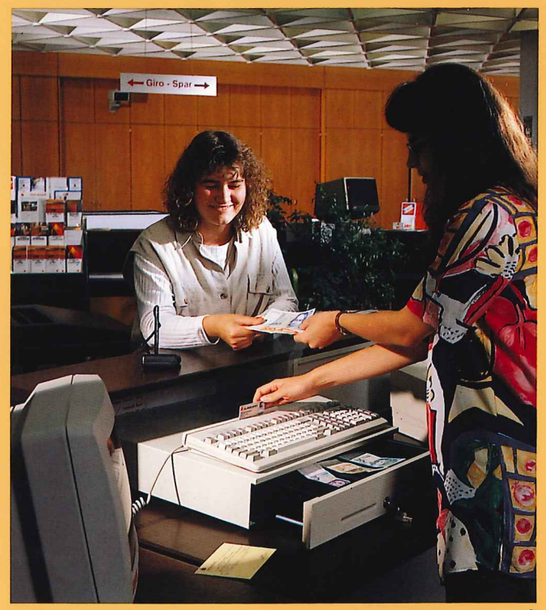
General Information

The Cherry 3190 combines the functions of a swipe-type magnetic-stripe card reader and an intelligent bar code decoder unit. The swipe-type magnetic-stripe card reader correctly scans in 100% of the information stored on a card. The integrated bar code decoder works with all popular reading devices, including optical pens (wands), laser and CCD scanners, and bar code swipe readers. Data flows between the keyboard and the system exclusively via a single bidirectional, serial synchronous IBM-compatible keyboard interface. That means that the computer only uses its keyboard port - for all three integrated functions. This keyboard also includes 59 freely programmable function keys, letting you assign any desired command sequences, text strings, etc. to them. You can also design and attach your own legends or symbols to 48 of the function keys. There are four extra status LEDs that you can use for special purposes, for instance multimedia applications. The Cherry 3190 is ideal for POS data entry with magnetic-stripe cards and bar codes. If desired, we also supply the keyboard with a built-in key-operated switch (with 5 different positions). Please specify article no. G80-3191 if you want this optional feature.
The keyboard is available in all major language and country versions.

Applications

The Cherry 3190 is second-to-none for the full range of data entry applications involving magnetic-stripe cards and bar codes. Examples include payment by credit and cheque cards at retail outlets and a myriad other uses in hotels, restaurants, service operations, banks, insurance offices, car rental companies, airline ticket offices, travel agencies, libraries, hospitals, physicians' practices, government agencies and associations.

1



2

Example applications:

- Point of sale (POS)
- Factory data entry
- Production planning control (PPC)
- Access control
- Production identification for incoming and outgoing merchandise
- Logistics
- Capture of times worked
- Entry of customer data

3

Picture 1
POS applications
e.g. in warehouses and stores.

Picture 2
Applications in banks.

Picture 3
POS applications
e.g. in beverage markets.

CHERRY®

Reliability, long life, precise contact closure, and ergonomic design are the primary criteria for developing keyboards.
Without such input devices, it would be impossible, even in the future, to communicate efficiently and painlessly with computers, multifunctional terminals or even the printer in an electronic typewriter.
We offer original, practical solutions on our own contact technology, tested in action millions of times over.

All our keyboards are now available in european CFC-free environmentally friendly quality. With 100 % testing, 90 % recyclable. In all language versions. With all approvals and certifications.
The bottom line is: Cherry quality won't stand for compromises.

Keyboard with 5 position-keylock G80-3191 H.

FCC Part 15
Subpart B
Class A

Post Vfg. 1046/1984
(VDE 0871, Klasse B)

CISPR 22
EN 550 22

Outstanding Advantages

- More cost-effective than stand-alone units.
- Only the computer's keyboard port is needed. The V.24 (RS-232C) serial port is there free for other uses.
- The card reader accepts all popular magnetic-stripe card types.
- The bar code decoder reads all major bar code types.
- Universally usable thanks to 59 freely programmable function keys, for example for storing command sequences, text strings or other useful functions. 48 of them can be custom-labeled as wished.
- 18 additional function keys.
- Four extra status LEDs for special purposes, e. g. multimedia applications.
- Keyboard optionally available with integrated key-operated switch (with 5 positions).
- Compact and ergonomic due to integrated swipe-type magnetic-stripe card reader.

Bar Code Decoder

- Autodetects the following bar code types: Code 39, 2 of 5 interleaved, Codabar, Code 128, UPC/EAN/JAN.
- Supports connection of various bar code reading devices.
- Data from the bar code decoder is transferred via the keyboard interface. Appropriate headers and terminators are transmitted before and after bar code decoder data to enable the system to distinguish it from keycodes.
- Buzzer sounds after each successful reading operation.

Magnetic Stripe Card Reader

- Reads all magnetic-stripe card types described in ISO 3554.
- Thanks to use of a swipe-type reader, 100% of card data is scanned in.
- The keyboards G81-3190 HB*/HC*/HP*/HR*/HU* have a swipe-type card reader with end stop and a final position sensor that tells the system when a card is removed.
- Data from the card reader enters the system via its keyboard port. Headers and terminators distinguish bar code data from keyboard scan codes.
- Buzzer sounds after each successful reading operation.

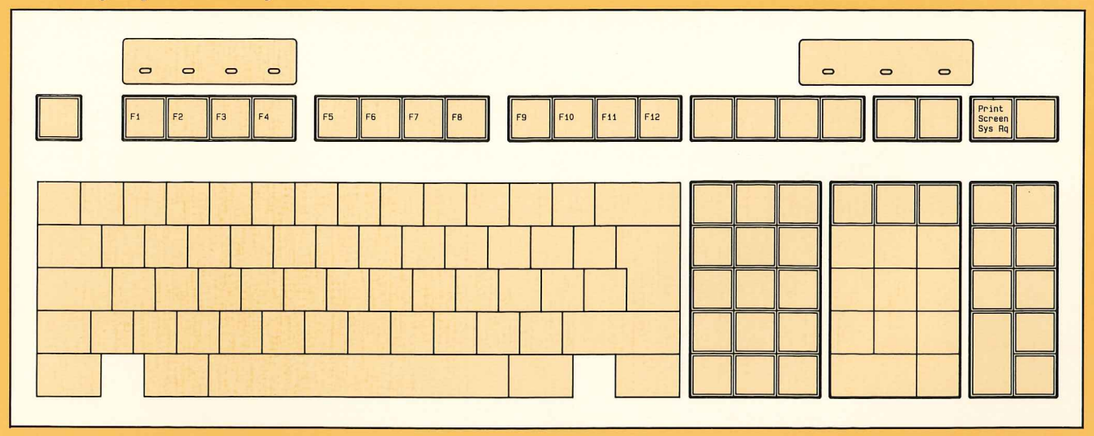
Special Programming Mode

- Programming possible in offline mode, i.e. interrupting data transmission to the system.
- LED indicators guide the user through the programming sequence.

Freely Programmable Keys

The Cherry 3190 has 59 freely programmable keys that the user can assign any desired key sequences to (up to a maximum of 50).

Country Specific Layout



For detailed information regarding specific country layouts please referto our brochure “Multi Function Keyboard Layouts”.

Technical Specifications

Electrical Data

Power supply:
+5V/DC ± 5%, typ. 200mA, SELV.

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

Data output:
Open Collector TTL.

Data buffer:
All codes are buffered before sent out.

Automatic repeat function:
All keys have an automatic repeat function. Delay time and repeat sequence can be modified through system .

Indication of status of operation through LED for NUM LOCK, CAPS LOCK and SCROLL LOCK.

For AT and PS/2 systems.

Mechanical Data

Housing Dimensions (LxWxH): 470mm x 212mm x 46,5mm (20mm).

Ultraflat design and low height.

Temperature ranges:
Storage temperature:
-40° C (-40° F) to +65° C (+140° F).

Operation temperature:
0° C (+32° F) to +50° C (+122° F).

Approvals

- RFI/EMI:
  FCC Part 15, Subpart B, Class A
  DBP Vfg. 1046/1984 (VDE 0871, Class B), CISPR 22/EN 55022
- ESD: IEC 801-2: 15 kV
- Ergonomy: ZH 1/618 DIN 2137, Part 2
- Safety: UL 1950, CSA C22.2 No. 950

Environmental Parameters

- Minimal packaging no composite materials used.
- Recycled plastics added to help reduce consumption of natural resources.
- Designed for easy disassembly to enhance recyclability.
- Plastics used are designated to facilitate segregated collection.
- CFC's, chlorinated hydrocarbons and many other environmentally degrading substances are no longer used in manufacture of our final products. We have also concluded agreements to this effect with our suppliers.
- Low-pressure plasma technology used for degreasing of metal parts.

Ordering Code

	Magnetic Stripe Card Reader					Barcode Decoder
DIN/Mini-DIN	Track 1	Track 2	Track 3	Header/Terminator	Magnetic stripe card-stop	Header/Terminator
G80-3190 HA*/HP*	x	x	-	programmable	not available	no barcode unit
G80-3190 HB*/HQ*	x	x	x	programmable	available	programmable
G80-3190 HC*/HR*	x	x	-	programmable	available	programmable
G80-3190 HD*/HS*	x	x	-	programmable	not available	programmable
G80-3190 HE*/HT*	x	x	x	programmable	not available	no barcode unit
G80-3190 HF*/HU*	x	x	-	programmable	available	no barcode unit

On the with »*« marked positions you have to put in the identifications letter of the according country version.

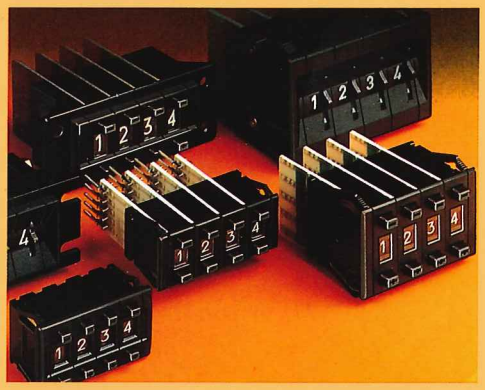
Identification letter		Country version
U	=	US-English (101 keys)
G	=	UK-English (102 keys)
D	=	German
F	=	French

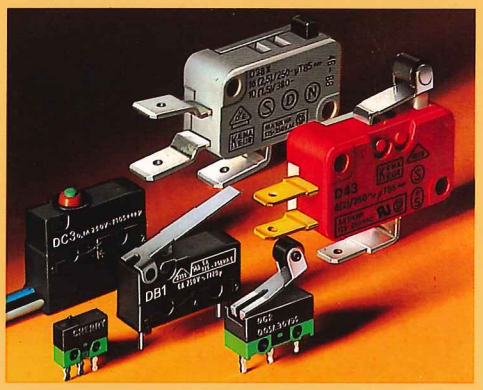
The ordering codes for the keyboards with 5 position-keylocks are G80-3191 H.

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.

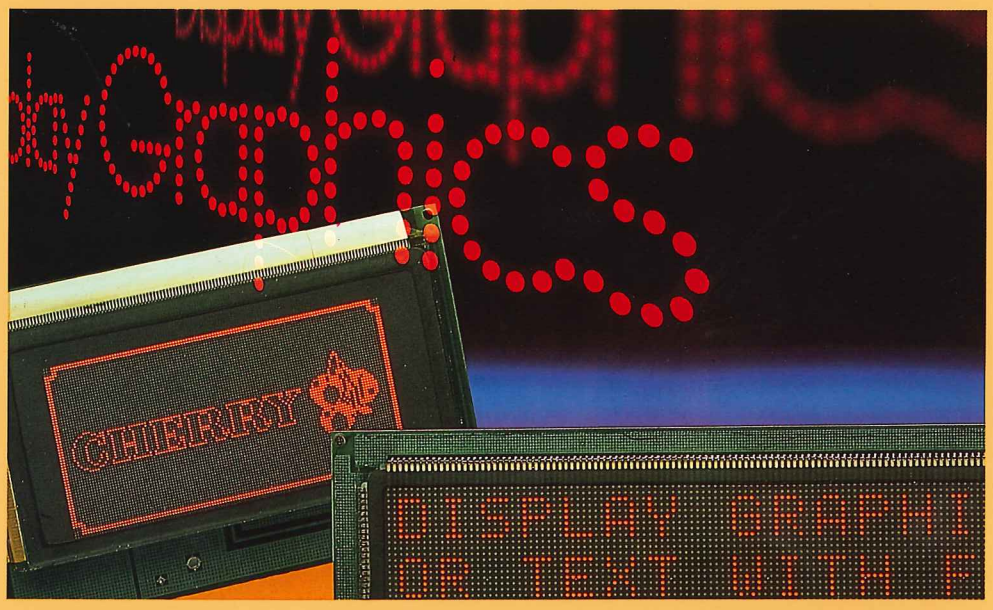




Selector switches with proven reliability and long life.
Available in many standard and customized codes. Thumbwheel, leverwheel or pushwheel versions. Gang assemblies. Solderpins, connectors or plain soldering. Standard, miniature and subminiature sizes. Also illuminated through LEDs or lamps. Customized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



Cherry Mikroschalter GmbH
P. O. Box 12 20
D-91271 Auerbach/Opf.
Phone: (0 96 43) 18-0
Telex: 631635 cher d
Telefax: (0 96 43) 18-2 62

Cherry Electrical Products Ltd.
Coldharbour Lane
Harpenden, Herts.
GB-AL 5 4UN
Phone: (0 15 82) 76 31 00
Telefax: (0 15 82) 76 88 83

Cherry Sàrl
1. Avenue des Violettes
Z. A. des Petits Carreaux
F-94384 Bonneuil/M. cedex
Phone: 1-43-77-29-51
Telex: 262 657 cher f
Telefax: 1-43-77-20-84

Cherry Electrical Products
3600 Sunset Avenue
Waukegan, Illinois
USA-60087-3298
Phone: (708) 662-9200
Telex: 650-299-7605
Telefax: (708) 662-2990