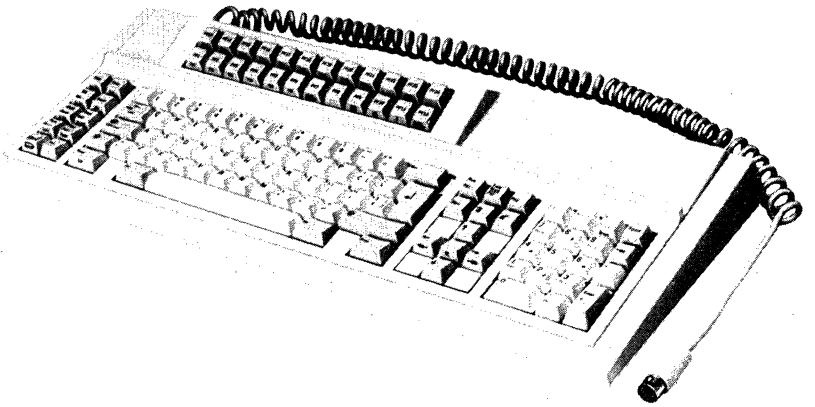
CHERRY KEYBOARDS

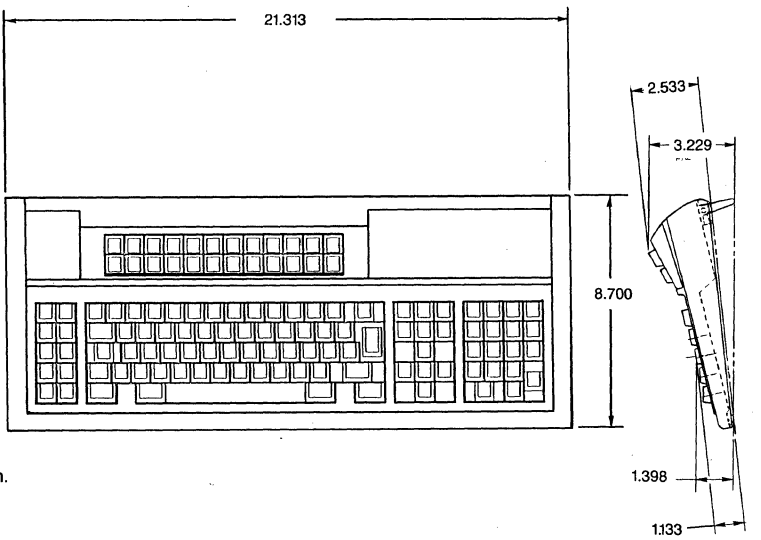
KXN5-C251 CHERRY 122 KEY IBM* 3270 PC* COMPATIBLE ENHANCED KEYBOARD

No modification necessary to use with IBM 3270 Personal Computer. More keys than the standard IBM PC keyboard ... including an extra cluster of 24 function keys above the main key array! Comes in case molded of tough, high impact, polystyrene. Solid metal bottomplate for rigidity, stability. Color and texture matched to IBM PC product line.

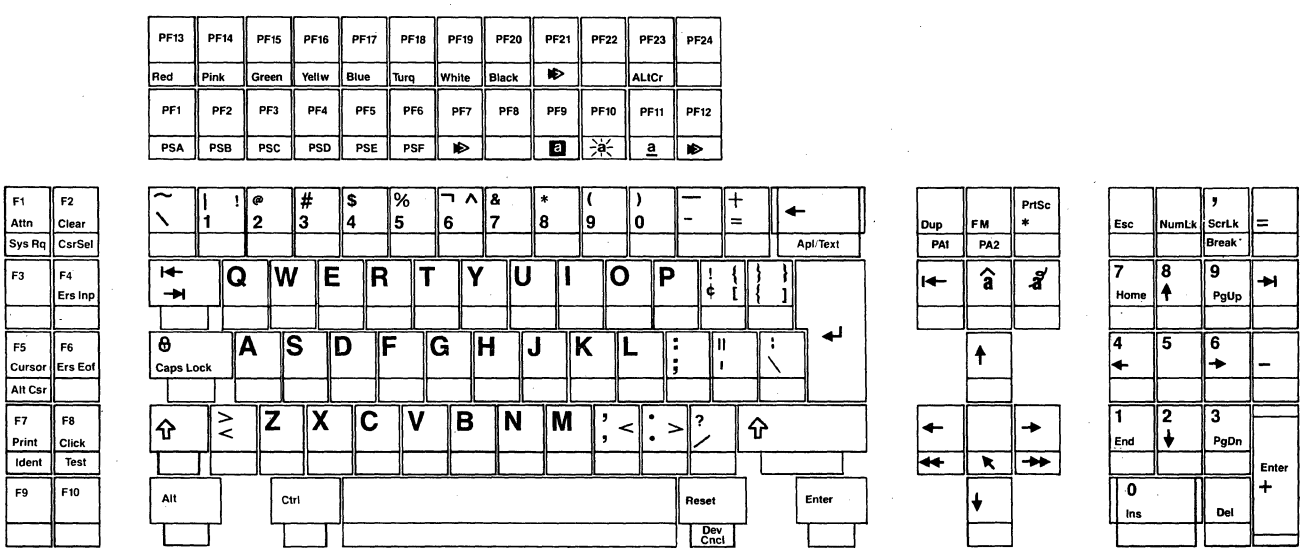


STANDARD FEATURES

- Sends IBM PC synchronous format. Responds to handshake and reset signals from the IBM PC and XT.
- Proven Cherry MX full travel gold crossbar contact configuration key module.
- Full N-key rollover with auto-repeat, chassis ground.
- Low profile – 29mm (1.133") from enclosure base to center point at home row keycap top.
- Keyboard micro with 16-deep FIFO; scanning pause in the event that FIFO is filled.
- Hardware watchdog circuit for extra ESD protection.
- TTL output and input signals.
- Open collector TTL output driver with 4.7 K-OHM pull-up.
- 6-ft. mylar shielded coiled cord with 5-pin circular DIN connector. (Compatible with IBM PC and XT systems.)
- Input power: +5VDC @ 175 mA typ., 275 mA max.
- Tested and approved for FCC Class B requirements.



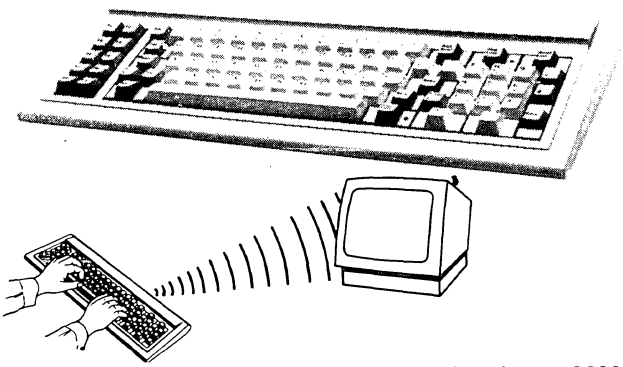
*Registered trademark of International Business Machines Corporation.



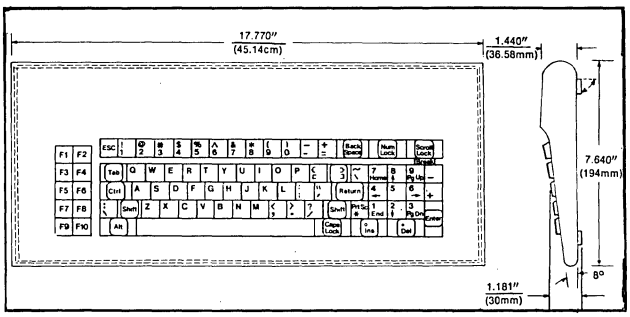
CHERRY Keyboards

KXN3-8451 CHERRY IR WIRELESS™ KEYBOARD–84 KEY, COMPATIBLE WITH IBM PC* and PCjr* COMPUTERS AND 0B99-13AL IR WIRELESS™ RECEIVER

Comes in DIN enclosure. This state-of-the art keyboard is equipped with CMOS electronic components and special circuitry which requires power only when a key is depressed. This extends life of 4 AA alkaline batteries. May be used in a wireless, simplex mode at distances of 20 feet (line-of-sight) with IBM PC jr. For use with IBM PC use the Cherry IR Receiver Part No. 0B99-13AL which may be plugged into the keyboard jack on the IBM PC. Included with keyboard is a detachable coiled cable for wired use.



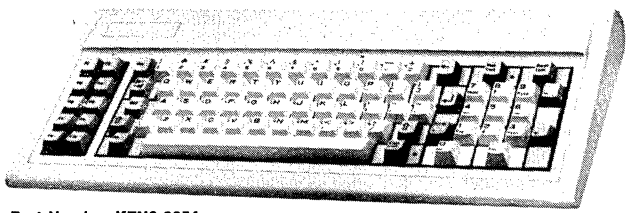
The IR receiver features IBM PC compatible interface at 9600 Baud serial output with UP/DOWN codes and special handshaking.



- 2-shot molded keycap matté finish
- Pseudo N-Key rollover
- Chassis ground. Matching color shielded, detachable coil cord. Auto repeat
- Low profile-30mm (1.181") from enclosure base to center point of home row key cap top

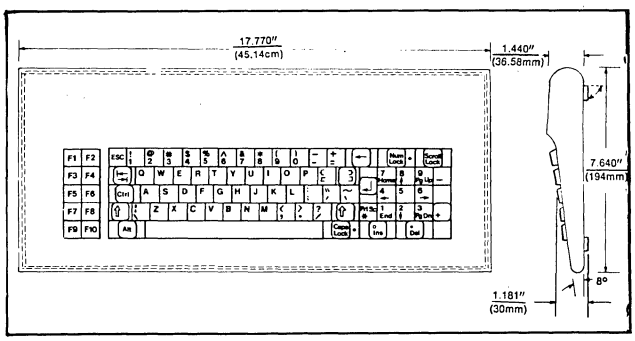
KFN3-8354

83 KEY IBM*PERSONAL COMPUTER COMPATIBLE KEYBOARD IN A 30mm DIN ENCLOSURE



Part Number KFN3-8354
(Without housing specify **Part Number BFN3-8354)**

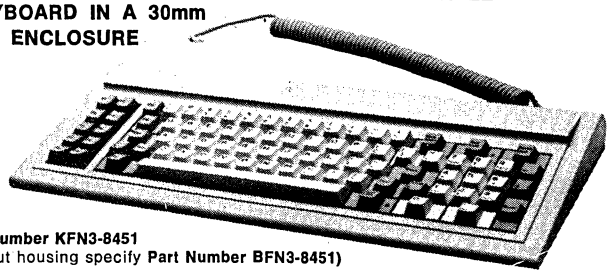
- Selectable output formats:
  1. IBM* compatible interface at 18K Baud serial output with UP/DOWN codes and special handshaking
  2. Jumpers allow conversion to ASCII with TTL differential output. (Baud rates 300, 1200 or 9600)
- 2-shot molded keycaps with matté finish
- Full N-key rollover



- Lighted "alpha lock" and "num lock" keys
- Chassis ground.• External reset • Matching color, shielded coil cord with 5-pin circular DIN connector. • Auto-repeat
- Low profile — 30mm (1.181") from enclosure base to center point at home row keycap top
- Input Power: +5 VDC @ 250 mA typ., 360 mA max.

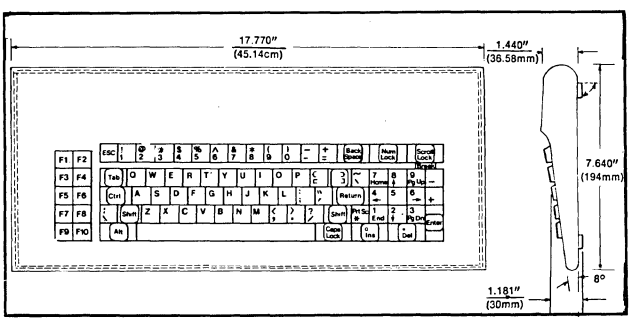
KFN3-8451

84 KEY IBM*PERSONAL COMPUTER COMPATIBLE KEYBOARD IN A 30mm DIN ENCLOSURE



Part Number KFN3-8451
(Wthout housing specify **Part Number BFN3-8451)**

- Enhanced layout (shift in proper position, horizontal return key, extra return key)
- Selectable output formats
  1. IBM* compatible interface at 18K Baud serial output with UP/DOWN codes and special handshaking
  2. ASCII jumpers allow conversion to serial with TTL differential output. (Baud rates 300, 1200 or 9600)
- 2-shot molded keycaps with matté finish



Full N-key rollover

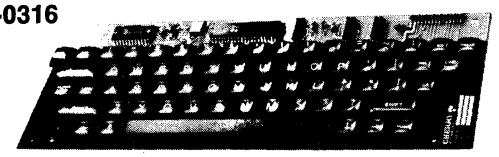
- Lighted "alpha lock" and "num lock" keys
- Chassis ground • External reset • Matching color, shielded coil cord with 5-pin circular DIN connector • Auto-repeat
- Low profile — 30mm (1.181") from enclosure base to center point at home row keycap top
- Input Power: +5 VDC @ 250 mA typ., 360 mA max.

* IBM is the registered trademark of the International Business Machines Corp.

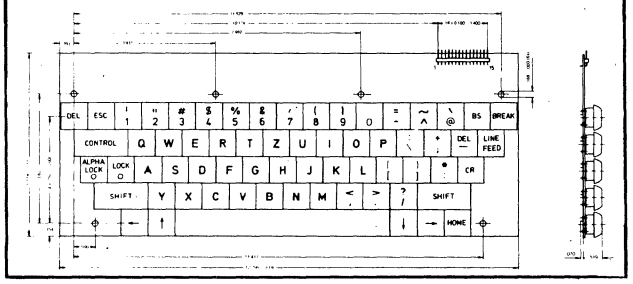
CHERRY ELECTRICAL PRODUCTS CORP., 3600 Sunset Ave., Waukegan, IL 60087 • 312/578-3500 • TWX 910/235-1572

CHERRY Keyboards

G80-0316



LEGEND FORMAT



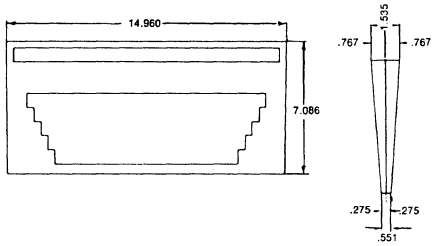
- Serial ASCII Coded • 1200 Baud • Super Low Profile
- M8 Type Key Module
- DIN Compatible • Gold wire crossbar contacts
- 65 key array • 3 Modes
- Electronic Shift/Lock function and Alpha/Lock function with LED signal
- Automatic Power On/Reset function
- Power requirement: +5V/100 mA
- Negative logic Data output with open collectors or Tri-State (optional)
- Attractive brown keycaps with contrasting legends

MECHANICAL SPECIFICATIONS

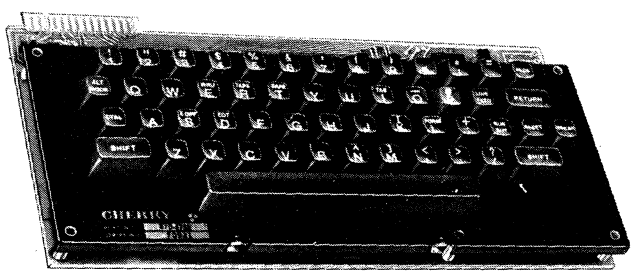
Rest Height Uncovered (spherical) — .426" ±.015" (11.68 ±0.38 mm)
Total Travel — .100 Nom. (2.54 mm)
Operating Force — 2½ oz. typical (70 grams)
Life — 20 x 10^6
Feel — Linear — positive stop

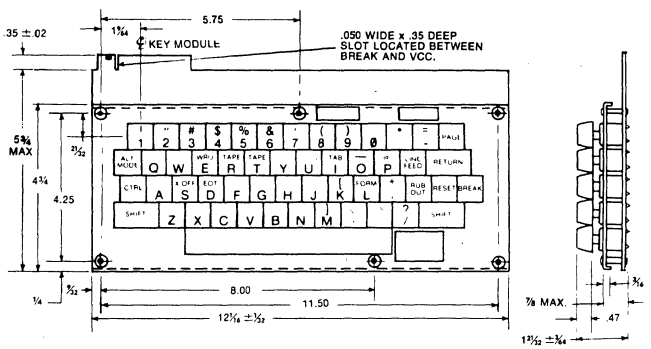
OPTIONAL G99-0056 HOUSING

- Modern Design
- Compatible with DIN requirements
- Attractive brown/beige color



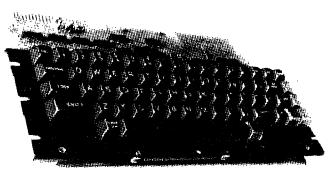
B 70-4753 KEYBOARD FOR TELETYPEWRITERS

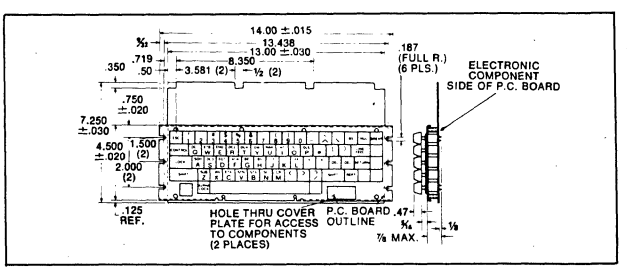




- 53 keymodules • Key Module Layout according to ASR 33
- 4 Modes (Alpha-Field only letters) • ASCII code

B 70-05AB UNIVERSAL-KEYBOARD WITH ALPHA-LOCK

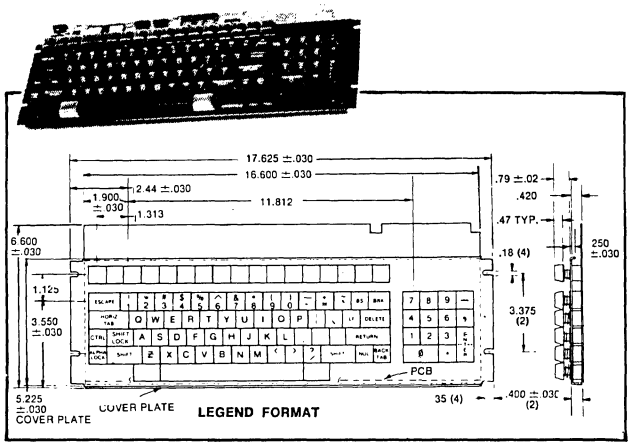




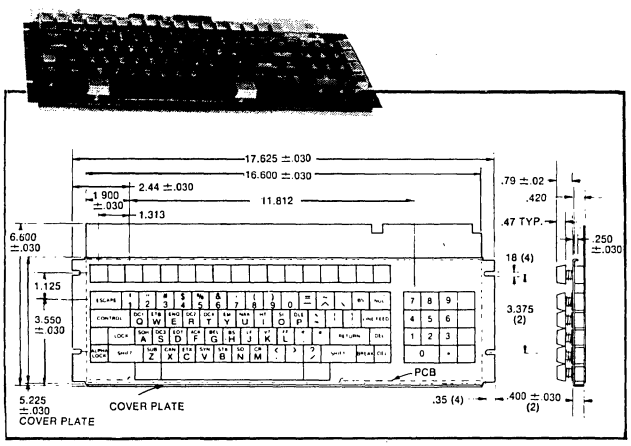
- Full 67 key array
- Five user-definable spare keys with keycaps that have "quick change" clear plastic tops. These keyswitches are not connected electrically, but can be conveniently hard-wired to output any code.
- TTL and DTL compatible output circuitry.
- Only one power supply voltage required: +5 volts at 325 ma. max.
- Positive logic with outputs resting low.
- Four mode keyboard offers (1) lower case mode, (2) upper case mode, (3) control case mode and (4) teletypewriter alpha lock configuration (alpha lock depressed).

CHERRY Keyboards

B4VE-9501 SECRETARIAL



B4VE-9601 COMMUNICATIONS

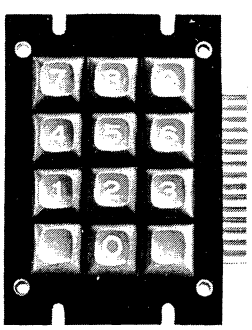


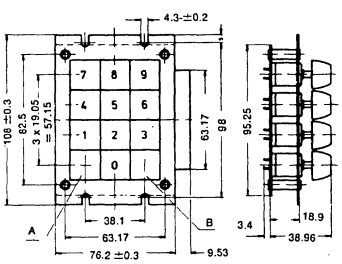
CHERRY SOLID STATE KEYBOARDS

The B4VE-9501 and B4VE-9601 keyboards are comprised of 95 and 96 capacitive encoded keys respectively. Both include the full ASCII alphanumeric typing array, a right hand pad, and a top row of 17 keys with re-legendable caps. Both have two user labeled keys on either side of the space bar. The B4VE-9501 has a 14 key auxiliary right hand numeric pad and the B4VE-9601 has a 15 key right hand numeric pad of which four are user labeled.

KEYPADS

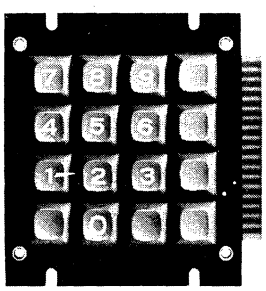
B65-1712 3 x 4

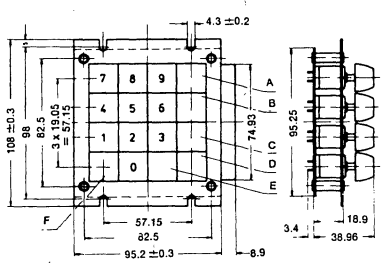




B 65-1712 (M6 TYPE)
12 Keymodules
Standard keycap-color: grey
Non-encoded

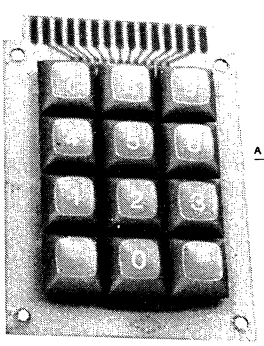
B65-1716 4 x 4

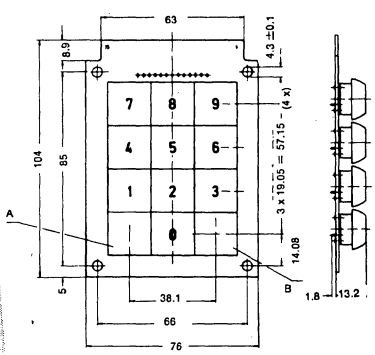




B65-1716 (M6 TYPE)
16 Keymodules
Non-encoded

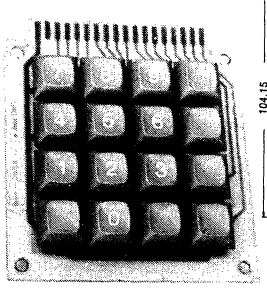
G80-0077 3 x 4

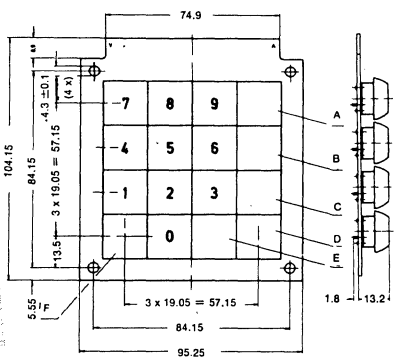




Super Low Profile M8 Type
Keypad of 12 Keymodules
Non-encoded

G80-0084 4 x 4

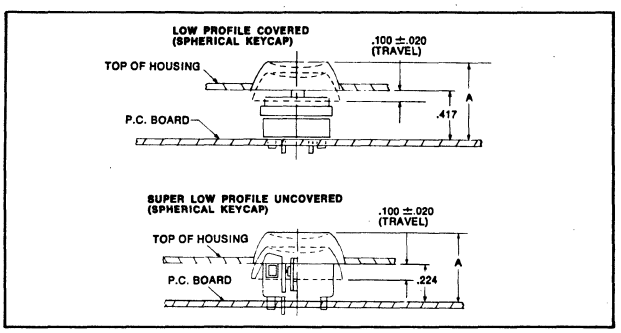




Super Low Profile M8 Type
Keypad of 16 Keymodules
Non-encoded

CHERRY Keyboard Switches

M8 SERIES — SUPER LOW PROFILE DIN-COMPATIBLE GOLD CROSSPOINT CONTACT



Super low profile technology is available in individual keymodules or as complete keyboards. Keymodules are offered in covered or uncovered version with spherical caps and covered version with cylindrical sculptured caps.

- Super low profile from P.C. board to center point of home row keycap top—
  .426″ uncovered spherical keycap
  .619″ covered spherical keycap
- Linear feel with positive stop
- New ergonomic cylindrical button set
- Gold Crosspoint Contact switching

SUPER LOW PROFILE M8 MODULES

Part Number	Description
M81A-0100	Standard Force, Uncovered, Very Low Profile.
M81A-01R0	Standard Force, Uncovered, Very Low Profile, Red LED.
M81G-0100	Higher Force, Uncovered, Very Low Profile.
M81E-0500	Standard Force With Cover.
M81E-05R0	Standard Force With Cover With Red LED.
M81H-0500	Higher Force With Cover.

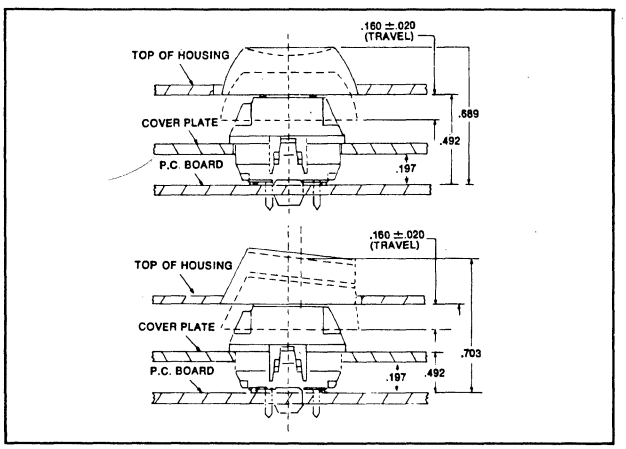
MECHANICAL SPECIFICATIONS

Rest Height (A)	.426″ ±.015″ (10.82 ±0.38mm) — Type I
Pretravel	.063″ ±.024″ (1.60 ±0.61mm)
Total Travel	.100 Nom. (2.54mm)
Operating Force	2½ oz. typical (70 grams)
Life	10 x 10^6
Mounting	Printed Circuit Board (no coverplate)
Feel	Linear — positive stop

ELECTRICAL SPECIFICATIONS

Contact Rating:	
DC Resistive	3W max.
AC Resistive	3 VA max.
Current switching	0.125A max.
Current carry	0.5 max.
Voltage	28V max.
Initial Contact Resistance — milliohms	200 max. (typically 25m)

MX SERIES — LOW PROFILE DIN-COMPATIBLE GOLD CROSSPOINT CONTACT



- Low profile — .689″ from PC board to the center point of home row keycap top with lo-pro spherical cylindrical sculptured keycaps.
- Linear or tactile feel — positve stop.
- Full Travel — .160″.

LOW PROFILE MX MODULES

Part Number	Description
MX1A-11NN	Standard Force, Linear, Face Plate Mount.
MX1A-21NN	Higher Force, Linear, Face Plate Mount.
MX1A-11NW	Standard Force, Linear, PCB Mount.
MX1A-21NW	Hgher Force, Linear, PCB Mount.
MX1A-A1NN	Standard Force, Tactile, Face Plate Mount.
MX1A-B1NN	Higher Force, Tactile, Face Plate Mount.
MX1A-A1NW	Standard Force, Tactile, PCB Mount.
MX1A-B1NW	Higher Force, Tactile, PCB Mount.
MX1A-31NN	Alternate Action, Face Plate Mount.
MX1A-31NW	Alternate Action, PCB Mount.

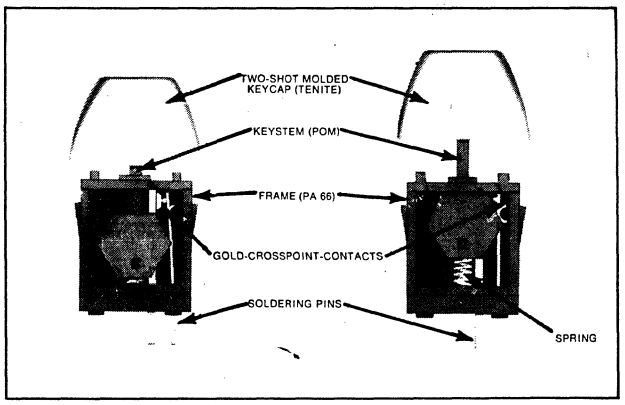
MECHANICAL SPECIFICATIONS

Rest Height ("A")	.689″ ±.015″ (17.5 ±0.38 mm)
Pretravel	.080″ ±.025″ (2.03 ±0.64 mm)
Total Travel	.160″ Nom. (4.06 mm)
Operating Force	2.5 oz. typical (70 grams)
Life	20 x 10^6
Mounting	Cover Plate
Feel	Linear or tactile feel — positive stop

ELECTRICAL SPECIFICATIONS

Contact Ratng:	
DC Resistive	3W max.
AC Resistive	3 VA max.
Current switching	0.125A max.
Current carry	0.5A max.
Voltage	28V max.
Initial Contact Resistance — milliohms	200 max. (typically 25m)

M4/M5/M6 SERIES — REGULAR PROFILE GOLD CROSSPOINT KEYBOARD SWITCHES



The proven design concept — crossed knife edge contact configuration — provides high force per unit of contact area and virtually eliminates contact closure interference by contaminates. Precious metal contact material (W/E Alloy #1) consists of 69% gold, 25% silver and 6% platinum. Contact interfaces are inert to chemical action with resultant low contact resistance (typically 25 milliohms).

REGULAR PROFILE KEYSWITCH

Part Number	Operating Force	Stem Angle	Action
M41-0100	6 oz.	0°	Momentary, Lighted, 1A Contact
M41-0103	2½ oz.	0°	Momentary, Lighted, 1A Contact
M51-0182	2½ oz.	10°	Momentary, 1A Contact
M51-0143	6 oz.	0°	Momentary, 1A Contact
M51-0229	4 oz.	0°	Momentary, 1A Contact
M61-0120*	2½ oz.	0°	Momentary, 1A Contact
M61-0800	2-4½ oz.	0°	Alternate Action, 1A Contact
M62-0100	2-4½ oz.	0°	Momentary, 2A Contact

* Replaces M61-0100

MECHANICAL SPECIFICATIONS

Operating Force	2½ oz. ±½ oz. Std. (Also available in forces from 2 oz. and higher)
Pretravel	.085 ±.030 Std. (Alternate action version pretravel .030″ to .065″)
Total Travel	.160 ±.020 Std.
Key Module Case Material:	Thermoplastic (Nylon)
Temperature	Operating — 0°/60°C Storage — −35°C/65°C

ELECTRICAL SPECIFICATIONS

Contact Rating	(Form A contacts)
DC Resistive	3W max.
AC Resistive	3 VA max.
Current	0.125 amp. max. switching 0.5 amp. max. carry
Voltage	28V max.
Initial Contact Resistance	200 milliohms max. (typically 24 milliohms)

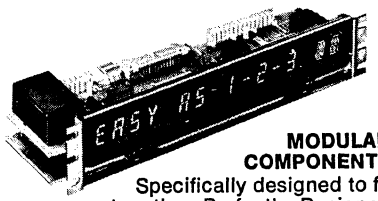
CHERRY ELECTRICAL PRODUCTS CORP., 3600 Sunset Ave., Waukegan, IL 60087 • 312/578-3500 • TWX 910/235-1572

CHERRY Displays

TECHNICAL INFORMATION

- 100,000 hour display life. • Wide viewing angle.
- Baud rates from 300 to 9600 selectable on back panel.
- RS232C, RS422, 20 ma loop, or TTL parallel interface operation.
- End of Line Modes — left entry with automatic carriage return; writeover carriage return, horizontal scroll.
- Self-test mode: ASCII character set scrolled across panel.
- Environmental Operating Range: 0-70°C, 5-95% relative humidity (non-condensing).
- Designed to meet NEMA Pub. ICS 2-230 standard for EMI noise immunity (showering arc transients).
- Metal enclosure wth sealed bezel compatible with NEMA 12 standards.
- 115/220 VAC • Full address capability

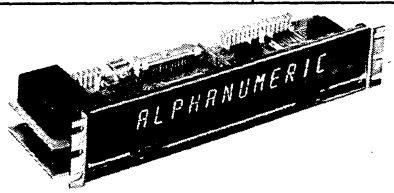
ALPHANUMERIC DISPLAY SYSTEMS



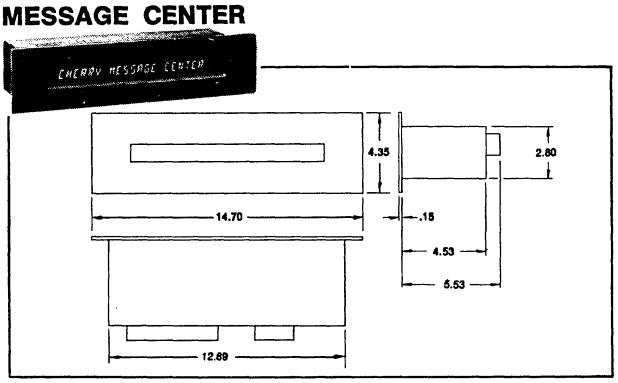
MODULAR COMPONENTS
Specifically designed to fit together. Perfectly. Designed so you can use each module alone . . . or put them all together.

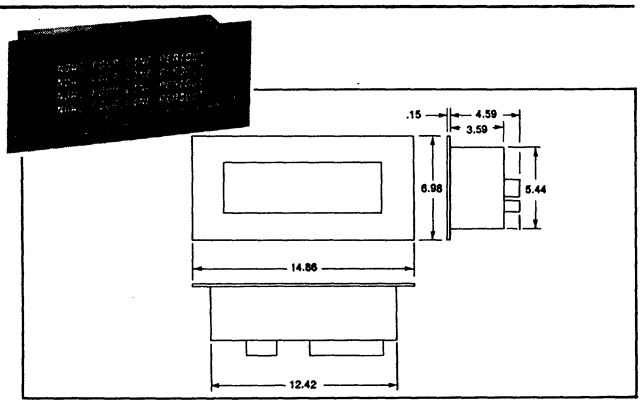
24 CHARACTER ALPHANUMERIC DISPLAY MODULE
A totally self-contained system. Complete microprocessor controlled circuitry includes drivers, character generator, refresh memory and provides all standard functions.

Result	Characteristics
W424-1051 . . . requires 12 VDC only and accepts parallel or serial input — serial in either RS232 or 20 ma current loop. Selectable baud rates.	Receives only, in parallel or serial.
W424-1053 . . . requires 12 VDC only and accepts parallel or serial input (RS232 or 20 ma current loop.) Selectable baud rates. Fully interactive with half and full duplex operation capability.	Receives in parallel or serial. Sends in serial only.
W424-1058 . . . requires 12 VDC only and accepts binary input, 6 bits and strobe.	Will output a total of 64 messages, each being as long as 32 bytes. User can program his own message EPROM (2716). Requires no ASCII code or serial input.



MESSAGE CENTER





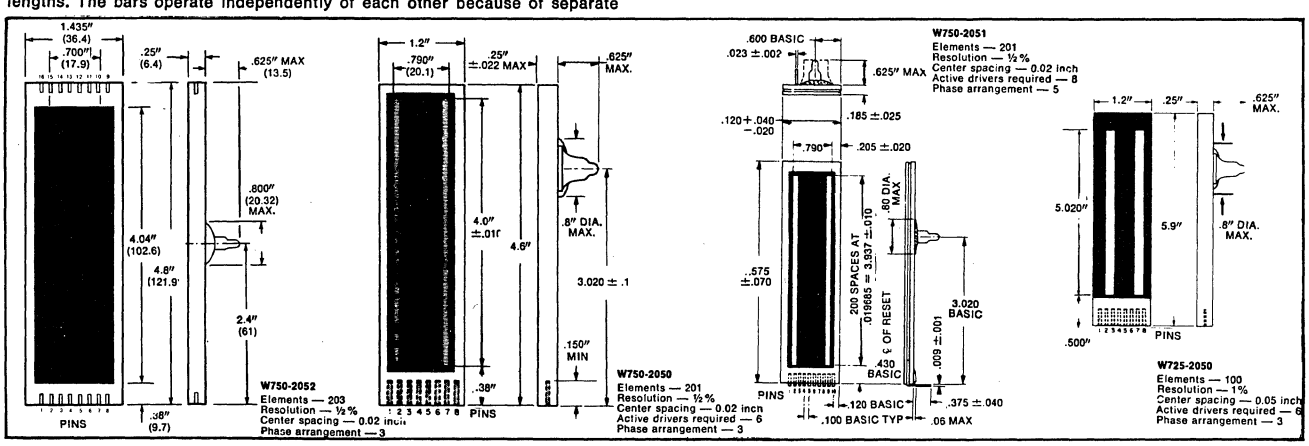
- 24 Characters • Alphanumeric
- Receives serial or parallel ASCII output.
- Microprocessor Controlled

W424-105B — It displays up to 24 character messages in large half-inch bright orange neon 14 segment characters.

W424-105D — It can display up to 256 messages that have been stored in a nonvolatile, battery backed CMOS RAM.

W424-4040 — On a 4-line by 24 character display, the W424-4040 can show any of the 256 messages stored in the battery backed CMOS RAM memory. Each message may be up to 32 characters in length.

GAS DISCHARGE BAR GRAPH DISPLAY

The single wide bar graph is 10 inches long and is viewable at 50 feet. The elements are bussed together in a 5-phase arrangement for high brightness and provide for a flicker-free continuous appearing display.

Two separate graphs give continuous glow on precisely controlled bar lengths. The bars operate independently of each other because of separate connections. Each bar graph can be viewed from both directions at once, or from either direction. Two separate pieces of information can be viewed in each bar as long as the total elements do not exceed 201. Cathodes in each bar are bussed together in a 3-phase arrangement.