



# OMR-1102

## Desktop Optical Mark Reader

- *Keyless Data Entry*
- *Reads up to 2,000 forms per hour*
- *Graded index fiber read head*
- *Self-adjusting threshold for each data channel*
- *Accepts various paper thicknesses*

**Chatsworth Data Corporation has been developing and manufacturing optical mark readers since 1971.**

**The company supplies diverse markets such as:**

- *Education*
- *Government*
- *Surveys*
- *Dating Services*
- *Manufacturing*
- *Lottery*
- *Vote Tabulations*

**Business and commercial opportunities continue to grow in the areas of:**

- *Inventory Control*
- *Time Management*
- *Human Resources*
- *Field Service Reports*
- *Job and Employee Status*
- *Labor Distribution*
- *Scheduling*
- *Call Reports*
- *Quality Control*

**Additionally, Chatsworth Data OMR's are utilized in the healthcare industry for health risk profiles, lab reports, patient visits, nurse staffing, physician orders and cardiac risk assessments.**

**Size of Chatsworth Data OMR's is often why the readers are selected. They are small and compact yet they still feature the advanced design associated with units priced higher than the Chatsworth Data OMR-1102.**

**The well proven designs assure you of the utmost in performance, reliability, and accuracy.**

The Model 1102 Optical Mark Reader is a low cost, desktop data entry terminal for detecting marks on scannable forms and transferring the data to a computer via standard serial or USB communications for processing by application software.

Significantly faster than keyboard entry, the OMR-1102 reads one side of an input form automatically and without error as it scans and transports data. Once the form has been scanned, the resulting data string is terminated by a carriage return (CR) and is automatically transported to the communications port of the attached computer.

The computer speed and operator control the processing speed of the reader. However, most 11-inch forms can be scanned at a rate of 25 to 35 forms per minute.

The Model OMR-1102 is available in two styles. The "Infra Red" unit will read standard #2 pencil, punched and pre-printed marks, and allows colored background printing. The "Visible Red" unit will read black or blue marks made with a ballpoint pen or felt-tip pen as well as pencil, punched and pre-printed marks. However, background printing of the response marking area must be in the visible red range.

A number of downloadable commands are available to modify the default configuration of the OMR-1102 to support a wide variety of form designs and application requirements.

The OMR-1102 is supplied complete with an external Power Supply, Serial (Macintosh or PC) or USB Cable, Operator Guide, Test Cards, and a Utility Software Disk.

The durable design, simplicity of use, and the versatility of the OMR-1102 make it an ideal device for a wide variety of data gathering applications.

### SALES OFFICE

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## SPECIFICATIONS

- Scan Area:**  
Reads up to 12 rows at .25 inch centers x 126 mark positions
- Interface/Baud Rate:**  
RS-232c asynchronous (PC Serial) 300-38400 Baud  
USB (Universal Serial Bus)
- Form Marking (Infrared Option):**  
#2 Pencil  
Key-punched slots  
Pre-printed marks
- Data Output:**  
ASCII Character (Hollerith)  
Binary ASCII Values  
Download "Masks" (2 formats available)
- Form Size:**  
3 1/4 x 5 inches to 3 1/4 x 14 inches  
82.5 x 127 mm to 52.5 x 355.6 mm
- Feed Method:**  
Feed through, reciprocating or software controlled
- Power:**  
114-125 VAC, 60 Hz dual lead power adapter  
220 VAC, 50 Hz available
- Weight:**  
Unit 5 lbs - Shipping Wt. 7 lbs.
- Scanning Speed:**  
25 inches (50.8 cm) per second
- Read Technique:**  
Graded index fiber, single sided, manual feed
- Form Marking (Visible Red Option):**  
#2 Pencil  
Blue or black ballpoint pen  
Blue or black felt-tip pen  
Key-punched slots  
Pre-printed marks
- Paper Weight:**  
18 to 100 lb. bond, ledger, index, or OCR  
.004 inch to .010 inch thick
- Feed Method:**  
Manual insertion with powered transport  
Approx. 25-35 cards per minute
- Microprocessor:**  
Motorola 68HC11
- OMR Status/Version:**  
Dynamically request an 8 bit status byte or EPROM version from the OMR
- Row Enable:**  
User defined enable/disable any or all of the 12 data channels
- Motor Control:**  
Dynamically enable/disable the OMR transport
- Data Flow Control:**  
Utilizes RTS/CTS or XON/XOFF to control the flow of data from the OMR to the application program
- Timing Track Alignment:**  
**In-Line** (data mark area between leading and trailing edge of timing mark)  
**Offset** (data mark area between timing marks)
- Timing Track Selection:**  
Select Top (right) or Bottom (left) or Both for the location of the timing track
- Dimensions:**  
6.75 inches wide x 4.18 inches high x 7.19 inches deep  
171.45 mm wide x 106.17 mm high x 182.6 mm deep
- Operating Conditions:**  
41 to 113 degrees F (5 to 45 degrees C)  
30% to 80% humidity, non-condensing



## OMR FORMS

Forms design and printing is an integral part of developing and implementing a successful application. The Chatsworth Data OMR-1102 allows flexibility in forms design and construction.

Our design department is available to assist in developing custom forms or in recommending

printers to assist you in design and production.

If you prefer to produce your own forms, a manual which contains complete specifications for design and production, is on a floppy disk supplied with the reader.

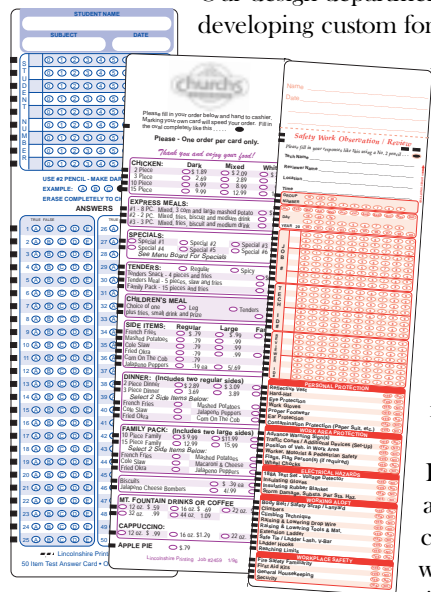
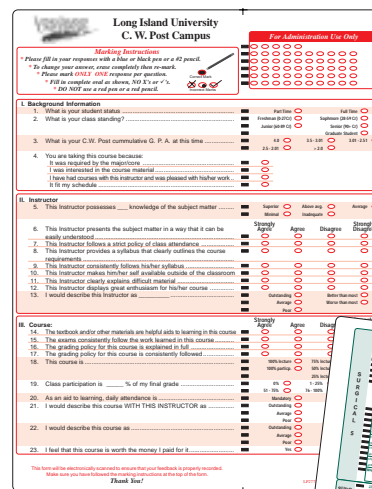
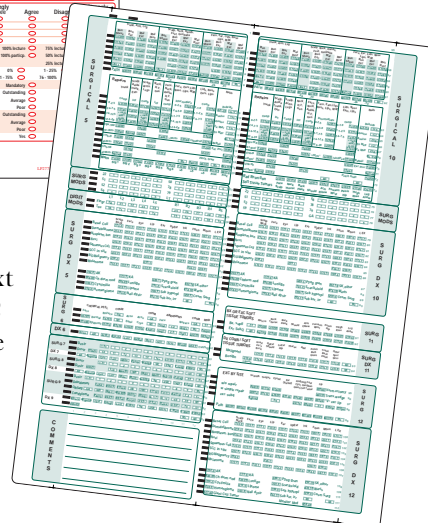
Design can be as simple as a single cut card or as complex as a booklet with multiple double-sided forms.

Full-page forms are used by simply placing a microperf 3 1/4 inches from the right edge of the form leaving the left side of the form available for questions, instructions, etc.

Another common design places two perfs on a full sheet leaving a 2-inch tab on the left for logo, marking instructions, etc.,

resulting in two single or double-sided cards per form increasing the amount of scannable data area.

When the form has been completed, the scannable portion of the form is separated at the perforation and inserted into the OMR.

If your application requires extensive text and responses, an 8 1/2 x 11-inch multiple page form, or booklet, can be used to administer the more complex surveys or questionnaires.