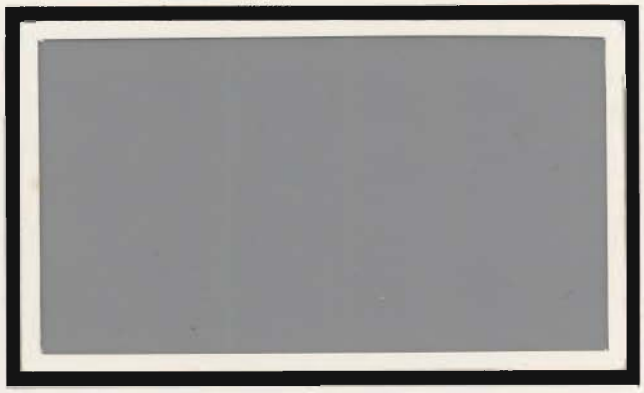

INSTRUCTION MANUAL

Infotek Systems
1400 N. Baxter St. • Anaheim, Calif. 92806 • (714) 956-9300 • Telex 182283

ROM CLOCK

MAY 1980

INFOTEK SYSTEMS
1400 North Baxter Street
Anaheim, California 92806

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FOR THE INFOTEK SYSTEMS
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INTRODUCTION

The Infotek ROM CLOCK answers the 9830 user's need for simple timing and calendar/clock functions without the sacrifice of a valuable I/O slot. Implemented on an internal ROM card, the ROM CLOCK consists of an interval timer with 1 millisecond resolution, better than 1 second per day accuracy, and an internal ROM with statements to simplify user application of the timer and calendar functions. The ROM statements allow the timer to function as a calendar/clock as well an interval timer independently of the calendar/clock function. Also included in the ROM are statements which convert to and from Julian day numbers and Gregorian calendar dates.

HP Computer Museum
www.hpmuseum.net

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INSTALLATION

1. Place input power switch in the OFF position.

2. Remove the input power cord from the wall outlet and the power jack at the rear of the HP-9830A/B.

3. Lift the thermal printer from the computer (if so equipped) and place to one side.

4. Remove the six screws from the top cover of the computer.

5. Slide the top cover back about two-thirds of the way by using the plastic handles at the back of the cover.

6. Remove the single screw that retains the two crossed aluminum hold-down brackets. Note the location of the brackets and how they are attached. Remove the brackets.

7. The first three card positions behind the front panel along the left side of the computer are reserved for internal optional ROM's. Locate any ROM slot from among the three specified. The slot will have a black card guide on the left hand side and a red guide on the right side.

8. Position the circuit over the card guide with the component side of the card facing towards the rear of the computer. Confirm that the guide and handle colors match.

9. Carefully lower the circuit card down the guides and into the connector well until contact is made with the connector. Be certain that the edges of the card are within the edges of the connector well.

10. Apply even pressure with the thumbs to the top of the handles to seat the circuit card in the connector. The card is fully seated when the top is approximately even with the cards in the front or the back.

11. Replace the two aluminum hold-down brackets and secure with one screw.

12. Slide the cover forward and secure with the six screws.

13. Replace the thermal printer.

14. Verify that the input switch is in the OFF position.

15. Connect the power cord to the computer and the wall outlet. This completes the installation.

ROM CLOCK STATEMENTS

SDATE STATEMENT

SDATE sets the clock to the desired date and time of day.

SYNTAX:

```
SDATE <MONTH>,<DAY>,<YEAR>,<HOUR>,<MINUTE>,<SECOND>
```

EXAMPLE:

```
SDATE 9,25,1979,16,30,0
```

This sets the clock to 16:30:0 (4:30 p.m.) on September 25, 1979. This statement is best executed when the machine is first powered up to establish a date and time reference. Otherwise, the DATE statement will yield meaningless results.

DATE STATEMENT

DATE returns the current day and time in the variables provided. The day is returned as a Julian day value. If month, day, and year are desired, the GDATE statement may be used.

SYNTAX:

```
DATE <DAY>,<HOUR>,<MINUTE>,<SECOND>,<MILLISECOND>
```

EXAMPLE:

```
DATE D,H,M,S,T
Returns:  D=JULIAN DAY NO.
          H=HOUR (0-23)
          M=MINUTE
          S=SECOND
          T=MILLISECONDS
```

GDATE STATEMENT

The GDATE statement converts a given Julian day number into a Gregorian month, day and year. This statement is valid for any Julian day value. However, the Gregorian calendar was not in use until 1582, so dates prior to this are extrapolated values.

SYNTAX:

```
GDATE <JULIAN DAY>,<MONTH>,<DAY>,<YEAR>
```

EXAMPLE:

```
GDATE 1,M,D,Y
Returns:  M=11
          D=25
          Y=-4713 (4713 B.C.)
```

An example usage of the SDATE, DATE and GDATE statements is printing headings on reports or listings:

```
10 DATE D,M,H,S,T
20 GDATE D,M1,D1,Y1
30 REM GREGORIAN DATE IS IN M1,D1,Y1
40 PRINT M1;D1;Y1,H":"M
50 END
```

This short program could be put on a special function key and executed prior to a list command or the running of a report.

JDAY STATEMENT

The JDAY statement converts a given Gregorian month, day, and year to the corresponding Julian day values.

SYNTAX:

```
JDAY <MONTH>,<DAY>,<YEAR>,<JULIAN DAY>
```

EXAMPLE:

```
JDAY 11,25,-4713,J
Returns:  J=1
```

STIMR STATEMENT

The STIMR statement starts the internal timer feature of the clock, for later use with the RTIMR statement.

SYNTAX:

```
STIMR
```

RTIMR STATEMENT

The RTIMR statement returns the current value of the internal timer, as measured from the last STIMR statement.

SYNTAX:

```
RTIMR <DAY>,<HOUR>,<MINUTE>,<SECOND>,<MILLISECOND>
```

EXAMPLE:

```
RTIMR D,H,M,S,T
Returns:  D= # OF DAYS SINCE LAST STIMR (or power up)
          H= # OF HOURS
          M= # OF MINUTES
          S= # OF SECONDS
          T= # OF MILLISECONDS
```

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