

## LEGACY HARDWARE



## OPERATIONS GUIDE



### Third Party Hardware for the Classic TI-99/4A Home Computer

Updated instructions & links to programs that use the device

# BETA VERSION



## CORCOMP CLOCK / CALENDAR

### INTRODUCTION

The CorComp Clock/Calendar came in two varieties, a stand-alone unit and as part of a multi-use card called the "Triple Tech". Both units are functionally the same when it comes to clock functions. If you are fortunate enough to come into possession of one of these devices, you'll find that it increases your TI enjoyment level.

Functionality of this device is also ***partially emulated*** in the Classic99 emulator. It will READ, but not save, in BASIC and Extended BASIC formats only.

The unit allows the user to set and read the:

- Day of the Week
- Month
- Day
- Year
- Hour
- Minute
- Second

Time is based on the 24 clock and leap year is handled automatically without user intervention.

The unit can be accessed through either TI BASIC, TI Extended BASIC or through E/A 5 programs like Remind Me!, BOOT, 9640 Menu System, SetClock, etc.

In either type of BASIC it utilizes the following four commands: OPEN, PRINT, INPUT AND CLOSE.

The stand-alone unit includes a load interrupt switch, when pressed, it will generate a load interrupt command to the computer which can be of use in various program, like a screen dump utility.

### INSTALLING THE CLOCK CALENDAR

1. Turn off the computer and everything connected to it.
2. To avoid damaging any parts, wait at least two minutes after turning the power off before plugging or unplugging anything to or from your classic TI-99/4A computer system.
3. Plug the Clock/Calendar into the side of the computer for the stand-alone device, or into the peripheral expansion box if you have the Triple Tech version.
4. NOTE: If you have a speech synthesizer and/or a CorComp 9900 Micro Expansion system, it is recommended that these units be plugged into the computer first and then plug the Clock Calendar so that it is the last unit in the chain.
5. Turn on the power to all of the units in your system with the computer being the last unit to have the power turned on.

## **VERIFYING UNIT OPERATION**

Once the unit is properly installed and power is turned on, enter TI BASIC or TI Extended BASIC. Since the time generation circuitry is powered by a battery at all times, the present time contained in the unit can be determined by entering the following program commands:

```
10 OPEN #1:"CLOCK"  
20 INPUT #1:A$,B$,C$  
30 PRINT A$,B$,C$
```

This program will read the three variables; day of the week, date, and time from the Clock/Calendar and display them on the screen.

## **DESCRIPTION OF THE BASIC COMMANDS**

Following is a description of the four basic command:

1. OPEN STATEMENT  
OPEN #file-number:"CLOCK"

The file number can be any between 1 and 255 or a numeric expression. This statement must always proceed a PRINT or INPUT statement.

2. PRINT STATEMENT  
PRINT #file-number:"d,mm/DD/yy, hh:MM:SS"

Where: File-number As specified in the OPEN statement.

d = Day of the week (0 through 6).

mm = Month

DD = Day

yy = Year

hh = Hour (Based on a 24 clock).

MM = Minute

SS = Second (Always set to 00 when setting the time).

**NOTE: THE PRINT STATEMENT MUST ALWAYS INCLUDE ALL SEVEN OF THE PARAMETERS. THE CLOCK BEGINS COUNTING AT THE MOMENT THIS COMMAND IS ENTERED.**

**3. INPUT STATEMENT**

INPUT #file-number:S1,S2,S3

Where: File-number As specified in the OPEN statement.

S1 String variable which reads the Day of Week.

S2 String variable which reads the date as mm/DD/yy.

S3 String variable which reads the time as hh/MM/ss.

**NOTE: AN INPUT STATEMENT MUST ALWAYS CONTAIN ALL THREE**

**(S1,S2 & S3) STRING VARIABLES.**

**4. CLOSE STATEMENT**

CLOSE #file-number

Where: File-number As specified in the OPEN statement.

**SAMPLE PROGRAM NUMBER 1:**

```
10 OPEN #1:"CLOCK"  
20 PRINT #1:"5,10/15/15,01:00:00"  
30 INPUT #1:A$,B$,C$  
40 PRINT A$,B$,C$  
50 CLOSE #1
```

**SAMPLE PROGRAM NUMBER 2:**

```
10 CALL CLEAR  
20 INPUT "DAY OF WEEK (0-6) ":A$  
30 INPUT "DATE (MM/DD/YY) ":B$  
40 INPUT "TIME (HH:MM:SS) ":C$  
50 D$=A$&" "&B$&" "&C$  
60 OPEN #1:"CLOCK"  
70 PRINT #1:D$  
80 CLOSE #1
```

## **PROGRAMS AND UTILIZATION**

If you do not wish to test with the BASIC language listings on the preceding page, there are a number of excellent assembly language programs that can verify proper operation on a real TI-99/4A system.

NOTE: Due to the partial implementation of the clock feature in Classic99, the clock feature will not work with the assembly language programs listed below.

### **#1 SETCLOCK**

By: Tony (Gazoo) Knerr

[http://atariage.com/forums/index.php?app=core&module=attach&section=attach&attach\\_id=388155](http://atariage.com/forums/index.php?app=core&module=attach&section=attach&attach_id=388155)

### **#2 Remind Me!**

By: John A. Johnson

<http://www.errorfree.de/Software/remind.ark>

FIND BETTER LINK with ZIP Extension

PDF format manual can be downloaded by clicking the link directly below

[http://atariage.com/forums/index.php?app=core&module=attach&section=attach&attach\\_id=349647](http://atariage.com/forums/index.php?app=core&module=attach&section=attach&attach_id=349647)

### **#3 BOOT**

By: John A. Johnson

[ftp://ftp.whtech.com/f18a/BOOT-F18A%20\(Mod\).zip](ftp://ftp.whtech.com/f18a/BOOT-F18A%20(Mod).zip)

PDF format manual can be downloaded by clicking the link directly below

[http://atariage.com/forums/index.php?app=core&module=attach&section=attach&attach\\_id=349644](http://atariage.com/forums/index.php?app=core&module=attach&section=attach&attach_id=349644)

### **#4 9640 Menu System**

By: Tim (Insane Multitasker)

Link not yet available.....

## **BATTERY REPLACEMENT**

The unit contains a 3 volt '**CR2032**' Lithium battery that provides backup power when the system is off, thus maintaining the proper time and date. The average lifespan of this battery is approximately 6-9 months.

Removal and replacement of the battery should be self-explanatory.

### **NOTE(s)**

This guide addresses only the clock functions of the CorComp stand alone and the Triple Tech card units. It also corrects technical errors that were present in the original documents.

Links to software listed in this manual may change over time.

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