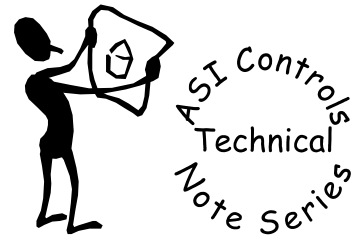




## ASIC/2 Clock Chip End-of-Life Notice

Affects: ASIC/2-8040, -7040, SINC/3, SINC/2

Date: 11 February 2008



**TechNote: TN-038**

**Problem:** Integrated Clock Chip/Battery used in older ASIC/2 controllers is no longer manufactured.

**Solution:** Consider purchasing replacements while they are available.

The ASIC/2-7040 controller went into production in May 1994 and the ASIC/2-8040 in May 1996 using the integrated clock chip and battery. The SINC/3 and SINC/2 also use the same clock-chip. Close to 40,000 ASIC/2-7040, -8040 and SINC/3 controllers were sold between 1994 and 2005. We believe that almost all are still in operation.

This notice does not affect the ASIC/2-7540 and -8540 in which the clock chip and battery are separate components and the battery is widely available. The ASIC/2-7000 controller uses a different clock which is still manufactured.



### **End-of-Life**

We have been advised by the chip manufacturer that the Dallas Clock Chip (DS1994L-F5 non-RoHS, DS1994L-F5+ RoHS) is no longer being manufactured. It is "End-of-Life" and the recommended replacement chip is not compatible. Replacements are available today. They will be hard to find later.

The nominal life of the battery in the clock-chip is 10 years and they may last considerably longer. Controllers with the clock-chip have been operating since 1994, but we have heard of very few clock failures. We sold only 113 replacement clock-chips between July 2003 and December 2007.

We suggest you evaluate your usage of older ASIC/2 controllers and consider replacing critical clock chips during routine preventative maintenance while replacements are still available. When replacements are no longer available, clock chip failure may result in having to replace the controller.

### **Do I need to replace all clock chips?**

The choice to replace the clock chip at this time may be influenced by the age of the controller and how the clock is used in the system.

The age of the controller usually can be determined from a date code which is located on or towards the edge of the controller's printed circuit board. Format is emxxyy, where xx represents the last two digits of the year and yy represents the week number of the year. There is also a date code on the clock chip.

The clock chip is used as the ASI network timekeeper to synchronize the controller once an hour and upon reset of power. You only need one controller on an ASI network to act as the timekeeper and broadcast time. You can also use an ASIC/2-7540, ASIC/2-8540, or a properly configured EtherLink/2. The user interface, such as ASI WebLink, can also act as ASI network timekeeper. Upon return from a power outage the timekeeper will synchronize the network, typically within 15 minutes.

If the controller is stand-alone and you are using the timekeeper functions, at some time in the future you will need to replace the clock chip. The timekeeper functions include time-scheduled operation, time stamping of alarms, trends, demand, and synchronizing controllers on the local bus.

If you are using the time keeping functions, you should consider obtaining clock chips for your future needs. ASI has purchased a limited inventory of clock chips for customer requirements and will keep an inventory while supplies of the clock chip are still available.

## ***What to do if a clock chip goes bad?***

The controller can be used without a hardware clock. Without a hardware clock, the controller must be told the time by a message from another controller on the network, by an Etherlink/2, or by a message periodically sent from the host front-end software.

We have tested the ASIC/2, SINC/3 and SINC/2 controller clocks. We do not have a "bad" hardware clock available, so we tested it with no hardware clock installed. The clock algorithm was changed with FW740C2.0 and FW840C1.0 (1998-06-08) so we have two cases:

### ***Case 1. Before FW740C2.0***

Before FW740C2.0 includes FW740A, FW740B, FW740D, FW740C1.9 and earlier, FW840A, FW840B, and FW200B2.0 and earlier.

The hardware clock is only read if Hardware Clock Enable is Yes. If the Clock is bad or absent, set Hardware Clock Enable to No so that it does not try to read the clock chip.

Set Update Clock Enable to Yes so that the controller will accept a synchronize message on the communication bus.

### ***Case 2. FW740C2.0 and later.***

FW740C2.0 and later includes FW840C, FW740E, FW840E, FW300B, FW200B2.1

The hardware clock is only read if Timekeeper Enable is Yes. If the Clock is bad or absent, set Timekeeper Enable to No, so that it does not try to read the clock chip.

There is no Update Clock Enable parameter. The controller will always accept a synchronize message and will try to read the clock chip on power up. If an old Clock Chip is returning a bad time, then disable Timekeeper.

If you have any further questions please contact: ASI Controls Technical Support [support@asicontrols.com](mailto:support@asicontrols.com), or call 925-866-8808