



## Product Type: ASC/2 and ASC/3

Reference: AN2096

Date: 23 May 2008

### Time Reset on Econolite ASC Controllers

## Purpose

This application note gives you procedures to synchronize the *internal* time clock of ASC/2, ASC/2S, ASC/3, and ASC/2M controllers with an *external* time source.

## Introduction

Because of clock drift, it is necessary to periodically reset the *internal* clock of a controller or master when it operates as a stand-alone (non-interconnected) controller or system. To synchronize the local time with the system time and maintain coordination, connect an *external* time source to the cabinet and use it to reset the *internal* clock.

The *external* time source can be any source that has a momentary (0.1 second) “ground true” normally-open (N.O.) relay contact closure to set the time. These include WWV<sup>1</sup> clocks, GPS<sup>2</sup> clocks, A.C. line syncs, etc. The time in the controller is reset on the trailing edge of the time set pulse (sync pulse) of the time source, when the voltage on the input pin goes from true (0 Vdc) to false (24 Vdc).

## Applications

### ASC/2-2100, ASC/2S-2100 and ASC/3-2100

For these controllers, the “TIME RESET” function is in the “D” connector, Pin 14.

#### “D” Connector Pins

To set the ASC/2(S)-2100 or ASC/3-2100 controller internal clock to the default of 03:30:

1. Connect the N.O. contact of the time-reset relay of a time source to the “TIME RESET” input (Pin 14).
2. Program the external time source to close the contact at 03:30.

Pin	Function
26	Coordination or Free
60	Automatic Flash
3	Split Demand
38	Dual Coordination
14	Time Reset

### ASC/2-1000 and ASC/2S-1000

Since these are TS2 Type 1 controllers, the inputs and outputs are in the SDLC bus. To reset the internal clock:

1. Use the BIU MAPPING to remap the “Time Reset” input to a back panel contact—for example, “Test A”, as shown in the illustrations that follow.
2. Save this changed file as an “S” record.
3. Burn this to a new configuration PROM for the controller.

<sup>1</sup> WWV is a shortwave radio station in Fort Collins, Colorado, U.S.A., that broadcasts official time signals.

<sup>2</sup> GPS = Global Positioning System—that also provides a precise time reference.



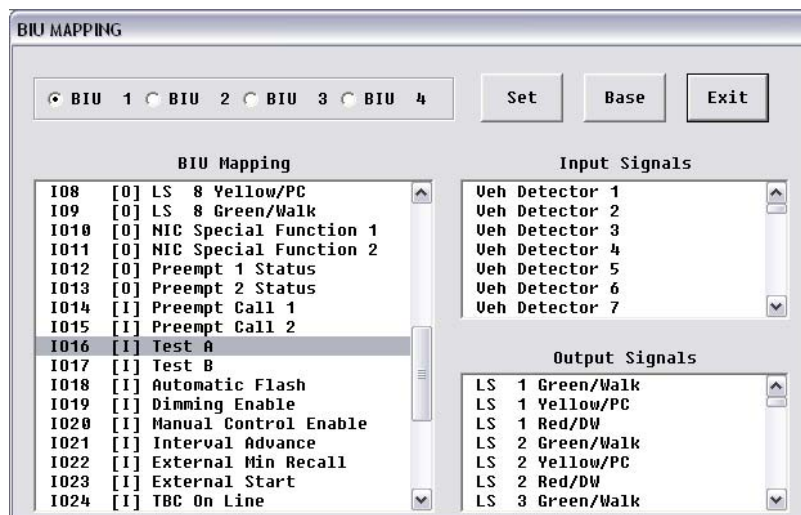
## ASC/2 and ASC/3

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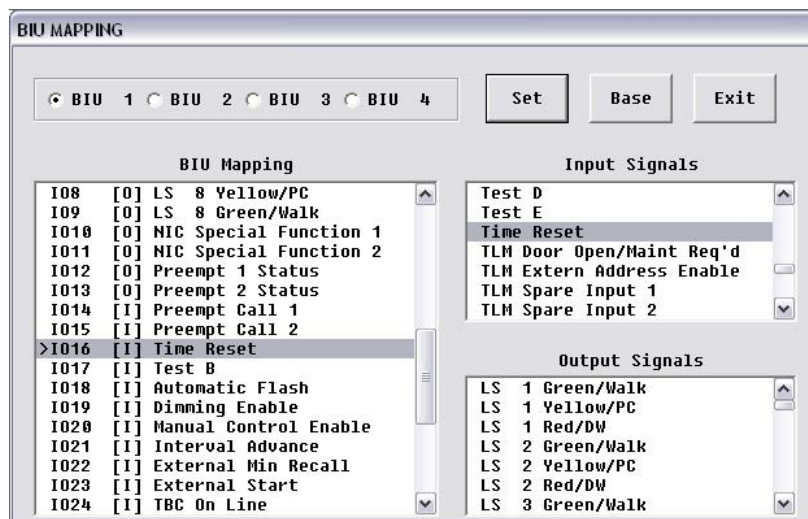
- To set the ASC/2(S)-1000 controller clock to the default of 03:30, connect the N.O. contact of the time-reset relay of a time source to the “Time Reset” input.
- Program the external time source to close the contact at 03:30.

**NOTE:** Usually, this is a factory procedure. But a customer can do this, if he has a PROM burner and the MAPPING UTILITY software (with BIU MAPPING).

### Before



### After





## ASC/2 and ASC/3

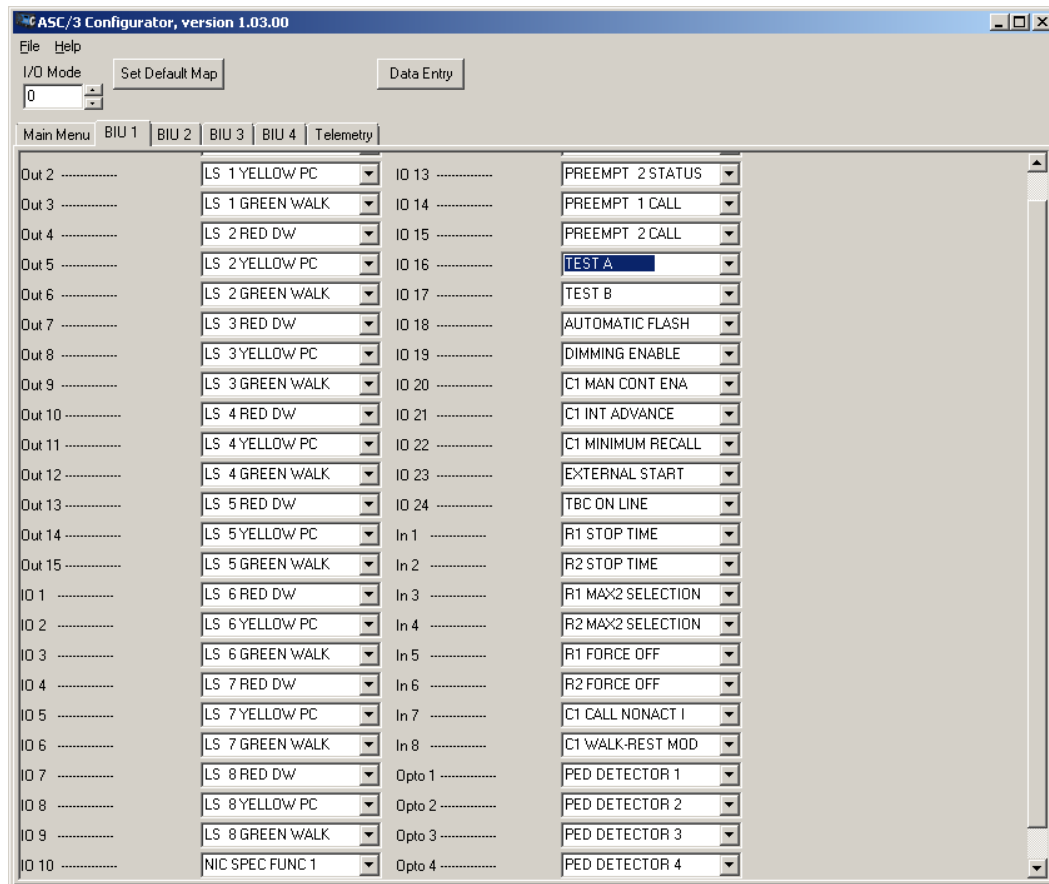
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#### ASC/3-1000

These are TS2 Type 1 controllers and the inputs and outputs are in the SDLC bus. To reset the internal clock:

1. Use the ASC/3 Configurator to remap the “EXT TIME RESET” input to a back panel contact—for example, “TEST A”, as shown in the illustrations that follow.
2. Save this changed file as an ASC3.DB file.
3. Transfer the file to the ASC/3 Controller.
4. To set the ASC/3-1000 controller clock to the default of 03:30, connect the N.O. contact of the time-reset relay of a time source to the “EXT TIME RESET” input.
5. Program the external time source to close the contact at 03:30.

#### Before

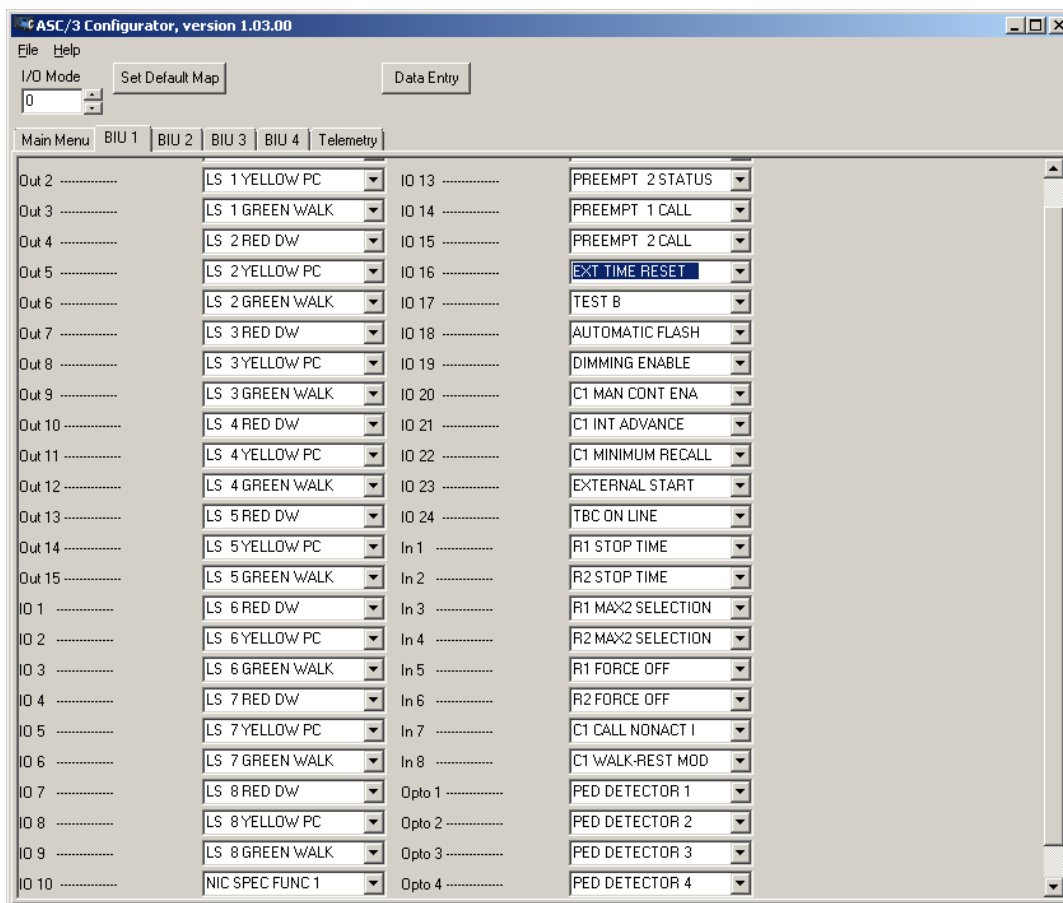




## ASC/2 and ASC/3

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After



### ASC/2M-1000 Master Controller

The inputs of this master controller are on its front-panel 24-pin DIN connector. To reset the internal clock:

1. Use the External Port on the front of the ASC/2M-1000, labeled "I/O."
2. At MM-1-0-8, program the External I/O Assignments.
3. Scroll down until you see the selection "TIME SYNC".
4. Enter the pin number for "TIME RESET" (pins 1-24).
5. To set the ASC/2M-1000 Master Controller clock to the default of 03:30, connect the N.O. contact of the time-reset relay of a time source to the "TIME RESET" input.
6. Program the external time source to close the contact at 03:30.