

The following document describes the operational changes to the 5010 related to special order units with count down capability. These units are designed to work in conjunction with automation systems that require a backward counting generator clock. The name for the special version of 5010 firmware is AG57A5. (or AG52A5 for early version hardware). References to the 5010 manual are to version 2.5 printed Feb 2006.

1. Overview

1.1 Functions Added

There are two additional functions that have been added to the 5010.

- Count down to 00:00:00:00 and then stop – referred to as *Count Down* mode
- Count down to 00:00:00:00 and then start counting up – referred to as *Turnaround Count Down* mode

These functions can be invoked by the use of special Shift Keys on the front panel or by using the serial remote control protocol.

1.2 Front Panel Functions

The following addition SHIFT KEY functions are added to section 3.1.2

SHIFT + ↓: Pressing the ↓ key while holding down the **SHIFT** key will cause the generator to start counting in the *Count Down* mode. The generator counts down until it reaches 00:00:00:00, and then the generator will stop.

SHIFT + ↑: Pressing the ↑ key while holding down the **SHIFT** key will cause the generator to start counting in the *Turnaround Count Down* mode. The generator counts down until it reaches 00:00:00:00, and then the generator will start counting up.

When the generator is displayed on the front panel, and the generator is counting in either the *Count Down* or *Turnaround Count Down* mode, pressing the **HOLD** key stops the generator time. A special character (**H**) appears to the left of the numeric display on the front panel, indicating that the display is in Hold mode. Pressing the **HOLD** key again turns off these special modes and starts the generator incrementing.

1.3 Serial Control Protocol Functions

The following addition functions are added to section 4.9

A6	Sense Generator Run/Hold		Returns 1 byte as defined below.
86	Select Generator Run/Hold	1 byte	Turns Generator Hold On and Off. 00 = Generator Hold 01 = Generator Run in forward direction 02 = Generator Run in <i>Count Down</i> mode 03 = Generator Run in <i>Turnaround Count Down</i> mode