



STC-2000A Quick Start Guide Sequencing Mode

This guide is a supplement to the STC-2000A User's Manual (518-031).



WARNING:

Improper operation of this equipment could cause equipment damage or personal injury.

Read the safety precautions in the user's manual prior to operating this equipment.

Terms and definitions:

The STC-2000A provides both **manual** and **automatic** control of single- or multi-layer film deposition. Manual mode is often used to set up the system in order to run unattended in the fully automatic mode.

A **film** is a set of user-programmable deposition-related parameters (density, Z-ratio, map, etc.) Typically, one material deposition is accomplished per film. The STC-2000A can store up to 50 films. The **active film** is the film that will run when the start sequence is initiated. A **process** is a set of multiple films, or "layers". The **map** specifies the configuration of the physical plant (number of sensors, selection of source type, which crystal to read, which gun to use, etc.) Up to 30 maps can be stored to allow multiple system configurations. Each film specifies which map to use.

The STC-2000A has two basic process control modes: **Sequencing mode** and **Non-sequencing mode**. Non-sequencing mode is used to run a single user-selected film. Sequencing mode is used to run a process (a series of films) for multiple materials or layers.

The **Runtime or Status Screen** is the screen normally displayed during operation. You may return to the Status Screen at any time by pressing the "Status" button.



Test Mode can be used to check the programming of the STC-2000A. Test Mode simulates sensors and deposition rates to allow running films without operating the deposition system (in particular the high-voltage supply) or without having oscillator/sensor attached.



WARNING:

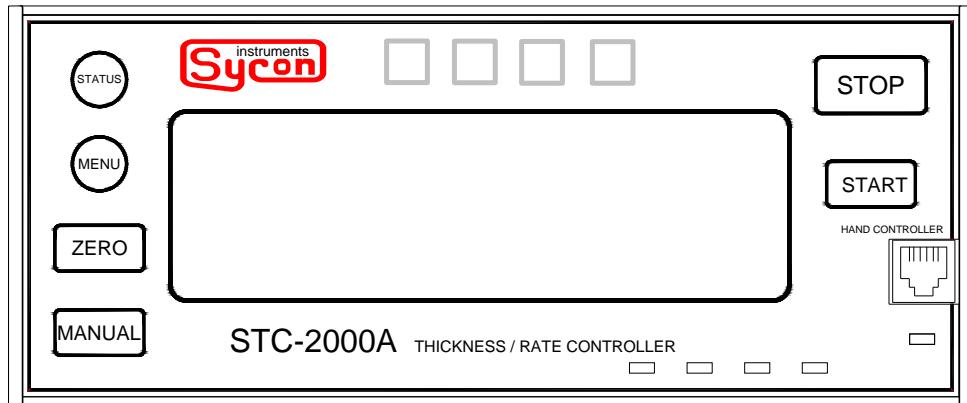
Gun output and all I/O are active in Test Mode.



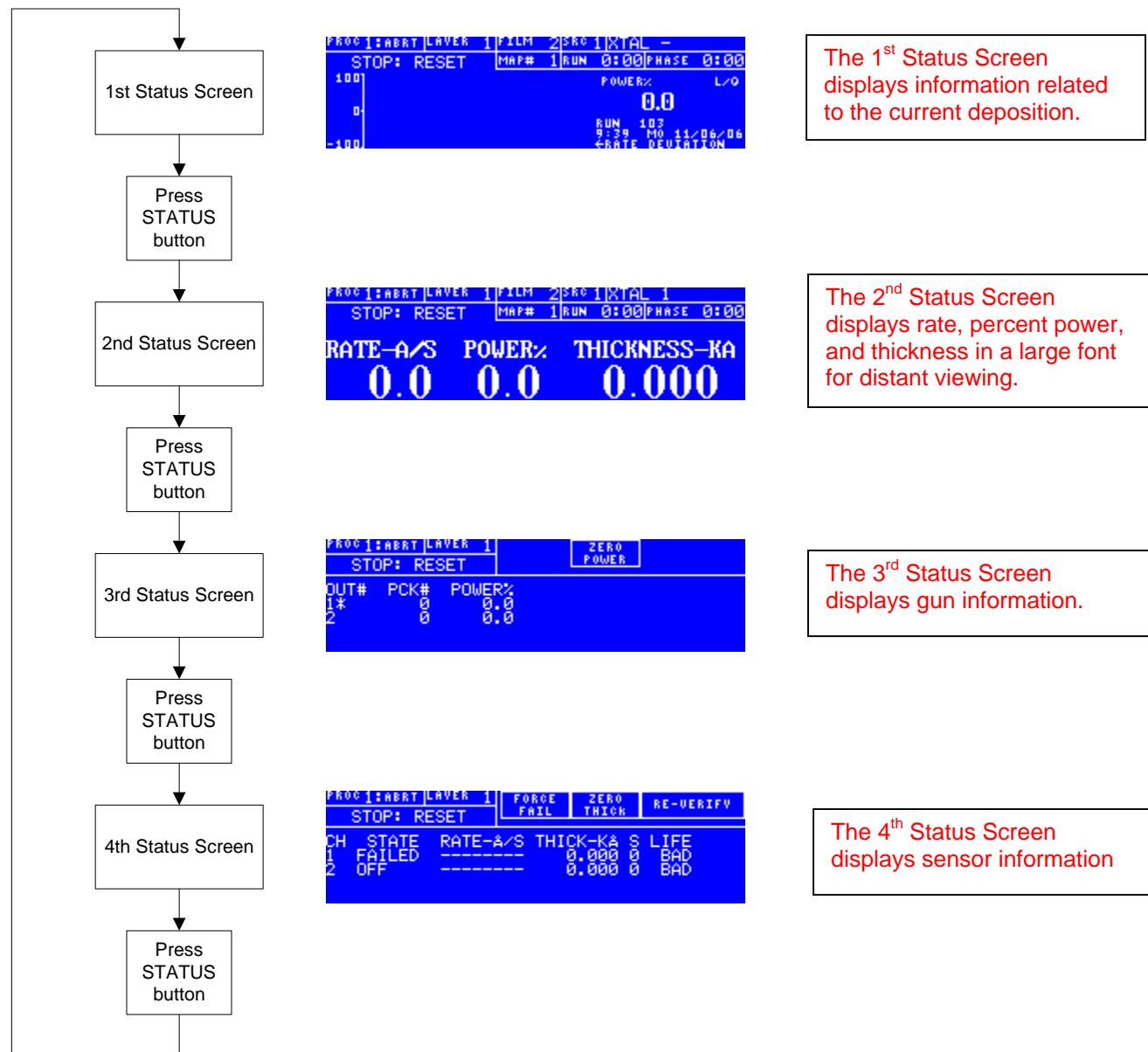
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Screen navigation (using fixed keys and touch screen):

- Arrow keys $\uparrow \downarrow$ on menu screens allow scrolling to unseen list parameters.
- **BYE** is a screen or function exit.
- **EDT** is edit.
- **GO2 any** selects another film, map or process.
- **STATUS** exits the menu system and returns the Run-time Screen.



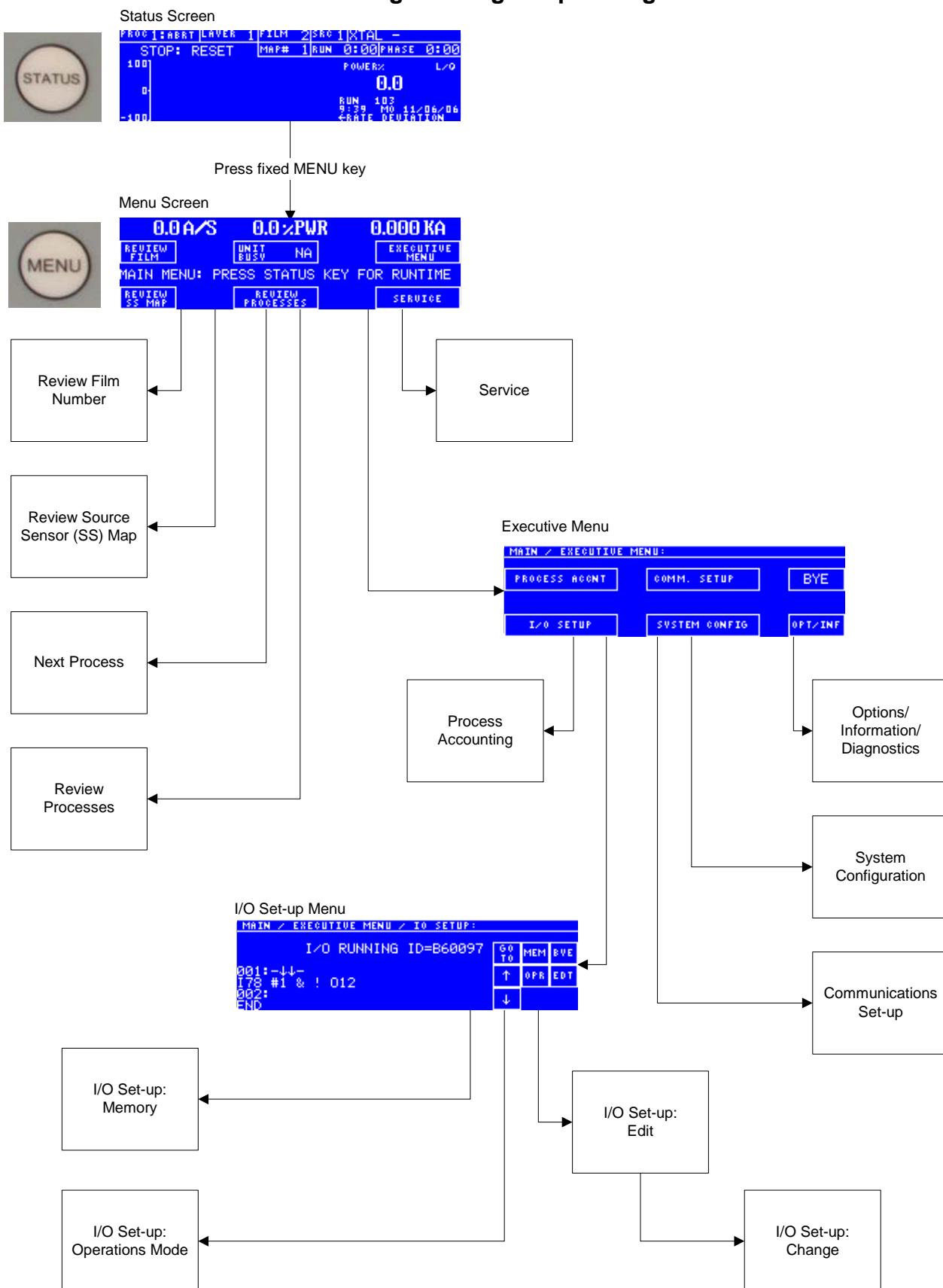
Navigation of Status Screens:



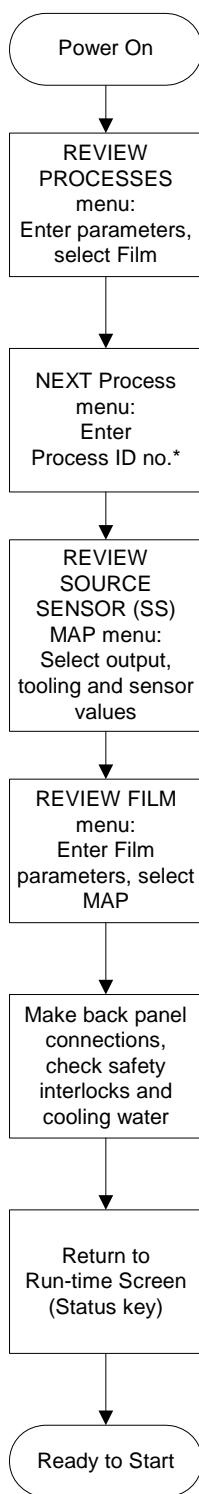


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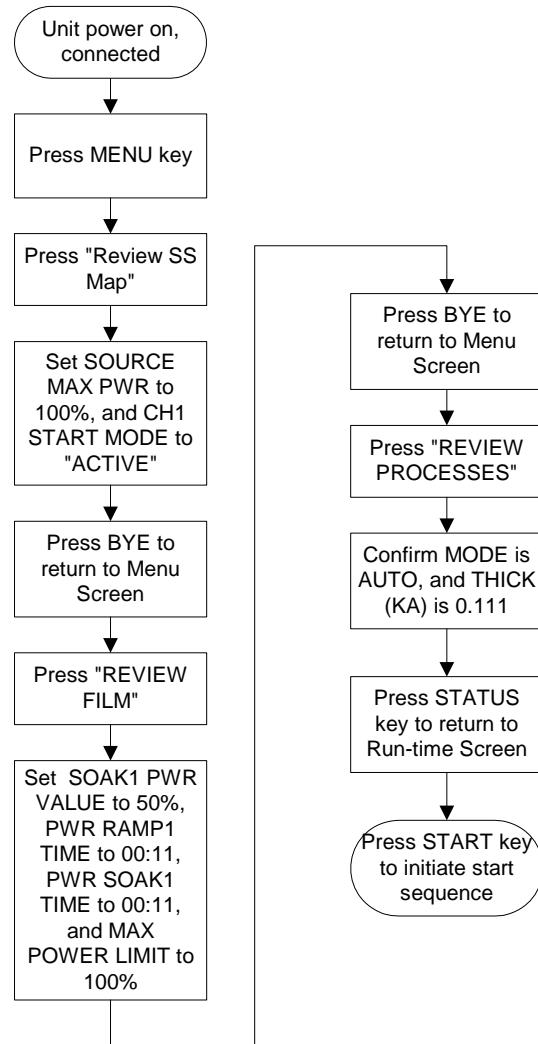
Menu Programming: Sequencing Mode



Basic Operation Flow Chart:



To perform a practice run of X thickness at X rate:



* This can only be done when unit is idle.



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To switch from Sequencing to Non-sequencing or vice-versa:

Press the fixed “Menu” button to view the Menu screen.



Press “Service” on the touchscreen to view the Service menu.

Non-sequencing:



Sequencing:



Press to toggle

Press “Accept” on the touchscreen to accept the change. The STC-2000A will automatically restart after the change is accepted. (Note: “Accept” button appears only for a status change.)

To switch to or from Test Mode:

Press the fixed “Menu” button to view the Menu screen.



Press “Service” on the touchscreen to view the Service menu.



Press to toggle

Press “Accept” on the touchscreen to accept the change. The STC-2000A will automatically restart after the change is accepted. (Note: Turning the unit off clears Test mode.)

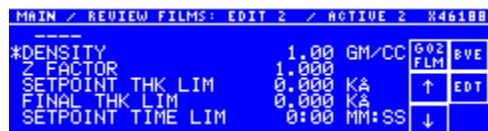


To edit film parameters:

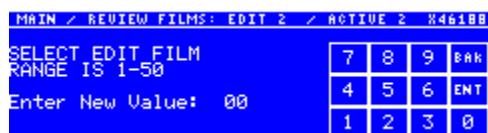
Press the fixed "Menu" button to view the Menu screen.



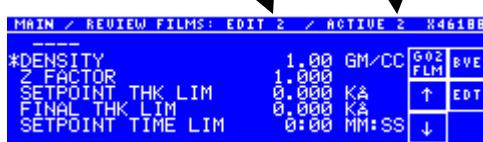
Press "Review Film" on the touchscreen to view the film parameter edit screen.



Select "GO2 Flm" on the touchscreen, and enter the number of the film you want to review/edit (select the number using the touchscreen keypad, then select "Enter".)



When the film numbers next to "Edit" and "Active" at the top of the screen match, you are editing the active film.



Note: Changes made to the active film will change a running process.

**The standard unit includes:**

DESCRIPTION	SYCON P/N	QTY
Source sensor card (w/2 crystal sensor inputs & 2 analog outputs)	502-193	1
Input card (with 8 inputs)	502-197	1
Output card (with 8 outputs)	502-194	1
Power cord (120 VAC)	600-004	1
Fuses (2 x 2.00A 250VAC F-type)	356-014	2
Opto-coupled inputs 25-pin male connector	402-222	1
Relay outputs 25-pin female connector	404-020	1
EMI hood for 25-pin connectors	404-021	2
RS-232 9-pin male connector	404-011	1
EMI hood for 9-pin connector	404-009	1
Rack mount ears	016-012	2
Rack mount hardware	094-006	4
Manual	518-031	1
9-pin female/female "null modem" cable	506-170	1
Hand controller	500-198	1
Communications software tools disk	500-046	1
Quick Start Guide (Non-Sequencing mode)	518-037	1
Quick Start Guide (Sequencing mode)	518-058	1

System Configuration:

The STC-2000A uses a crystal sensor and oscillator to monitor deposition. Connections are made as shown below. Consult the user's manual for detailed information.

