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August 2006 Revision D



What is a Synergy Controller?

The Synergy Controller is Tidal Engineering's ® Environmental Chamber retrofit package engineered as a drop-in replacement for the most popular controllers employed in most environmental test chambers. The unit offers all the features you need to maximize the capabilities of your environmental chambers by providing the utmost in state-of-the-art usability and operating efficiency.

Is it easy to install?

The unit was specifically designed to be field retrofitable and installed in place of a VersaTenn, VersaTenn II and VersaTenn III in less than one hour! It can also be retrofit into chambers from Envirotronics, Thermotron, Blue-M and Cincinnati Sub-Zero. Contact the factory for details concerning these other chambers.

What unique features does the Synergy Controller offer?

Some of the unique features of the Synergy Controller are:

- Color touch screen
- Ethernet, RS-232 and GPIB communications with LabVIEW driver support.
- Compatible with LinkTenn32 and Synergy Manager Software.
- Built-in floppy drive for data logging and program transfer.
- Built-in USB port compatible with USB disk drives for data and program storage.
- Optional Built-in data logger and data acquisition; up to 64 T-type thermocouples.
- Optional Built-in Web Server for remote control

Free Synergy MagLite® Flashlight With Your Demo Order! To thank you for trying the Synergy Controller, the MagLite is yours to keep; even if you return the unit.



Synergy Controller

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How do I order my risk-free demo?

We'll ship your Synergy Controller Demo Kit (P/N TE1912) for a 30-day demonstration free of charge! Just send a purchase order to our authorized distributor, ADI American Distributors Inc. Be sure to include the quantity of demo kits and any additional options you'd like try. Please include three trade credit references, and a bank reference.

ADI American Distributors Inc.

2 Emery Ave, Randolph, NJ 07869

Phone: 973-328-1173; Fax: 973-328-2302

E-mail: *craig@tidaleng.com*

Be sure to call Tidal Engineering for current prices and special offers.

When will I receive my demo unit?

Standard delivery time is one week from credit approval.

How long can I keep the demo unit?

The demo offer is for 30 days. After 30 days, let us know if you would like to return the unit or convert your demo order to a purchase order.

What's included in the Synergy Controller Demo Kit?

The Synergy Controller Demo Kit includes everything you will need to retrofit a VersaTenn, VersaTenn II or VersaTenn III equipped test chamber plus a Synergy Logo MagLite® Flashlite.

P/N TE1912, Synergy Controller Demo Kit Contents

Item	Rev	Qty	Part Number	Description
1		1	TE1530	Synergy Controller with Accessories (ref items list below)
ref		1	TE1612-5	Synergy A/C Power Cable 5ft.
ref		1	TE1596	GPIB Cable, 6 Feet
ref		1	TE1608	RS-232/RS-485 Cable, 6 Feet
ref		1	TE1735	Synergy Resource CDROM, Utilities and Documentaition
ref		4	120-D-121/12	Olympic Board Plugs
ref		1	TE1576	Bezel, Stainless, Flush mount, with Synergy Logo
ref		1	TE1536	Bezel, Stainless, Front mount with Synergy Logo
2		1	TE1151-5	Triac Output Board, 5-Channel with plugs and cables
3		1	TE1810	Synergy Logo Flash Light (Blue)

What type of chamber types are supported by the kit?

The Synergy Controller Demo Kit currently supports the following configurations:

- 1. Temperature Only.
- 2. Temperature Shock (Temp/Temp).
- 3. Temperature/Humidity.
- 4. Temperature/Pressure (Altitude).

Please contact the factory for information concerning HALT/HASS and other configurations.

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What mounting options are included in the kit?

The Synergy Controller Demo Kit includes the hardware and bezels for both the front mounted arrangement and the flush mounted arrangement. The front mounted arrangement allows easy access to the floppy disk drive and the bottom mounted connectors including the auxiliary VGA monitor port, RJ-45 Ethernet port and PS/2 keyboard and mouse ports.

Synergy Front Mount



Synergy Flush Mount



How can I learn more about Tidal's Synergy Controller?

Just visit our Web site

http://www.tidaleng.com where you can download application notes, technical information and Free software including:

The Synergy Controller technical manual

http://www.tidaleng.com/techmans/Synergy_Controller_Technical_Manual.pdf

The Free Synergy Manager Environmental Lab Management Software.

http://www.tidaleng.com/download.htm.

The Free SimpleComm application.

http://www.tidaleng.com/download.htm.

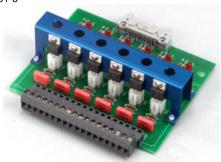
Or call us at 973-328-1173 for a Web Based demonstration.

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What Options are available with the Synergy Controller?

The Synergy Controller is available with the options pictured below.

Triac Output Board, 6 Channel P/N TE1151-6



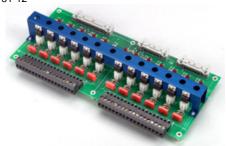
- Control up to six (6) 6-Ampere AC loads, 110
 220 VAC.
- Each output can also drive an external Triac for larger loads.

Synergy UUT Thermocouple Monitor P/N TE1299-16



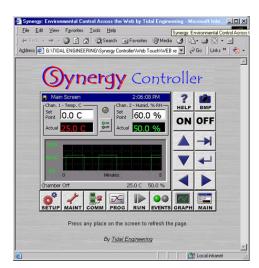
- 16 Channel T-Thermocouple Monitor.
- Daisy chain up to four of these 16-Channel monitors together and acquire 64 temperatures on the Unit-Under-Test.
- The Synergy Controller displays and logs these readings to the internal log file for analysis, graphing and reporting.

Triac Output Board, 12 Channel P/N TE1151-12



- Control up to twelve (12) 6 Ampere AC loads, 110 - 220 VAC.
- Each output can also drive an external Triac for larger loads.
- Two 6-Channel Triac boards can be driven from the two 20 pin connectors.

Synergy Web Touch Remote P/N TE1567



- Built-in Web server provides web based control and monitoring; Patent Pending.
- Remote Control over a network or Internet using a Web browser.
- Internet Explorer Compatible (No special software required).
- Remote Training and support.

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Synergy Manager

P/N TE1566

Windows[™] Based, multi-chamber monitor and control program. Supports the following chambers' controllers in addition to the Synergy Controller:

- VersaTenn II
- VersaTenn III
- VersaTenn V
- Watlow 942
- Watlow F4
- Envirotronics T4800

Features:

- Remote Control
- GPIB, RS-232, TCP/IP
- Profile Creation, Download and Control
- Data Logging
- Data Graphing
- Alert System: Fax and e-mail notification.

About Tidal Engineering

Headquartered in Randolph, NJ, Tidal Engineering Corporation has been designing and building award-winning embedded hardware and software for test and measurement and data acquisition applications since 1992. The company further provides product development services together with engineering support, and is recognized for technical expertise in such areas as Embedded IEEE 488, and turnkey SCADA (Supervisory Control and Data Acquisition) systems. Tidal's products are available exclusively through ADI American Distributors Inc., an ISO-9002 certified distributor of electronic and electromechanical components and assemblies.

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Award Winning Test & Measurement and Data Acquisition Product and Services.

