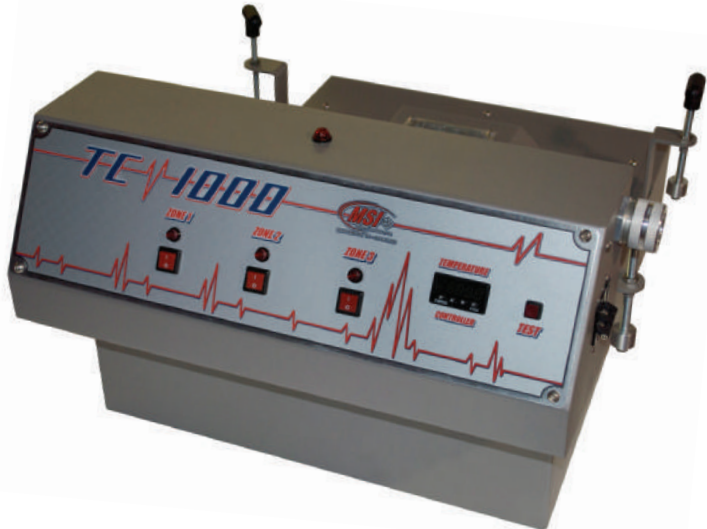# Instruction Manual
Quartz Flash Cure Units
TC 1000 and VersiFlash TC

TC 1000 Features:
Machine Interface • Temperature Control
Three Individual Zones

VersiFlash TC Features:
Machine Interface • Temperature Control • Intensity Control
Three Individual Zones • Stand By Mode with Intensity Control
Dwell Timer (for use with External Sensor)

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⚠ WARNING

For Your Own Safety, Read Instructions Before Operating This Equipment

The Versiflash TC is designed to quickly emit very high infra-red heat and can cause fire
if not used properly. Always Test the unit prior to production to ensure that
Temperature Control and power settings are correct.
The Height of the Flash Above your Pallet is also very important.
Make sure that all control features are checked and adjusted prior to every production run.

⚠ WARNING

Check Pallet Clearance, Temperature Control, and Power
Before Every Production Run

⚠ WARNING

## The Versi-Flash TC uses state of the art Quartz Emitter Technology.
The Bulbs are Delicate.
Handle them with extreme care.

BULB INSTALLATION

BULBS NEED TO BE INSTALLED BEFORE USE: To avoid damage during shipping units are shipped without bulbs installed. The bulbs are carefully packed and are located inside the unit under the fan cover. To access the bulbs **(See Fig. 1)** unplug the fan wire plug, carefully remove the temperature sensor / bracket by removing 3 brass thumb nuts and set it aside. Remove 7 screws and lift off cover.

FAN WIRE PLUG

BRASS THUMB NUTS

FIG. 1

SCREWS 7 PLACES
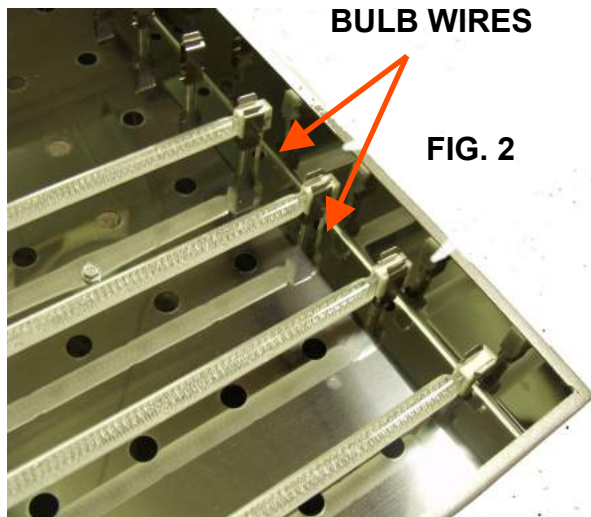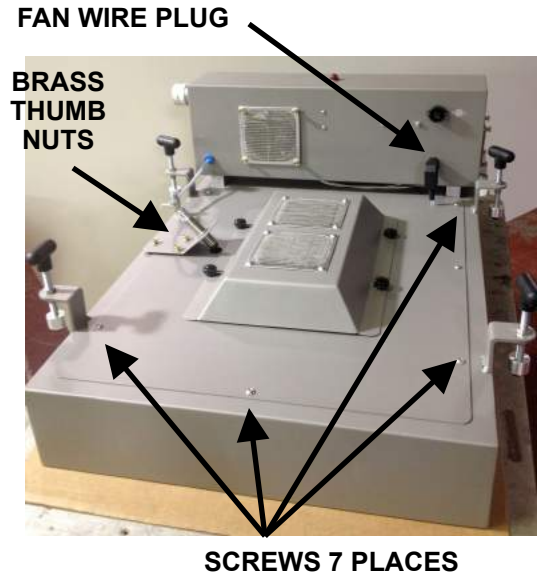
BULB WIRES

FIG. 2

UNPACK AND INSTALL BULBS ONE AT A TIME, HANDLING THEM BY THE ENDS ONLY.
Feed bulb wires, one side at a time through outer holes (next to bulb clips) in reflector pan and insert ceramic ends into clip. **(See Fig. 2).** Install remaining bulbs

WIRING BULBS:
VERSI FLASH TC And TC – 1000 Temp control units have 4 ceramic blocks for bulb wiring. The center zone (zone 2) uses 2 blocks. This is to avoid any wires from blocking the cutout for the temp sensor. Take care to route wiring around this cutout when hooking up bulbs!

WIRING BULBS CONTINUED:

With the Flash Unit in front of you (back of control box facing you) **See fig. 3** Start attaching bulb wires to ceramic blocks in groups of 3 (9 bulb units) or 4 (12 bulb units) Insulation on the bulb wires is striped back about ½ inch and they are ready to install.

The first group of bulbs nearest to the control box are **Zone 1.** Locate this group of wires from the left side and hook them to the ceramic block for **Zone 1** by inserting them under the tab and tightening screw at position #1 (left terminal). Hook up wires from the right side to position # 2 (right terminal) of the same block **See fig. 4**

The next group of bulbs (center of unit) will use 2 ceramic blocks, these are **Zone 2**. The bulb wires from the left side will hook up to the ceramic block on the left position # 2 and the wires from the right side will hook up to the ceramic block on the right position # 1

The remaining group of bulbs (furthest from control box) are **Zone 3.** These will hook up to the remaining ceramic block. Wires from the left side will go to position # 1 and wires from the right side will go to position # 2

FIG. 3

Zone 1 Block

Zone 2 Blocks

Sensor Cutout

Zone 3 Block

FIG. 4
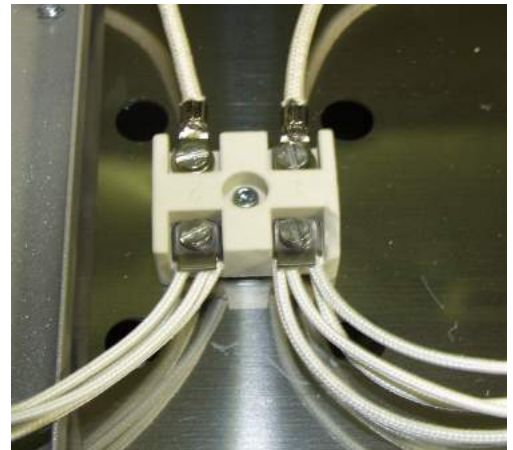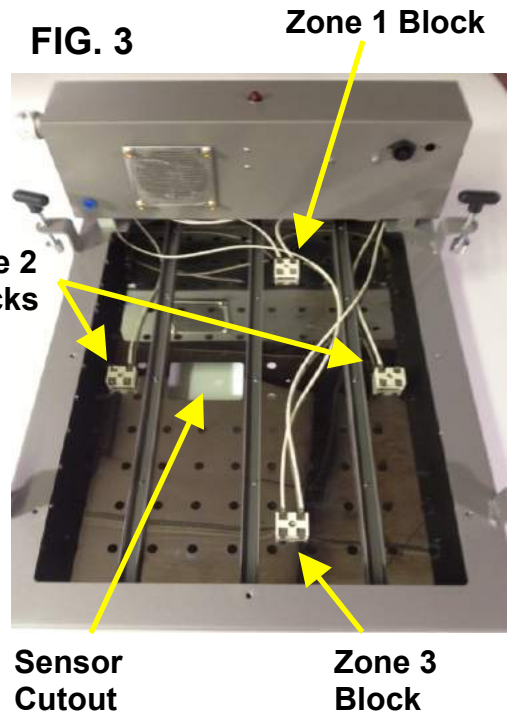
IMPORTANT: Make sure all connections are tight before installing cover!

⚠️ CAUTION

The bulbs of your machine are very carefully wrapped and separately packaged to ensure their safe arrival. These components are expensive, very delicate and should be handled with care and concern. **Handle bulbs by the ends only.** Wipe with a soft cloth and alcohol for cleaning.
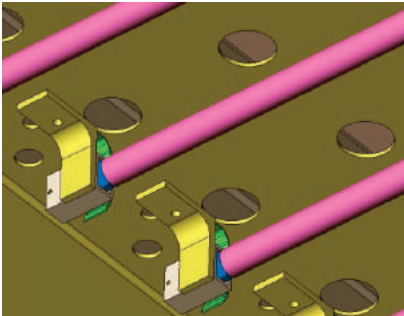
Prior to replacing damaged or expended bulbs, be absolutely certains that the **flash unit is completely unplugged** from its electrical service.
Make sure to allow the bulbs and housing a minimum of 15 minutes to completely cool off before attempting to handle the unit and replace the bulbs.

⚠️ WARNING

This unit should be connected to your electrical service by a **professional electrician only!** Failure to follow this specific direction will void every and all warrenties immediately. MSI will assume no responsibility for any injury or damage if wiring of the electrical service to this machine is not done by a trained professional.

USE AN ELECTRICIAN!

Operational Controls
⚠️ Read Carefully

DWELL TIMER (for external sensor only)

When using flash with an external sensor, the Dwell Timer should be set to "D". The time setting will determine the length of the flash–cure cycle. When using the Test button, the Dwell Timer will determine the test cycle time.

HIGH TEMP

Controls the level of power being radiated during a flash cycle. It should be adjusted and confirmed before each production run until the operator is comfortable with the best settings for their shop.

STANDBY TEMP

The Standby mode is pre-set to come on for 20 seconds after every flashcycle. When in stand by mode, the lamps can emit up to 30% of maximum temperature depending on setting.

TEMPERATURE CONTROLLER

Used for setting the Set Point or cure temperature in external mode.

ZONE CONTROLS 1, 2, and 3

Each unit has three user controlled zones to allow the operator to cure only the neccessary areas. This wil minimize your electric bill and has additional benefits. Any combination of zones are available to use at one time. Momentarily push the Test contol button to observe which zones are selected.

Operating Instructions

The Versi Flash TC and the TC 1000 are equipped with a temperature sensor and controller that will prevent under curing and over curing of the garments. This feature will also prevent damage to honeycomb pallets that may have come with your machine.

HOW IT WORKS:

When running a MHM machine on external mode, the first garment to be flash cured will move under the flash, the flash unit will stay on until it reaches the "set-point" that you have set in the temperature control module on the bottom right of the flash cure's face plate.
Once the flash cure reaches the "set-point", it will shut off and send a finish signal back to the computer of the machine.
At this time, the machine begins a new cycle.
As platens begin to heat up, the flash cure will self adjust and you will notice shorter and shorter cycles.
If production has stopped for any length of time, the first flash cure cycles will be longer followed by shorter cycles as the platens heat up again.

#1: USING THE FLASH UNIT'S TEMPERATURE CONTROL FEATURE
First, to use this feature, you must enable the dryer setting on your MHM machine.
If you do not have the option to choose from Internal mode or External mode on your computer screen, you will need to call your MHM dealer and they will assist you with this setting change.

PRE-HEATING THE PLATENS
Because of the nature of the honeycomb pallets, you will find that pre-heating the platens should be done with a time setting of approximately 5 seconds as you would normally pre-heat the platens, and from the normal Internal mode.
After pre-heating platens to your satisfaction, simply program the stations that will be used for the flash cures for External mode. This step will only take a few seconds to perform.

The flash unit was tested and shipped with a "set-point" of 225 degrees F. This setting is good for most normal printing on 100% cotton garments.
For certain garments that are more susceptible to scorching such as ash, camouflage or other delicate fabrics, you will need to adjust the temperature controller to a lower setting.
You may adjust to a higher setting, for example, if you are printing a very heavy under base.

SETTING THE TEMPERATURE CONTROL MODULE ("set-point")
Setting the temperature "set-point" should be done as follows:
Press "**P**" once. The display will show "**0:00**"
Press "**P**" again and the display will show "**SP**" and the display will then alternate between "**SP**"
And current "set-point" (225 degrees).
Press the up or down arrow to raise or lower to the desired "set-point" temperature.
Press "**P**" again to exit the menu. The display will stop flashing and display the current temperature that the sensor is reading (a reading from the floor or pallet).

#2: RUNNING THE FLASH CURE IN INTERNAL MODE
With the MHM main computer set for Flash Internal Mode, program the desired flash time.
When the first platen programmed to flash moves under the flash cure unit it will flash for the Time programmed and another cycle will begin.
In this mode, the temperature sensor module will still shut the flash unit off at the programmed temperature "set-point". It may be necessary to raise the temperature controller's "set-point" to a slightly higher setting.
This may or may not be required and your experience will guide you through this decision.

#3: RUNNING THE FLASH WITH AN EXTERNAL SENSOR
The dwell timer should be set to "D" mode and the desired flash time must be set on the dwell timer.
The temperature controller will still turn the flash unit off when the substrate reaches the temperature set on the temp controller. In this mode, you may find it helpful to raise the "set-point" of the controller.

The Following information does not apply to the newer Controllers, these cannot be taken out of "RUN " mode. If you have a older version of the controller and it is taken out of "RUN" mode follow instructions below.

#4 - CAUTION: Be aware that by changing the "set-point" there is a chance that the temp control module may have been taken out of run mode if you accidentally hit one of the arrow keys while exiting the menu.

If you do not have the word "RUN" lighted in red on the left side of the temperature control module, then you may have accidentally changed a setting.
(You must have the control module set to show the word "RUN" in red to operate in external mode and use the temperature control feature. If not in "RUN" mode the machine will only run one cycle and an error will appear on the machine's computer.)

With the temperature control module displaying the digits of the current temperature STEADY ON and NOT FLASHING, follow these steps to correct the setting:

-Press the "P" button 3 times. After the 3rd time, the controller will be flashing "RUN – NO – RUN – NO"
-Change the flash setting sequence to "RUN – YES – RUN – YES" by pressing the down arrow 1 time. Now the controller display will begin to flash "RUN – YES – RUN – YES".
-Press the "P" button 1 time and the controller will go back to showing the digits of current temperature   (a low reading from the floor or a cold pallet).
The word "RUN" will be lighted in red on the left side of the temperature controller indicating that the module is set to run and the flash unit is ready for production.

VERSI FLASH	TC 1000	VERSI FLASH TC	PART #	DESCRIPTION
X		X	VF1	SCR BOARD
X			VF2-A	10 AMP INTERFACE RELAY
X	X	X	VF2-B	50 AMP SOLID STATE RELAY (9 BULB UNIT)
X	X	X	VF2-C	90 AMPSOLID STATE RELAY (12 BULB UNIT)
	X	X	VF2-D	INPUT MODULE CONTINENTAL
X	X	X	VF3-A	3.15 INCH FAN 115 V
X	X	X	VF3-B	3.15 INCH FAN 230 V
X	X	X	VF4-A	4.5 INCH FAN 115 V
X	X	X	VF4-B	4.5 INCH FAN 230 V
X		X	VF5-A	AUTONICS TIMER
X			VF6-A	480/240 TO 115 V TRANSFORMER .400 MAH
X		X	VF6-B	230 - 24 AC TRANSFORMER
	X	X	VF6-C	24V DC POWER SUPPLY (RHINO)
X			VF6-D	480-24 AC TRANSFORMER
	X		VF6-E	480-115 V TRANSFORMER 750 MAH
X	X	X	VF7-A	3.15 INCH FAN GRILL
X	X	X	VF7-B	4.5 INCH FAN GRILL
X	X	X	VF8-A	BULB CLIP COMPLETE
X			VF9-A	115 VOLT OMRON SENSOR
	X		VF9-B	24 VOLT SENSOR PEPPREL & FUCHS
X		X	VF10-A	STAND BY TEMP POT
X		X	VF10-B	HIGH TEMP POT
X	X	X	VF11-A	ZONE CONTROL ROCKER SWITCH
X	X	X	VF11-B	ZONE LED
X	X	X	VF12-A	FINDER TIME LAG TIMER
X			VF13-A	OMRON CLEAR COIL RELAY
	X	X	VF14-A	OMRON SOCKET RELAY
X			VF15-A	POWER INDICATOR LED (TOP CONTROL BOX)
X	X	X	VF16-A	TEST BUTTON
X			VF17-O	INTERFACE CABLE ORIGINAL VERSI FLASH
	X	X	VF17-TC	VERSI FLASH TC / TC 1000 INTERFACE CABLE
			VF17-XTC	INTERFACE CABLE X - TYPE ONLY
X	X	X	VF18-A	50 AMP ON/OFF BREAKER 3 PHASE
X	X	X	VF18-B	70 AMP ON/OFF BREAKER SINGLE PHASE
X	X	X	VF19-A	19" MEDIUM WAVE LAMP
X	X	X	VF19-B	20" MEDIUM WAVE LAMP
X	X	X	VF19-C	21" MEDIUM WAVE LAMP
			VF19-D	18" MEDIUM WAVE LAMP
	X	X	VF20	TEMPERATURE CONTROLLER (Novis)
	X	X	VF21	TEMPERATURE SENSOR (Raytek)
	X	X	VF22	ALARM RELAY BOARD
X	X	X	VF24	CERAMIC BLOCK
			VF25	FAN WIRE CONVERSION KIT