

# TAN TIME SYSTEM™



## TanTime™ Room Unit Display Fixture

Digital Tanning Bed Timer Control Systems  
for Complete Salon Control

# Table of Contents

Manufacturers Statement .....	Page 3
Limited Warranty, Disclaimer, Limitation of Liability .....	Page 3
Purpose of the Room unit Display .....	Page 4
Display Components .....	Page 4
The <b>RU-XM™</b> .....	Page 4
The <b>RU-DS™</b> .....	Page 4
The <b>SY-PAM™</b> .....	Page 4
The <b>SY-EOL™</b> .....	Page 5
Additional Information .....	Page 5
This Manual .....	Page 6
Physical Connections (Refer to Figure 1) .....	Page 6
Connecting the Bed to the RU-DS™ or RU-XM™ .....	Page 6
Connecting power to the RU-XM™ Timer .....	Page 6
Connecting power to the RU-DS™ Timer .....	Page 6
Connecting the RU-XM™ Timer to a controller .....	Page 6
Connecting the RU-DS™ Timer to a front-room-controller .....	Page 6
Connecting Addition Room Units .....	Page 7
Operation .....	Page 8
Verifying Operation in Emulation Mode .....	Page 8
Stand-Alone Operation .....	Page 8
Changing Address, Clean Bed and Delay Time Features Manually .....	Page 8
Changing the Address Manually .....	Page 8
Setting the Clean Bed Feature Manually .....	Page 8
Setting the Delay Time Manually .....	Page 9
Running a Session Manually .....	Page 9
Terminating a Delay Time Manually .....	Page 9
Pausing a Session Manually .....	Page 9
Canceling a Session Manually .....	Page 9
Clearing a Clean Bed Status .....	Page 9
Operation with a T-Max® Front-Room-Controller or Equivalent .....	Page 10
Notable Operating Improvements with TanTime™ Room Units .....	Page 10
Auto Addressing .....	Page 10
Online Notification .....	Page 10
Active Communication Notification .....	Page 10
Lockout Notification .....	Page 10
Warranty and Customer Service .....	Page 10
Active End Of Line Terminator .....	Page 11
Functions Available in 3A® Emulation Mode .....	Page 12
The Company .....	Page 13
Support .....	Page 13
TanTime™ Dedication .....	Page 13
Contact Us .....	Page 13
Returns and Repairs: .....	Page 13
Shipping / Mailing Address: .....	Page 13

## Manufacturers Statement

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### Limited Warranty, Disclaimer, Limitation of Liability

EPaD™ warrants its products to be free of manufacturing defects, defects in materials and defects in workmanship for the lifetime of the products. TanTime™ Products are warranted against normal wear and tear for a period of 12 months from the date of initial purchase. This warranty will not be honored if there has been any attempt to tamper with or remove the external seal, which is intended to preclude tampering with this product's digital or other components. This warranty does not cover damage caused by misuse or abuse of this product or by acts of God or accidents or other misuse or improper installation or unauthorized repair or alteration or causes beyond the control of TanTime™. Also not covered by this warranty are claims other than by the original purchaser. Your sole remedy and our sole liability to you shall be to repair or replace particular products at our discretion if it does not meet the requirements of this warranty.

If the product should become defective within the warranty period, upon receipt, TanTime™ will repair or replace the product free of charge, at the option of TanTime™. Customer is responsible for all shipping charges.

EPaD™/TanTime™ and its distributors shall under no circumstances be liable for any damages arising from the use of or the inability to use TanTime™ products or from any loss of revenue or profit, business interruption, or other loss which may arise from the use of TanTime™ products.

**THE WARRANTIES ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

# Introduction

## **Purpose of the Room unit Display**

The purpose of this display is to provide an easy to see and understand demonstration of the appearance, function, ease of installation and hookup, and performance of the new TanTime™ System™ Room Units. For use with the TanTime TT-40™ front-room-controller see the TT-40 Manual. The focus of this demonstration is their use in TanTime's Emulation Mode. While in Emulation Mode these timers will connect to a T-Max® front-room-controller and emulates all the major functions of a 3A® timer. TanTime™ has made improvements that provide additional value in the operation and setup. These enhancements will be pointed out throughout this manual.

## **Display Components**

There are three, fully functional, standard TanTime™ Products included in this display / demonstration kit. The two Room Units, while at first appearance may seem to be identical, are actually two different products. The Room unit on the left is the TanTime™ RU-XM™ with it's attached power supply, while the Room unit on the right is the RU-DS™. The differences, covered in the following paragraphs, can readily be found by looking at the backs of the Room Units. Mounted between and behind the Room Units is the SY-PAM, which includes the SY-PAM™ module, the attached power supply, and the two attached, 3 foot cables.

### **The RU-XM™**

The RU-XM™ is designed as an in-room timer and will control one bed. It has a digital display, Set Time and Start/Stop buttons and comes with it's own power supply. Intended as a cost effective alternative to the T-Max® 3A® timer, this timer emulates all the major functions of a 3A® timer and connects directly to T-Max® hookup wire.

Because the RU-XM™ does not require any cable adapters and comes with it's own power supply, this unit is an excellent replacement for an existing 3A® installation or as a system add on in low quantities.

### **The RU-DS™**

The RU-DS™ is designed as an in-room timer and will control one bed. It has a digital display, Set Time and Start/Stop buttons, and identical circuitry and programming as the RU-XM™. The RU-DS™ works with either the TanTime™ TT-40™ console or the T-Max® Manager, and uses standard, 8-wire, inexpensive CAT-5 cable for hookup.

Because the hookup cable carries the power to the RU-DS™, an in-room power supply is NOT required for each timer. Instead, power is supplied to the CAT-5 cable by the SY-PAM™ described below. A single SY-PAM™ will power up to ten RU-DS™ timers connected by CAT-5 cable.

### **The SY-PAM™**

The SY-PAM™ is a "System - Power Adapter Module", designed to provide electrical power to as many as ten (10) RU-DS™ room units through a CAT-5 cable. The SY-PAM™ "kit" includes the SY-PAM™ module itself, a three-foot length of 4-wire cable to connect to a T-Max® Manager or 3A® timer or equivalent, a three-foot length of CAT-5 wires to hook to a RU-DS™ timer, and a 120 VAC to 12 VDC, 1400 mA power supply. The two lengths of cable are included to provide the most freedom in placing the SY-PAM™, but most likely you will only need the appropriate cable to reach the controller or timer nearest to where the SY-PAM™ is actually placed.

# Introduction

## **The SY-EOL™**

The SY-EOL™ is the Active End Of Line terminator used in all TanTime™ System™ products. The end of line terminator is used to reduce signal reflections at the end of a data line and keep the data from being scrambled. An active terminator has the added benefit of maintaining signal strength at both ends of the line as illustrated in Figure 2. The Light Emitting Diode (LED) on the SY-EOL™ tells the user that the End Of Line terminator is active and functioning properly.

## **Additional Information**

For additional information on setting up and operating a TanTime™ room unit or any of the other peripheral equipment mentioned in this document, see the appropriate TanTime™ document per Table 1.

**Table 1**

<b>These documents are available at <a href="http://www.tantime.com">www.tantime.com</a>, then click on Support.</b>	
TT-40 Instruction Manual	
RU-XM™	DOC40201
RU-DS™	DOC40202
Power Adapter Module (SY-PAM™)	DOC40203
End-of-Line Terminator (SY-EOL™)	DOC40207
Room Unit and OEM Timer Instructions for Software Revision 2.9	DOC40301

# Hookup

## **This Manual**

It is recommended that you read this manual before unpacking, installing or operating your new TanTime™ System™ Timers. Important information is covered in this manual that will ease installation and ensure trouble-free operation. Failure to follow setup & operation directions could result in damages not covered by the warranty.

## **Physical Connections (Refer to Figure 1)**

### **Connecting the Bed to the RU-DS™ or RU-XM™**

Locate the two wires coming from the bed that are intended for connecting an external timer to the bed. (See bed manufactures information to determine which wires to use.) Connect these wires to the terminal labeled “Switching Leg” on the back of the timer. The wires are held in the terminal by inserting them in their respective slots and tightening the clamping screw using a small, straight slotted screw driver. There is no polarity to be concerned with as the timer uses dry relay contacts to control the bed.

*Note: The maximum Switching Leg current allowed is 3 Amps at 220 VAC.*

### **Connecting power to the RU-XM™ Timer**

Carefully observing polarity, connect the 12 volt DC output power supply to the “Power In” terminal on the back of the RU-XM™ timer. The wires are held in the terminal by inserting them in their respective slots and tightening the clamping screw using a small, straight slotted screw driver.

### **Connecting power to the RU-DS™ Timer**

The RU-DS™ receives power through a CAT-5 cable into either J1 or J2, the 8 pin modular connectors. These are also used to connect to a front-room-controller or remote timer. In this Room Unit display fixture, a SY-PAM™ with a 12 vdc power module is provided to supply power through the CAT-5 cable. See Figure 1 for setup using a T-Max® or equivalent front-room-controller. For use with a TanTime™ TT-40 System™ refer to the TT-40 Users Manual.

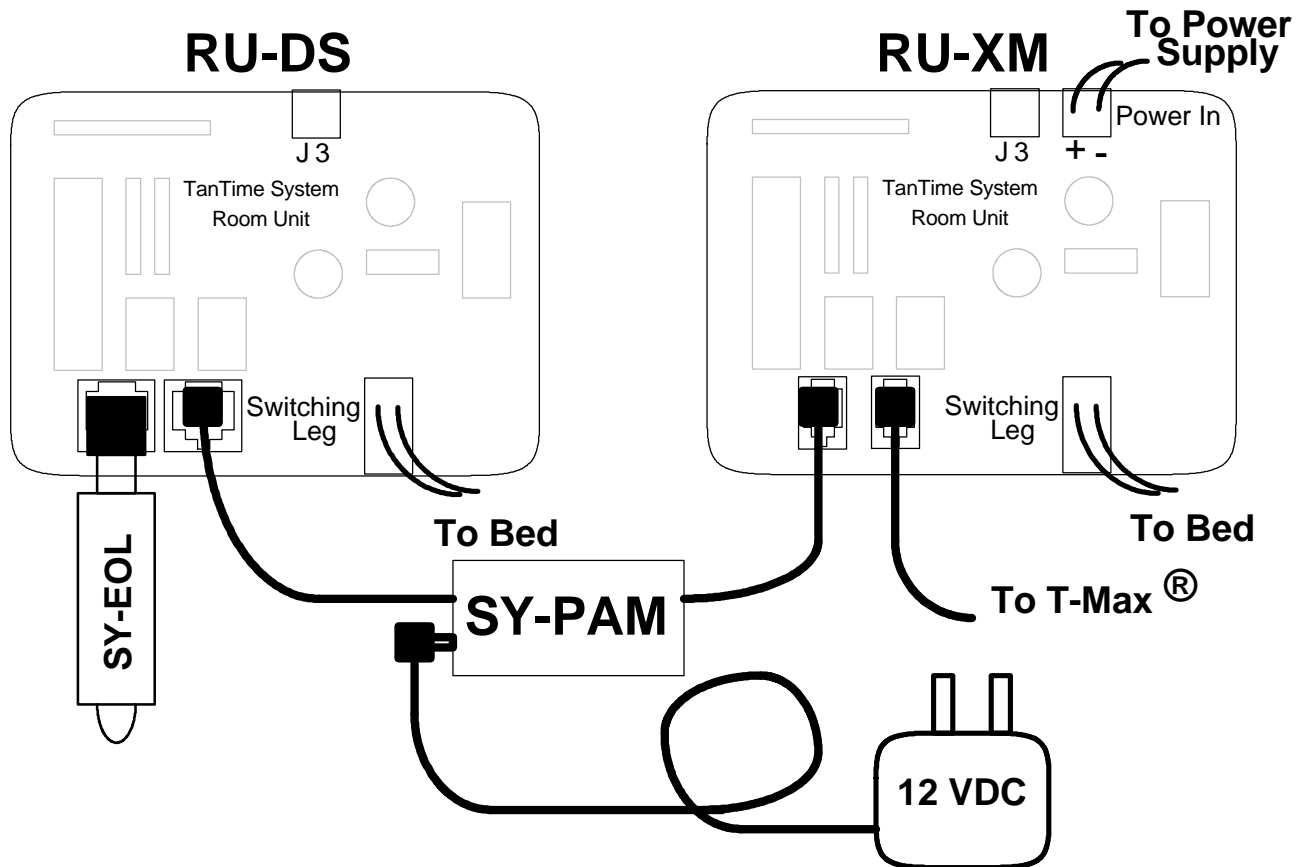
### **Connecting the RU-XM™ Timer to a controller**

If the RU-XM™ timer is to be used with a front-room-controller, use a 4-conductor telephone style cable inserted into either phone jack on the back of the RU-XM™ timer. Connect the other end of the cable to the controller or to another timer already connected to the RU-XM™ timer controller in a daisy chain fashion. Do not exceed either the cable length or number of timers connected as specified by the controller manufacturer. Another 4-wire cable is connected between the second phone jack on the back of the RU-XM™ timer and the SY-PAM™ to provide data to the RU-DS™.

### **Connecting the RU-DS™ Timer to a front-room-controller**

An eight conductor CAT-5 cable connects the RU-DS™ to the SY-PAM™. This cable carries both electrical power from the SY-PAM™ power module and data from the RU-XM™ timer through the SY-PAM™. The 8 pin modular jacks on the back of the RU-DS™ timer are interchangeable. The second jack may be used to daisy chain up to 9 more RU-DS™ timers, each with up to 50 feet of CAT-5 cable. Refer to Figure 1 for setup using a T-Max® or equivalent front-room-controller. For use with a TanTime™ TT-40 System™ refer to the TT-40 Users Manual. If the RU-DS™ timer is the last timer in the daisy chain, install a TanTime™ End Of Line Terminator (SY-EOL™) in the open connector.

## Hookup



**Figure 1**

### **Connecting Addition Room Units**

Additional timers may be added on to the daisy chain. If adding a 3A® or another RU-XM™, connect it using standard 4-wire cable to the RU-XM™. This cable carries no power, therefore each room unit added must have its own power supply.

To add an RU-DS™, remove the End Of Line terminator (SY-EOL™) from the RU-DS™ mounted to the display and connect with CAT-5 cable. Up to nine (9) additional RU-DS™ timers may be added to the daisy chain without adding additional power supplies as the one SY-PAM™ on the display will power a total of ten (10) room units through the CAT-5 cable. If more than ten RU-DS™ timers are desired, an additional SY-PAM™ may be used to power another ten (10) units. Place the SY-EOL™ in the open 8-conductor jack of the last room unit in the daisy chain.

# Stand-Alone Operation

## Operation

While in emulation mode, the room units may be used as Stand-Alone timers or as slave timers under the control of a T-Max® front-room-controller or equivalent. For more detailed instructions and operational features please reference “Room Unit & OEM Unit Timer Operation Instructions”, TanTime™ document number DOC40301.

If a demonstration of operation in System™ Mode is desired, use only the RU-DS room unit and refer to “Room Unit & OEM Unit Timer Operation Instructions” and the TT-40™ Manual for operation. (*The SY-PAM™ is NOT required as the TT-40™ supplies power to room units connected to it.*)

## Verifying Operation in Emulation Mode

When power is applied the room units will go through the Reset-Sequence as described in “Room Unit & OEM Unit Timer Operation Instructions”. When the Reset-Sequence has completed, the display of each unit should show a single “0” in the right hand digit position. If “00” is displayed in either room unit, that unit has be set to System™ mode and must be set again to emulation mode. See “Room Unit & OEM Unit Timer Operation Instructions” to set room units to emulation mode.

## Stand-Alone Operation

When a room units is used to control a bed or booth without a front-room-controller this is referred to as Stand-Alone operation. All Emulation Mode Control Features shown in Table 2 apply to Stand-Alone operation, but only the Address, Clean Bed mode and Stand-Alone Delay Time may be changed without the use of a front end controller.

**Note that if the display shows “LO” the Lockout feature is enabled and the timer can not be used in Stand-Alone operation. The Lockout feature must be cleared using a T-Max® front-room-controller or equivalent.**

**Note: If the display shows “OL” the timer must be disconnected from the front-room-controller and power to the timer must be cycled off and on. This will put the timer in Stand-Alone operation.**

## Changing Address, Clean Bed and Delay Time Features Manually

The timer must be in emulation mode and in Stand-Alone operation as described above. The timer must be idle, i.e., ready to use with the display showing “0” with both the **Delay** and **Session** lamps off. Press and hold the **Start/Stop** button then press and hold the **Set Time** button. The Timer will show “□ □” on the timer display. Continue holding both buttons until the **Delay** and **Session** lamps illuminate solid and the display shows a value between 01 and 99. Release both buttons. The value shown is the current address of the timer. (If the value is “99” The timer is waiting for an address to be set.)

### Changing the Address Manually

To change the address, press the **Set Time** button to advance the value to the address desired (01 through 98). If the displayed value is greater than the desired address, you must continue advancing through 99 and the display will return to 01. (There is no address “00”.) When the desired address is displayed, release the **Set Time** button and press and release the **Start/Stop** button to lock in the address and advance to setting the Clean Bed mode.

### Setting the Clean Bed Feature Manually

Having completed manually setting the address above, you are now prompted to set the clean bed feature. Pressing the **Set Time** button will toggle the display between “CY” (Clean Bed mode Yes [enabled]) and “Cn” (Clean Bed mode No [disabled]). Once the clean bed



## Stand-Alone Operation

function is set, press and release the **Start/Stop** button to lock in your setting and advance to setting the Delay time.

### **Setting the Delay Time Manually**

Having completed manually setting the Clean Bed feature above, you are now prompted to set the Delay Time. The display will now show a value between "00" and "10". This is the Delay time in minutes. To change the delay time, press the **Set Time** button to advance the displayed value (between "00" minutes and "10" minutes). If the displayed value is greater than desired, you must continue advancing through "10" and the display will return to "00". Press **Start/Stop** to lock in the desired Delay Time. The timer will save the settings and reset.

### **Running a Session Manually**

The timer must be idle, i.e., ready to use with the display showing "0" and neither the **Delay** or **Session** lights illuminated nor flashing. Press the **Set Time** button to advance the displayed value to the desired session time. If the displayed value is greater than desired, you must continue advancing through the maximum session time for your timer. (The maximum session time for your timer is programmed at the factory and may not be changed.) Once the desired session time is displayed, the session may be started by pressing the **Start/Stop** button.

### **Terminating a Delay Time Manually**

Once a session has been started, if a Stand-Alone Delay time has been set, the display will now show the delay time and the **Delay** lamp will flash. The Delay time may be bypassed and session started by pressing the **Start/Stop** button. The Session time will now be displayed, the **Session** lamp will flash slow, and the tanning bed will start.

### **Pausing a Session Manually**

Press the **Start/Stop** once to pause a session. Press the **Start/Stop** again to resume a session. *(Note: There must be a minimum of 4 seconds between button presses.)*

### **Canceling a Session Manually**

When the session has been paused for a minimum of four seconds as described above, the session may be terminated by pressing the **Set Time** button.

### **Clearing a Clean Bed Status**

If the Clean Bed mode is enabled, when the session has been completed the display will be blank and both the **Delay** and **Session** lamps will illuminate. After cleaning the room for the next user, press and hold **Set Time** button until both the **Delay** and **Session** lamps go out and the display shows "0". (If only the **Session** lamp goes out and the display remains blank, the Cool Down mode has been enabled and must time out. It is not possible to bypass the Cool Down cycle once it has begun. The Cool Down feature may only be changed when the Timer is connected to a front-room-controller.)

# Operation with a Front-Room-Controller

## Operation with a T-Max® Front-Room-Controller or Equivalent

While in emulation mode the room unit will emulate all the major functions of a 3A® as shown in Table 2. This can be demonstrated using a T-Max® front-room-controller or equivalent. Several operational improvements were designed in to the emulation of these functions.

## Notable Operating Improvements with TanTime™ Room Units

### Auto Addressing

When using the front-room-controller's Auto Addressing feature, note that the RU-DS™ and RU-XM™ will flash the address assigned to them until the front-room-controller has been reset and transmits the room unit addresses back to them. This is a positive conformation that the address has been set and aids in verifying and recording which room units were assigned what addresses.

### Online Notification

When the room unit is connected to a front-room-controller and receives it's address, it registers itself as "OnLine". This not only disables time from being set on the room unit, but pressing the **Set Time** button causes the display to show "OL" indicating the unit is "OnLine". The unit will remain "OnLine" even if it loses communication with the front-room-controller.

### Active Communication Notification

When the room unit is "OnLine" and has received it's correct address from the front-room-controller within the last 1 minute, it not only shows "LO" on the display but will also light both the **Delay** and **Session** lamps to indicating it is communicating. If the display shows "OL" when the **Set Time** button is pressed but the **Delay** and **Session** lamps are off, the unit has NOT received it's correct address from the front-room-controller within the last 1 minute. Both lamps off indicates there is a communication problem with the system or the front-room-controller is off.

### Lockout Notification

When Stand-Alone Lockout has been enabled (refer to Table 2), and there is an attempt to use the unit in Stand-Alone operation, the display will show "LO" to indicate the user is Locked Out of independent operation. This feature can only be changed using a front-room-controller.

### Warranty and Customer Service

As with other TanTime™ products, the RU-XM™, RU-DS™ and SY-PAM™ come with a lifetime limited warranty. To offer a lifetime warranty on our products, we must first put the quality into our products. We also offer the best customer support on the market. If you have any questions regarding TanTime™ products, you can find all of our product manuals on line at [www.tantime.com](http://www.tantime.com). Additionally, you may reach us by mail, e-mail or phone at the addresses and phone number listed on the last page of this manual.

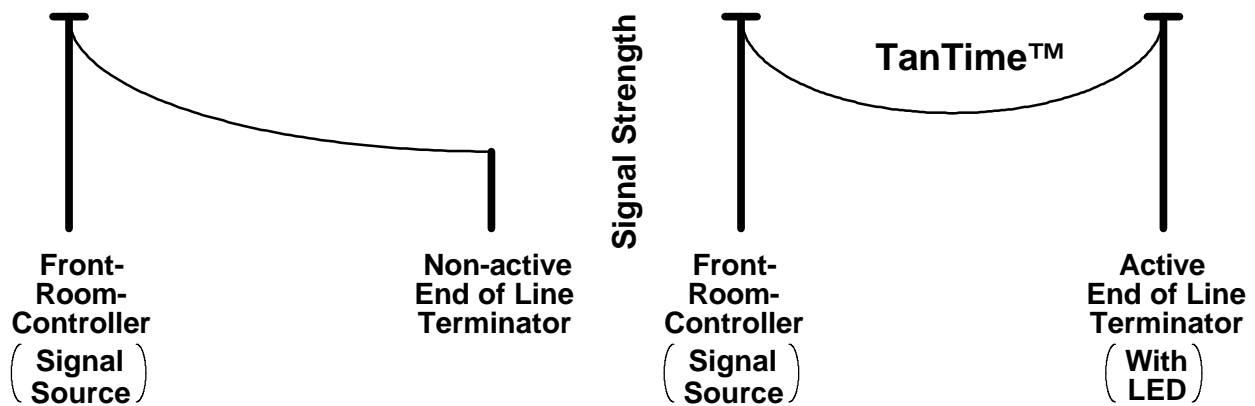
# Operation with a Front-Room-Controller

## Active End Of Line Terminator

TanTime™ uses an Active End of Line Terminator in the last room unit on the CAT-5 daisy chain. The Light Emitting Diode (LED) on the SY-EOL™ indicates that the line is properly terminated. When the LED is lighted, the SY-EOL™ is active and not only eliminating harmful data reflections, but also pulling up the signal strength at the end of the line. The function of an active terminator can best be seen in Figure 2.

### Figure 2

When the signal is sent from the front-room-controller it is at full signal strength. This signal carries room addresses, start / stop, delay times, session times and other information to all room units attached via the daisy chain.



This signal depreciates in strength as it travels down the daisy chain and away from the source. A non-active end-of-line terminator will stop reflections (like echoes) from occurring at the end of the daisy chain, but leaves the signal strength low, like a suspension bridge supported only at one end.

When using an active end-of-line terminator like the TanTime™ SY-EOL™, the reflections are eliminated, and the signal is pulled back up in strength, like a suspension bridge supported at BOTH ends. The Light Emitting Diode (LED) on the SY-EOL™ tells you the EOL terminator is actively terminating the signal for you when it is illuminated.

## Emulation Mode Control Features

### Functions Available in 3A® Emulation Mode

The following Control Features are available, and may be written to or read from using a front-room-controller. The only exception to this is the Permanent Session Counter which CANNOT be overwritten or erased. Follow the instructions for the front-room-controller.

**Table 2**

TanTime™ Control Feature Number	Description	Max Value	Default	Comment	3A® Equip Parm #
1	Address	98	* 9 9	Station Number of timer	1
2	Delay Time	10	0	Start Delay in minutes for Stand-Alone Sessions	3
3	Resetable Sessions	65,535	0	Clearable session counter	5
4	Bulb Hours	65,535	0	Number of hours on bed lamps	6
5	Session Hours	65,535	0	Number of hours bed has been on	7
6	Stand-Alone Sessions	65,535	0	Number of hours bed has been on in Stand-Alone mode	8
7	Clean Bed	1	0	0 = Clean Bed mode disabled 1 = Clean Bed mode enabled	9
8	Stand-Alone Lockout	1	** 0	0 = Stand-Alone enabled 1 = Stand-Alone disabled	10
9	Cool Down	10	0	Minutes for bed to cool after a session. (0-10 minutes)	13
10	Permanent Sessions	65,535	0	Non-Clearable session counter. (Read Only value)	15
11	Clean Clear	1	0	0 = Press and hold Up button for 4 seconds to clear 1 = Press and release will instantly clear	17
12	Pause Mode	1	0	0 = When session is paused timer will continue to count down 1 = When session is paused timer will stop counting down	21

\* Valid room numbers are from 1 through 98. A value of 99 shown in the display indicates that the room number has not yet been assigned.

\*\* When Stand-Alone Lockout is set to 1, the Timer cannot be set to Stand-Alone mode, even in the event of a front-room-controller failure.

# Support

## The Company

Since 1994, TanTime™, a Division of Electronic Programming and Design, Inc. Has been developing and manufacturing enhanced digital timer systems for the indoor tanning industry.

TanTime™ continually accesses the most innovative design technology available incorporating state of the art technology in all it's Products. As an industry leader, TanTime™ updates and adds new products to it's growing line of digital timers and strives for complete customer satisfaction by providing a quality product and unsurpassed customer support.

## Support

### TanTime™ Dedication

TanTime™ is dedicated to ensuring that you receive the best customer support and technical assistance possible. To ensure that you receive the most efficient help possible, please be ready to produce model numbers of the TanTime™ equipment in concern and product part numbers. For repairs and returns please be prepared to produce date of purchase, name of original purchaser, and PO Number. An RMA is required for all returns including both repairs and return-for-credit equipment returns.

### Contact Us

**Telephone:** Call TanTime™ / EPaD™ at **206-767-7262** Pacific Time M-F 9 AM to 5 PM, PST

**Email:** TanTime™ Technical Support: [info@tantime.com](mailto:info@tantime.com)

### Returns and Repairs:

#### NOTE:

A Return Merchandise Authorization (RMA) number must be obtained from TanTime™ prior to shipping equipment to us for repair or return. The customer is responsible for all shipping costs.

To be issued an RMA Number Call TanTime™ at 206-767-7262, M-F, 9 AM to 5 PM, PT.

### Shipping / Mailing Address:

You will receive the shipping address when obtaining your RMA number.

#### Sales - Ordering Additional Equipment:

**Telephone:** Call TanTime™ at 206-767-7262, Pacific Time, M - F, 9A - 5P.

**Email:** [info@tantime.com](mailto:info@tantime.com)

**Visit Web Site:** [www.tantime.com](http://www.tantime.com)