

# APCTMDT

<b>Specs</b>	<b>1</b>
<b>Basic Description</b>	<b>1</b>
<b>Installation</b>	<b>2</b>
<b>Factory Settings</b>	<b>2</b>
<b>Overview</b>	<b>3</b>
<b>Button functions</b>	<b>4-5</b>
<b>How to customize settings</b>	<b>6-9</b>
<b>Override function</b>	<b>9</b>
<b>What to connect</b>	<b>10</b>
<b>Q &amp; A</b>	<b>11</b>
<b>Warnings</b>	<b>12</b>
<b>Warranty</b>	<b>15</b>



## Specs

Input voltage	120 Volts AC
Maximum amperage	14.5 amps @ 120 VAC
Remote COMBO probe cable length	3 ft
Lighting timer	24-hour time clock
Battery backup	YES, 5-year lithium
High temperature shutdown	Adjustable
Maximum lighting watts	*1200 watts
Recycling ON timer range	1 second to 96 hours
Recycling OFF timer range	1 second to 96 hours
Weight	5 lbs
Waterproofing Grade	IP20
Dimensions	9" x 7" x 4"

## Basic description

The APCTMDT has 4 receptacles. One receptacle is to control a pump or other recycling device. Two separate receptacles are for “daytime” devices such as lights and light movers. It also has a receptacle for a “night” device such as a de-humidifier or fan, which would turn on during “night time”.

The remote temperature sensor will detect unsafe (high) temperatures and turn off the HID lights in the event of a ventilation failure. The remote sensor can be placed up to \*18 feet from the controller.

**\*Note: An optional 15 ft extension cable can be purchased to allow the user to extend the remote sensor cable up to 18ft.**

## Installation

Secure the unit to a wall. Determine the best location for the remote probe. Avoid placing the probe in direct sunlight or under direct HID Lighting.

**NOTE: The probe is not waterproof. Do not place the sensor probe where it will come in to contact with water.**

The remote probe has a quick disconnect to easily remove or connect the probe. Secure the quick disconnect to the unit by securing the QD screw to the unit.

Plug the power cable into a standard NEMA 5-15 wall outlet. A 120 volt power supply is required.

## Factory Settings

The APCTMDT comes pre-programmed with factory settings. These settings may be adjusted by the user. For best results, verify changes after adjusting any settings. The timer can be easily reset to factory settings. (see below)

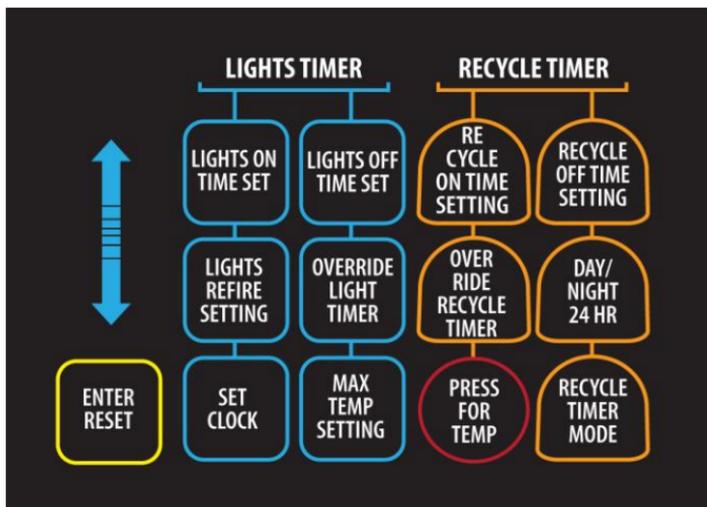
Lights re-fire setting	10 minutes
Maximum temp setting	90°F
Recycle ON time setting	1 minute
Recycle OFF time setting	1 Hour
Day / Night / 24-hour	Day
Recycle timer mode	Stop

**To Reset the Factory Settings** - Press and hold the Enter / Reset and down button for 3 seconds. The display will read **f.Set**. Press the Enter/Reset button again to restore the factory default settings. When the factory reset is complete the unit will say **doNE**.

## Overview

The individual push-buttons on the APCTMDT makes changing settings EASY.

- \* Press a button, the display shows the current setting.
- \* To change the settings, use the UP and DOWN buttons.
- \* Then press ENTER to accept the new setting.



## Button Functions

The fifteen (15) buttons located on the front face control all the functions. Pressing each button will display a function and/or current setting(s) in the green LED window. Some buttons perform more than one function.

Several small green LED lights or status indicators located on the front panel will light up to show selected function when certain buttons are pressed.

**Up** - Press button to increase setting

**Down** - Press button to decrease setting

**Enter/Reset** - Press button, hold for 3 seconds to enter new setting and to reset the Min/Max range.

**Lights ON time set** - Press this button to set "Lights On" time or the time the lighting receptacles are to turn ON. (once in a 24 Hour period)

**Lights OFF time set** - Press this button to set the "Lights Off" time or the time the lighting receptacles are to turn OFF. (once in a 24 Hour period)

**Lights Refire setting** - Press this button to set the "re-fire" setting, or the time delay setting that will allow the HID lamps to cool before re-firing when there is an interruption in power. This function prevents "hot starts" from damaging your HID equipment.

**Set Clock** - Press this button to set the 24 hour time clock. After the clock has been set, an internal battery will maintain time even if there is an interruption of power.

**Override Light Timer** - Press and hold for 2 seconds to manually activate / deactivate the (2) Lights On receptacles and the Night receptacle. This will activate or deactivate the devices connected to the receptacle. Press *Enter / Reset* to return to normal operation or the unit will automatically return to normal operation when the next time event occurs.

**Max temp setting** - Press this button to set the maximum safe temperature. This safety feature will turn off the lights when the temperature exceeds the maximum temperature setting.

**Press for Temp** – Press to display the current temperature.

**Note: To change the temperature reading from F to C, press and hold the UP and DOWN buttons for 2-3 seconds.**

**Recycle ON Time Setting** – Press this button to set the recycle “ON” time setting.

**Recycle OFF Time Setting** – Press this button to set the recycle “OFF” time setting.

**Day / Night 24 Hr** – Press this button to set the recycling timer Mode. There are 3 modes to choose from: Day, Night, or 24 Hours.

**Recycle Timer Mode** – Press to select either Stop mode or Continue mode. This setting determines whether the recycling timer continues or stops counting down when there is a power interruption.

**Override Recycle Timer** – Press and hold for 2 seconds to manually activate the Recycle output. This allows a manual test of the recycling device. The Recycle receptacle will turn off when the ON time is complete or press the button again to complete the test and return to the normal operation.

**Note: The (2) Lights On outputs have a 30-second preset time-delay between the 2 receptacles to reduce start-up surges or high in-rush currents.**

## How to customize settings

The APCTMDT is “divided” into two timer sections, Light Timers for supplemental lighting and Recycle Timers for recycling devices such as pumps and fans that are designed to operate on a repeating schedule.

### ***Light Timers & settings***

The Lighting Timer portion of the APCTMDT functions as a 24 hour time clock, keeping track of the actual time in hours, minutes, and seconds. This time-clock has an ON and an OFF setting. In normal situations HID lights are ON for 12 to 18 hours in a 24 hour “day”. The status of the lighting timer (day or night) also determines when to activate the recycling timer which can be selected by the user to operate during the day only, during the night only, or 24 hours.

**Set Clock** - Set the 24 Hour time clock with the current time. Press and hold for 2 seconds to set the 24 hour time clock. The first two (2) numbers flashing are the hours. Press *Up* or *Down* to change the setting. Press *Enter*, the next two (2) numbers flashing are the minutes. Press *Up* or *Down* to change the setting. Press *Enter*, the next two (2) numbers flashing are the seconds. Press *Enter*. Lastly, press *Up* or *Down* to select AM or PM. Press *Enter* to accept new setting.

**Lights ON time set** - This timer activates the lights connected to the two (2) Lights on outputs and communicates to the recycling timer it is daytime. Press and hold “*Lights on time set*” for 2 seconds. The first two (2) numbers flashing are the hours. Press *Up* or *Down* to change the setting. Press *Enter*, the next two (2) numbers flashing are the minutes. Press *Up* or *Down* to change the setting. Press *Enter*, the next two (2) numbers flashing are the seconds. Press *Enter*. Lastly, press *Up* or *Down* to select AM or PM. Press *Enter* to accept the new setting.

**Lights OFF time set** - This timer activates the device connected to the night output and communicates to the recycling timer it is

nighttime. Press and hold “*Lights off time set*” for 2 seconds. The first two (2) numbers flashing are the hours. Press *Up* or *Down* to change the setting. Press *Enter*, the next two (2) numbers flashing are the minutes. Press *Up* or *Down* to change the setting. Press *Enter*, the next two (2) numbers flashing are the seconds. Press *Enter*, Lastly, press *Up* or *Down* to select AM or PM. Press *Enter* to accept the new setting.

***Lights Refire setting*** - This item works to prevent “Hot Starts” by assuring that the HID lamps cool before re-firing in the event of a power interruption. The factory setting allows the lamps to cool for 10 minutes before re-firing. This timer function is NOT activated unless there is a power failure. Hot Starts can shorten lamp life and prematurely burn out igniters in HPS systems. Press this button to display the current setting, use the *Up* or *Down* buttons to change the setting, and then press *Enter* to accept the new setting.

***Max Temp setting*** – This item functions to shut off the supplemental lighting if the temperature in the growing area goes above the user’s maximum temperature setting. This will protect plants from excessive heat in the event of failed ventilation or high heat loads. Press this button to display the current maximum temperature setting. Use the *Up* or *Down* buttons to change the setting, and then press *Enter* to accept the new setting.

**Note: Once this function has been activated, the Lights On receptacles will remain off until the Max Temp function is reset. Reset by pressing the Enter/Reset button and holding for 2 seconds.**

### ***Recycle Timers & settings***

The built-in digital recycling timer is designed to turn on and off devices such as fans, pumps or other devices on a repeating schedule. The schedule is determined by the Recycle ON and OFF timers. The recycling timer can be set to operate in three modes, Day, Night or 24 Hours. The recycle timer can also be set to either continue to countdown or to pause during a power outage.

***Recycle On Time setting*** – The recycle On timer determines how long the recycle output will be turned ON for. It can be set in hours, minutes and / or seconds. To change this setting, press the Recycle On Time setting to display the current setting. The first 2 digits blinking are the hours. To change the hours, press Up or Down. To accept the new setting press the Enter / Reset button. Now the middle pair of digits will be blinking so that the minutes can be set. To change minutes press Up or Down buttons. To accept the setting press Enter / Reset so that the right pair of digits will be blinking, (seconds) To change the seconds, again us the Up or Down buttons and press Enter / Reset to accept the change.

***Recycle Off Time setting*** – The recycle Off timer determines how long the recycle output will be turned OFF for. It can be set in hours, minutes and seconds. Follow the same procedure as the “Recycle On Time setting” above to set this timer.

***Day / Night / 24-hour*** – The user can select to operate the recycling timer only during the Daytime, Nighttime, or all 24 hours. To change the setting, press and hold the *Day/Night/24 hour* button for 2 seconds. The current settings will be displayed. Press *Up* or *Down* to select new setting. Press the *Enter/Reset* button to accept new setting.

**Recycle Timer Mode** - Press *Recycle Timer Mode* to select either Stop mode or Cont (continue) mode. This mode will select whether the recycle timer continues or stops counting down when there is a power interruption. The factory setting is Stop. When in this mode, the Recycling ON timer will pause or stop counting if the power to the timer is interrupted. In Cont (continue) mode, the Recycling ON timer will continue to count down if the power to the timer is interrupted. This countdown sequence will continue until power is restored so that NO time is lost during the power interruption. To change this setting, press the *Recycle Timer Mode* button and then use the Up or Down buttons to change to the new setting. Press Enter / reset to accept the new setting.

### ***Override function (manual bypass)***

**Override Light Timer** – The unit also features a manual override function for manually bypassing the Day and Night devices. By pressing the *Override Light Timer* button for 2 seconds, the unit will switch over from Day to Night or Night to Day operation. (depending on the current status) To return to normal operation, press the *Override Recycle Timer* button again. If the button is not pressed a second time, the unit will return to normal operation with the next timed lighting event.

**Override Recycle Timer** – The unit also features a manual override function for testing the recycling devices. By pressing the *Override Recycle Timer* for 2 seconds, the recycling output will be activated and the recycling timer will begin counting down the Recycle On time. When the timer counts all the way down, the recycle timer will return to current saved settings and resume operation. To end the test early, press the *Override Recycle Timer* button again.

## What to connect

There are four (4) receptacles or power “outputs”.

**Lights on outputs 1 and 2** are designed to control supplemental lighting or any lighting up to 1200 watts combined. There is a 30-second time-delay on Light output #2 so that 2 separate lights or banks of lights can be turned On / Off separately to reduce high in-rush currents when HID ballasts are started.

**Note: An additional HID lighting controller is recommended if multiple high wattage lights are to be controlled.**

**Recycle output** is designed to control pumps, fans or any other device that needs to be turned On and Off repeatedly. Accurate On and Off time intervals can be selected by the user. The recycle timer (and output) will operate during the selected mode, (Day, Night or 24-hour)

**Night output** is designed to control any device that is required to function at night only. Devices such as an exhaust fan to control humidity levels, small space heater for warmth etc. All heaters have an internal thermostat to control the temperature. Connecting a heater to the Night output will activate the heater when the lights turn off, so the temperature will be controlled during the “night” by the heater, and then turned off by the timer when the lights are activated during the Day.

## Q & A

***Can the recycling timer be activated 24 hours a day?*** Yes, there are three (3) modes to select from. “24 HOURS” which allows the timer to run 24 hrs a day. “DAY” allows the recycling device to run only during day time. “NIGHT” allows the recycling device to run only during night time.

***Does the recycle timer continue to work without power?*** The user can choose to allow the recycle timer to continue to count down, or to pause during a power failure. (See recycle Timer Mode)

***What if the time clock is not keeping correct time?*** The battery may need to be replaced. The lithium battery has an average life of 5 years. Battery required is a lithium CR1220 3 volt.

***What if the display reads Err SEn?*** The remote temperature probe is not connected or is not communicating with the main unit. Check the cable and remote sensor.

***What if the display reads Hot\_\_F?*** The Max Temp setting has been exceeded. (See Maximum Temp setting)

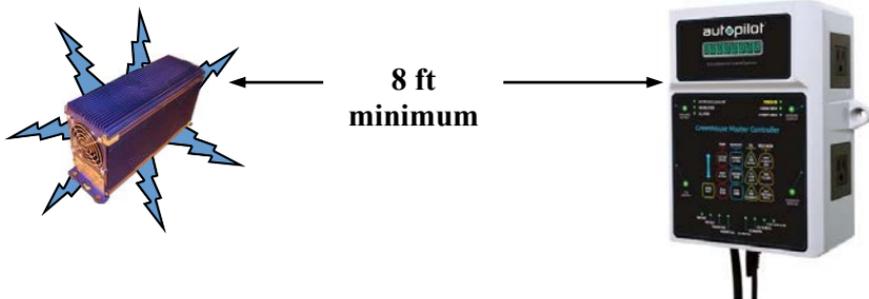
***What if there is no power?*** Reset the power switch (circuit breaker). If this continues reduce the number of devices connected .

***How do I know what function or setting is activated?*** Some settings are identified by a green LED light will flash next to the function(s) that is currently activated.

***How many lights can I connect to the timer?*** The timer is designed to control supplemental lighting up to 1200 watts combined. A power splitter may be used to control more than one light. An additional lighting controller is recommended if multiple high wattage lights are to be controlled.

## IMPORTANT MESSAGE

- 1. Save these instructions.** These safety and operating instructions must be kept in a safe place for future reference.
- 2. Heed all warnings.** All warnings on this product and in the instructions must be observed closely.
- 3. Follow all instructions.** All operating instructions must be followed..
- 4.** If the instructions as provided by the manufacturer are not followed damage to the product may result.
- 5.** Install your controller at least 8 ft away from any devices that produce large amounts of electronic noise, such as electronic ballasts or ozone generators.



- 6.** The  symbol on the enclosure represents that the receptacle beside it may have an output voltage, which can be dangerous. The output voltages are the same as the input voltage. This receptacle can only be inserted with standard Nema 1-15P and Nema 5-15P plugs. **Don't insert any other plug in it.**
- 7. Do not use this Controller near water.** For example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like. The controller shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on this product. The product is not water-proof, or shock-proof.
- 8.** Any factory serviceable parts of the product only can be checked or replaced by the manufacturer or authorized agencies. An unauthorized person is NEVER allowed to open the enclosure.

9. If the power cable insulation is broken, please stop using the product! Immediately unplug the unit and contact the retailer you purchased it from.

10. The product is equipped with a circuit breaker for short circuit or over current situations. The circuit breaker will automatically shut down the product at once. All outlets of the product all have the safety ground.

11. Do not install the enclosure near any heat source.

12. Do not block any ventilation openings.

13. **This product is a Safety Class I Controller.** The main plug should be inserted in a power socket outlet only if provided with a protective earth contact. Any interruption of the protective conductor inside or outside of the product is likely to make the product dangerous and is prohibited.

## MESSAGE IMPORTANT

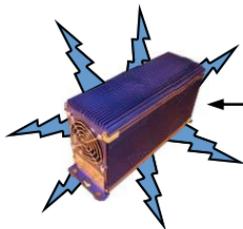
1. Conservez ces instructions. Ces consignes de sécurité et d'exploitation doivent être conservées dans un endroit sûr pour référence future.

2. Respectez tous les avertissements. Tous les avertissements sur ce produit et dans les instructions doivent être observés de près.

3. Suivez toutes les instructions. Toutes les instructions doivent être suivies.

4. Si les instructions fournies par le fabricant ne sont pas suivies d'endommager le produit peut entraîner.

5. Installez votre contrôleur au moins 8 pieds loin de tous les appareils qui produisent de grandes quantités de bruits électroniques, tels que les ballasts électroniques ou des générateurs d'ozone.



8 ft  
minimum





6. Le symbole sur le boîtier représente que le récipient à côté il peut avoir une tension de sortie, qui peut être dangereux. Les tensions de sortie sont les mêmes que la tension de tension d'entrée. Cette prise ne peut être inséré à la norme NEMA 1-15P et NEMA 5-15P bouchons. Ne pas insérer d'autres plug en elle.

7. Ne pas utiliser ce contrôleur près de l'eau. Par exemple, près d'une baignoire, baignoire lavabo, évier de cuisine ou la lessive, dans une cave humide, ou près d'une piscine, etc. Le contrôleur ne doit pas être exposé à des éclaboussures et aucun objet rempli de liquides, tels que des vases, doit être place sur ce produit. Le produit n'est pas étanche à l'eau, ou antichoc.

8. Toutes les pièces d'usine Paré réparable du produit ne peut être vérifiée ou remplacée par le fabricant ou autoriser les agences. Une personne non autorisée n'est jamais permis d'ouvrir le boîtier.

9. Si l'isolation du câble d'alimentation est cassée, s'il vous plaît arrêtez d'utiliser le produit! Débranchez immédiatement l'appareil et contactez le revendeur vous l'avez acheté.

10. Le produit est équipé d'un disjoncteur pour un court-circuit ou sur des situations actuelles. Le disjoncteur se fermera automatiquement le produit à la fois. Toutes les sorties du produit ont tous la terre de sécurité.

11. Ne pas installer l'enceinte à proximité de toute source de chaleur.

12. Ne pas bloquer les ouvertures de ventilation.

13. Ce produit est une classe de sécurité I contrôleur. La fiche principale doit être insérée dans une prise électrique que s'ils sont fournis avec un contact de terre de protection. Toute interruption du conducteur de protection à l'intérieur ou à l'extérieur du produit est susceptible de rendre le produit dangereux et est interdit.

## **Warranty and Liability**

### **1.Limited Warranty**

Hydrofarm, Inc doing business as Hydrofarm, Inc (collectively HYDROFARM) warrants that for a period of three years from the date of purchase, this product will be free from defects in material and workmanship. HYDROFARM, at its option, will repair or replace this product or any component of the product found to be defective during the warranty period. Replacement will be made with a new or remanufactured product or component. If the product is no longer available, replacement may be made with a similar product of equal or greater value. This is your exclusive warranty. DO NOT attempt to repair or adjust any electrical or mechanical malfunctions on this product. Doing so will void this warranty and may cause serious injury/death/damage.

This warranty is valid for the original retail purchaser from the date of the initial retail purchase and it not transferable. Keep the original sales receipt. Proof of purchase is required to obtain warranty performance. HYDROFARM dealers, distributors, service centers and retail outlets selling HYDROFARM products do not have any right to alter, modify or in any way change the terms and conditions of this warranty.

This warranty does not cover normal wear of parts or damage resulting from the following: negligent use or misuse of the product, use on improper voltage or current, use contrary to the operating instructions, use contrary to any and all applicable local, state, provincial or federal laws, disassembly, repair or alteration by anyone other than HYDROFARM or an HYDROFARM authorized service center. Future, the warranty does not cover: Acts of God, such as fire, flood, hurricanes, tornadoes, nor Acts of War or Acts of Terrorism.

## **What are the limits on HYDROFARM's liability?**

HYDROFARM shall not be liable for any incidental or consequential damages cause by the breach of any express, implied or statutory warranty or condition.

Except to the extent prohibited by applicable law, any implied warranty or condition of merchantability or fitness for a particular purpose is limited in duration to the duration of the above warranty.

HYDROFARM disclaims all other warranties, conditions or representations, express, implied, statutory or otherwise.

HYDROFARM shall not be liable for any damages of any kind resulting from the purchase, use or misuse of, or inability to use the product including incidental, special, consequential or similar damages or losses of profits, or for any breach of contract, fundamental or otherwise, or for any claim brought against the purchaser by any other party.

Some provinces, states or jurisdictions do not allow exclusion or limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights that vary from province to province, state to state or jurisdiction on jurisdiction.

This warranty is offered by HYDROFARM,INC., If you have any other problem or claim in connection with this product, please write our Consumer Service Headquarters, HYDROFARM,INC.

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# autopilot

Environmental Controllers

This product conforms to USA and Canada standards as listed below.



Made in China