BLUEPRINT Controllers
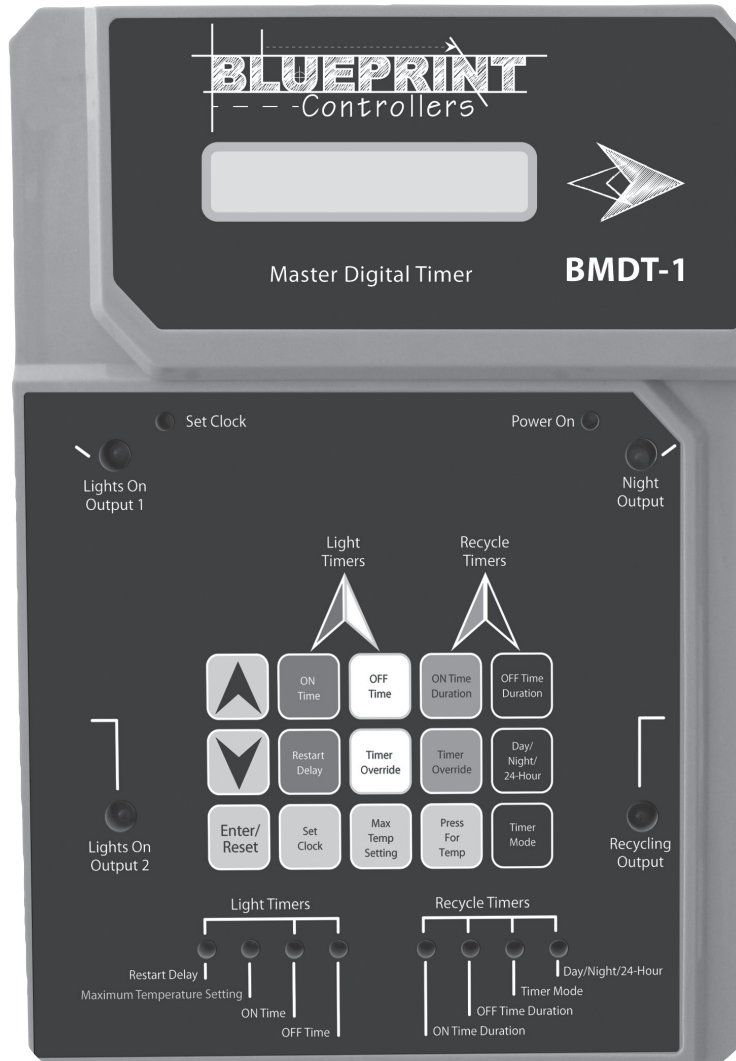
Thank you for choosing to grow with Blueprint Controllers! Your satisfaction and success are important to us. For best results, carefully read the following instructions before using your Blueprint Master Digital Timer.

BLUEPRINT Controllers

Master Digital Timer   **BMDT-1**

Set Clock   Power On

Lights On Output 1   Night Output

Light Timers   Recycle Timers

ON Time	OFF Time	ON Time Duration	OFF Time Duration
Restart Delay	Timer Override	Timer Override	Day/Night/24-Hour
Enter/Reset	Set Clock	Max Temp Setting	Press For Temp	Timer Mode

Lights On Output 2   Recycling Output

Light Timers   Recycle Timers

Restart Delay
Maximum Temperature Setting
ON Time
OFF Time
ON Time Duration
OFF Time Duration
Timer Mode
Day/Night/24-Hour

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Features of your Blueprint Master Digital Timer
- Dual timer function precisely controls recycle and lighting timers
- Four dedicated NEMA 5-15 receptacles
- Remote sensor on 3' cable accurately monitors temperature
- Overheat protection deactivates lighting timer at adjustable temperature set-point
- Integrated circuit breaker protection
- 3-year warranty

Specifications
Input Voltage: 120V
Maximum Amperage: 14.5A @ 120V
Battery Backup: 5-year lithium
Maximum Lighting Watts: 1200W
Recycle ON Time range: 1 second to 96 hours
Recycle OFF Time range: 1 second to 96 hours
Dimensions: 9" x 7" x 3.75"

Installation
- Mount the Controller on the wall. Place the remote sensor at plant height in an area with good air circulation. Avoid placing the sensor in a location with direct, intense exposure to light.
- Connect the sensor cable to the bottom of the unit using the quick-disconnect screw.
- Plug the Controller into a 120V NEMA 5-15 wall outlet.
- Flip the switch on the bottom of the unit to the ON position. Allow the Controller to warm up for 5 minutes.
- Program desired settings before connecting any devices.
- Power on all connected devices.

⚠️ **Caution**   • Ensure the devices being connected to the Master Digital Timer have the proper voltage and will not exceed the maximum amperage rating of the unit.

⚠️ **Warning**   • Do not expose the unit to water.

Connecting Devices
The Lights On Outputs 1 and 2 are designed to control lighting up to a total of 1200W. There is a 30-second delay on Output 2 so that each light is turned on and off separately, reducing high surge currents when HID ballasts are started.

The Recycling Output is a recycle timer designed to control a pump, fan or other device on a repeating on/off cycle.

The Night Output is designed to control a device that will operate only at night.

Factory Settings
The Master Digital Timer is preprogrammed with the following factory settings:
- Lights Restart Delay: 10 min
- Maximum Temperature: 90°F
- Recycle Timer On Duration: 1 min
- Recycle Timer Off Duration: 1 hour
- Day/Night/24-Hour Mode: Day
- Recycle Timer Mode: Stop

Restoring Factory Settings: Hold the "Enter/Reset" and DOWN arrow buttons for 3 seconds. The display will read "f.Set." Press the "Enter/Reset" button again to restore the default factory settings. When the process is complete, the display will read "donE." Note: It may take up to 15 seconds to complete this process.

Selecting Light Timer Settings
The light timer functions as a 24-hour time clock with an on/off setting. Typically, HID lights are on for 12-18 hours in a 24-hour cycle. The day or night status of the light timer determines when the unit will activate the recycling timer, which can be programmed to operate during the day, at night or continuously.

Clock Time: To program the 24-hour clock with the current time, press the "Set Clock" button. The first two digits (hour) will blink. Use the UP and DOWN arrow buttons to set the current hour. Press "Enter/Reset" to accept the setting. The middle two digits (minute) will blink. Program the current minute, second (last two digits) and AM/PM following the steps used to program the hour.

On Time: To set the time when the unit will activate the lighting outputs and communicate to the recycle timer it is daytime, press the "ON Time" button. The first two digits (hour) will blink. Use the UP and DOWN arrow buttons to set the hour at which the light timer will turn on. Press "Enter/Reset" to accept the setting. The middle two digits (minute) will blink. Program the minute, second (last two digits) and AM/PM following the steps used to program the hour.

Off Time: To set the time when the unit will deactivate the lighting outputs, activate the night output and communicate to the recycle timer it is nighttime, press the "OFF Time" button. The first two digits (hour) will blink. Use the UP and DOWN arrow buttons to set the hour at which the light timer will turn off. Press "Enter/Reset" to accept the setting. The middle two digits (minute) will blink. Program the minute, second (last two digits) and AM/PM following the steps used to program the hour.

Restart Delay Setting: This feature protects against hot starts by ensuring the HID lamps cool before refiring after a power interruption. Press the "Restart Delay" button to display the current setting. Use the UP and DOWN arrow buttons to increase or decrease the time before refiring. Press "Enter/Reset" to accept the new setting.

Maximum Temperature Setting: This feature shuts off the lighting outputs if the temperature in the growing area exceeds the maximum temperature setting. Press the "Max Temp Setting" button to display the current setting. Use the UP and DOWN arrow buttons to adjust the setting. Press "Enter/Reset" to accept the new setting. When maximum temperature protection is activated, the lighting outputs will remain off until the maximum temperature function is reset by holding the "Enter/Reset" button for 2 seconds.

Selecting Recycle Timer Settings
The recycle timer turns devices on and off on a repeating schedule. The recycle timer can be set to operate in three modes (Day, Night or 24-Hour) and to either continue to countdown or pause during a power outage.

On Time: Press the "ON Time Duration" button to display the current setting. The first two digits (hours) will blink. Use the UP and DOWN arrow buttons to set how many hours the recycle timer will remain on. Press "Enter/Reset" to accept the setting. The middle two digits (minutes) will blink. Program how many minutes and seconds (last two digits) the recycle timer will remain on by following the steps used to program the hours.

Off Time: Press the "OFF Time Duration" button to display the current setting. The first two digits (hours) will blink. Use the UP and DOWN arrow buttons to set how many hours the recycle timer will remain off. Press "Enter/Reset" to accept the setting. The middle two digits (minutes) will blink. Program how many minutes and seconds (last two digits) the recycle timer will remain off by following the steps used to program the hours.

Day/Night/24-Hour Mode: Press the "Day/Night/24-Hour" button to program the recycle timer to operate during the day, at night or continuously. The current setting will be displayed. Use the UP and DOWN arrow buttons to cycle through the settings. Press "Enter/Reset" to accept the new setting.

Timer Mode: Press the "Timer Mode" button to program the recycle timer to pause or continue counting down during a power interruption. Use the UP and DOWN arrows to select between "Stop" and "Cont" Press "Enter/Reset" to accept the new setting.

Override Function (Manual Bypass)

Override Light Timer: The unit features a manual override function for bypassing Day and Night modes. Hold the "Timer Override" button under "Light Timers" for 2 seconds to switch the unit from Day to Night mode or from Night to Day mode. To return to normal operation, press the "Timer Override" button again. If the manual override is not canceled, the unit will return to normal operation with the next timed lighting event.

Override Recycle Timer: The unit features a manual override function for testing the recycling devices. Hold the "Timer Override" under "Recycle Timers" for 2 seconds to activate the recycling output, and the recycle timer will begin counting down the recycle on time. To return to normal operation, press the "Timer Override" button again. If the manual override is not canceled, the recycle timer will return normal operation after it has counted down.

FAQ

• *How do I know what function or setting is activated?*
The labeled LEDs on the front of the unit illuminate to indicate which function or setting is activated.

• *Can the recycle timer be activated 24 hours a day?*
Yes. The recycle timer has three modes: 24-Hours, which activates the timer continuously; Day, which activates the timer during the day; and Night, which activates the timer at night.

• *Does the recycle timer continue to work without power?*
The recycle timer can be programmed to continue to count down or pause during a power interruption. See the "Timer Mode" section.

• *How many lights can be connected to the timer?*
The timer is designed to control supplemental lighting up to a total of 1200W. A power splitter may be used to control more than one light. An additional lighting controller is recommended to control multiple high-wattage lights.

Troubleshooting

• *Why does the display read "Err.TEP"?*
The remote sensor is not connected or not communicating with the controller. Verify the cable is connected and the remote sensor is powered.

• *Why does the display read "Hot_F"?*
The maximum temperature setting has been exceeded. See the "Maximum Temperature Setting" section.

• *What if the time clock is not keeping the correct time?*
The CR1220 3V lithium battery, located on the circuit board connected to the inside of the front faceplate, may need to be replaced. The battery has an average life of 5 years.

• *Why isn't the Master Digital Timer powering the connected devices?*
Reset the circuit breaker. Ensure the device to be controlled is working correctly by plugging the device into a reliable power source. Verify the Master Digital Timer is being supplied the correct voltage. If the problem persists, reduce the number of connected devices or consider devices with reduced amperage requirements.

Blueprint 3-Year Limited Warranty

**All Blueprint Master Digital Timers are protected against manufacturer defect by a
limited 3-year manufacturer's warranty.**

Limited 3-Year Warranty Terms

Sunleaves Garden Products warrants that the Blueprint Master Digital Timer will remain free from appearance of defects in workmanship and materials for 3 years from date of original retail purchase. This warranty is subject to the following limitations: (a) manufacturer's liability is limited to the replacement or repair of the unit, as decided by the manufacturer; (b) a defective unit must be returned, prepaid, with proof of purchase to the point of purchase or as instructed below; and (c) this warranty does not apply to defects resulting from the alteration, abuse, accidental damage, unauthorized repair or misuse of the unit. This warranty is given in lieu of all other warranties, guarantees and conditions on manufacturer's part, and the manufacturer shall have no tortious or other liability in respect to this Blueprint Master Digital Timer.

Blueprint Master Digital Timer Warranty Is Void If:
• NOT ACCOMPANIED BY THE ORIGINAL PROOF OF PURCHASE.
• BLUEPRINT MASTER DIGITAL TIMER HAS BEEN USED IN A NONSTANDARD WAY, INCLUDING GENERAL MISUSE AND
  OUTDOOR USE.
• BLUEPRINT MASTER DIGITAL TIMER HAS BEEN DAMAGED AS A RESULT OF ACCIDENT, IMPROPER INSTALLATION,
  ALTERATION, OR FIRE, FLOOD OR OTHER NATURAL DISASTER.

Sunleaves Garden Products
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Bloomington, IN 47404   Email: info@sunleaves.com

Sunleaves Product Warranty Claims

To obtain warranty service in the unlikely event that your product fails to operate, return the product to the place of purchase. Often the retailer will be able to examine the product in closer detail, determine the problem and even fix the product on site.

If the retailer is unable to resolve the problem:

1. Call our toll-free number at 888-464-9676 or email info@sunleaves.com to receive warranty information and your RMA number if the product is being returned.

2. In the unlikely event you must return the defective product to Sunleaves, carefully package the problem product.

3. Complete the form below and enclose it with your shipment along with a legible copy of your properly dated sales receipt. You must write your RMA number on the outside of the package. Because Sunleaves is not responsible for products damaged in shipping, we recommend insuring your package.

Don't forget to include the following items if you are returning your Blueprint Master Digital Timer to the place of purchase:

• Legible copy of your properly dated sales receipt
• This completed form

Sunleaves.com

Name: . . . .

Address: . . . .

Phone #: . . . .

Email Address: . . . .

RMA #: . . . .

Explain the problem: . . . .
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