USER MANUAL

XTRASUN®

LT1 DIGITAL LIGHTING CONTROLLER

XTC1100

HYDROFARM®

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OVERVIEW

Thank you for purchasing the Xtrasun ***XTC1100*** LT1 Digital Lighting Controller. This controller is specifically designed to be used with the Xtrasun XTDEKT1 and XTDEOKT1 lighting systems, whose ballasts have the proper RJ11 ports to connect with the XTC1100. In addition to controlling the on/off scheduling of the light systems, the LT1 offers Auto-dimming and Auto-shutdown in event of overtemperature, sunrise/sunset simulation, and two connections for external equipment such as dehumidifiers and air conditioning systems.

For additional information on Xtrasun and Hydrofarm products, please visit Hydrofarm.com.

SPECIFICATIONS	
Voltage input	DC 5V/2A
0-11V output ports	2
Temperature sensor ports	2
Relay output ports	3
Optional ballast type	400W/600W/750W/1000W
Output setting range	50-110%
Temperature sensor measuring range	40°C-120°C
Number of ballasts per output	80 pcs
Dimensions	5.3"L x 3.1"W x 1.5"H (136L x 80W x 37.5H mm)

TOOLS NEEDED - (FOR ASSEMBLY)

TOOL
Type

PARTS LIST (WHAT'S IN THE BOX)

A - Controller
B - Power adapter
C - Temperature/humidity sensor (2) (Length: 20'/6 m)
D - Dry contact adapter
E - RJXX cables (2) (Length: 10'/3 m)
F - Screw pack (not shown) (6 pcs)

A

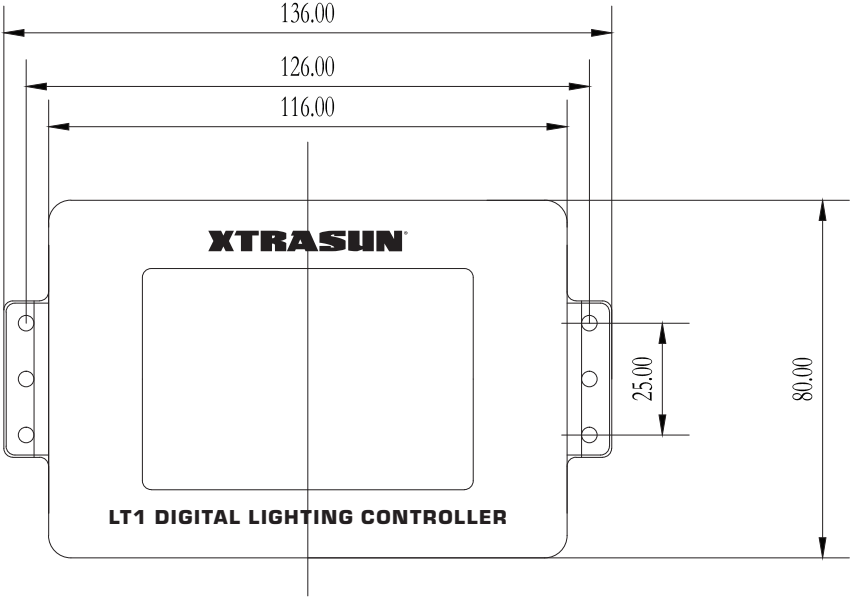
B

C

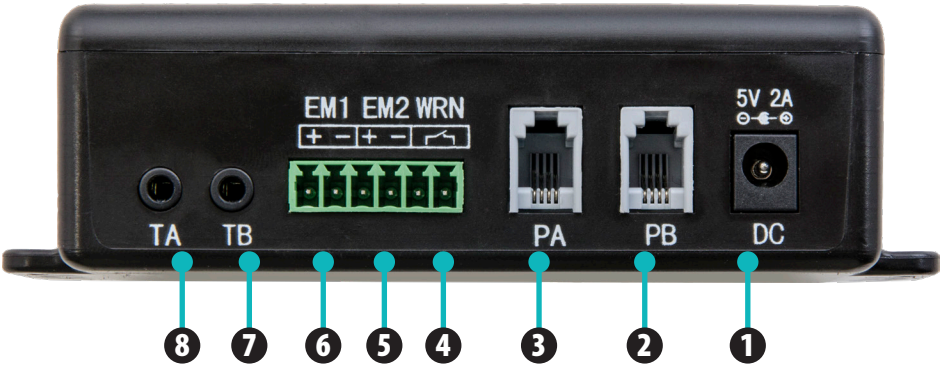
D

E

DIMENSIONS



PORT CONNECTIONS



1 - 5V 2A DC power input port

2 - 0-11V Zone B output port (RJ9)

3 - 0-11V Zone A output port (RJ9)

4 - Alarm light (normally open)

5 - External extension port of Zone B output (normally open)

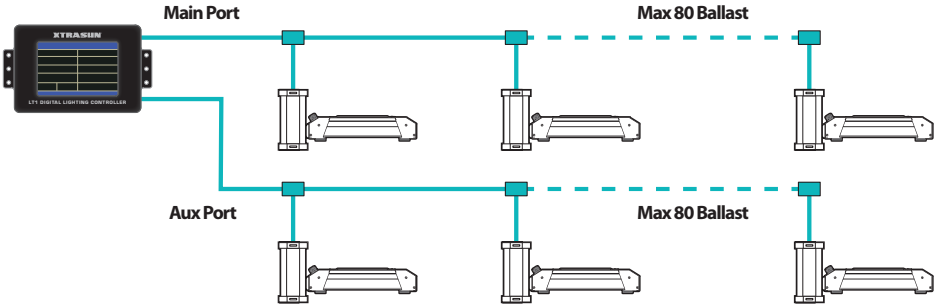
6 - External extension port of Zone A output (normally open)

7 - Zone B temperature sensor input

8 - Zone A temperature sensor input

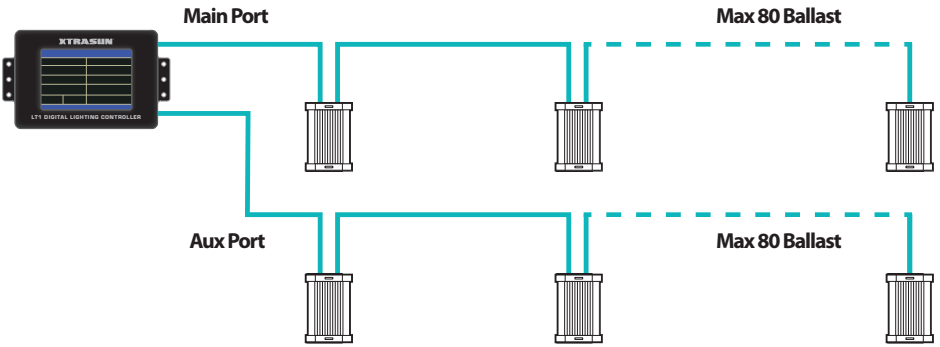
CONNECTING THE CONTROLLER TO COMPLETE LIGHTING FIXTURES

1. Switch the rotary knob on all ballasts to EXT.
2. Insert the RJ9 end of the provided cable into the Zone A (P1) or Zone B (P2) port of the LT1 controller.
3. Insert the RJ14 end of provided cable into the input of an RJ14 splitter (included with XTDEKT1/ XTDEOKT1 light system).
4. Insert one end of an RJ14 cable into one of the splitter outputs, and the other end into the RJ14 port of the first ballast.
5. Use an RJ14 cable (included with XTDEKT1/XTDEOKT1 light system) to connect another output of the RJ14 splitter to the input of the following splitter.
6. Repeat this process to connect up to 80 ballasts (per zone).

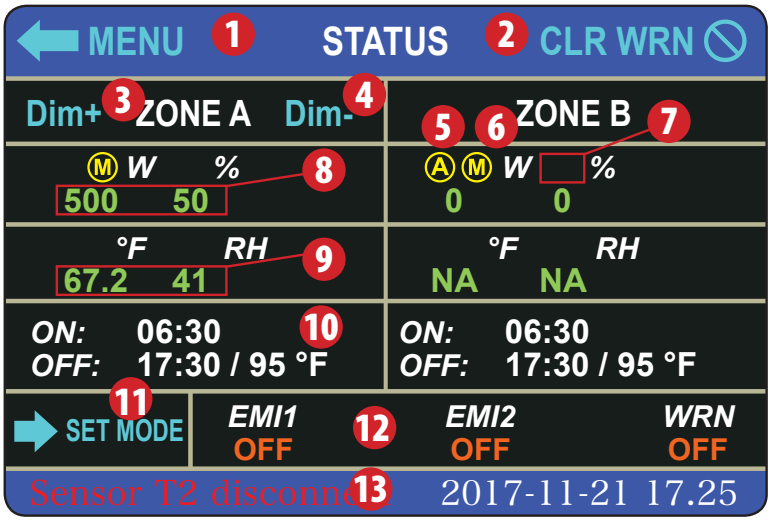


CONNECTING THE CONTROLLER TO REMOTE BALLASTS

1. Switch the rotary knob on all ballasts to EXT.
2. Insert the RJ9 end of the provided cable into the Zone A (P1) or Zone B (P2) port of the LT1 controller.
3. Insert the RJ14 end of the provided cable into one of the two RJ14 ports of the first ballast.
4. Use an RJ14 cable (included with XTDEKT1/XTDEOKT1 light system) to connect the other end of first ballast to the RJ14 end of second ballast.
5. Repeat this process to connect up to 80 ballasts (per zone).



- Touch “MENU” (1) to enter into the main menu.
- Touch “CLR WRN” (2) to clear the warning information (as seen at point 13). (After the temperature returns to the normal value after auto dimming over T-Limit 1 or auto-shutoff over T-Limit 2.)
- Touch “Dim+” (3) to increase Zone A output. This command is only valid in Manual On mode. Output adjustment is identical for Zone B.
- Touch “Dim-” (4) to reduce Zone A output. This command is only valid in Manual On mode. Output adjustment is identical for Zone B.
- ZONE B locked indicator (5). The Icon 🔒 indicates that the output dimming is prohibited. For example, if you appoint Zone B as the dry contact output in the parameter setting, all other dry connects will be disconnected. The icon 🔒 will display once the sensor is not inserted. It is the same for ZONE A.
- Output modes indicator (6). The Icon Ⓐ indicates auto-mode; Ⓜ indicates manual mode.
- Dimming status indicator (7). Under Auto mode and sunrise/sunset simulation situation, the icon ☼ will keep flashing until it reaches the setting value.
  1) During the sunrise period, the icon ☼ will keep flashing until it reaches the setting output.
  2) During Sunset period, the icon will keep flashing until the output reaches 50%, and the output will be closed automatically.
  3) When the Temp Auto-dim warning displays, the icon ☼ will keep flashing and it will reduce the output as setting percentage. After the output comes to 50% and no longer dims down, the icon ☼ will still flash until the temperature drops to at least 2°C lower than the normal dimming temperature T1 or the warning happened as Figure 6-1.
- This display (8) shows the current output power and percentage of rated power. This display



works identically in Zone B.

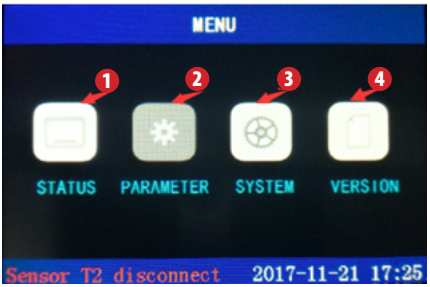
- This display (9) reports current temperature and humidity values. This display works identically in Zone B. A display of “NA” indicates that no sensor is connected.
- This display (10) shows the programmed ON/OFF times. Under Auto mode, the LT1 will turn on/off the controlled lamps’ output automatically when it reaches the on/off time, and close or disconnect EMI1 and EMI2 according to the dry connect settings. The temperature shown here

refers to the auto-shutdown temperature. If the room temperature exceeds this value, the LT1 will shut the dimming output and close the WRN dry connect, also disconnect EMI1 and close EMI2.

- Touch "SET MODE" (11) to choose the output mode. The output setting here is only temporarily effective (it is not stored when the unit is powered down). It will revert to the output mode which is set in the parameter interface after restart.
- This display (12) shows the output status of extension modules and warning connections (normally open). OFF = open, ON= closed.
  A. During lights on period, EMI1 dry contact is not energized and EMI2 dry contact is energized;
  B. During lights off period, EMI dry contact is energized and EMI2 dry contact is not energized;
  3) When temperature is over limit value T-Limit 2, WRN dry contact will be energized, EMI1 dry contact remains energized and EMI2 dry contact will not be energized. If there is no sensor connected to the appointed zone, all dry contacts will not be energized and the LT1 will forbid all output and auto-actions (including lights on, lights off, auto-dimming when temperature is over T-Limit 2, and auto-shutdown when temperature is over T-Limit 2).
- Warning information displays in this area (13). Multiple items of warning information will be displayed alternately.

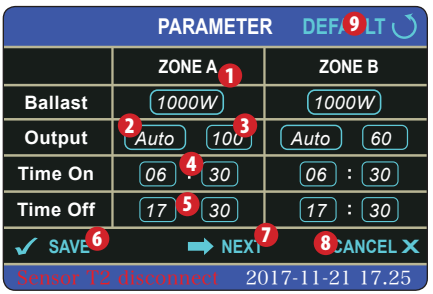
MAIN MENU INTERFACE

Touch "STATUS" (1) to check current working status.
Touch "PARAMETER" (2) to set working parameter.
Touch "SYSTEM" (3) to set system setting.
Touch "VERSION" (4) to check version information.



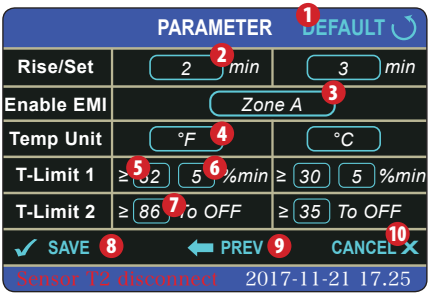
PARAMETER INTERFACE

- Touch (1) to switch ballast rated power (available options are 400W, 600W, 750W and 1000W).
- Touch (2) to set output mode: M-On (Manual on), M-Off (Manual off), or Auto.
- Touch (3) to set power output percentage (valid values here are 50-110). Under "Auto" mode, if the sunrise/sunset function is disabled, it will execute this output immediately once lights are powered on. If the sunrise/sunset function is enabled, this value is the final output after sunrise/sunset simulation. Zone B settings are made the same way.
- Touch (4) to set Time On (the time when the LT1 turns on the lights in this zone) (24 hr time format). Zone B settings are made the same way.
- Touch (5) to set Time Off (the time when the LT1 turns off the lights in this zone) (24 hr time format). Zone B settings are made the same way.
- Touch "SAVE" (6) to save current settings.
- Touch "NEXT" (7) to go to the next page.
- Touch "CANCEL" (8) to return to the previous page.
- Touch "DEFAULT" (9) to restore factory default settings. It will display a confirmation prompt to avoid unintentional operation.



PARAMETER INTERFACE 2

- Touch "DEFAULT" (1) to restore factory default settings. It will display a confirmation prompt to avoid unintentional operation.
- Sunrise/sunset setting. Touch the minutes field (2) to set a sunrise and sunset duration between 0-60 minutes. This setting is made the same way in Zone B to the right. Note: This feature is only available in Auto mode. (0 = forbidden sunrise/sunset function.)
- Appointed dry contact output zone (3). During the lights-on period, if the zone with lights on is the same as the zone shown here, then the EMI1 contact will be closed and the EMI2 contact will be open. During the lights off period, if the lights off zone is the same as the zone shown here, then the EMI1 contact will be open and the EMI2 contact will be closed.
- Touch this field (4) to select temperature display for that zone (Celsius or Fahrenheit). This setting is made the same way in Zone B.
- Touch this field (5) to set temperature limit value 1 (T-Limit 1). Valid entries are 50-104 (Fahrenheit) and 10-40 (Celsius). This setting is made the same way in Zone B.
- Touch this field (6) to set the percentage by which the LT1 will auto-reduce the output power per minute in an overtemperature event. This setting is made the same way in Zone B.
- Touch this field (7) to set temperature limit value T2 (T-Limit 2). The LT1 will auto-shutdown the output when the temperature exceeds this setting. If the enabled EMI setting is Zone A, it will close EMI2 and WRN dry contact, and open EMI1 dry contact. Otherwise, all dry contacts keep current status.
- Touch "SAVE" (8) to save current settings.
- Touch "PREV" (9) to go back to the previous page.
- Touch "CANCEL" (10) to return to the previous menu.



SYSTEM INTERFACE

Language: This display (1) shows the set language (only English version is available at present).

Buzzer: Touch this field (2) to enable/disable Buzzer.

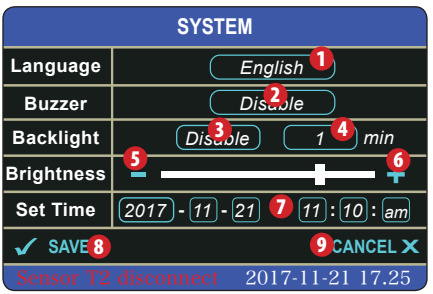
Backlight: Touch (3) to enable/disable backlight and (4) to set the duration of the backlight.

Brightness: Touch the minus sign (5) to decrease the brightness of backlight and the plus sign (6) to increase the brightness of backlight.

Set Time: Touch the individual fields for year, month, day, hour, minute, and am/pm to set date and time.

Touch "SAVE" (8) to save current settings.

Touch "CANCEL" (9) to return to the previous menu.



TROUBLESHOOTING

PROBLEM	POSSIBLE REASON	RESULT	SOLUTION
No temperature sensor connection	TA (Zone A temperature sensor) or TB (Zone B temperature sensor) is disconnected	The icon displays in the corresponding control zone. The output will be shut down and all dry contacts will be disconnected in this zone.	Connect the temperature sensor
Auto dimming when temperature is over the limit value T-Limit 1	The temperature of Zone A or Zone B is over the set value of T-Limit1 (auto-dimming temperature)	Auto-dimming of the output of corresponding zone as setting	Wait for the temperature to drop to at least 2°C lower than the T-Limit 1 value
Auto shutdown when temperature is over the limit value T-Limit 2	The temperature of Zone A or Zone B is over the set value of T-Limit 2 (auto-shutdown temperature)	Auto-shutdown of the output of corresponding zone	Wait for the temperature to drop to at least 2°C lower than the T-Limit 2 value
Parameter verification fault	Detection of stored parameters is not complete	Auto-shutdown of the output of all zones, disconnection of all dry contacts, and display of this icon .	Try to restore factory default settings

WARRANTY

LIMITED WARRANTY

Hydrofarm warrants the ***XTC1100*** to be free from defects in materials and workmanship. The warranty term is for 1 year beginning on the date of purchase. Misuse, abuse, or failure to follow instructions is not covered under this warranty. Hydrofarm's warranty liability extends only to the replacement cost of the product. Hydrofarm will not be liable for any consequential, indirect, or incidental damages of any kind, including lost revenues, lost profits, or other losses in connection with the product. Some states do not allow limitation on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Hydrofarm will, at our discretion, repair or replace the ***XTC1100*** covered under this warranty if it is returned to the original place of purchase. To request warranty service, please return the ***XTC1100***, with original sales receipt and original packaging, to your place of purchase. The purchase date is based on your original sales receipt.

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