

Installation Manual V2.3

Sapling Horizontal Time Zone Clocks









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VERY IMPORTANT:

The Sapling Time Zone Clock is offered in a horizontal or vertical design format, which each have key differences in appearance and installation. The horizontal design includes the user-selected clocks and a mounting pole on which they are placed, side-by-side. The vertical design features a specific set of clocks fixed, one over another, in a single large housing.

This manual has been made specifically for the horizontal Time Zone Clock. The vertical Time Zone Clock has a different installation manual. Please make sure to reference the correct installation manual depending on your time zone clock design layout.

The Time Zone Clocks are typically Network Based Clocks (either IP-PoE or Wi-Fi) depending on the clocks that were ordered. This manual is to provide installation instructions for mounting the horizontal mounting pole to the wall, mounting the clocks to the pole, and for mounting the name plates.

This manual also includes basic configuration for GMT/UTC offset and DST settings. Full instructions, such as clock wiring, configuration, and any other settings are to be found in the specific clock model installation manual. The clock series can be found on a sticker located on the back of the clock (for example: SBP, SAP, SBW, SAW, etc.).

^{*}Manuals may change without prior notice



Important Safety Instructions

⚠ DANGER



SHOCK HAZARD

- Keep the electricity to this device turned OFF until the clock installation is complete.
- Do not expose the clock movement to water, or install the clock in a location where it may be exposed to water.

NOTICE

- Do not install the clock outdoors. Damage to the clock if placed outdoors voids the warranty.
- Do not hang objects from the clock or clock mounting parts. The clocks are not designed to support the weight of other objects.
- The clock face and housing may be cleaned with a damp cloth or disinfectant. Test other cleaning products on a small part of the clock housing before attempting to use on the rest of the clock. Avoid bleach and chemicals known to dissolve plastics.

⚠ WARNING



FIRE HAZARD

- Always follow your national and regional electrical codes or ordinances.
- The AC power circuit for the clock must be attached to a circuit breaker that can be reset by the user.



PHYSICAL INJURY HAZARD

- If you are standing on an object while installing your clock, make sure that the object can support your weight, and will not sway or move as you stand on it.
- Take precautions to avoid injury by potential safety hazards near the point of installation including (but not limited to) heavy machinery, sharp objects, hot surfaces, or exposed cables carrying an electric current.
- Follow all mounting instructions exactly as stated in this manual. Failure to do so may result in the device falling off the point of installation.
- Packaging materials and mounting items include plastic bags and small pieces, which pose a suffocation hazard to young children.



Configuring a Clock to be Used in a Zone Clock

The below instructions are to be followed **ONLY** after initial mandatory clock settings have been configured (such as network settings) per the clock installation manual (which will depend on its series).

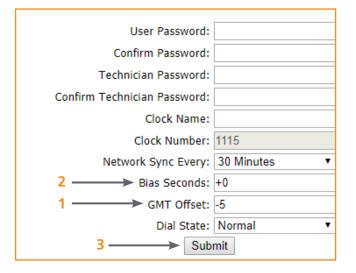
These instructions are provided specifically to set each clock with its time offset and DST (daylight savings time) settings. This will allow the clock to display the correct local time per the designated city it represents.

IP-PoE and Wi-Fi Systems

Clocks for IP-PoE and Wi-Fi Zone Clocks are configured by the user. **EACH CLOCK MUST BE CONFIGURED INDIVIDUALLY BY THE USER UNLESS PRESET SERVICE WAS ORDERED.** Consult the manual for instructions on how to log in to each clock. Once you have logged into the clock, navigate to the following pages:

IP-PoE Clocks

On an IP PoE clock, navigate to the **Clock Settings** tab.



Wi-Fi Clocks

On a Wi-Fi clock, press the **General Settings** button, followed by the **Time Settings**

| TIME SETTINGS | | | |
|--------------------|------------------|--|--|
| Set Time | 02 ▼ : 08 ▼ PM ▼ | | |
| Set Date | 09/27/2016 | | |
| | Change Time | | |
| GMT Offset | -4 ← ──1 | | |
| Bias Seconds | 0 -2 | | |
| Change Bias/Offset | | | |

1) Configure the GMT offset for the city that you wish to represent with your clock. If you are unsure of the GMT offset of a particular city, you can look it up on the following website:

https://www.timeanddate.com/time/map/

- 2) If you are configuring time for a country with a half-hour or 15-minute offset (such as India, Iran, or parts of Australia), use the Bias Seconds field to account for the additional time. For example, half an hour is 1800 seconds, and 15 minutes is 900 seconds.
- 3) When finished, press the **Submit** or **Change Bias/Offset** button at the bottom.



Configuring a Clock to be Used in a Zone Clock

IP-PoE and Wi-Fi Systems (continued)

Clocks for IP-PoE and Wi-Fi Zone Clocks are configured by the user. **EACH CLOCK MUST BE CONFIGURED INDIVIDUALLY BY THE USER UNLESS PRESET SERVICE WAS ORDERED.** Consult the manual for instructions on how to log in to each clock. Once you have logged into the clock, navigate to the following pages:

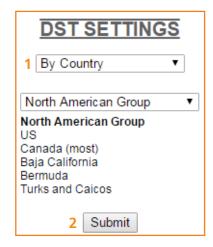
IP-PoE Clocks

On an IP PoE clock, navigate to the **Clock Settings** tab.



Wi-Fi Clocks

On a Wi-Fi clock, press the **General Settings** button, followed by the **Daylight Saving Time** button.



1) Configure the Daylight Saving Time setting so that it matches the country of the clock's designated city. If you are unsure of the DST laws for a particular country, you can look them up on the following website:

https://www.timeanddate.com/time/dst/events.html

2) When finished, press the **Submit** button at the bottom.

At this point, you may wish to attach a sticker or other temporary label to the clock which lists the name of the configured city. This will help you identify the correct nameplate to attach at the end of the installation.

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Mounting a Zone Clock Pole

Included in Dackage

4) Mounting kit

4b) #8-32x(SEE NOTE)

| <u>Description</u> | <u>Quantity</u> | <u>Picture</u> (Shown below. The pole length may vary depending on the number and type of clocks) | |
|--------------------------------|--|---|--|
| 1) Zone Clock Pole | 1 | | |
| (g 8 8) | 10 2 91 O 16 2 91 | 0 3 - 31 | |
| 2) Mounting Bases | 2 (Depending on Pole Length) | • | |
| 3) Mounting Template | 1 | (Shown below. The template content may va depending on the number and type of clock | |
| - | Example: 60.0" [152.40cm] | - | |
| MARK THE OUTSIDE 4 HOLES TO MO | LL. SMOOTH OUT THE TEMPLATE AGAINST THE WALL A UNT THE METAL PLATE TO THE WALL. USE 4 WALL ANCHORS, E TY BOXES. IF SO, MARK THE INSIDE 4 HOLES FOR THE EXACT P | ACH RATED AT 50 LBS (22.7 KG). | |

Included in Wiring and Mounting Kit

4a) #6-32x1 screw

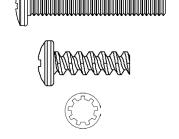
12-42 (Depending on number and type of clocks)

8

1

4c) Internal-tooth washer 12-42 (Depending on number and type of clocks)

4d) #10-32x3/8 green screw



(See below)



A user will also have to provide a Phillips-head screwdriver, power and communication cables, a small flat-blade screwdriver, eight #8 Self-tapping screws, and eight wall anchors. The wall anchors should be able to support the self-tapping screws and a weight of at least 50 pounds (22.68kg).

1

IP systems will also require an RJ45 connector, and a crimping tool for an RJ45 connector.

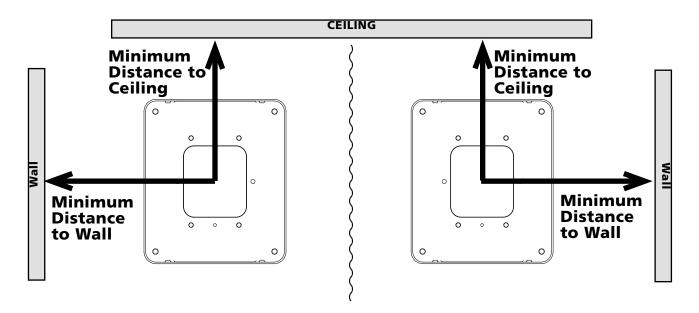
The kit will also include the individual clocks and housings. Consult the manual for your type of clock system for additional

NOTE: This value is 3/8" for all clocks except square clocks. For each square clock, two screws will be 3/8" while the other four screws will be 3/4" 6



1) Determine where you wish to install the zone clock by using the provided mounting template as a guide. Use a level to confirm that the horizontal line on the template is level with the floor. The amount of space that you must leave between the template and the ceiling or walls depends on the type of clock purchased. Use the table below to determine how much space is required. Height is the distance from the center of the mounting plate to the ceiling. Length is the distance from the center of the mounting plate to the closest wall.

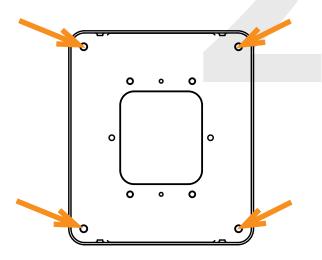
When you are satisfied with the position, attach the template to the wall to prevent it from moving.



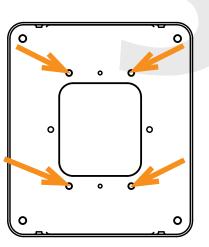
| NAME | TO CEILING | TO WALL |
|---|----------------|----------------|
| Analog with Round 12 inch housing | 10.5" (26.7cm) | 10.5" (26.7cm) |
| Analog with Round 16 inch housing | 14.5" (36.8cm) | 14.5" (36.8cm) |
| Analog with Round 12 inch housing and Aluminium Rim | 11.5" (29.2cm) | 11.5" (29.2cm) |
| Analog with Round 16 inch housing and Aluminium Rim | 15.5" (39.4cm) | 15.5" (39.4cm) |
| Analog with Square 9 inch housing | 9" (22.9cm) | 9" (22.9cm) |
| Analog with Square 12 inch housing | 11" (27.9cm) | 11" (27.9cm) |
| Digital with 2.5 inch 4 digit display | 5" (12.7cm) | 11.5" (29.2cm) |
| Digital with 2.5 inch 6 digit display | 5" (12.7cm) | 13.0" (33.0cm) |
| Digital with 4 inch 4 digit display | 5" (12.7cm) | 13.0" (33.0cm) |
| Digital with 4 inch 6 digit display | 5" (12.7cm) | 16.5" (41.9cm) |



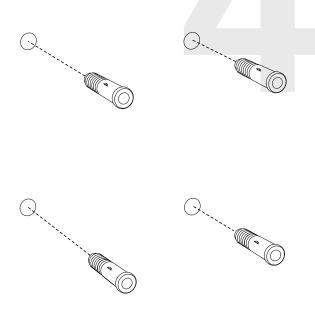
2) Locate the positions of the outer holes on each mounting plate. Use a drill to create each hole through the template.



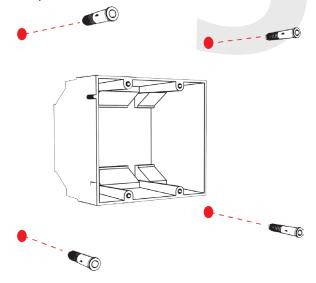
3) **Skip this step if your clock is battery-powered.** Use a pencil to poke through the template and find the position of each inner hole. Mark each position on the wall.



4) Remove the template and insert the wall anchors into the outer holes.



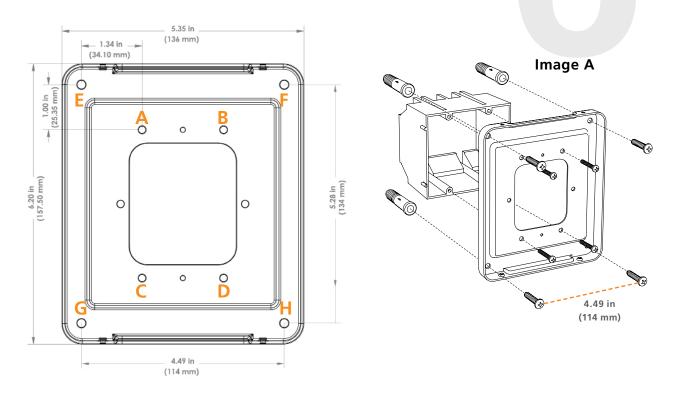
5) **Skip this step if your clock is battery-powered.** Use the positions of the marked holes to trace the location for your double gang box. It is VERY important that the holes on the gang box match the positions of the marked holes on the template.





6) Insert the machine screws through the mounting plates and into the gang boxes, then insert the self-tapping screws through the mounting plates and into the wall anchors.

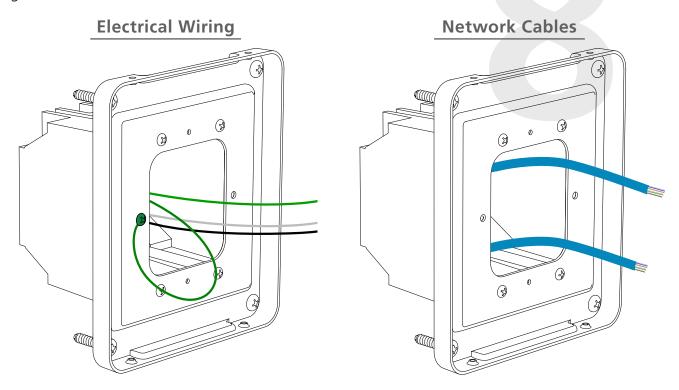
Holes A, B, C, and D are meant for securing the base plate to a standard double gang (utility) box. In addition, holes E, F, G, and H are meant for securing the base plate to the wall using an additional four (4) screws, as shown in image A below.



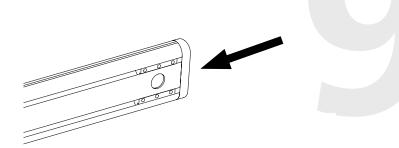
7) **Skip this step if your clock is battery-powered.** Consult your clock's manual for wiring instructions. If battery operated analog clocks are used, no wires are needed. Depending on the clock model, you may need to run a network cable or electrical wires. If you are using an IP-PoE clock, do not run more than four wires to each gang box. If you have more than three IP-PoE clocks on the pole, run additional ethernet cables to the other gang boxes.



8) **Skip this step if your clock is battery-powered.** Thread wiring through the mounting plate. If the wires are NOT Power over Ethernet, attach grounding wires to mounting plates using green screws.

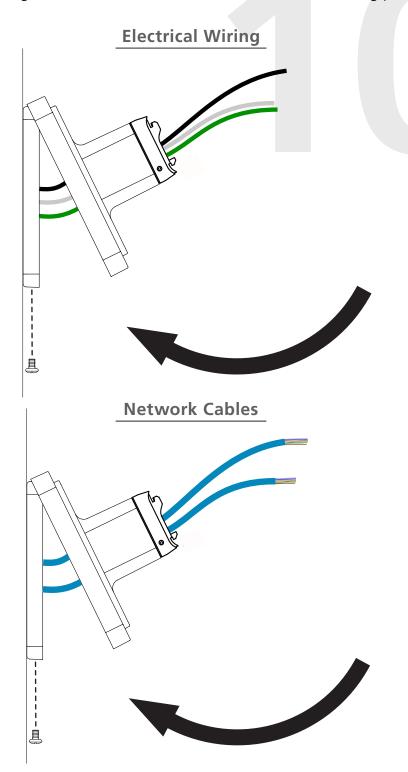


- * Power wires should extend far enough from the gang box to reach the first clock.
- 9) Place the end-caps on the pole. Your pole may already have end-caps attached.



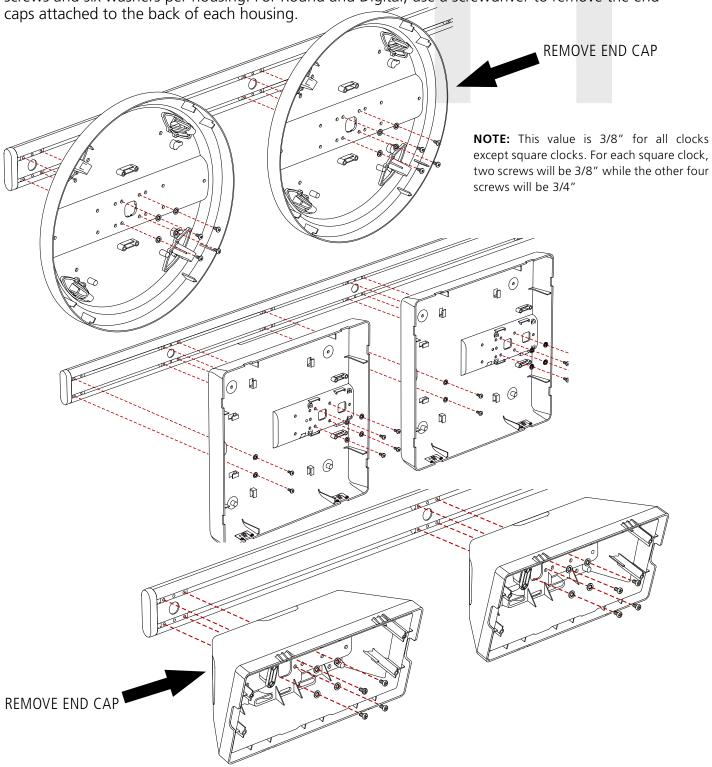


10) Thread wiring through the bases, then attach the bases to the mounting plates.



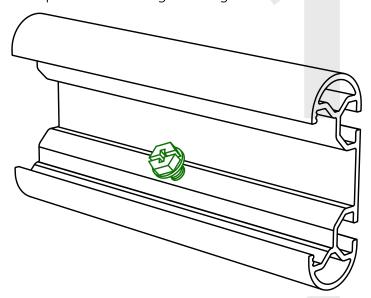


11) Attach the housings to the sliding nuts on the zone clock pole. Use the #8-32x(SEE NOTE) screws and internal-tooth washers for each housing until each housing is attached. Round and Digital housings require four screws and four washers per housing. Square clocks require six screws and six washers per housing. For Round and Digital, use a screwdriver to remove the end

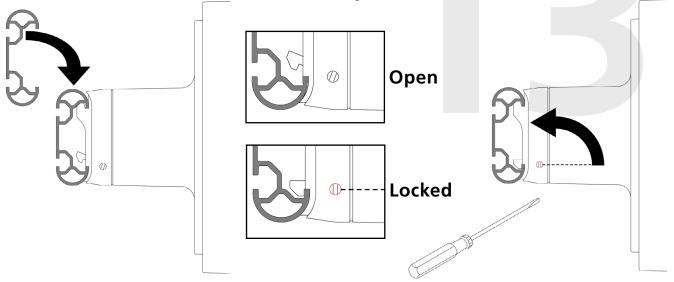




12) **Skip this step if your clock is battery-powered or uses Power over Ethernet.** Attach the grounding screw to the hole in the zone clock pole. Leave some space between the head of the screw and the pole so that the grounding cable can be attached later.



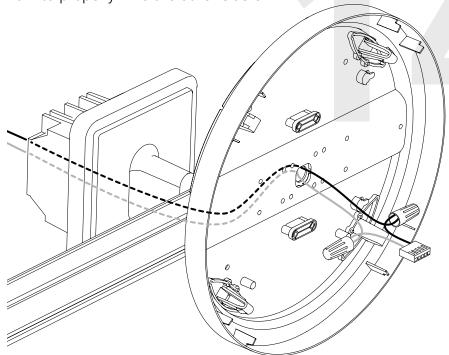
13) Mount the zone clock pole and attached housings to the bases by hanging the upper edge of the pole on the upper hooks of the base. Then, using the flathead screwdriver, turn the inner screw counterclockwise to activate the lower locking mechanism.



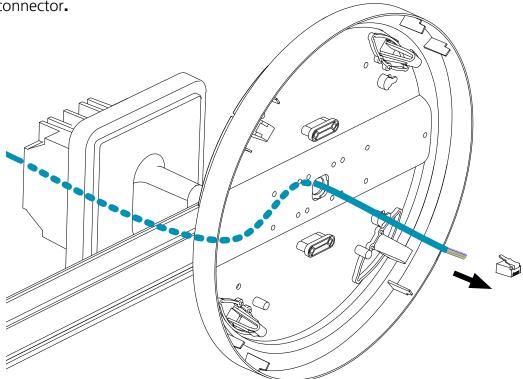
Test the pole to confirm that the locking mechanism has fully engaged. The pole should be able to slide side to side while attached to the base, but a user should not be able to lift the pole off of the base. **FAILURE TO FULLY ENGAGE THE LOCKING MECHANISM MAY RESULT IN INJURY.**



14) **Skip this if your clock is battery-powered.** Attach the wires that have been threaded into each adapter to one of the supplied connectors. Consult your clock manual for instructions on how to properly wire the other clocks.

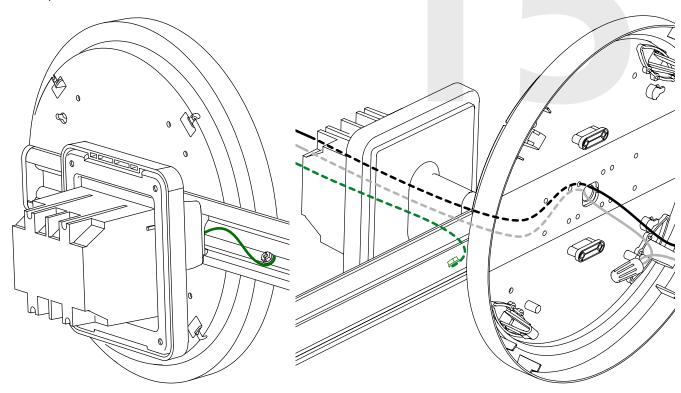


If your clock uses **Power over Ethernet**, use a crimp tool to insert the CAT5/CAT6 wires into the RJ45 connector.





15) **Skip this if your clock is battery-powered or uses Power over Ethernet.** Attach the grounding wire to the green grounding screw. Once the wire is wrapped around the screw, tighten the screw so that the grounding wire is held firmly between the screw head and the surface of the pole.

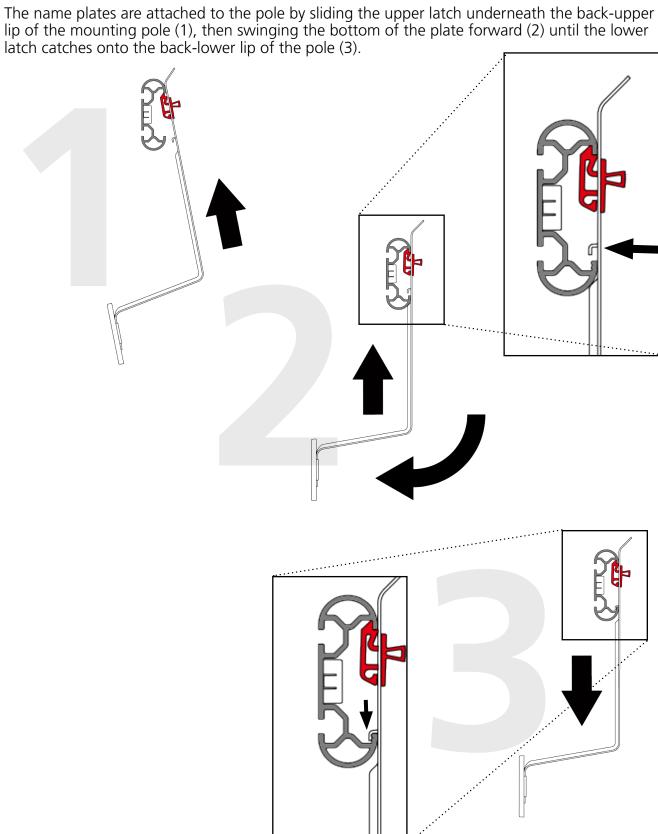


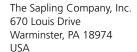
16) Run wiring or IP cables to the remaining clocks. Thread wiring through the white cable anchors where applicable (this may have already been done for you, if it is a wire-powered system).

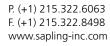
Details on how to power each clock and attach it to the housing can be found in the double-mount portion of the clock manual for your synchronization system.



Attaching the Name Plates









Warranty

Sapling Limited Warranty and Disclaimer

The Sapling Company, Inc. warrants only that at the time of delivery and for a period of 24 calendar months after delivery or the period stated in this invoice, if different, the Goods shall be free of defects in workmanship and materials, PROVIDED that this warranty shall not apply:

To damage caused by Buyer's or any third party's act, default or misuse of the Goods or by failure to follow any instructions supplied with the Goods.

Where the Goods have been used in connection with or incorporated into equipment or materials the specification of which has not been approved in writing by The Sapling Company, Inc.;

To Goods which are altered, modified or repaired in any place other than a Sapling Company, Inc. factory or by persons not expressly authorized or approved in writing by The Sapling Company, Inc.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WITH RESPECT TO GOODS DELIVERED UNDER THIS CONTRACT, WHETHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The foregoing warranty runs only to Buyer. There are no oral or written promises, representations or warranties collateral to or affecting this contract. Representatives of The Sapling Company, Inc. may have made oral statements about products described in this contract. Such statements do not constitute warranties, shall not be relied on by Buyer and are not part of the contract.

Note: An extended 5 year (60 month) warranty is also available at the time of the system purchase with a surcharge.