

"Turning the light on around the world"

Touch-Plate[®]
Lighting Controls
www.touchplate.com



Time-Keeper[®]



1830 Wayne Trace
Fort Wayne, IN 46803
Phone: 260.426.1565 / Fax: 260-426-1442
Visit us online at www.touchplate.com

Table of Contents

Introduction to the Time-Keeper® 2

Documentation..... 3

Introduction to LCD / Keypad Display 4

Time-Keeper® Pre-Startup Tests..... 4

Time-Keeper® Pre-Startup Tests..... 5

Definitions of the Action Functions 5

Definitions of the Action Functions 6

Programming Scenes 7

Programming Switch Inputs (Non-Smart Switches) 8

Programming Switch Inputs (Smart Switches) 8

Programming Switch Inputs (Smart Switches) 9

Programming Analog Inputs 10

Programming Events 11

Programming Holiday Events 12

Programming Sequences 13

Utilities Menu..... 14

Utilities Menu (cont.) 15

Utilities Menu (cont.) 16

Utilities Menu (cont.) 16

Utilities Menu (cont.) 17

Utilities Menu (cont.) 18

Utilities Menu (cont.) 19

Relay / Dimmer Panel Schedule 19

Relay / Dimmer Panel Schedule 20

Switch Schedule 21

Switch Schedule (cont.) 22

Scene Schedule 23

Time-Keeper® Timed Events Schedule 24

Frequently Asked Questions 25

Warranty 26

Other Important Information 26

Introduction to the Time-Keeper®

The Time-Keeper® 10017/10020 model is the brain for almost any Relay Panel. This model of Time-Keeper® supports the RS-485 Smart Switches and Contact Closure Control Stations. Any Touch-Plate® Control Station can be used to control Time-Keeper® relays and dimmers. Time-Keeper® is an astronomic

TOUCH-PLATE LIGHTING CONTROLS

Timeclock; therefore it can perform time based control. Time-Keeper® is also a programmable control panel. This means that Time-Keeper® can create up to 72 scenes, provides Dimming functions, and Daylight Harvesting with addition of a photocell functions as well.

Use Figure 3.1 to identify what each of the ports mean on the Time-Keeper® 10017/10020.

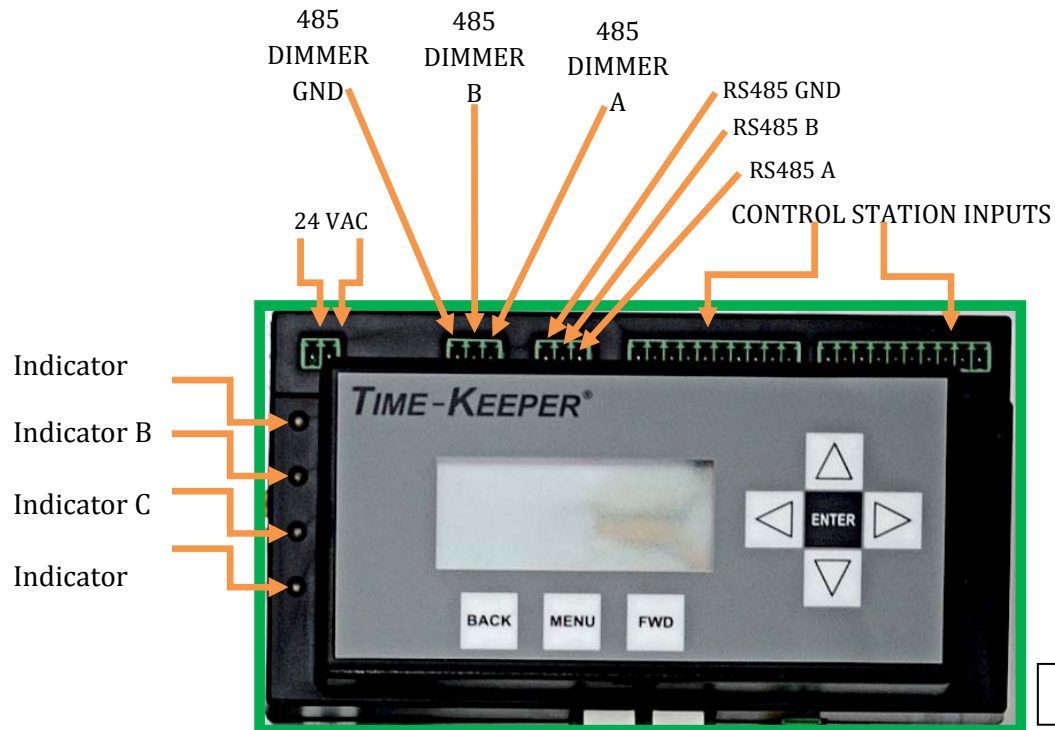


Figure 3.1

Documentation

Pages 20 – 29 contain the Panel Schedule, Switch Schedule, Scene Schedule, Timed Events Schedule, and/or Sequence Schedule. All of these options may not be used when programming the Time-Keeper®. This documentation will help with future upgrades and. It will also help if reprogramming items in the Time-Keeper®. Refer to the following steps for documentation help.

1. Page 20 is the Relay/Dimmer Panel Schedule. The information on this page refers to what each Relay or Dimmer # is in a Panel. This helps for identification purposes. The Description refers to the area that is connected to the relay.
2. Pages 21 – 22 are the Switch Schedule. The information on this page refers to the switches that are hooked up to the panel. Relay/Dimmer # refers to the Relay or Dimmer that is associated with the Button on the Control Station. Engraving refers to any engraving on the switch. DMX Address refers to what number the Time-Keeper® sees each button as. For example, if it sees a 6 Button Switch as the first Control Station, then button #1's DMX Address would be 1.1. Action is what each button does when pressed.
3. Page 23 is the Scene Schedule. The information on this page refers to the Relay / Dimmer # and what the Action is supposed to be. Please see page 6 for Action meanings.
4. Page 24 is the Timed Events Schedule. The information on this page refers to what day, time, or fixed time event the Scene corresponds to.

Introduction to LCD / Keypad Display

The LCD/Keypad Display is a removable part of the Time-Keeper®. The internal Timeclock and non-volatile memory is inside the plastic housing. Located on the back of the LCD/Keypad Display is the SD Card. Use the following guide as an introduction to what the Buttons, Menus, and Connectors mean. Just remember to always follow the cursor (short, blinking square) on the menu. Figures 4.1 – 4.7 show each of the Menus that are used for programming Time-Keeper®.

1. When pressed, MENU brings the Time-Keeper® to the first menu option. There are six menu options which can be reached when FWD is pressed. See Figures 4.1-4.7 for visual descriptions.
2. When the desired Menu is reached, press ENTER. This will lead to the Menu Item Screen. When in this screen, the UP and DOWN arrows move the cursor up and down and the LEFT SIDE and RIGHT SIDE arrows move the cursor side to side. See Figure 4.8 for visual description.
 - a. NOTE: MANY TIMES THE LEFT SIDE AND RIGHT SIDE ARROWS CHANGE THE VALUE ON THE MENU.

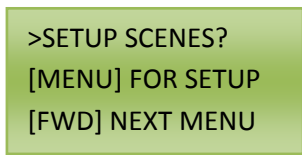


Figure 4.1

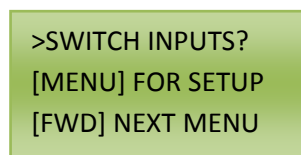


Figure 4.2

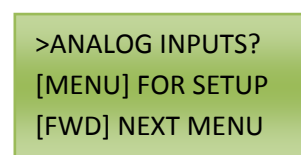


Figure 4.3

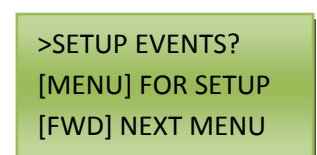


Figure 4.4

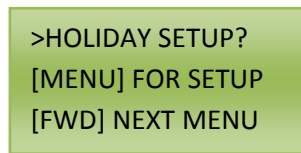


Figure 4.5

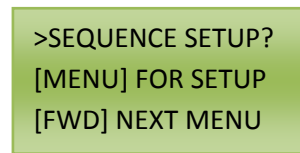


Figure 4.6

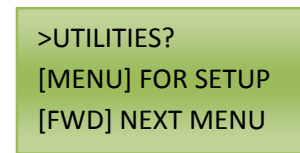
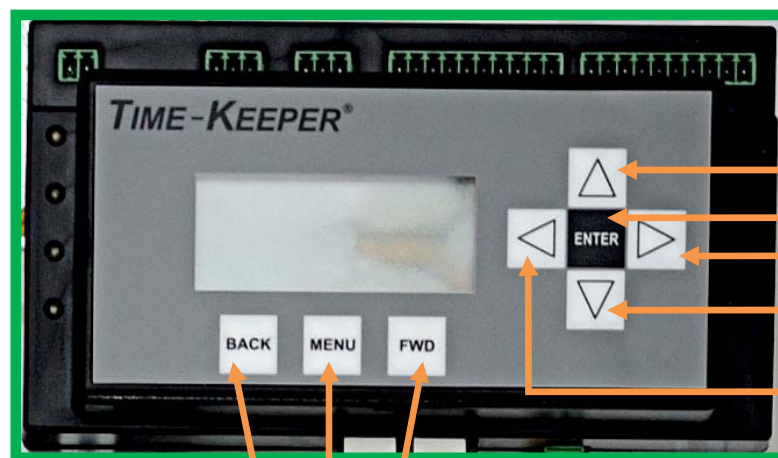


Figure 4.7



PRIMARY MENU NAVIGATION KEYS

Figure 4.8

Time-Keeper® Pre-Startup Tests

****BE SURE THAT ALL ITEMS ARE INSTALLED BEFORE RUNNING ANY TESTS ON THE TIME-KEEPER®****

Upon installation of Time-Keeper®, there need to be a few tests to run that will help ensure that all items are hooked up and wired properly. This means all items, including Control Stations. Power needs to be brought to the panel for the following pre-startup tests to be run.

REMEMBER THESE TESTS ARE ONLY FOR RELAYS, NOT DIMMERS.

When initially inspecting the powered up Time-Keeper®, it is completely normal to see the LED’s on the left side of the Time-Keeper® blinking from Red to Green. This is proof that the “brains” inside the Time-Keeper® case are working.

Use the following steps to properly run the Pre-Startup tests.

1. To test that the Time-Keeper®, Relay Firing Cards, and Relays are communicating press MENU once. Press FWD until the LCD screen says, “>UTILITIES?” Press ENTER once. See Figure 5.1 for a visual example.
2. Press FWD until the LCD screen says, “RELAYS ON/OFF?” See Figure 5.2 for a visual example.
3. Press the UP and DOWN Arrows a couple times, just to ensure that communication is taking place. This completes the first test.
4. To test that the Time-Keeper® “sees” all the Smart Switches, press FWD until the LCD screen says, “SMT SWTCH PRES?” See Figure 5.3 for a visual example.
5. Count the number of 2-Wire Control Stations, RS-485 Control Stations, and Smart Switch Hubs. On the LCD Screen there should be a 0 next to the number of Smart Switches Present. For example, if there are 5 2-Wire Control Stations, 2 RS-485 Control Stations, and 3 Smart Switch Hubs, there should be a 0 next to numbers 1-10. To verify more than 5 Smart Switches, press the DOWN button to review the numbers. This completes the second test. See Figure 5.4 for a visual example.
6. To test that the Time-Keeper® is communicating with the 2-Wire and RS-485 Control Stations, press FWD until the LCD screen says, “SMRT SWTCH DIAG?” See Figure 5.5 for a visual example.
7. Press ENTER to start the test on the first Smart Switch. The LEDs on the Smart Switch should begin to blink on and off. To stop the test, press ENTER again. To change which Smart Switch that is being tested, press the RIGHT Arrow. Once all Smart Switches have been tested, this will complete the final test. See Figure 5.6 for a visual example.

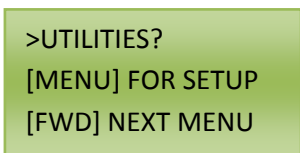


Figure 5.1

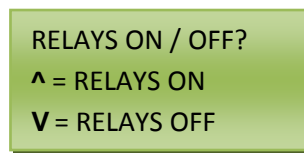


Figure 5.2

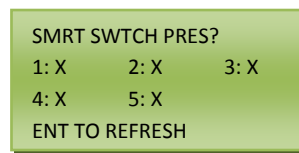


Figure 5.3

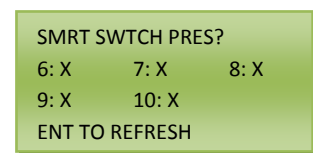


Figure 5.4

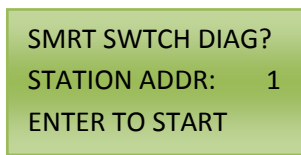


Figure 5.5

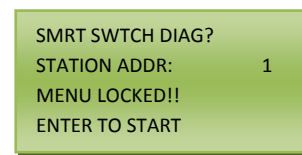


Figure 5.6

Definitions of the Action Functions

First, decide if Actions functions are desired. Each button on the Control Station can be associated with an Action. Here are descriptions of what the actions on the Time-Keeper® mean:

NONE: THIS MEANS NO ACTION – RELAY WILL NOT DO ANYTHING

MOMENTARY ON: THIS MEANS THE RELAY WILL COME ON

MOMENTARY OFF: THIS MEANS THAT THE RELAY WILL GO OFF

CYCLE: THIS IS THE NORMAL FUNCTION – TURNS OFF AND ON

MAINTAIN NO: THIS MEANS THAT THE RELAY WILL BE NORMALLY OPEN – THIS IS TYPICAL FOR A MOTION SENSOR

MAINTAIN NC: THIS MEANS THAT THE RELAY WILL BE NORMALLY CLOSED – THIS IS TYPICAL FOR AN EMERGENCY SENSOR

AUTO OFF 15 MIN: THIS MEANS THAT THE RELAY WILL TURN OFF AFTER 15 MINUTES

AUTO OFF 30 MINUTES: THIS MEANS THAT THE RELAY WILL TURN OFF AFTER 30 MINUTES

AUTO OFF 1 HOUR: THIS MEANS THAT THE RELAY WILL TURN OFF AFTER 1 HOUR

AUTO OFF 2 HOURS: THIS MEANS THAT THE RELAY WILL TURN OFF AFTER 2 HOURS

FLASH: THIS MEANS THAT THE RELAY WILL TURN OFF FOR 3 SEC THEN TURN BACK ON

BLINK WARN: THIS MEANS THAT THE RELAY WILL TURN OFF FOR 3 SEC, TURN BACK ON, WAIT FOR 10 MINUTES THEN TURN OFF

DIM UP: THIS MEANS THAT THE WHILE THE BUTTON IS HELD DOWN THE DIMMER WILL INCREASE IN BRIGHTNESS

DIM DOWN: THIS MEANS THAT WHILE THE BUTTON IS HELD DOWN THE DIMMER WILL DECREASE IN BRIGHTNESS

DIM TO: THIS MEANS THAT THE DIMMER WILL CHANGE TO A SET BRIGHTNESS LEVEL OVER A CERTAIN AMOUNT OF TIME

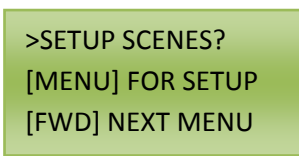
Programming Scenes

Programming Scenes is a useful option when a desired Control Station needs to turn multiple areas ON or OFF at the same time. It allows for lighting loads in the panel to be programmed ON/OFF or any combination within the same Scene. For example: A business that has a 1st shift requires that several lights need to be turned ON before the work day starts. At the same time there are outside lights that need to be turned OFF (sign lights, outside lighting, etc). Using Time-Keeper®, a “Morning” Scene can be created to turn the lights ON that need to be ON and the lights OFF that need to be OFF with just the press of one button.

Once outputs have been grouped together into Scenes and inputs functions are determined, programming can take place. Use the following instructions to program Scenes and / or Dimming.

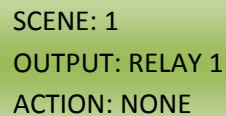
1. Press MENU on the keypad and the screen will say >SETUP SCENES? See Figure 7.1 for a visual example.
2. Press ENTER to Setup the Scenes.
3. The first line will read SCENE: 1, the second will read OUTPUT: RELAY 1, and the third will read ACTION: NONE.
4. To add all the relays and / or dimmers to the Scene, use the DOWN Arrow to place the cursor on the colon between the words OUTPUT and RELAY 1. Then use either the LEFT or RIGHT Arrow to select the Load that will go in the Scene.
5. If an Action is desired, press the DOWN Arrow so the cursor is on the colon between the words ACTION and NONE. Press either the LEFT or RIGHT Arrow to select the Action for the relay. Each Load and Action will have to be programmed one at a time. See Figure 7.2 for a visual example.
 - a. When programming for Dimming, the Actions DIM UP, DIM DOWN, and DIM TO can be used to set the Dimming levels. If DIM TO is selected, Time-Keeper® requires that the Dimming level is programmed as a percentage. Use the Down Arrow to move the cursor on the word LEVEL. Use the LEFT or RIGHT Arrow to assign the fade time. See Figure 7.3 for a visual example.
6. Press the ENTER on the keypad to save the programming. Make sure to press the ENTER after each Load and Action is programmed.
7. Repeat steps 3 and 4 for any other Scenes desired.

REMEMBER TO PRESS ENTER ON THE KEYPAD TO SAVE THE PROGRAMMING. FAILURE TO DO THIS COULD RESULT IN HAVING TO RE-PROGRAM THE TIME-KEEPER®



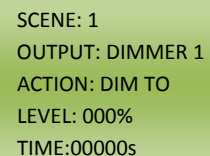
```
>SETUP SCENES?  
[MENU] FOR SETUP  
[FWD] NEXT MENU
```

Figure 7.1



```
SCENE: 1  
OUTPUT: RELAY 1  
ACTION: NONE
```

Figure 7.2



```
SCENE: 1  
OUTPUT: DIMMER 1  
ACTION: DIM TO  
LEVEL: 000%  
TIME: 00000s
```

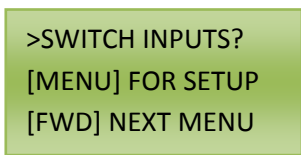
Figure 7.3

Programming Switch Inputs (Non-Smart Switches)

Once Inputs have been determined, programming can take place. Use the following instructions to program the Time-Keeper®.

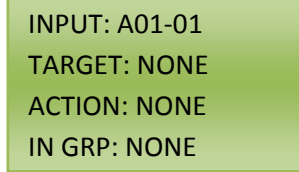
1. Press the MENU on the keypad and the screen will say >SWITCH INPUTS? See Figure 8.1 for visual example. If still in the Setup Scenes menu, just press BACK once and FWD once, to get to the >SWITCH INPUTS? Press ENTER on the keypad to setup Switch Inputs.
2. The first line will read INPUT: A01-01, the second will read TARGET: NONE, the third will read ACTION: NONE and the fourth will read IN GRP: NONE. See Figure 8.2 for a visual example.
3. To set the inputs in the Time-Keeper®, press the DOWN Arrow to place the cursor on the colon between the words TARGET and NONE. The TARGET is the relay that is desired to be controlled. Then use either the Left or Right Arrow to select the Load that will correspond to the INPUT. Press the LEFT Arrow to move onto programming the ACTION.
 - a. If programming the Target as a Scene access will be turned off for certain switches. It functions almost like a lockout for a group of switches. A Group can be turned ON/OFF as a timed event or with a button on a control station by programming that Group through the TARGET. The Target of an input can also be an Input Group. When a Scene is selected as a Target, another Target can be selected if desired. See Figure 8.3 for a visual example.
4. If an Action is desired, press the DOWN Arrow so the cursor is on the colon between the words ACTION and NONE. Press either the LEFT or RIGHT Arrow to select the Action for the relay. Press the LEFT Arrow to return to move onto programming the IN GRP.
5. If the Control Station is to be left alone and not mistakenly turned ON or OFF, then press the DOWN Arrow so the cursor is on the colon between the words IN GRP and NONE. Press either the LEFT or RIGHT Arrow to select the IN GROUP. See Figure 8.4 for a visual example.
 - a. An example for using this function would be if a school was using Time-Keeper® and they did not want students messing with the Control Stations, they would enable A01 to be IN GRP 1.
6. Press the ENTER on the keypad to save the programming. Make sure to press the ENTER after each Load and Action is programmed.
7. Repeat steps 3 -6 for any other Switch Input programming.

REMEMBER TO PRESS ENTER ON THE KEYPAD TO SAVE THE PROGRAMMING. FAILURE TO DO THIS COULD RESULT IN HAVING TO RE-PROGRAM THE TIME-KEEPER®



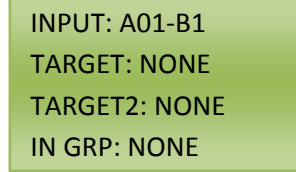
>SWITCH INPUTS?
[MENU] FOR SETUP
[FWD] NEXT MENU

Figure 8.1



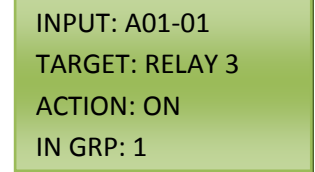
INPUT: A01-01
TARGET: NONE
ACTION: NONE
IN GRP: NONE

Figure 8.2



INPUT: A01-B1
TARGET: NONE
TARGET2: NONE
IN GRP: NONE

Figure 8.3



INPUT: A01-01
TARGET: RELAY 3
ACTION: ON
IN GRP: 1

Figure 8.4

Programming Switch Inputs (Smart Switches)

Once Inputs have been determined, programming can take place. Use the following instructions to program the Time-Keeper®.

1. Press the MENU on the keypad and the screen will say >SWITCH INPUTS? See Figure 9.1 for visual example. If still in the Setup Scenes menu, just press BACK once and FWD once, to get to the >SWITCH INPUTS? Press ENTER on the keypad to setup Switch Inputs.
2. The first line will read INPUT: A-01, the second will read TARGET: NONE, the third will read ACTION: NONE and the fourth will read IN GRP: NONE.
3. To set the Time-Keeper® to program Smart Switches, use the Right Arrow to place the cursor on the colon between the words INPUT and A-01. Press the Right Arrow once to move the cursor over to the word A-01. Use the Up or Down Arrow to change this to say INPUT: ST01-B1. Press the Left Arrow to return to the colon to move onto programming the TARGET. See figure 9.2 for visual description.
4. To set the inputs in the Time-Keeper®, press the DOWN Arrow to place the cursor on the colon between the words TARGET and NONE. The TARGET is the relay that is desired to be controlled. Then use either the Left or Right Arrow to select the Load that will correspond to the INPUT. Press the LEFT Arrow to move onto programming the ACTION.
 - b. If programming the Target as a Scene access will be turned off for certain switches. It functions almost like a lockout for a group of switches. A Group can be turned ON/OFF as a timed event or with a button on a control station by programming that Group through the TARGET. The Target of an input can also be an Input Group. When a Scene is selected as a Target, another Target can be selected if desired. See Figure 8.3 for a visual example.
5. If an Action is desired, press the DOWN Arrow so the cursor is on the colon between the words ACTION and NONE. Press either the LEFT or RIGHT Arrow to select the Action for the relay. Press the LEFT Arrow to return to move onto programming the IN GRP.
6. If the Control Station is to be left alone and not mistakenly turned ON or OFF, then press the DOWN Arrow so the cursor is on the colon between the words IN GRP and NONE. Press either the LEFT or RIGHT Arrow to select the IN GROUP. See Figure 8.4 for a visual example.
 - a. An example for using this function would be if a school was using Time-Keeper® and they did not want students messing with the Control Stations, they would enable ST01 to be IN GRP 1.
7. Press the ENTER on the keypad to save the programming. Make sure to press the ENTER after each Load and Action is programmed.
8. Repeat steps 3 -7 for any other Smart Switch programming.

REMEMBER TO PRESS ENTER ON THE KEYPAD TO SAVE THE PROGRAMMING. FAILURE TO DO THIS COULD RESULT IN HAVING TO RE-PROGRAM THE TIME-KEEPER®

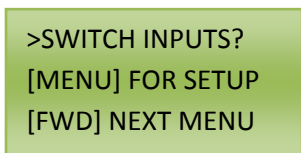


Figure 9.1

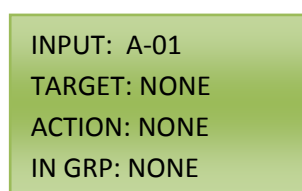


Figure 9.2

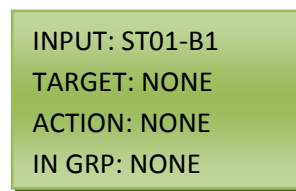


Figure 9.3

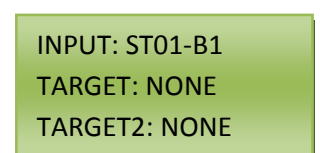


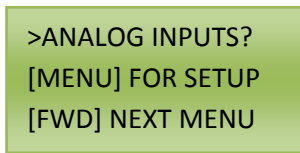
Figure 9.4

Programming Analog Inputs

Once Analog Inputs have been determined, programming can take place. The Analog Inputs are controlled by using the Analog Input MENU. The main difference of the Analog Inputs is that a low and high value of the input must be set. Use the following instructions to program the Time-Keeper®.

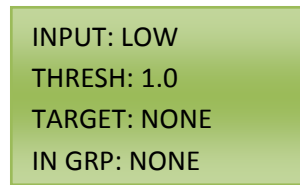
1. Press the MENU on the keypad and the screen will say >ANALOG INPUTS? See figure 10.1 for visual description. If still in the Switch Inputs menu, just press BACK once and FWD once, to get to the >ANALOG INPUTS? Press the ENTER on the keypad to setup Analog Inputs.
2. The first line will read INPUT: LOW, the second will read THRESH: 1.0, the third will read TARGET: NONE and the fourth will read IN GRP: NONE. See figure 10.2 for visual description.
3. To set the Time-Keeper® to program the Input the cursor will be between the words: INPUT and LOW. Use the Left or Right Arrow to change this to say either High or Low.
4. To set the Thresh in the Time-Keeper®, use the Down Arrow to place the cursor on the colon between the words: THRESH and 1.0. Then use either the Left or Right Arrow to select the Thresh level.
5. If a Target is desired, press the Down Arrow so the cursor is on the colon between the words: TARGET and NONE. The TARGET is the relay that is desired to be controlled. The use either the Left or Right Arrow to select the Target. .
6. If the relay or dimmer is desired to be left alone and not mistakenly turned off, then press the Down Arrow so the cursor is on the colon between the words: IN GRP and NONE. Press either the Left or Right Arrow to select the relay or dimmer.
7. Press the ENTER on the keypad to save the programming. Make sure to press ENTER after each Load and Action is programmed.
8. Repeat steps 3 -7 for any other Analog programming.

REMEMBER TO PRESS ENTER ON THE KEYPAD TO SAVE THE PROGRAMMING. FAILURE TO DO THIS COULD RESULT IN HAVING TO RE-PROGRAM THE TIME-KEEPER®



>ANALOG INPUTS?
[MENU] FOR SETUP
[FWD] NEXT MENU

Figure 10.1



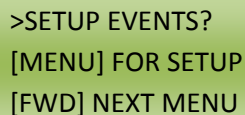
INPUT: LOW
THRESH: 1.0
TARGET: NONE
IN GRP: NONE

Figure 10.2

Programming Events

Once all Inputs have been programmed, Events can be programmed for the days of the week and/or to occur at certain times. Use the following instruction to program Time-Keeper® with Events.

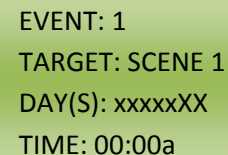
1. Press the MENU on the keypad and the screen will say >SETUP EVENTS? See Figure 11.1 for a visual example. If still in the Switch Inputs menu, just press BACK once and FWD twice, to get to the >SETUP EVENTS? Press ENTER on the keypad to setup Events.
2. The first line will read EVENT: 1, the second will read TARGET: NONE, the third will read DAY(S): xxxxxXX and the fourth will read TIME: 12:00a. See Figure 11.2 for a visual example.
3. To set the Time-Keeper® to program the Event, use the RIGHT Arrow to change this to the Event number. Press the DOWN Arrow to move onto programming the TARGET.
4. To set the Target Input in the Time-Keeper®, make sure the cursor is on the colon between the words TARGET and SCENE 1. Then use either the LEFT or RIGHT Arrow to select the Target Input. Press the DOWN Arrow to move onto programming the DAY(S).
5. If certain days of the week are desired, make sure the cursor is on the colon between the words DAY(S) and xxxxxXX. Press the RIGHT Arrow to select the Day(s) of the week desired. The first x stands for Monday, the second stands for Tuesday, the third for Wednesday, the fourth for Thursday, the fifth for Friday, the sixth for Saturday, and the seventh for Sunday. If Monday is desired press the RIGHT Arrow so the cursor is on the first x and press either the UP or DOWN Arrow to change the x to M. If any x's remain after programming, that means that day of the week is not programmed. Press the LEFT Arrow to return to the colon to move onto programming the TIME.
6. If a time is desired for the Event to take place, press the DOWN Arrow so the cursor is on the colon between the words TIME and 12:00a. Press the RIGHT Arrow to select the time that the Event is to take place. Press the DOWN Arrow on the 12 to change the time to PM. Press the UP Arrow on the 12 to change the time in the AM. Press the RIGHT Arrow to change the minutes.
7. Press ENTER on the keypad to save the programming. Make sure to press ENTER after each Event is programmed.
8. Repeat steps 3 -7 for any other Event programming.



```

>SETUP EVENTS?
[MENU] FOR SETUP
[FWD] NEXT MENU
  
```

Figure 11.1



```

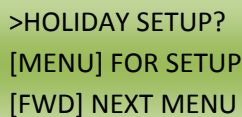
EVENT: 1
TARGET: SCENE 1
DAY(S): xxxxxXX
TIME: 00:00a
  
```

Figure 11.2

Programming Holiday Events

Time-Keeper® allows different things to take place on special days of the year. For example, if everything needed to be turned off on Thanksgiving because no one will be home, Time-Keeper® can be programmed to take care of that. Use the following instruction to program Time-Keeper® with Holiday Events.

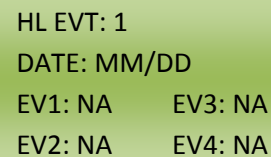
1. Press MENU on the keypad and the screen will say >HOLIDAY SETUP? See Figure 12.1 for a visual example. If still in the Setup Events menu, just press BACK once and FWD once, to get to the >HOLIDAY SETUP? Press ENTER on the keypad to setup Events.
2. The first line will read HL EVT: 1, the second will read DATE: MM/DD, the third will read EV1: NA, EV3: NA and the fourth will read EV2: NA, EV4: NA. See Figure 12.2 for a visual example.
3. To set the Time-Keeper® to program the Holiday Event, make sure the cursor is on the colon between the words HL EVT and 1. Use the LEFT or RIGHT Arrow to change this to the Event number. Press the DOWN Arrow to move onto programming the DATE.
4. To set the Date in the Time-Keeper®, make sure the cursor is on the colon between the words DATE and MM/DD. Use the RIGHT Arrow to move the cursor onto the MM or DD. Then use either the UP or DOWN Arrow to select the Date. Use the LEFT Arrow to return the colon to move onto programming the EVENT.
5. If certain Events are desired, press the DOWN Arrow so the cursor is on the colon between the words EV1 and 1. Press the RIGHT Arrow to select the Event desired. Press the DOWN Arrow to move onto programming the next EVENT.
6. Press ENTER on the keypad to save the programming. Make sure to press ENTER after each Holiday Event is programmed.
7. Repeat steps 3 -6 for any other Event programming.



```

>HOLIDAY SETUP?
[MENU] FOR SETUP
[FWD] NEXT MENU
  
```

Figure 12.1



```

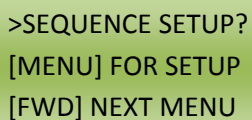
HL EVT: 1
DATE: MM/DD
EV1: NA   EV3: NA
EV2: NA   EV4: NA
  
```

Figure 12.2

Programming Sequences

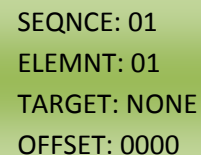
Time-Keeper® allows “a path of light” in the home with the press of one button. For example, if someone comes home with an armload of groceries through the garage, Time-Keeper® can be programmed to have one button pressed and multiple lights come on over a couple of seconds, minutes, etc. Another example is a Morning Sequence. With the press of one button, the bedroom lights can come on, the hallway lights come on in 5 minutes, and the kitchen lights come in 5 minutes. Use the following instruction to program Time-Keeper® with Sequences.

1. Press MENU on the keypad and the screen will say >SEQUENCE SETUP? See Figure 13.1 for a visual example. If still in the Holiday Setup menu, just press BACK once and FWD once, to get to the >SEQUENCE SETUP? Press ENTER on the keypad to setup Sequences.
2. The first line will read SEQNCE: 01, the second will read ELEMNT: 01, the third will read TARGET: NONE and the fourth will read OFFSET: 0000. See Figure 13.2 for a visual example.
3. To set the Time-Keeper® to program the Sequence, make sure the cursor is on the colon between the words SEQNCE and 01. Use the LEFT or RIGHT Arrow to change the Sequence number. Press the DOWN Arrow to move onto programming the ELEMENT.
4. To set the Element in the Time-Keeper®, make sure the cursor is on the colon between the words ELEMNT and 01. Then use either the LEFT or RIGHT Arrow to select the Element. Press the DOWN Arrow to move onto programming the TARGET.
5. To set the Target Input in the Time-Keeper®, make sure the cursor is on the colon between the words TARGET and NONE. Then use either the LEFT or RIGHT Arrow to select the Target Input. Press the DOWN Arrow to move onto programming the OFFSET.
6. To set the Offset in the Time-Keeper®, make sure the cursor is on the colon between the words OFFSET and 0000. Then use RIGHT Arrow to select the amount of time (in seconds).
7. Press ENTER on the keypad to save the programming. Make sure to press ENTER after each Sequence is programmed.
8. Repeat steps 3 -7 for any other Sequence programming.



>SEQUENCE SETUP?
[MENU] FOR SETUP
[FWD] NEXT MENU

Figure 13.1



SEQNCE: 01
ELEMNT: 01
TARGET: NONE
OFFSET: 0000

Figure 13.2

Utilities Menu

The Utilities Menu is where dates and times are set (Calendar Date and Time Zone), Backing up the Time-Keeper® onto the SD Card, Restoring from the SD Card, Manual ON/OFF Control of the Relays, Setting Astronomic Zone using the Zip Code, Placing a Panel in DMX Protocol Mode, Updating Firmware, and many other features. Use the following instructions to program Time-Keeper® Utilities.

1. Press MENU on the keypad and the screen will say >UTILITIES? See Figure 14.1 for a visual example. If still in the Sequence Setup menu, just press BACK once and FWD once, to get to the >UTILITIES? Press ENTER on the keypad to setup Utilities.

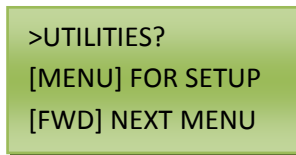


Figure 14.1

The actions that can be performed in the Utilities Menu are:

1. *SAVE PROGRAM TO SD CARD*
 - a. Programmed data is stored internally in Flash ROM (memory) as well as EEPROM (electronically erasable), which is non-volatile memory. All programmed data through this option in the Utilities Menu can be backed up to the SD card (on board Hard Drive). This allows the current programming to be saved to the SD Card that is located in the back of the LCD / Keypad Display and will not be lost if something were to happen. To Save to the SD Card, press ENTER on the keypad. See Figure 14.2 for an example.
PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION

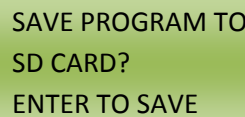


Figure 14.2

2. *LOAD PROGRAM FROM SD CARD*
 - a. Backed up data that is stored on the SD Card can be loaded onto the Time-Keeper® if something were to happen. To Load from the SD Card, press ENTER on the keypad. See Figure 14.3 for an example.

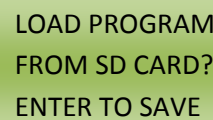


Figure 14.3

Utilities Menu (cont.)

The actions that can be performed in the Utilities Menu are:

3. *CLEAR PROGRAM*

- a. This Action allows for the Time-Keeper® programming to be wiped clean for a fresh start. To Clear all Programming, press the ENTER button. See Figure 15.1 for an example.

PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION

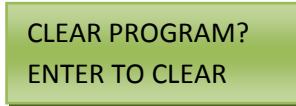


Figure 15.1

4. *RELAYS ON / OFF TEST*

- a. This Action will allow all the relays to be turned ON or OFF. This should be done when setting up the system – it helps determine that Time-Keeper® is communicating properly. To Test the Relays, press the UP or DOWN Arrows. See Figure 15.2 for an example.

PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION

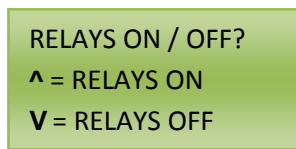


Figure 15.2

5. *SETTING THE DATE AND TIME*

- a. This Action allows for the current date and time to be programmed into the Time-Keeper®. The cursor will be on the colon between the words DATE and 01/01/07. Press the RIGHT Arrow to move the cursor over to the Month. Use the UP or DOWN Arrow to change the Month. Press the RIGHT Arrow to move the cursor over to the Day. Use the UP or DOWN Arrow to change the Day. Press the RIGHT Arrow to move the cursor over to the Year. Use the UP Arrow to change the Year. To return the colon between the words DATE and 01/01/07, press the LEFT Arrow three times. See Figure 15.3 for an example.
- b. Press the DOWN Arrow to place the cursor on the colon between the words TIME and 01:53p. Press the RIGHT Arrow to move the cursor onto the Time. Press the UP or DOWN Arrow to change the current Time. Press the LEFT Arrow to return to the colon to move onto programming the Day of the Week.
- c. Press the DOWN Arrow to place the cursor on the colon between the words DAY and MON. Press the RIGHT Arrow to change the day of the week. Make sure to press ENTER to save the information.

PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION

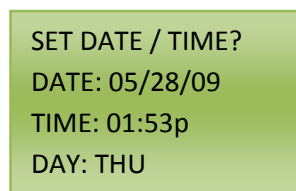


Figure 15.3

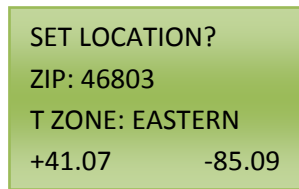
Utilities Menu (cont.)

The actions that can be performed in the Utilities Menu are:

6. *SET LOCATION USING ZIP CODE*

- a. This Action allows the location to be set. This will allow the SUN UP and SUN DOWN function to be used (this is found under the Events Menu). The only option that will need to be changed is the ZIP option. Press the RIGHT Arrow to move the cursor over to the Zip Code. Use the UP or DOWN Arrow to change the numbers of the Zip Code. Make sure to press ENTER to save the information. See Figure 16.1 for an example.

PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION

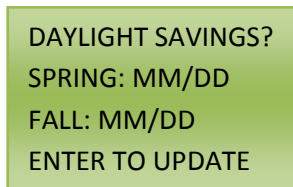


```
SET LOCATION?  
ZIP: 46803  
T ZONE: EASTERN  
+41.07      -85.09
```

Figure 16.1

7. *SETTING DAYLIGHT SAVINGS TIME*

- a. This action allows dates that Daylight Savings occurs on to be set. Since the time changes all the time, this allows the system to be correct at all times. Press RIGHT Arrow to move the cursor over to the Date for Spring Daylight Savings Time. Press the UP or DOWN Arrow to change the Date. Press the LEFT Arrow to return to the colon to move onto programming the Date for Fall Daylight Savings Time. Press the DOWN Arrow to move the cursor onto the colon between the words FALL and MM/DD. Press the RIGHT Arrow to move the cursor over to the Date for the Fall Daylight Savings Time. Press the UP or DOWN Arrow to change the Date. Make sure to press ENTER to save the information. See Figure 16.2 for an example.



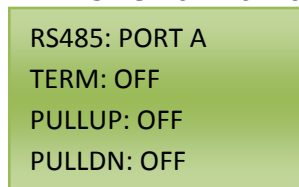
```
DAYLIGHT SAVINGS?  
SPRING: MM/DD  
FALL: MM/DD  
ENTER TO UPDATE
```

Figure 16.2

8. *RS485*

- a. This action allows the termination resistors for the RS485 port to be turned on or off. Press the UP or DOWN arrows to select which termination you want and the LEFT and RIGHT arrows to change its state.
- b. See Figure 16.3 for an example.

PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION



```
RS485: PORT A  
TERM: OFF  
PULLUP: OFF  
PULLDN: OFF
```

Figure 16.3

Utilities Menu (cont.)

The actions that can be performed in the Utilities Menu are:

9. *CONFIGURING LOCAL I/O*

- a. This action allows for onboard inputs and outputs to be changed from Digital to Analog. Pressing the Right Arrow changes the IN/OUT number to what input or output it corresponds to. Pressing the Down Arrow will move the cursor onto the colon between the words MODE and DIGITAL. Pressing the Right Arrow will change the Mode from Digital to Analog. Make sure to press ENTER to save the information. See figure 17.1 for an example.
PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION

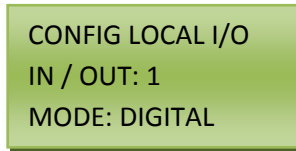


Figure 17.1

10. *REMOTE DIMMING*

- a. This Action allows the Time-Keeper® to be a DMX Master or DMX Slave. To change the MODE from DMX Master, pressing the RIGHT Arrow will change it to DMX Slave. Changing Time-Keeper® to DMX Slave creates two more options to change. To change the Relay Address, press the DOWN Arrow so the cursor is on the colon between the words RLY AD and 001. Pressing the RIGHT Arrow will move the cursor over the numbers enabling them to be changed by pressing the UP or DOWN Arrows. Press the LEFT Arrow to return to the colon to move onto programming the Dimmer Address. Press the DOWN Arrow to move the cursor onto the colon between the words DIMS AD and 073. Press the RIGHT Arrow to move the cursor over the numbers, enabling them to be changed by pressing the UP or DOWN Arrows. Make sure to press ENTER to save the information. See Figure 17.2 and 17.3 for an example.
PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION

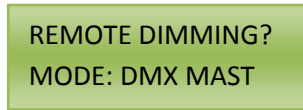


Figure 17.2

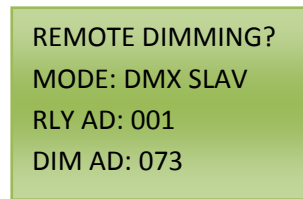


Figure 17.3

11. *SMART SWITCH PROTOCOL*

- a. This Action allows Time-Keeper® to support 32 Control Stations under Version 1 and to support 50 Control Stations under Version 2. To change the Version, press the RIGHT Arrow. Make sure to press ENTER to save the information. See Figure 17.4 for an example.
PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION

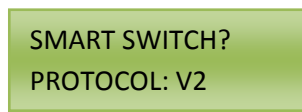


Figure 17.4

Utilities Menu (cont.)

The actions that can be performed in the Utilities Menu are:

12. SMART SWITCHES PRESENT

- a. This action allows the user to see how many Smart Switches are presently hooked up to Time-Keeper®. See Figure 18.1 for an example.

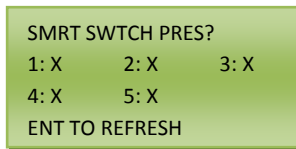


Figure 18.1

13. SMART SWITCH DIAGNOSTIC

- a. This action allows the user to see if the Time-Keeper® is communicating with the Control Stations. Press ENTER to start the test. Press ENTER a second time to stop the test. See Figure 18.2 for an example.

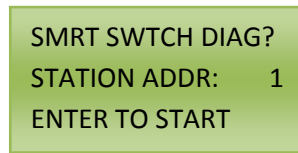


Figure 18.2

14. DIMMING RATE

- a. This Action allows the set Dimming Rate to be changed. To change the Dimming Rate, press the LEFT or RIGHT Arrows. Make sure to press ENTER to save the information. See Figure 18.3 for an example.

PRESS FWD WHEN DONE IN THIS ACTION TO MOVE TO THE NEXT ACTION



Figure 18.3

15. MINIMUM DIMMER PRESET

- a. This Action helps the user to set the initial Dimmer brightness when the dimmer switch is tapped once on a Dimming Cycle Function. To change the Dimmer, press the RIGHT Arrow. Press the UP or DOWN Arrow to change the Dimmer. Press the LEFT Arrow to return to the colon to move onto programming the Minimum %. Press the DOWN Arrow to move the cursor onto the colon between the words Min. % and 10. Press the UP or DOWN Arrow to change the Minimum %. Make sure to press the ENTER to save the information. See Figure 18.4 for an example.

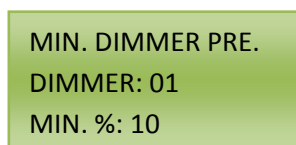


Figure 18.4

Utilities Menu (cont.)

The actions that can be performed in the Utilities Menu are:

16. *RELAYS INSTALLED*

- a. This Action tells the number of relays connected to the 8 pin connector on the bottom of the Time-Keeper. Make sure to press the ENTER to save the information. See figure 19.1 for an example. Relays connected externally (via serial connection) will start their number sequence after the installed relays



Figure 19.1

17. *UPDATE FIRMARE*

- a. This Action allows the firmware to be updated on the unit. If there is an update, Touch-Plate® can send it on an SD card or through email. The SD card then goes into the Time-Keeper® and this Action is referred to. Make sure to press the ENTER to save the information. See figure 19.2 for an example.

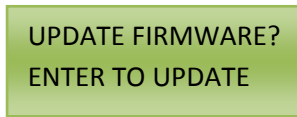


Figure 19.2

Switch Schedule

Switch Name:

Button #	Relay / Dimmer #	What it Controls	DMX Address (Smart Switch) <small>*What Time-Keeper Sees*</small>	Action

Switch Name:

Button #	Relay / Dimmer #	What it Controls	DMX Address (Smart Switch) <small>*What Time-Keeper Sees*</small>	Action

Switch Name:

Button #	Relay / Dimmer #	What it Controls	DMX Address (Smart Switch) <small>*What Time-Keeper Sees*</small>	Action

Switch Name:

Button #	Relay / Dimmer #	What it Controls	DMX Address (Smart Switch) <small>*What Time-Keeper Sees*</small>	Action

Switch Schedule (cont.)

Switch Name:

Button #	Relay / Dimmer #	What it Controls	DMX Address (Smart Switch) <small>*What Time-Keeper Sees*</small>	Action

Switch Name:

Button #	Relay / Dimmer #	What it Controls	DMX Address (Smart Switch) <small>*What Time-Keeper Sees*</small>	Action

Switch Name:

Button #	Relay / Dimmer #	What it Controls	DMX Address (Smart Switch) <small>*What Time-Keeper Sees*</small>	Action

Switch Name:

Button #	Relay / Dimmer #	What it Controls	DMX Address (Smart Switch) <small>*What Time-Keeper Sees*</small>	Action

Scene Schedule

Project:

Date:

Scene #:

Relay / Dimmer	Action	Comments

Project:

Date:

Scene #:

Relay / Dimmer	Action	Comments

Project:

Date:

Scene #:

Relay / Dimmer	Action	Comments

Project:

Date:

Scene #:

Relay / Dimmer	Action	Comments

Project:

Date:

Scene #:

Relay / Dimmer	Action	Comments

Project:

Date:

Scene #:

Relay / Dimmer	Action	Comments

Time-Keeper® Timed Events Schedule

Project:

EVENT #	Scene #	DAYS ACTIVE							(Fixed Time/s or sunrise/sunset)
		S	M	T	W	T			
1		S	M	T	W	T			FS
2		S	M	T	W	T			FS
3		S	M	T	W	T			FS
4		S	M	T	W	T			FS
5		S	M	T	W	T			FS
6		S	M	T	W	T			FS
7		S	M	T	W	T			FS
8		S	M	T	W	T			FS
9		S	M	T	W	T			FS
10		S	M	T	W	T			FS
11		S	M	T	W	T			FS
12		S	M	T	W	T			FS
13		S	M	T	W	T			FS
14		S	M	T	W	T			FS
15		S	M	T	W	T			FS
16		S	M	T	W	T			FS

Frequently Asked Questions

1. How do I program button 1 on a 4 button Control Station?
 - a. Please consult your Control Station Manual for a full run down of how to program the control station.
2. Under the Utilities menu, in the Set Location area, when I type in the Zip Code and hit ENTER, the following pops up, "SD IO ERROR." What does this mean?
 - a. SD IO ERROR indicates that there is not an SD Card on the back of the LCD/Keypad Display.
3. How many different firmware revisions are there for Time-Keeper and what makes them different?
 - a. There are 4 different versions of the Time-Keeper software:
 - i. 1.36 Handles 72 Relays and 48 Dimmers
 - ii. 1.34ER Handles 200 Relays and 24 Dimmers.
 - iii. 1.34ER2 Handles 150 Relays and 36 Dimmers.
 - iv. 1.34ER3 Handles 240 Relays and 8 Dimmers.
4. What is the reason for starting my remote (serially connected) Relay Firing Card addresses at a number higher than 001 ?
 - a. Dimmers occupy the lower addresses, relay addressing starts after them. See above for which version has how many relays.
5. How can I connect a 3-wire Wattstopper motion sensor to the Touch-Plate Time-Keeper system? Where do I find the + and the - ?
 - a. A Motion Sensor is a Contact Closure Device, therefore it will need to come in to the Time-Keeper system through a Digital Smart Switch Hub, Part # 10124. On the 10124, the White terminals are the positive (+) so the Red wire from the motion sensor will connect to the White terminal of the 10124. The negative (-) will land to the Ground, or the Green terminal of the RS-485 section at the bottom end of the board. This means the Black wire of the motion sensor lands to the Green terminal. The final Blue wire of the motion sensor is the "switch input", so it will land to any one of the Orange input terminals of the 10124. They are all labeled with S1, S2, S3, etc. through S8, meaning Switch Inputs 1 through 8. So based upon the Address setting of the 10124, that will determine the "Station Number" that is recognized by the Time-Keeper controller, then depending on which Orange input terminal the motion sensor wire was inserted into, that will be the "Button Number". Knowing the combination of the "Station Number" and "Button Number" will allow Time-Keeper to assign the motion sensor to control any relay or Scene. A motion sensor is a "Normally Open" Maintain contact closure device, so be sure to select that option when assigning the "Action" for the correct Station Number and Button Number.
6. In the Utilities Menu it asks me how many relays are installed. It was set to 0 from the factory but that is not true, I have many relays. Why is it set this way, or should I change it to my real relay count?
 - a. Time-Keeper considers the relays wired through the 8 wire interface to be installed. Relays in another panels connected through the serial connection are considered external. (see RELAYS INSTALLED section)
7. With Version 1.36, in the utilities menu there is a Smart Switch Present menu, and a Smart Switch diagnostics menu. Will these two options be used for troubleshooting?
 - a. They can be. The Smartswitch present screen tells you what stations are connected and responding correctly. If you have connected a station and it does not show up, the wire maybe broken or the address dip switches are set incorrectly.

TOUCH-PLATE LIGHTING CONTROLS

- b. If you enter the diagnostics section the Time-Keeper will flash the pilot LEDs on the selected station. (see section 13) This allows you locate the specific station with out removing it and inspecting the address switches.
8. If I am running a system that has 24 internal relays, and 24 serial connected relays, How will I set up the Time-Keeper.
 - a. In the “UTILITIES / RELAYS INSTALLED”
 - i. Set “RELAYS : 24”
 - b. Set the first relays connected externally (via Serial connection) addresses to the software revision table above plus 24. Then add the number of relays of that card plus its address to get the next cards address.

Warranty

Touch-Plate® warrants this hardware product against defects in materials or workmanship, under normal use for a period of ONE (1) year from date of shipment. If a hardware defect is to arise and a valid claim is received within the Warranty Period, Touch-Plate® will repair or replace the product at no charge.

This warranty does not apply to:

- a. Damage to unit(s) caused by accident, acts of God, inappropriate installation, faulty installation, or any negligent use;
 - b. Unit(s) which have been subject to being taken apart or otherwise modified;
 - c. Unit not used in accordance with instructions;
 - d. The finish on any portion of the product, such as surface and/or weathering, as this is considered normal wear and tear;
 - e. Non-Touch-Plate hardware installed by the user;
 - f. Damage caused by Non-Touch-Plate products;
 - g. Damage caused by operating the product outside the permitted or intended uses described by Touch-Plate®;
- or
- h. Specific plans or Specific application requirements, unless the plans and specifications have been forwarded to Touch-Plate and Touch-Plate has approved and accepted the plans in writing.

EXCEPT AS PROVIDED IN THIS WARRANTY, TOUCH-PLATE IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, INCLUDING BUT NOT LIMITED TO, INSTALLATION OR REPLACEMENT LABOR COSTS.

Other Important Information

1. If your product is capable of storing data, you should make periodic backup copies of the information contained to protect the contents as a precaution.
2. Do not install hardware in environments that have a temperature range of 0-60°C, as this could shorten the life span of the hardware.