



Ultra 2-Wire Control Station



This document is intended to help technicians/electricians install Ultra 2-Wire Control Stations.

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Preparation

Unpack the Ultra 2-Wire Control Station and inspect the contents for damaged or missing products. If any problems arise, contact Touch-Plate at 260.426.1565 for assistance.

Precautions

The Ultra 2-Wire Control Station hardware is designed for environments with a temperature range of 0-60°C (non-condensing atmosphere). Installing the product outside of these parameters will shorten the life span of the hardware.

Touch-Plate recommends the use of 16 AWG, 2-conductor unshielded basic control wire for low voltage wiring.

Warranty

Touch-Plate warrants this product against defects in materials or workmanship, under normal use, for a period of ONE (1) year from date of shipment. If a defect arises 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;
- h. -or- 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.

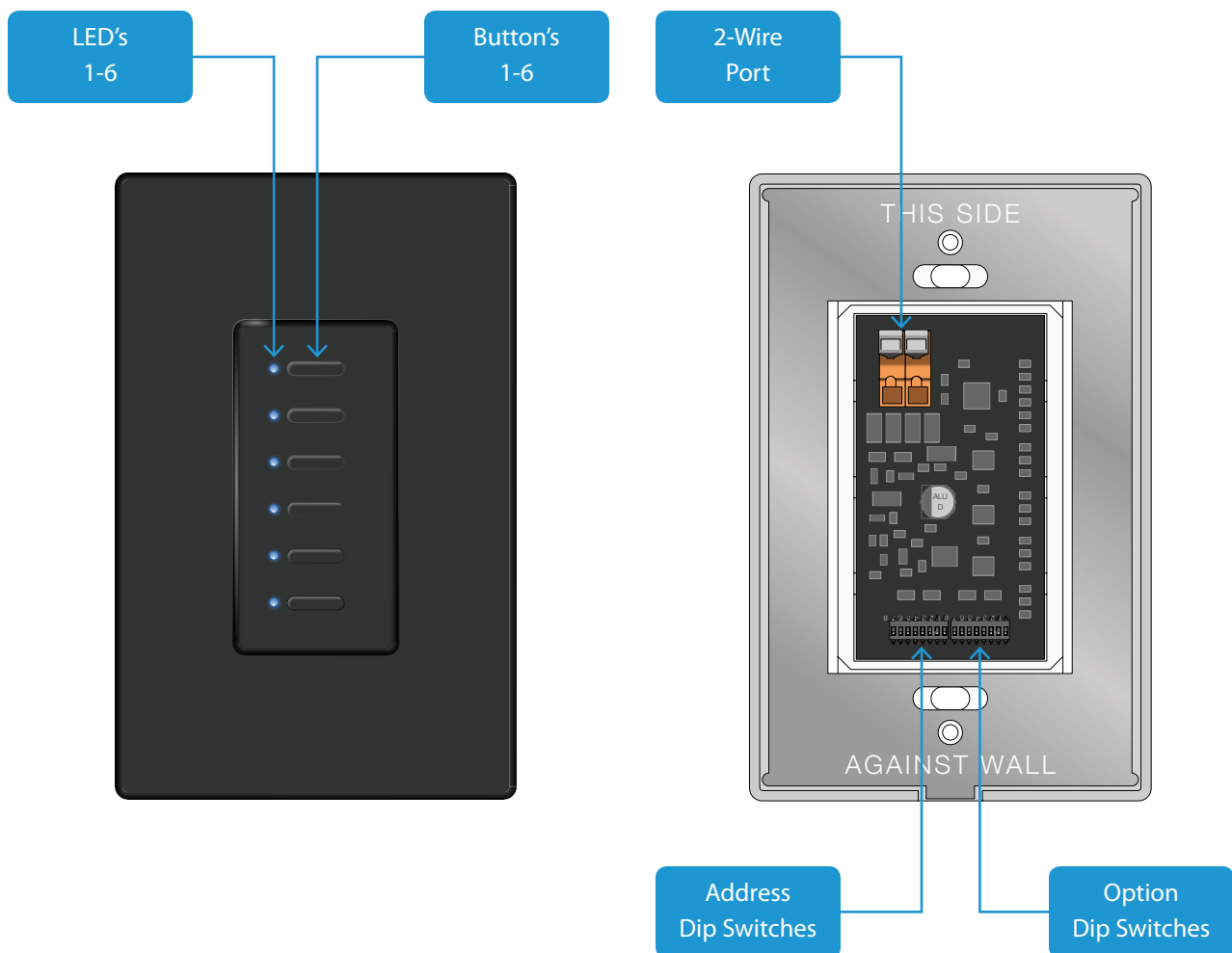
EXCEPT AS PROVIDED IN THIS WARRANTY, TOUCH-PLATE IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, INCLUDING BUT NOT LIMITED TO, INSTALLATION OR REPLACEMENT LABOR COSTS.



Introduction to the Ultra 2-Wire Control Station

The Ultra 2-Wire Control Station is a Digital Control station designed to work with Touch-Plate controllers and gateway products. It has configurable intensity and LED colors via DIP switch selectors on rear side. LED intensity and color change is possible via software when used with Time-Keeper and other intelligent controllers that send digital data via serial ports.

The Ultra 2-Wire Control Station has multiple wiring options, typically referred to as “topology free”, meaning it can be starred / “home-runned”, daisy chained, or any combination. Touch-Plate recommends the use of 16 AWG, 2-conductor unshielded basic control wire, when wiring Ultra 2-Wire Control Stations. Wire connections are NOT polarity sensitive. The Ultra is easy to connect, requiring only 2 wires for power and data.



Ultra 2-Wire Option Dip Switches

The Option Dip Switches are for color and intensity. Use the table to make changes as desired.

If using an intelligent controller, the software will control the color and intensity and override the Option Dip Switch settings.

LED INTENSITY DIP SWITCH			NUMBER OF BUTTONS DIP SWITCH				LED COLOR DIP SWITCH			
1	2		3	4	5		6	7	8	
OFF	OFF	LOWEST	OFF	ON	OFF	2B	OFF	OFF	OFF	OFF
ON	OFF	LOW	OFF	OFF	ON	4B	ON	OFF	OFF	RED
OFF	ON	MEDIUM	OFF	ON	ON	6B	OFF	ON	OFF	GREEN
ON	ON	HIGH					ON	ON	OFF	BLUE
							OFF	OFF	ON	YELLOW
							ON	OFF	ON	PURPLE
							OFF	ON	ON	CYAN
							ON	ON	ON	WHITE



Ultra 2-Wire Address Dip Switches

The Address Dip Switches are used to set the Smart Switch Address. Normally, these Dip Switches come from the factory pre-programmed. Make sure you do not duplicate addresses, each control station must have its own unique address.

Do not change values unless directed by Touch-Plate!!! DIP SWITCH #8 ALWAYS STAYS ON!!!

Address	1	2	3	4	5	6	7	8
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
3	ON	ON	OFF	OFF	OFF	OFF	OFF	ON
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
5	ON	OFF	ON	OFF	OFF	OFF	OFF	ON
6	OFF	ON	ON	OFF	OFF	OFF	OFF	ON
7	ON	ON	ON	OFF	OFF	OFF	OFF	ON
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
9	ON	OFF	OFF	ON	OFF	OFF	OFF	ON
10	OFF	ON	OFF	ON	OFF	OFF	OFF	ON
11	ON	ON	OFF	ON	OFF	OFF	OFF	ON
12	OFF	OFF	ON	ON	OFF	OFF	OFF	ON
13	ON	OFF	ON	ON	OFF	OFF	OFF	ON
14	OFF	ON	ON	ON	OFF	OFF	OFF	ON
15	ON	ON	ON	ON	OFF	OFF	OFF	ON
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON
17	ON	OFF	OFF	OFF	ON	OFF	OFF	ON
18	OFF	ON	OFF	OFF	ON	OFF	OFF	ON
19	ON	ON	OFF	OFF	ON	OFF	OFF	ON
20	OFF	OFF	ON	OFF	ON	OFF	OFF	ON
21	ON	OFF	ON	OFF	ON	OFF	OFF	ON
22	OFF	ON	ON	OFF	ON	OFF	OFF	ON
23	ON	ON	ON	OFF	ON	OFF	OFF	ON
24	OFF	OFF	OFF	ON	ON	OFF	OFF	ON
25	ON	OFF	OFF	ON	ON	OFF	OFF	ON

Through Address 96 - Use the table below to calculate Smart Switch Address

Valid addresses are from 1 to 96. Addresses are set using the eight Address Dip Switches, which each have a value noted in the chart below.

Address Dip Switch	1	2	3	4	5	6	7	8
Value	1	2	4	8	16	32	64	128

The values of all switches in the ON position are added together and the total is equal to the address. See the examples below:

- Smart Switch Address 1: Turn on switch 1 only, and leave all other Address switches off.
- Smart Switch Address 13: Turn on Address Dip Switches 1, 3 and 4. The values of those switches is $1 + 4 + 8 = 13$.



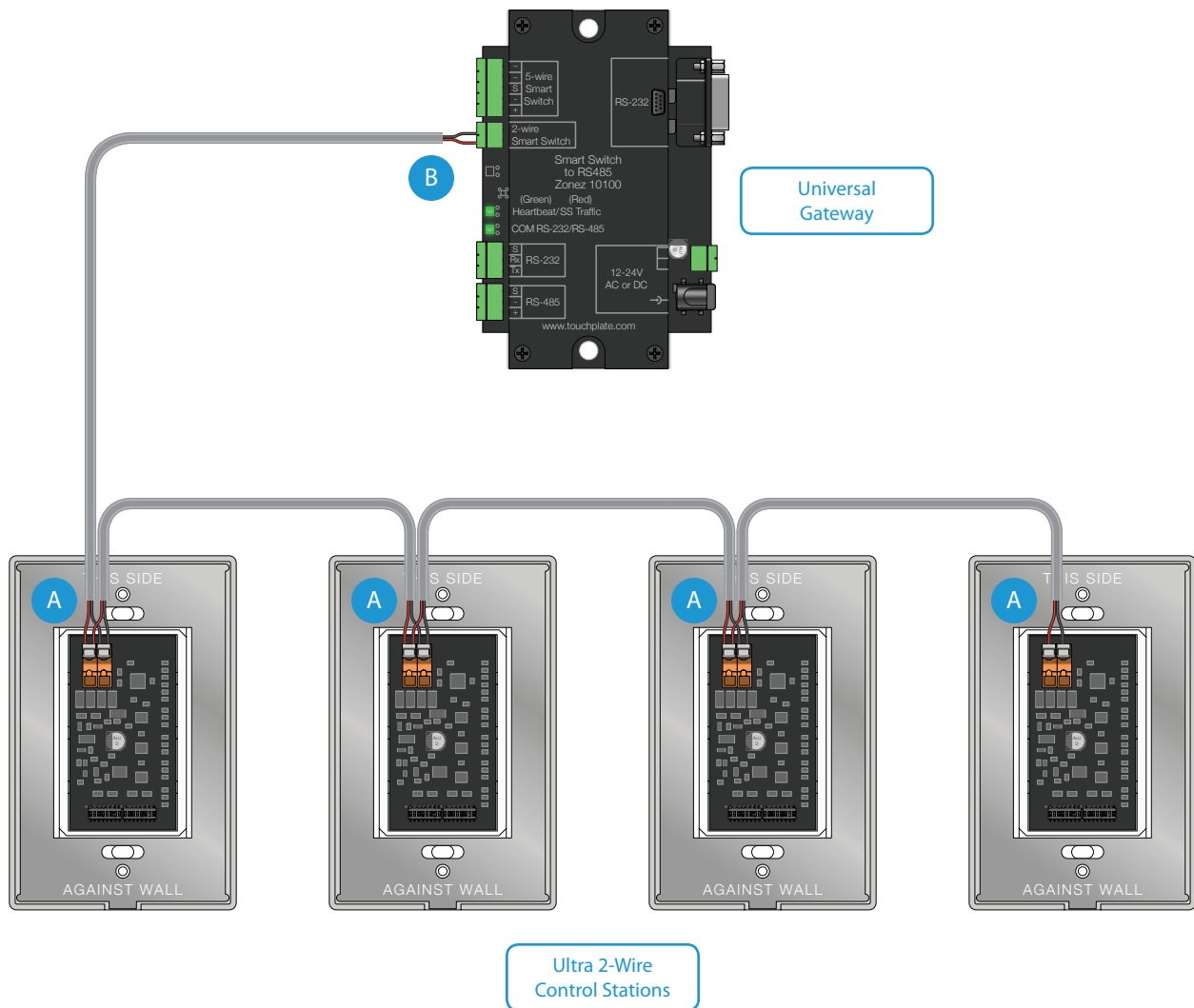
Wiring the Ultra 2-Wire to the Universal Gateway

- Maximum of sixteen (16) Ultra 2-Wire Control Stations per run
- Maximum wire length of 1,000 feet

This diagram indicates how the Ultra 2-Wire Control Stations can be wired to the Universal Gateway.

Wiring Instructions

- The 2-Wire port (colored terminals) are the power and data connections to the Universal Gateway.
- Connect the Ultra 2-Wire Control Station to the two position port on the left of the Universal Gateway.

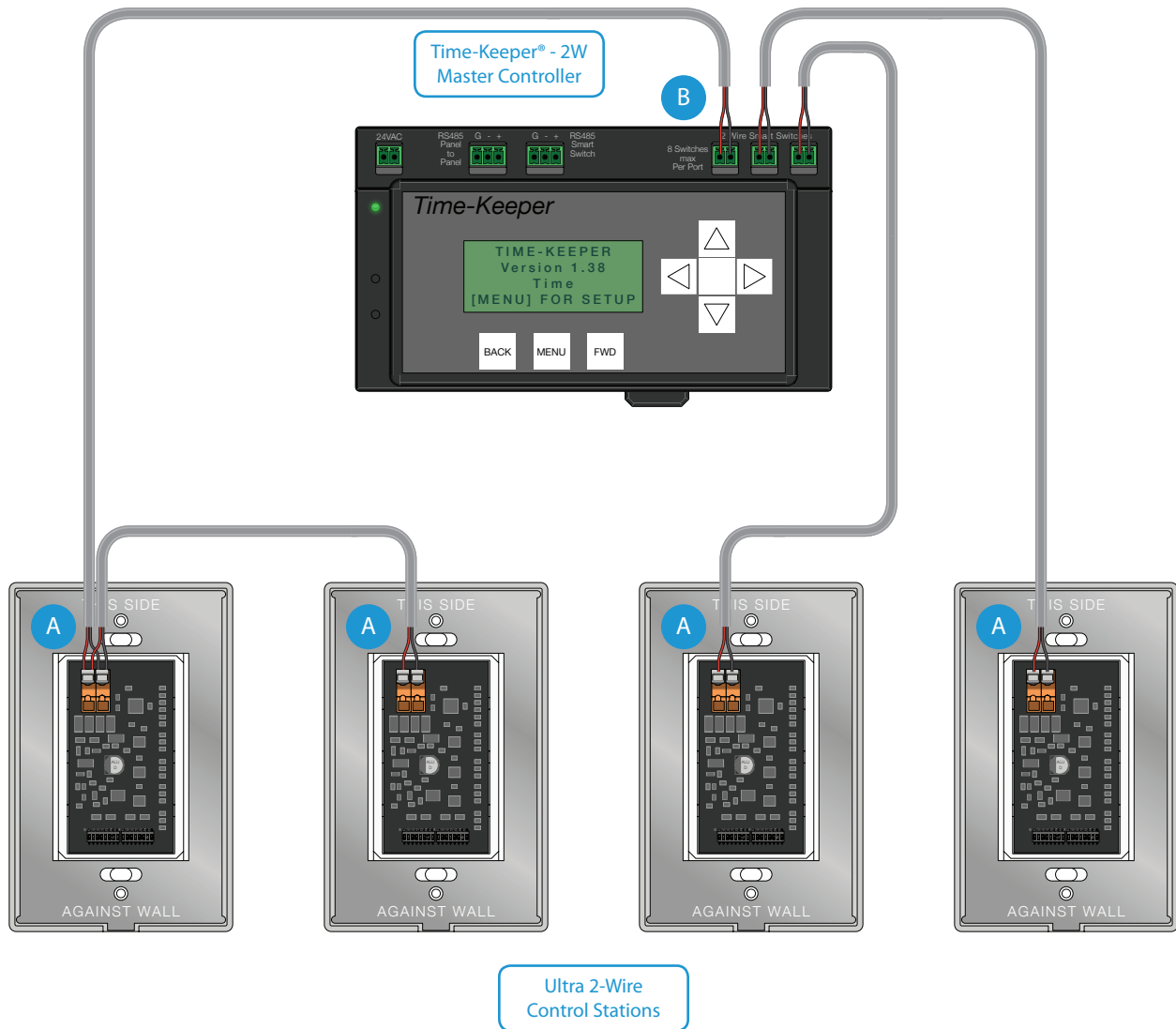


Wiring the Ultra 2-Wire to Time-Keeper®-2W

- Maximum of six (6) Ultra 2-Wire Control Stations per run
- Overall wire length of 500 feet per run

Wiring Instructions

- A** The 2-Wire port (colored terminals) are the power and data connections to the Time-Keeper-2W.
- B** The two position ports on the top right of the Time-Keeper-2W is the connection to the Ultra 2-Wire Control Station.

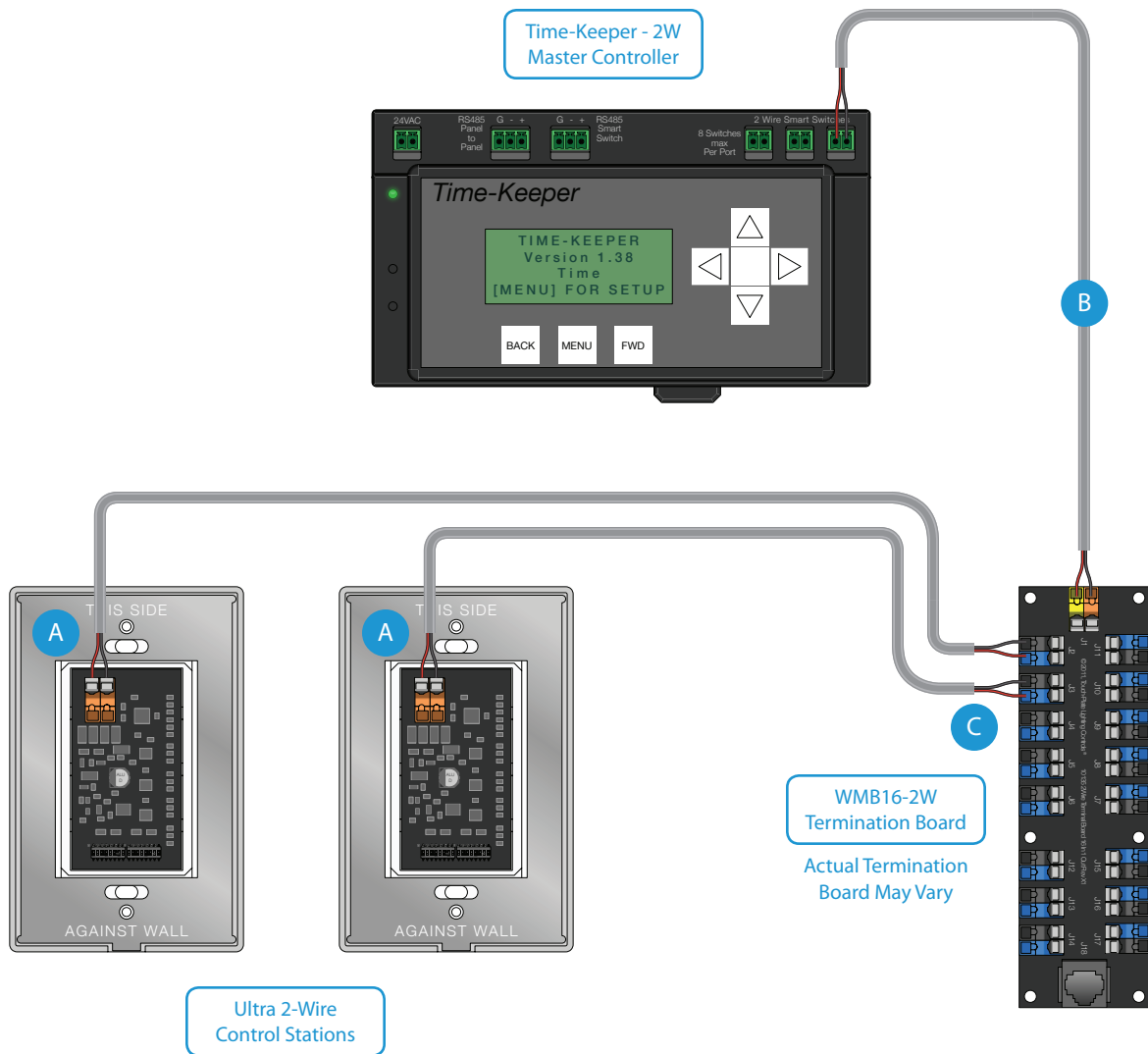


Wiring the Ultra 2-Wire to Time-Keeper®-2W and WMB16-2W

- Maximum of six (6) Ultra 2-Wire Control Stations per Termination Board
- Overall wire length of 500 feet per run

Wiring Instructions

- The 2-Wire port (colored terminals) on the Ultra 2-Wire is the power and data connection to the Time-Keeper-2W.
- Connect the two position ports on the top right of the Time-Keeper-2W to the connection at the top of the Termination Board.
- Individually connect each Ultra 2-Wire Control Station to a port (colored terminals) on the Termination Board.



Wiring the Ultra 2-Wire to Time-Keeper®-MAX and CSM-48

- Maximum of sixteen (16) Ultra 2-Wire Control Stations per run
- Maximum distance of 1000 feet per run

Wiring Instructions

- The 2-Wire port (colored terminals) are the power and data connections to the CSM-48 2-Wire Control Station Manager.
- The 2-Wire port (colored terminals) on the CSM-48 2-Wire Control Station Manager is the power and data connection to the Ultra 2-Wire Control Station.
- Connect the RJ-45 port on the top right of the Time-Keeper-MAX to the RJ-45 port at the bottom of the CSM-48 2-Wire Control Station Manager.

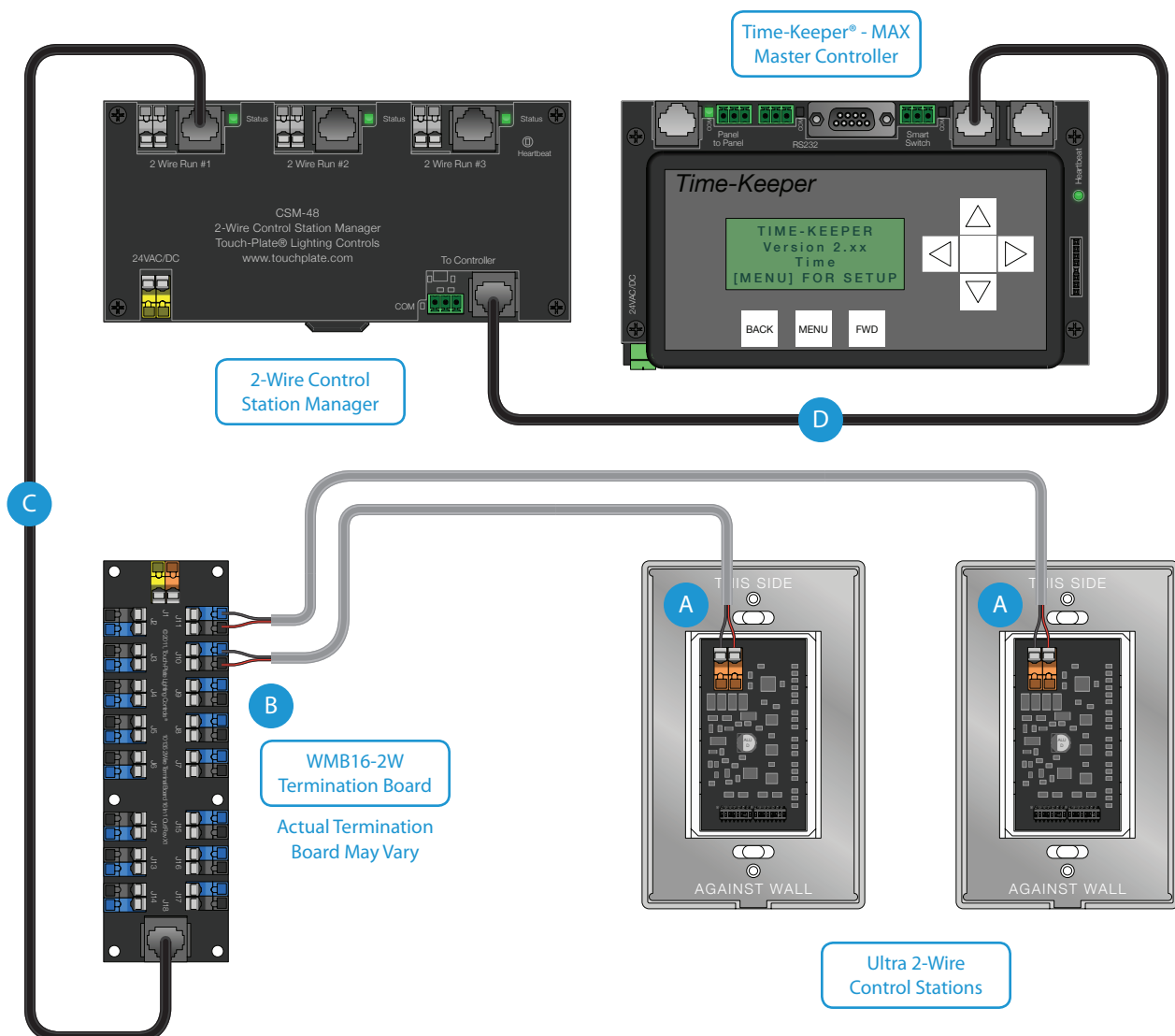


Wiring the Ultra 2-Wire to Time-Keeper®-MAX, CSM-48 and WMB16-2W

- Maximum of sixteen (16) Ultra 2-Wire Control Stations per Termination Board
- Maximum distance of 1000 feet per run

Wiring Instructions

- The 2-Wire port (colored terminals) are the power and data connections to the WMB16-2W Termination Board.
- Individually connect each Ultra 2-Wire Control Stations to a port (colored terminals) on the Termination Board.
- Connect the RJ-45 port on the bottom of the WMB16-2W Termination Board to the RJ-45 port at the top of the CSM-48 2-Wire Control Station Manager.
- Connect the RJ-45 port on the bottom of the CSM-48 2-Wire Control Station Manager to the RJ-45 port at the top of the Time-Keeper-MAX.

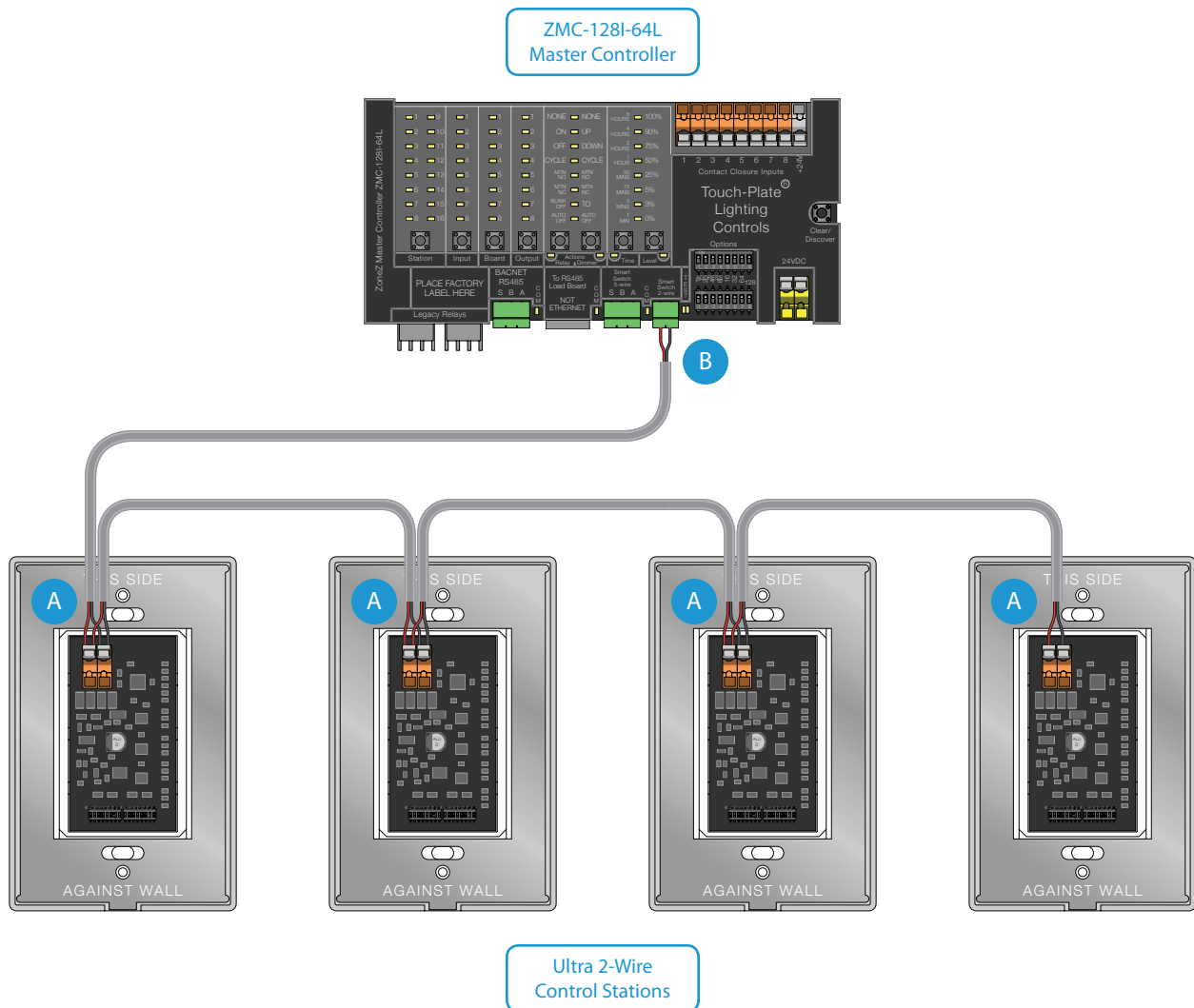


Wiring the Ultra 2-Wire to ZMC-128I-64L

- Maximum of sixteen (16) Ultra 2-Wire Control Stations per run
- Maximum of 1000 foot overall wire length

Wiring Instructions

- A** The 2-Wire port (colored terminals) are the power and data connections to the ZMC-128I-64L.
- B** The two position port on the bottom right of the ZMC-128I-64L is the connection to the Ultra 2-Wire Control Stations.



Wiring the Ultra 2-Wire to ZMC-128I-64L and WMB16-2W

- Maximum of sixteen (16) Ultra 2-Wire Control Stations per Termination Board
- Maximum of 1000 foot overall wire length

Wiring Instructions

- The 2-Wire port (colored terminals) are the power and data connections to the WMB16-2W Termination Board.
- Individually connect each Ultra 2-Wire Control Stations to a port (colored terminals) on the Termination Board.
- Connect the two position port on the bottom of the ZMC-128I-64L to the connection at the top of the WMB16-2W Termination Board.

