# ■ SBZ Zone Series 2.5" and 4"
Digital Clock Description

The SBZ Series digital zone clock has the capability to have multiple time zones on one (1) system. SBZ Series digital clocks are available with either 2.5" or 4.0" high characters in a four (4) digit display. The SBZ Series digital clocks are reliable slave clocks that work on Sapling two (2) wire digital communication or a RS485 protocol. The SBZ Series is based on our high efficiency, bright LED display. The clocks implement immediate correction upon receipt of the digital signal. The SBZ has a series of options such as 12 or 24 hour format, display "Bell" or "FirE" messages, as well as two (2) brightness settings. The SBZ Series clock also features LEDs on the board to show if it is receiving and transmitting data, making it easier to maintain and install. The unique, specially molded anti–glare bezel gives a smooth, clean look with no visible external screws. The SBZ Series zone clocks come in two (2) types of metal cases that can be mounted flush or surface. The SBZ Series is FCC approved.

Highlights

▸ Switch for time zone offset in one (1) hour increments
▸ Immediate correction for time change
▸ Clocks will not deviate from each other
▸ Available in 2.5" and 4.0" display
▸ Available in red or blue displays
▸ 12 or 24 hour format
▸ LEDs for visual representation of the receiving and transmitting of data
▸ Available in a variety of colors or custom colors
▸ Custom characters and letter tones available
▸ "BELL", "FirE" messaging capabilities
▸ Choice of two (2) wire digital communication protocol or RS485 protocol
▸ Bright LED display
▸ Anti–glare red or blue bezel
▸ No battery backup required
▸ Unlimited clocks can be run off the same communication line (RS485 only)
▸ Dynamic range for input voltages
   • 12—30 VDC (24 Volt model)
   • 12—30 VAC (24 Volt model)
   • 78—130 VAC(110 Volt model)
▸ Analog and digital clocks can be combined on the same power line (two (2) wire) or communication line (RS485)
▸ Plug in Molex connectors
▸ Available in 110 VAC or 24 VAC/VDC
▸ FCC approved
▸ Made in the U.S.A.
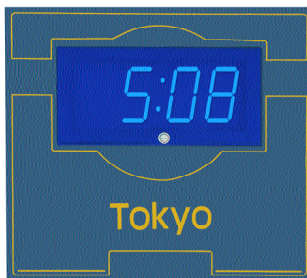
Architectural & Engineering Specifications

The clock shall be a Sapling SBZ Series digital clock and shall have either a full 2.5" or 4.0" high efficiency red or blue LED numeral display. The clock will be able to have multiple time zones in one (1) system. The clock shall operate as a RS485 digital slave clock or as a two (2) wire digital communication digital slave clock. The clock will have data LEDs to display the receiving or sending of data. It will be capable of having a 12 or 24 hour display format. It shall have two (2) levels of adjustable brightness and will immediately correct for time changes. The clock shall be mounted on a low profile surface or wall mount metal case. The clock shall have messaging capabilities including "BELL" and "FirE". When the input is lost, the colon on the display of the clock shall flash. The clock bezel is to be anti–glare red or blue with a smooth surface. No external screws shall be visible on the bezel or clock housing. The clock shall be FCC approved.

Accessories: Page 77

Specifications

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Display Size:	2.5" and 4.0" characters
Display Color:	Vibrant red or blue
Visibility:	2.5" Clock—100 feet 4.0" Clock—250 feet
Bezel Color:	Anti–glare red or blue
Bezel Size: (L x W)	2.5" Clock—4.69" x 10.31" 4.0" Clock—6.75" x 13.31"
Temperature Range Operating: Shelf:	 0°C—45°C −15°C—75°C
Input Voltage for 2.5" Clock:	12—30 VDC (24 Volt) 12—30 VAC (24 Volt) 78—130 VAC (110 Volt)
Input Voltage for 4.0" Clock:	16—28 VDC (24 Volt) 14—28 VAC (24 Volt) 85—135 VAC (110 Volt)
Average Current Consumption (Max Brightness) 2.5" Clock: 4.0" Clock:	 85 mA @ 24 VAC/30 mA @ 110 VAC 190 mA @ 24 VAC/45 mA @ 110 VAC
Signal Input:	RS485 or Two (2) Wire Digital Communication
Signal Output:	RS485 protocol
Display Format:	12 or 24 hour mode
Brightness:	Two (2) levels, adjustable
Mounting Dimensions: (L x W x D)	Flush 2.5"—16.56" x 16" x 1" Flush 4"—18.44" x 19.81" x 1" Surface 2.5"—16.81" x 16" x 3" Surface 4"—18.38" x 19.75" x 3"
Shipping Weight:	5 lbs.
Power Kit Includes:	1—5 pin power harness 1—4 pin RS485 harness 1—grounding wire, loop end 2—sheet metal screws, 10 x 1.5"
Compliance:	FCC approved

Mechanical Drawing

Single Flush Mount

Multiple Flush Mount
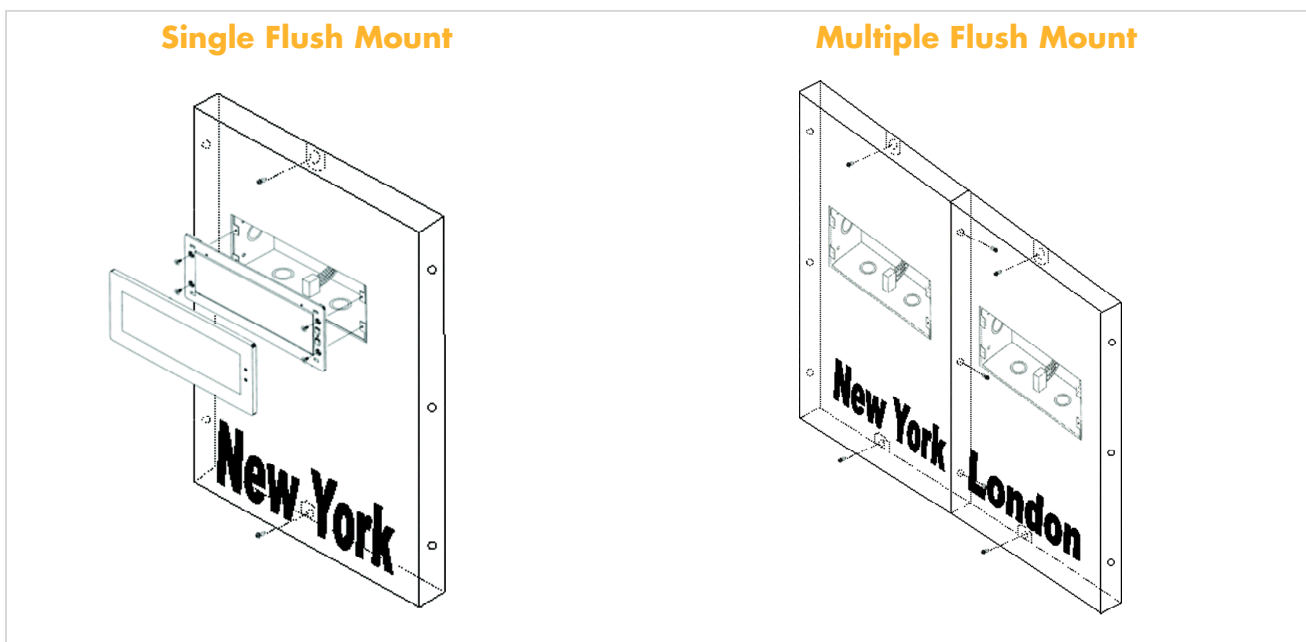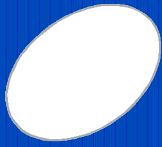
Color Options

STANDARD CHOICE   CUSTOM CHOICES
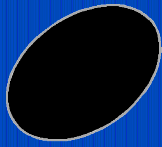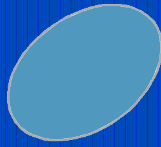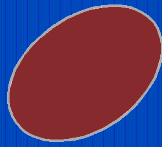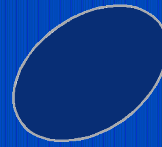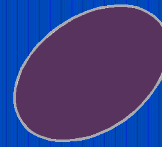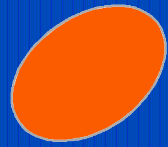
Black
Style 1

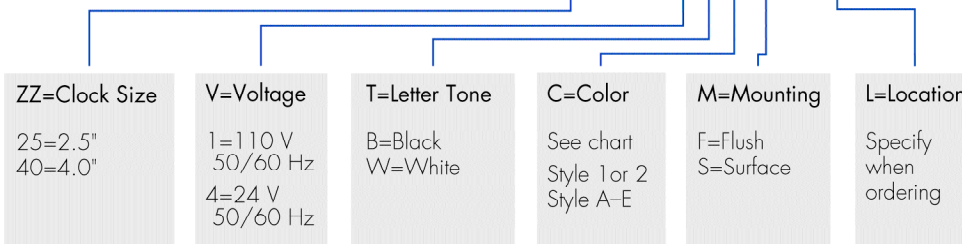White
Style 2

#645
Style A

#188
Style B

#281
Style C

#519
Style D

#166
Style E

Ordering Information

Digital Clock

$$SBZ-103-ZZ4-VTCM-L$$

ZZ=Clock Size	V=Voltage	T=Letter Tone	C=Color	M=Mounting	L=Location
25=2.5" 40=4.0"	1=110 V 50/60 Hz 4=24 V 50/60 Hz	B=Black W=White	See chart Style 1or 2 Style A–E	F=Flush S=Surface	Specify when ordering

Options:
Additional Power Kits: 24 Volt: D–PKZ–1–24 or 110 Volt: D–PKZ–1–110

Example:
SBZ–103–404–01BAS

2.5" and 4" Digital Clock

2 Wire Digital Communication

SSM Series Master Clock
with Converter Option

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New York
SBZ 1000 Series Analog Clock
24V Model

Madrid
SBZ 1000 Series Analog Clock
24V Model

Los Angeles
SBZ 1000 Series Analog Clock
24V Model

RS485 Communication

SSM Series Master Clock

4 3

110 / 24VAC

Common
Power

New York
SBZ 1000 Series Analog Clock
110 / 24V Models

Madrid
SBZ 1000 Series Analog Clock
110 / 24V Models

Los Angeles
SBZ 1000 Series Analog Clock
110 / 24V Models

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Please note the following:

For 110V model:
Connect the black and white wires from the 5 pin harness on the digital clock to power and neutral.

For 24V model:
Connect the orange and yellow wires from the 5 pin harness on the digital clock to power and neutral.

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If a transformer is needed for a 24 volt system, please select from the following:

Part Number:
35–M015 (6.2A)
35–M020 (10.4A)
35–M025 (20.8A)
35–M030 (31.2A)

SBZ Zone Series Digital Clock

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