

# **SLD Premium Large Digital Clock (V2.7)**



#### **Features**

- 6.0" (15.2 cm), 9.0" (22.9cm) or 12.0" (30.5cm) digits
- 24V, 110VAC, 230VAC or PoE power supply (PoE in select IP clocks only)
- 12 or 24 hour display
- Red display standard; Optional White, Green, or Amber displays
- Immediate correction for time change
- Microprocessor based clock
- Automatic LED brightness adjustment based on outside lighting conditions.
- Automatic Daylight Saving Time change (if applicable)

### **Highlights**

- Built-in web interface Each clock has a built in web interface allowing the user to set up, control, and monitor the clock
  - Web interface settings include: Network settings, NTP server selection, UTC/GMT offset selection, automatic Daylight Saving Time adjustments, and much more!
- Ability to alternate between time and date in U.S. (MM:DD:YY) and international (DD:MM:YY) format at user-changeable rates
- Ten year battery backup for internal real time clock and clock settings.
- Capable of Interfacing with Sapling's Elapsed Timer Control Panel (SBD-ELT-001-0), Temperature Sensor (SLD-TEMP-000-0), and Buzzer (L-BUZZ-3300-1) accessories.
- Four selectable display font options.
- The clock features time loss notification by flashing the colon
- In addition to your chosen synchronization method, all versions of the clock support a variety of wired protocols. These protocols include 2-Wire Communication, RS485, 58 minute, 59 minute, National Time and Rauland sync-wire, Dukane Digital, and Once a Day Closure.
- Can interface with a third party system via a contact closure such as a nurse call system that can automatically trigger an elapsed timer.
- Designed and Produced by Sapling Inc. in Pennsylvania, United States of America



# SLD Premium Large Digital Clock (V2.7)

Sapling large Digital Clocks are offered with synchronization methods to cover all of your project needs. Each method comes with bonus features that add additional capabilities to the clock!

### Wi-Fi Clocks

- Interfaces with Sapling's Clock Monitor software which will allow the user to view, monitor, and access all of the clocks in the system
- Receives time data from one of five pre-programmed third party NTP servers (user changeable) for added reliability and redundancy. Alternatively, it can be set to receive the time data from an in-house NTP Server or from any Sapling Master Clock model.
- Accepts encryption protocols for enterprise network environments.

#### Wired IP Clocks

- Interfaces with Sapling's Clock Monitor software which will allow the user to view and monitor all IP clocks in the system.
- Receives time data from one of five pre-programmed third party NTP servers (user changeable) for added reliability and redundancy. Alternatively, it can be set to receive the time data from an in-house NTP Server or from any Sapling Master Clock model.
- Select models available with Power-over-Ethernet (PoE) powering options.

### 900 MHz/2.4 GHz Wireless Clocks

- Each clock acts as a repeater for the time data signal
- Either 900 MHz or 2.4 GHz frequency hopping technology to ensure signal reliability
  - No FCC or special operating license required
- Receives time correction once every minute
- "BELL" and "FirE" messaging capabilities
- Capable of receiving pre-scheduled countdown command from the SMA Master Clock (optional SMA function)

### 900 MHz/2.4 GHz Wireless TalkBack Clocks

- Each clock acts as a repeater for the time data signal
- Either 900 MHz or 2.4 GHz frequency hopping technology to ensure signal reliability
  - No FCC or special operating license required
- Receives time correction once every minute
- "BELL" and "FirE" messaging capabilities
- Capable of receiving pre-scheduled countdown command from the SMA Master Clock (optional SMA function)

### **GPS Clocks**

- Obtains Time Data at minimal infrastructure cost to the user via GPS satellites.
- Same reliable system as used by commercial and military navigation systems.





## **SLD Premium Large Digital Clock (V2.7)**

### **Specifications - All Clocks**

**Case Material:** 

Aluminum

**Case Color:** 

Black

Mounting:

Wall or Double Mount

**Brightness:** 

Four levels, adjustable

**Wired Signal Input Options:** 

RS485, 2-Wire Digital Communication (24V model only), 59 minute correction, 58 minute correction, National Time/Rauland, Dukane, Once-a-Day Pulse

**Wired Signal Output:** 

RS485, 59 minute correction, 58 minute correction, National Time/Rauland, Rauland Digital, Once-a-Day Pulse

**Temperature Range** 

-40°F to 167°F (-40°C to +75°C)

**Ingress Protection Rating:** 

IP 66 (Outdoor only)

**Voltage Input:** 

22-28V (24 Volt Model)

85-130 VAC (115 Volt Model)

180-260 VAC (230 Volt Model)

48V Power over Ethernet (PoE Model)

Power over Ethernet Class (PoE Model Only):

Class 3

Average Current Consumption (Maximum Brightness for Red Display):

6.0" (15.2 cm) 4 and 6 Digit Clock:

250 mA @ 24 V

50 mA @ 115 VAC

25 mA @ 230 VAC

9.0" (22.9 cm) 4 and 6 Digit Clock:

340 mA @ 24 V

68 mA @ 115 VAC

34 mA @ 230 VAC

12.0" (30.5 cm) 4 and 6 Digit Clock:

775 mA @ 24 V

155 mA @ 115 VAC

78 mA @ 230 VAC

Wi-Fi

**Data Protocols:** 

NTP, SNTP

**Network Protocols:** 

IPv4

**Compatible Wi-Fi Communication Protocols:** 

802.11 b/g/n (2.4GHz only)

**Compatible Security Protocols:** 

WEP, WPA/WPA2, EAP-PAEP

IΡ

**Signal Input:** 

(S)NTP via RJ45 connector

**Data Protocols:** 

NTP, SNTP, Sapling Proprietary

**Network Protocols:** 

IPv4

Wireless/Wireless Talkback

**Receiver Sensitivity:** 

-103 dBm

**Transmitter Power Output:** 

8 dBm

Operating Frequency (900MHz model):

915-928 MHz frequency-hopping technology

Operating Frequency (2.4GHz model):

2.4 GHz frequency-hopping technology

**Compliances** 

FCC:

part 15 of the FCC Rules, Class B (DoC), IC ICES-003 Issue 6-2016

CE:

EN 55032, EN 55035, IEC 62236-4

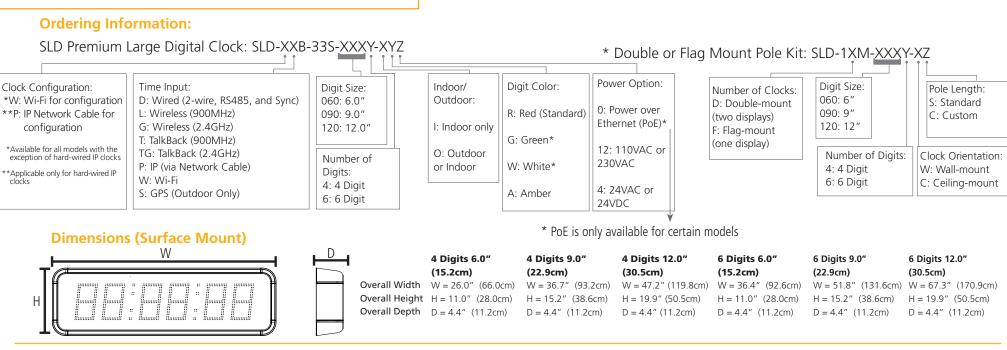
**IK Rating:** 

09

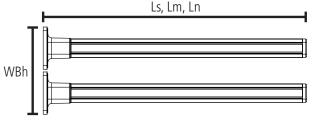


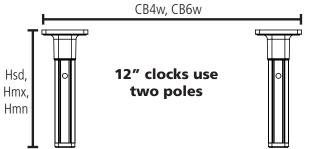
## Synchronized Clock Systems

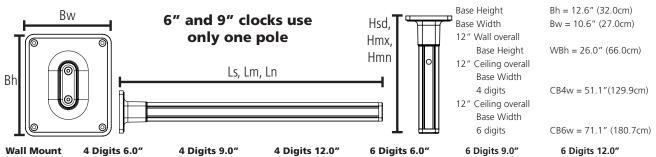
# **SLD Premium Large Digital Clock (V2.7)**











 Std Pole Length:
 Ls = 37.1" (94.2cm)
 Ls = 47.8" (121.4cm)
 Ls = 58.4" (148.3cm)
 Ls = 47.6" (120.8cm)
 Ls = 63.0" (160.0cm)
 Ls = 78.4" (199.1cm)

 Max Pole Length:
 Lm = 45.4" (115.2cm)
 Lm = 56.1" (142.4cm)
 Lm = 66.7" (169.4cm)
 Lm = 55.8" (141.8cm)
 Lm = 71.2" (181.9cm)
 Lm = 86.6" (220.0cm)

 Min Pole Length:
 Ln = 33.4" (84.7cm)
 Ln = 44.1" (111.9cm)
 Ln = 54.7" (138.9cm)
 Ln = 43.8" (111.3cm)
 Ln = 59.2" (150.4cm)
 Ln = 74.6" (189.6cm)

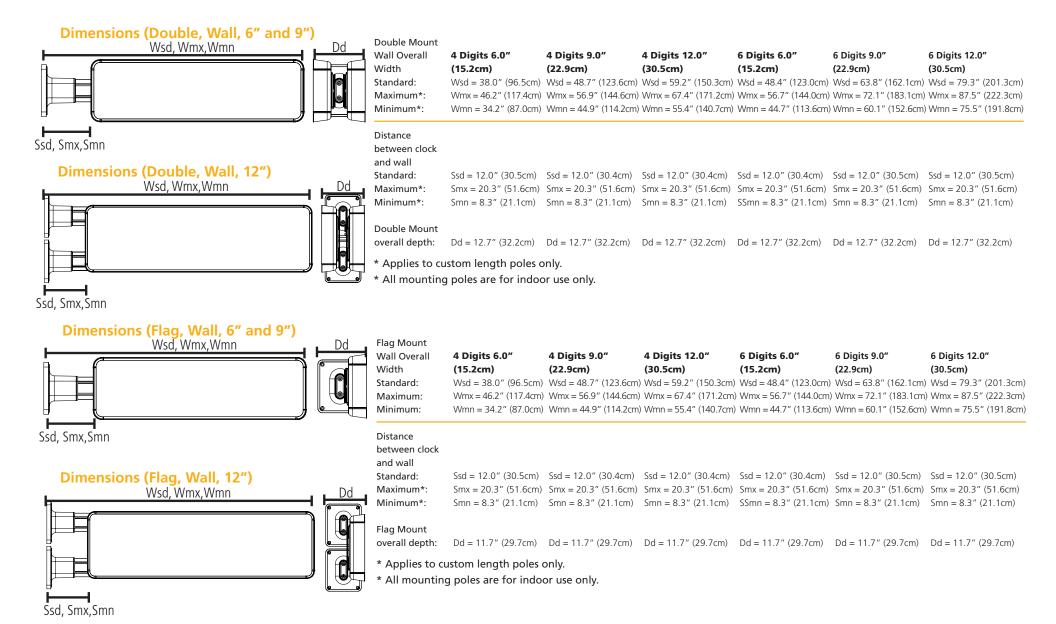
Celling Mount	4 Digits 6.0	4 Digits 9.0	4 Digits 12.0	o Digits 6.0	o Digits 9.0	o Digits 12.0
	(15.2cm)	(22.9cm)	(30.5cm)	(15.2cm)	(22.9cm)	(30.5cm)
Std Pole Height:	Hsd = 21.1" (53.5cm)	Hsd = 23.1" (58.7cm)	Hsd = 32.2" (81.8cm)	Hsd = 21.1" (53.5cm)	Hsd = 23.1" (58.7cm)	Hsd = 32.2" (81.8cm)
Max Pole Height*	:Hmx = 29.3" (74.5cm)	Hmx = 31.4" (79.7cm)	Hmx = 40.5" (102.9cm)	) Hmx = 29.3" (74.5cm)	Hmx = 31.4" (79.7cm)	Hmx = 40.5" (102.9cm)
Min Pole Height*:	: Hmn = 17.3" (44.0cm)	Hmn = 19.4" (49.2cm)	Hmn = 28.5" (72.4cm)	Hmn = 17.3" (44.0cm)	Hmn = 19.4" (49.2cm)	Hmn = 28.5" (72.4cm)

- \* Applies to custom length poles only.
- \* All mounting poles are for indoor use only.



## Synchronized Clock Systems

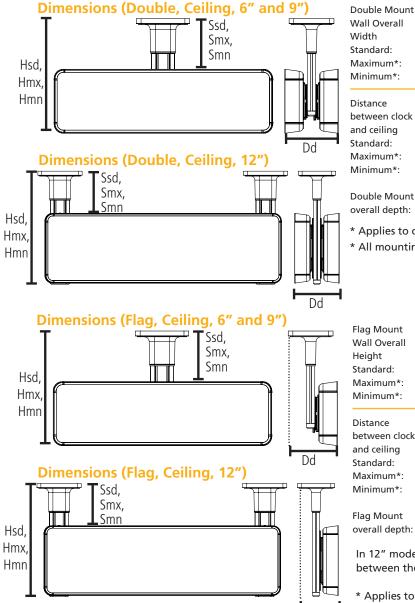
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### Synchronized Clock Systems

# **SLD Premium Large Digital Clock (V2.7)**



	Double Mount						
	Wall Overall	4 Digits 6.0"	4 Digits 9.0"	4 Digits 12.0"	6 Digits 6.0"	6 Digits 9.0"	6 Digits 12.0"
	Width	(15.2cm)	(22.9cm)	(30.5cm)	(15.2cm)	(22.9cm)	(30.5cm)
1	Standard:	Hsd = 23.0" (58.4cm)	Hsd = 27.2" (69.0cm)	Hsd = 32.2" (81.8cm)	Hsd = 23.0" (58.4cm)	Hsd = 27.2" (69.0cm)	Hsd = 32.2" (81.8cm)
	Maximum*:	Hmx = 31.3" (79.4cm)	Hmx = 35.5" (90.0cm)	Hmx = 40.5" (102.8cm)	Hmx = 31.3" (79.4cm)	Hmx = 35.5" (90.0cm)	Hmx = 40.5" (102.8cm)
	Minimum*:	Hmn = 19.3" (49.0cm)	Hmn = 23.5" (59.6cm)	Hmn = 28.5" (72.3cm)	Hmn = 19.3" (49.0cm)	Hmn = 23.5" (59.6cm)	Hmn = 28.5" (72.3cm)
	Distance						

(30.5cm)
(51.6cm)
(21.1cm)
,,

Dd = 12.7" (32.2cm) Dd = 12.7" (32.2cm)

\* Applies to custom length poles only.

\* All mounting poles are for indoor use only.

Wall Overall	4 Digits 6.0"	4 Digits 9.0"	4 Digits 12.0"	6 Digits 6.0"	6 Digits 9.0"	6 Digits 12.0"
Height	(15.2cm)	(22.9cm)	(30.5cm)	(15.2cm)	(22.9cm)	(30.5cm)
Standard:	Hsd = 23.0" (58.4cm)	Hsd = 27.2" (69.0cm)	Hsd = 32.2" (81.8cm)	Hsd = 23.0" (58.4cm)	Hsd = 27.2" (69.0cm)	Hsd = 32.2" (81.8cm)
Maximum*:	Hmx = 31.3" (79.4cm)	Hmx = 35.5" (90.0cm)	Hmx = 40.5" (102.8cm)	Hmx = 31.3" (79.4cm)	Hmx = 35.5" (90.0cm)	Hmx = 40.5" (102.9cm)
Minimum*:	Hmn = 19.3" (49.0cm)	Hmn = 23.5" (59.6cm)	Hmn = 28.5" (72.4cm)	Hmn = 19.3" (49.0cm)	Hmn = 23.5" (59.6cm)	Hmn = 28.5" (72.4cm)

Distance						
between clock						
and ceiling						
Standard:	Ssd = 12.0" (30.5cm)					
Maximum*:	Smx = 20.3" (51.6cm)					
Minimum*:	Smn = 8.3" (21.1cm)					

overall depth: Dd =11.7" (29.7cm) Dd =11.7" (29.7cm)

In 12" models, the bracket end cap is lower than the bottom of the clock. Hsd/Hmx/Hmn for 12" models refers to the distance between the lowest part of the end cap and highest point of the mounting pole base.

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- \* All mounting poles are for indoor use only.