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Product Guide Specification

Specifier Note: This product specification is written according to the Construction Specifications Institute (CSI), *MasterFormat*™, *SectionFormat,* and *PageFormat,* contained in the CSI *Manual of Practice.*

The section must be carefully reviewed and edited by the Architect/Engineer/Consultant to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the drawings.

Delete all "Specifier Notes" when editing this section.

DIVISION 16731

WIRELESS DIGITAL DISPLAY CLOCKS & TIMERS

Specifier Note: This section covers Wireless Digital Display clocks and Timers. These must be specified as components of a Primex Wireless GPS Wireless Clock System. Contact Primex Wireless for assistance with editing this section

Part 1 General Requirements and Scope

Furnish and install a complete new wireless digital clock and timer system using Primex Wireless Inc. GPS Wireless Clock system.
All bids shall be based on the equipment as specified herein. The specifying authority must approve any alternate system.
(Reference Division 16730 Clock Systems)

Specifier Note: Edit the following list as required for the project.

1.1 Section Includes

Wireless Digital Clocks
Wireless Digital Elapsed Timers
Wireless Digital Code Blue Timers
Wireless Digital Programmable Countdown Timers

Specifier Note: Edit the following list as required for the project. List other sections with work directly related to this section.

1.2 Related Sections

Division 16010 – Electrical (120 VAC or 24 VAC) required for Clocks/timers.
Division 16730 – GPS Wireless Clock System or 1 watt external/ Commandpoint
Division 16735 – Wireless Bell and Tone Synchronization System

Specifier Note: List standards referenced in this section, complete with designations and titles. This article does not require compliance with

1.3 References

This Technical Specification and Associated Drawings
Primex Wireless Code Blue Digital Timer User Manual.
Primex Wireless Digital Clock Setup Instructions
Primex Wireless Programmable Timer user Manual
Primex Wireless Event Scheduler Pro Manual
Primex Wireless Elapsed Timer User Manual.

1.4 Definitions

GPS: Global Positioning System, a worldwide system that employs 24 satellites in an integrated network to determine geographic location anywhere in the world, and which employs and transmits Universal Coordinated Time, the world's most accurate and reliable time.
PC: Personal Computer (owner furnished)
UTC: Universal Coordinated Time

1.5 System Description

The system shall provide wireless time using GPS and be synchronized to UTC each clock/timer and every other component in the system shall use both precise time and synchronized time.

Clock locations shall be as indicated

The system must operate in accordance with an "Industry Canada Authorization" – granted by Industry Canada. This license will be issued to and held by the end user.

1.6 Regulatory Requirements

Equipment and components furnished shall be of manufacturer's latest model.

The end user will hold a license, known as a "Non Complex Fixed Station" Radio License granted by Industry Canada and the Ministry of Industry

This license grants the end user protected use for wireless transmission at the designated frequency.
Station" Radio License granted by Industry Canada and the Ministry of

This license will designate a unique "call sign" for each end user.
IC-2365: Application for "License to Install and Operate a Radio Station in Canada" must be completed and signed by end user prior to license issuance. The end user will grant permission for Primex Wireless to apply for the license on their behalf. Primex Wireless will provide all documents and technical information to Industry Canada for approval.

Transmitter frequency shall be governed by IC: RSS119 Issue 6.

Transmitter output power shall be governed by IC: RSS119 Issue 6

This device may not cause harmful interference, and

This device must accept interference received, including interference that may cause undesired operation.

Transmitter and receiver shall comply with RSS 119 of Issue 6 of Industry Canada specifications as follows:

Transmitter frequency shall be governed by IC: RSS119 Issue 6.

Transmitter output power shall be governed by IC: RSS119 Issue 6

System shall be installed in compliance with local and state authorities having jurisdiction.

1.7 Submittals

Product Data: Submit complete catalog data for each component, describing physical characteristics and method of installation. Submit brochure showing available colors and finishes of clocks.

Submit IC Technical Acceptance Certificate prior to installing equipment. Furnish the license or a copy of the application for the license, to the

Owner/End User prior to operating the equipment. The original license must be delivered to the Owner/End User.

1.8 Substitutions

Proposed substitutions, to be considered, shall be manufactured of equivalent materials that meet or exceed specified requirements of this Section.

Proposed substitutions shall be identified not less than 10 days prior to bid date.

Other systems requiring wiring and/or conduit between master and clocks will not be accepted.

Other systems using wireless technology in an unlicensed frequency range will not be accepted.

Other systems using wireless technology where the license is held by any party other than the owner will not be accepted.

1.9 Quality Assurance

Permits: Obtain operating license for the transmitter from Industry Canada.

Qualifications:

Manufacturer: Company specializing in manufacturing commercial time System products with a minimum of 30 continuous years of documented experience including 4 years experience producing GPS wireless time systems.

Installer: Company with documented experience in the installation of commercial time systems.

Prior to installation, a site survey must be performed to determine proper transmitter placement.

1.10 Delivery Storage and Handling

Deliver all components to the site in the manufacturer's original packaging. packaging shall contain manufacturer's name and address, product identification number, and other related information.

Store equipment in finished building, unopened containers until ready for installation.

1.11 Project Site Conditions

For Programmable Countdown Timer verify that a PC having the specified minimum system requirements will be available for use in programming the programmable timer. See 2.3 below for system requirements

Clocks/ timers shall not be installed until painting and other finish work in each room is complete.

1.12 System Startup

At completion of installation and prior to final acceptance, turn on the equipment; ensure that all equipment is operating properly, and that all clocks/ timers are functioning.

1.13 Warranty

Manufacturer will provide a 1 year warranty on wireless digital clocks and Timers

Part 2 – Products

2.1 Manufacturer

Wireless Digital clocks and timers shall be manufactured by Primex Wireless, Inc., 1310 Kerrisdale Blvd. Unit #4, Newmarket, ON L3Y 8V6
Phone (800) 330-1459 FAX (905) 952-0134 www.primexwireless.com

2.2 Equipment

Specifier Note:
Select optional digit style, colors, and case styles from manufacturer's brochure.

Digital Clocks

Wireless Digital Clocks: Primex Wireless Model 14203, 4 inch (101.6mm) - 6 digit, 7 segment LED display.

Wireless digital display clocks & timers must have time and date option.

Wireless digital display clocks& timers shall be capable of automatically adjusting for Daylight Saving Time

Wireless digital clocks &timers must be viewable from 150 feet (45.7m) LED digits shall be red or green.

Digital Timers

Wireless Digital Elapsed Timer Primex Wireless Model 14202E 2.5 inch (101.6mm) - 6 digit 7 segment LED display
Elapsed Timers must function as clocks or function as countdown /count up interval timers when programmed with a 3 button wall mount control switch.
Elapsed Timers shall include a 3 button wall mountable control switch. This control will be mounted in a single gang electrical box. Control cover plate shall be stainless steel. Control buttons must be washable with water and common disinfectants.
Switch control shall connect to timer with 9ft. (2.7 m) 3 pair UTP Telco cable. Connection between control and cable shall be a 3 pair modular plug and jack

Primex Wireless Digital Programmable Timer Primex Wireless Model 14203P 4 inch (101.6mm) - 6 digit 7 segment LED display
Wireless Digital Programmable Timers must function as clocks and must Display countdown time between programmed events.

Wireless Digital Code Blue Timer Primex Wireless Model XRA1B202C 2.5 inch (63.5mm) 6 digit -7 segment LED display.
Code Blue Timers must function as clocks and must integrate seamlessly to facility's existing code blue control

Code Blue Timers shall include a 3 button wall mountable control switch. This control will be mounted in a single gang electrical box. Control cover plate shall be stainless steel. Control buttons must be washable with water and common disinfectants.

Switch control shall connect to timer with 14ft. (4.26 m) 4 pair UTP network cable. Connection between control and cable shall be a 4 pair modular plug and jack with protective boot included.

Code blue Timers must include an optional audible tone to alert changes in interval cycles.

Code blue Timers must include adjustable brightness control.

Code blue Timers must have power outage memory backup and maintain correct time for 10 hours without power

Power Supply: 120 VAC or 24VAC, 50-60 cycle.
120 VAC clocks and timers will include a 9 ft (2.7 m) power cord with a 3 prong plug. 24 VAC clocks and timers will include an 18 inch (457.2mm) power cord with pigtails to be hard wired to building 24VAC power grid.
Code Blue input range; 5-120 VAC or DC

2.2 Additional Equipment

Programmable countdown timers require installation of Event Scheduler Pro software on Owner provided PC

Scheduling software Primex Wireless Model 14356

Specifier Note: Where desired for protection of clocks, specify the following optional equipment

Digital clock wire guard Primex Wireless Model. 14388 for 2. 5 inch (63.5mm)
LED digital clocks
Digital clock wire guard Primex Wireless Model 14389 for 4 inch (101.6mm)
LED digital clocks

Elapsed timer switch control extension cable 3 pr UTP 100 ft. (30.48 m) max.

Code Blue timer switch control extension cable 4 pr UTP 100 ft. (30.48 m) max.

2.3 Software

Provide scheduling software for installation and programming by Owner, compatible with the following PC operating systems:

Windows 95 with Internet Explorer 5.01 Service Pack 2.

Windows 98

Windows ME

Windows NT with Service Pack 6a, Internet Explorer 5.01 Service Pack 2, and valid administrator rights.

Windows 2000 with valid administrator rights.

Windows XP with valid administrator rights.

Software shall be in form of a CD, suitable for operation in standard CD-ROM drives.

Part 3 – Execution

3.1 Examination

Verify that construction is complete in spaces to receive equipment and that rooms are clean and dry.
Verify single gang electrical box for switch control is mounted and within 14 ft. (4.5m) of code blue timer. Verify pathway for connecting cable is available and compliant to local building codes.

Verify single gang electrical box for switch control is mounted and within15ft. (4.5m) of elapsed timer. Verify pathway for connecting cable is available and compliant to local building codes.

Verify that electrical power outlet is near location of clock or timer and the outlet is operational and properly grounded.

3.2 Installation

Furnish all equipment necessary for a complete and operational system
Attach mounting bracket to wall in the indicated location, plumb, level and tight against the wall. Attach using fasteners provided by manufacturer.
Perform the following operation for each timer
Apply power 120 VAC or 24 VAC
Connect timer to switch control unit with manufacturer provided cable or approved extension cable.
Cable routing must comply with ANSI EIA/TIA- 569-A and local building codes.
Connect timer to existing facility code blue control In accordance with manufacturer's instructions
Fasten timer to mounting bracket
Set time zone, time date option, audible tone, and brightness level in accordance with manufacturer's instructions per owner's requirements.
Observe timer until valid time signal is received and timer displays correct time**.**
Wire guards: Secure to wall, using approved theft-resistant fasteners.

3.3 Adjusting

Prior to final acceptance, inspect each clock, adjust as required, and replace parts which are found defective.

3.4 Cleaning

Prior to final acceptance, clean exposed surfaces of clocks, using cleaning methods recommended by clock manufacturer. Remove temporary labels from clock faces. Do not remove labels from backs of clocks.

3.5 Demonstration

Provide training to Owner's representative on setting and adjusting clocks, replacing batteries and routine maintenance.

3.6 Protection

Protect finished installation until final acceptance of the project.

3.7 Testing

All devices must be tested at their operational location under normal operational
conditions to assure reception of signal.

END OF SECTION