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1 Primex Wireless, Inc.
2 965 Wells Street
3 Lake Geneva, WI 53147
4 800-537-0464
5 www.primexwireless.com
6
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Product Guide Specification

9
10 **Specifier Note: This product specification is written according to the Construction**
11 **Specifications Institute (CSI), *MasterFormat*[™], *SectionFormat*, and *PageFormat*,**
12 **contained in the *CSI Manual of Practice*.**

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

17
18 **Delete all “Specifier Notes” when editing this section.**
19

DIVISION 27 42 19

WIRELESS DIGITAL DISPLAY CLOCKS & TIMERS

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24
25 **Specifier Note: This section covers Wireless Digital Display clocks and Timers.**
26 **These must be specified as components of a Primex Wireless GPS Wireless Clock**
27 **System. Contact Primex Wireless for assistance with editing this section**
28

Part 1 General Requirements and Scope

29
30
31 Furnish and install a complete new wireless digital clock and timer system using Primex
32 Wireless Inc. GPS Wireless Clock system.

33 All bids shall be based on the equipment as specified herein. The specifying authority must
34 approve any alternate system.

35 (Reference Division 27 53 13 Clock Systems)

36
37 **Specifier Note: Edit the following list as required for the project.**
38

1.1 Section Includes

- 40 Wireless Digital Clocks
- 41 Wireless Digital Elapsed Timers
- 42 Wireless Digital Programmable Countdown Timers
- 43
- 44

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

1
2
3 **1.2 Related Sections**

4 Division 26 00 00 – Electrical (120 volt grounded outlet required for transmitter.
5 Division 27 53 13 – GPS Wireless Clock System or 1 watt external/ Command
6 Division 27 52 23 – Code Blue System
7

8 **Specifier Note: List standards referenced in this section, complete with**
9 **designations and titles. This article does not require compliance with**
10 **standards, but is merely a list of those used.**

11
12 **1.3 References**

13
14 This Technical Specification and Associated Drawings

15
16 Primex Wireless Digital Clock Setup Instructions
17 Primex Wireless Programmable Timer user Manual
18 Primex Wireless Event Scheduler Pro Manual
19 Primex Wireless Elapsed Timer User Manual.
20 Primex Wireless Code Blue Digital Timer User Manual
21

22 **1.4 Definitions**

23
24 GPS: Global Positioning System, a worldwide system that employs 24 satellites in an
25 integrated network to determine geographic location anywhere in the world, and which
26 employs and transmits Universal Coordinated Time, the world's most accurate and
27 reliable time.

28
29 NTP: Network Time Protocol, used for synchronizing the clocks on computer
30 networks and devices from either a public server or a separate server on a private local
31 area network.

32
33 PC: Personal Computer (owner furnished)

34
35 UTC: Universal Coordinated Time
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38 **1.5 System Description**

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40 The system shall provide wireless time from a master time source. This time source
41 will either be the atomic clock on the GPS system or the clock from a defined NTP
42 server that the XR transmitter can access via the customer Ethernet. The master time
43 will be synchronized to UTC. Each clock/timer and every other component in the
44 system shall use both precise time and synchronized time.
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46 Clock locations shall be as indicated

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The system must operate in accordance with a “Radio Station Authorization”, Form FCC 601 – LM, granted by the Federal Communications Commission (FCC). 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.

NEC Article 250
Local building codes

The end user will hold a license, known as a “Radio Station Authorization” granted by the FCC.

This license grants the end user protected use for wireless transmission at the designated frequency.

This license will designate a unique “call sign” for each end user.

Transmitter and receiver shall comply with Part 90 of FCC rules as follows:

This device may not cause harmful interference, and

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

Transmitter frequency shall be governed by FCC Part 90.35.

Transmitter output power shall be governed by FCC Part 90 257 (b)

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 styles and sizes of clocks.

Operating License: Submit evidence of application for FCC Radio Station Authorization 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 Samples: Submit one clock/ timer for approval. Approved sample shall be tagged and
2 shall be installed in the work at location directed.

3 Manufacturer's Instructions: Submit complete installation, set-up and maintenance
4 instructions.

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6

7 **1.8 Substitutions**

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

11

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

13

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

16

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

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

21

22 **1.9 Quality Assurance**

23

24 Permits: Obtain operating license for the transmitter from the FCC.

25

26 Qualifications:

27

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

31

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

34

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

37

38 **1.10 Delivery Storage and Handling**

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

43

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

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2 **1.11 Project Site Conditions**
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4 For Programmable Countdown Timer verify that a PC having the specified minimum
5 system requirements will be available for use in programming the programmable
6 timer. See 2.3 below for system requirements
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8 Clocks/ timers shall not be installed until painting and other finish work in each room
9 is complete.
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12 **1.12 System Startup**
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14 At completion of installation and prior to final acceptance, turn on the equipment;
15 ensure that all equipment is operating properly, and that all clocks/ timers are
16 functioning.
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18 **1.13 Warranty**
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20 Manufacturer will provide a 1 year warranty on wireless digital clocks and timers
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22 **Part 2 – Products**
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24 **2.1 Manufacturer**
25

26 Wireless Digital clocks and timers shall be manufactured by Primex Wireless, Inc.,
27 965 Wells Street, Lake Geneva WI 53147 (800) 537-0464 FAX (262) 248-0061
28 www.primexwireless.com.
29

30 **2.2 Equipment**
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32 **Specifier Note:**
33 **Select optional digit style, colors, and case styles from manufacturer's brochure.**
34

35
36 **Digital Clocks**
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38 Wireless Digital Clocks: Primex **Wireless Model 14201**, 4 inch
39 (101.6mm) - 6 digit, 7 segment LED display.
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41 Wireless digital display clocks & timers must have time and date option.
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44 Wireless digital display clocks& timers shall be capable of automatically adjusting for
45 Daylight Saving Time
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Wireless digital clocks &timers must be viewable from 150 feet (45.7m)

1 LED digits shall be red or green.
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4 **Digital Timers**
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6 Wireless Digital Elapsed Timer **Primex Wireless Model XRA1B202E** 4 inch (101.6mm)
7 - 6 digit 7 segment LED display

8 Elapsed Timers must function as clocks or function as countdown /count up interval
9 timers when programmed with a 3 button wall mount control switch.

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

13 Switch control shall connect to timer with 9ft. (2.7 m) 3 pair UTP Telco cable.

14 Connection between control and cable shall be a 3 pair modular plug and jack with
15

16 Primex Wireless Digital Programmable Timer **Primex Wireless Model 14203P** 4 inch
17 (101.6mm) - 6 digit 7 segment LED display

18 Wireless Digital Programmable Timers must function as clocks and must
19 Display countdown time between programmed events.
20

21 Wireless Digital Code Blue Timer **Primex Wireless Model XRA1B202C** 6 digit-4
22 inch (110.6mm 6 digit -7 segment LED display.

23 Code Blue Timers must function as clocks and must integrate seamlessly to facility's
24 existing code blue control
25

26 Code Blue Timers shall include a 3 button wall mountable control switch. This
27 control will be mounted in a single gang electrical box. Control cover plate shall be
28 stainless steel. Control buttons must be washable with water and common
29 disinfectants.
30

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

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

36 Code blue Timers must include adjustable brightness control.

37 Code blue Timers must have power outage memory backup and maintain correct time
38 for 10 hours without power
39

40 Power Supply: 120 VAC or 24VAC, 50-60 cycle.

41 120 VAC clocks and timers will include a 9 ft (2.7 m) power cord with a 3 prong plug.

42 24 VAC clocks and timers will include an 18 inch (457.2mm) power cord with pigtailed
43 to be hard wired to building 24VAC power grid.
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46 **2.2 Additional Equipment**

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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

Wireless Digital Display Clocks & Timers

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1 Verify that construction is complete in spaces to receive equipment and that rooms
2 are clean and dry.

3

4 Verify single gang electrical box for switch control is mounted and within 15ft.
5 (4.5m) of elapsed timer. Verify pathway for connecting cable is available and
6 compliant to local building codes.

7

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

10

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12 **3.2 Installation**

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14 Furnish all equipment necessary for a complete and operational system
15 Attach mounting bracket to wall in the indicated location, plumb, level and
16 tight against the wall. Attach using fasteners provided by manufacturer.

17 Perform the following operation for each timer

18 Apply power 120 VAC or 24 VAC

19 Connect timer to switch control unit with manufacturer provided cable or approved
20 extension cable.

21 Cable routing must comply with ANSI EIA/TIA- 569-A and local building codes.

22 Fasten timer to mounting bracket

23 Set time zone, time date option, , and brightness level in accordance with
24 manufacturer's instructions per owner's requirements.

25 Observe timer until valid time signal is received and timer displays correct time.

26 Wire guards: Secure to wall, using approved theft-resistant fasteners.

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30 **3.3 Adjusting**

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

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36 **3.4 Cleaning**

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

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42 **3.5 Demonstration**

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

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Wireless Digital Display Clocks & Timers
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1 **3.6 Protection**

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3 Protect finished installation until final acceptance of the project.

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5 **3.7 Testing**

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

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9 **END OF SECTION**