

Primex XR 72MHz Synchronized Time Solution

# Wireless Tone Generator - Bell & Tone Scheduling Troubleshooting Guide



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## Primex, Inc.

Primex is a leading provider of synchronized time and environmental monitoring solutions. Our solutions automate and maintain facility compliance, increase efficiencies, enhance safety and reduce risk for organizations in the healthcare, education, manufacturing and government vertical markets.

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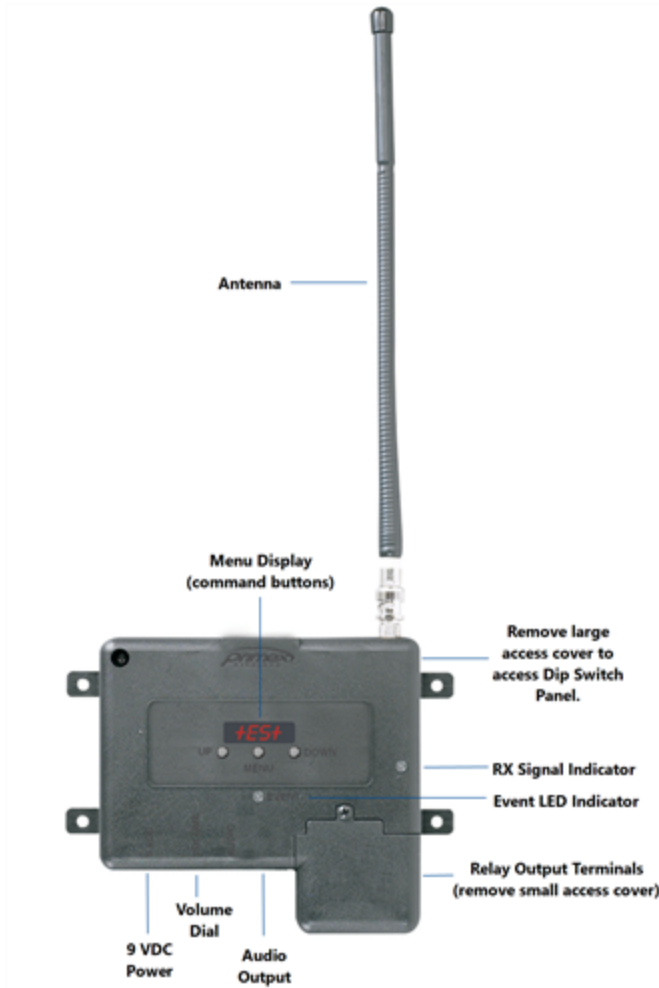
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# Wireless Tone Generator Troubleshooting

Learn more about common troubleshooting procedures for a XR Wireless Tone Generator.

A Wireless Tone Generator receives wireless time signals from a Primex Transmitter and produces a tone over an existing PA and/or bell system at precise scheduled times. The Wireless Tone Generator is designed to interface and be compatible with most available PA or bell systems.

A precise schedule of the tones is created with the Primex Event Scheduler Pro software, which is a Windows-based application. Once the schedule is created, it's then downloaded to the Transmitter. Schedules are stored in the Transmitter's memory and can be easily changed in the future by using the software.



# Bells are Not Ringing Per Schedule

## **Problem**

Wireless Tone Generator is setup correctly, downloaded a schedule to the Transmitter, and bells did not ring per downloaded schedule.

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## **Cause**

The Wireless Tone Generator receives event data from the Transmitter. The process can take up to 20 to 30 minutes for this to occur, which is dependent on how many schedule IDs are in use.

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## **Solution**

The Wireless Tone Generator LED screen has an Event LED – this can be used to identify if it has a valid schedule for the specified ID number. The Event LED goes OFF when it receives an event that is different from the current event stored in its memory. Once it receives all the events from the Transmitter relating to the specified ID, the Event LED will turn back on – indicating the new schedule has been received in its entirety.

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# Bell Tones are Not Going Off

## Problem

Wireless Tone Generator is setup correctly, downloaded a schedule to the Transmitter, and bell tones are not going off at the facility.

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## Cause

A Wireless Tone Generator (WTG) provides a contact closure and/or an audio output for a tone on a balanced or unbalanced input. If all looks well as far as the Transmitter and WTG unit, then it is recommended to verify the unit/circuit the WTG is connected to.

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## Solution

Follow the test procedures below that apply to the system's integration configuration.

### **Configuration: hardwired bell circuit that is wired through the Wireless Tone Generator contact closure relay**

1. Complete a test closure from the WTG (specified by model below)
  - Wireless Tone Generator with LED menu: scroll through menu to test to close the relay and push middle button to stop the test state.
  - Wireless Tone Generator with three red dials: press and hold the test button to close the relay and release button when complete.
3. If rings, then the circuit is wired correctly - check schedule ID and schedule info on Transmitter schedule.
4. If it does not ring, can you hear a click signifying the relay is trying to change state? If it does not ring, contact Primex. It may be required to try shorting the wires on the terminal to verify if it's the external circuit or the relay. Make sure this is done with a certified electrician, as it could be high voltage.
5. If the issue is determined to be the bell circuit, have a certified electrician look into the issue and fix accordingly.

### **Configuration: Wireless Tone Generator is connected to a third-party PA system.**

1. Complete a test closure from the WTG (specified by model below)
    - Wireless Tone Generator with LED menu: scroll through menu to test to close the relay and push middle button to stop the test state.
    - Wireless Tone Generator with three red dials: press and hold the test button to close the relay and release button when complete.
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3. If rings, then the circuit is wired correctly - check schedule ID and schedule info on Transmitter schedule.
  4. If it does not ring, can you hear a click signifying the relay is trying to change state? If it does not ring, contact Primex. It may be required to try shorting the wires on the terminal to verify if it's the external circuit or the relay. Make sure this is done with a certified electrician, as it could be high voltage.
  5. If the issue is determined to be the PA, have a certified electrician look into the issue and fix accordingly (if high voltage).
    - Could be related to input on the PA – is it hooked up correctly?
    - Is the PA powered on properly?
    - Was anything changed on the PA that might inhibit functionality (input definitions, priority definitions, etc.)?
    - If the audio output is used, is the cable connected on both ends? Is the correct cable used (balanced vs unbalanced)?
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# Power failure - Wireless Tone Generator

## Symptoms

Wireless Toner Generator experienced a power failure.

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## Problem

Power failure at facility or power interrupted to device.

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## Analyze

A Wireless Tone Generator automatically restarts after a power failure. Upon restart, it returns to its normal operating condition.

### NOTE

It's highly recommended that both the Transmitter and the Wireless Tone Generator are plugged into a UPS backup.

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# Power Outage

## Problem

Wireless Tone Generator loses power during a power outage.

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## Cause

Power failure at facility or power interrupted to device.

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## Solution

During a power outage, the Wireless Tone Generator does not operate. It has a battery backup that stores information in its non-volatile memory.

Once power has been restored, the Wireless Tone Generator will resume to its normal operation within a few seconds. A Wireless Tone Generator automatically restarts after a power failure.

### NOTE

It's highly recommended that both the Transmitter and the Wireless Tone Generator are plugged into a UPS backup.

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# Transmitter Loses Power & Wireless Tone Generator Does Not

## **Problem**

Transmitter loses power, but the Wireless Toner Generator does not lose power.

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## **Cause**

Power interrupted to Transmitter.

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## **Solution**

Although the Transmitter experienced a power loss, the Wireless Tone Generator will continue normal operation using its own internal clock and schedule.

On restoration of power to the Transmitter, the Transmitter looks for a time signal from its time source (GPS or NTP) and on reception of the time signal, the Transmitter begins to broadcast the time signal. In this situation, the Wireless Tone Generator continues to function normally, but its timekeeping may drift slightly up to 1 second per day while the Transmitter is off.

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# Support

To obtain additional technical documentation for Primex products, visit the Support area on our website at [www.primexinc.com](http://www.primexinc.com)

You may require Technical Support when you have questions about product features, system configuration, or troubleshooting. Support services are delivered in accordance with your organization's support agreement, end user licenses agreements, and warranties, either with a Primex Certified Sales and Service Partner or directly with Primex.

## **Support through Primex Certified Sales and Service Partners**

Ensuring our customers experience excellent service is of utmost importance to Primex. Our network of Certified Sales and Service Partners offer technical support services for Primex products.

If you have purchased Primex products or have a service agreement with a Primex Partner, they are your primary contact for all Technical Support inquiries.

## **When contacting Primex Technical Support**

Make sure you have satisfied the system requirements listed in your product documentation. Also, you should be at the computer or device on which the problem occurred, in case it's necessary to replicate the problem.

When you contact Primex Technical Support, please have the following information available:

- Customer ID/Account Name
- Problem description/error messages
- Device hardware information
- Troubleshooting performed before contacting Primex

## **Primex Technical Support**

Hours: 8:00 a.m. to 5:00 p.m CST | Monday through Friday

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