Appendix A

Operating Instruction Manual
Conference Speaker Timing System

Operating Instruction Manual

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Overview
A speaker timing system has been designed and built to help the speakers at conferences to stay within their allotted speaking time. The system consists of a master station and a slave station. Each station includes a countdown timer and red, yellow, and green indicator/warning lights. The master station is used to program the length of a presentation and two warning times (times when warning lights will turn on to notify the speaker when his/her time is almost done) and transmit them to the slave station. The slave station displays the countdown timer for the speaker to easily see so they always know how much time is remaining in their presentation. When the countdown timer gets closer to 0, the warning lights will turn on to give the speaker visual notification to look at the countdown timer.

The Master Station
The master station consists of an LCD screen, three indicator/warning lights (red, yellow, green), a keypad (0-9, CLEAR, and ENTER) and a radio-controlled clock. The LCD displays menus to direct the user to enter the presentation length and warning times and to pause, resume, restart, or stop the countdown timer, and/or reboot the system. The LCD has a backlight so it can be easily viewed in low light. The red, yellow, and green lights turn on and off at specific times during the presentation (see Warning Lights). For information on the radio-controlled clock, see the Radio-Controlled Clock section.

The Slave Station
The slave station consists of 5 digits and 3 indicator/warning lights (red, yellow, green). During the presentation, the countdown timer counts down and the lights turn on and off at specific times. The countdown timer and lights are synchronized with the countdown timer and lights on the master terminal. Whenever the moderator pauses, resumes, restarts, reboots, or stops the master station, the slave station will do the same.
**Warning Lights**

The master and slave stations each consist of three indicator/warning lights (red, yellow, and green) that turn on and off at specific times. Two warning times are programmed into the speaker timing system. When the presentation begins, the green light turns on and stays on throughout the length of the presentation until the first warning time. When the first warning time is reached, the green light turns off and the yellow light turns on and stays on until the next warning time. When the second warning time is reached, the yellow light blinks on and off until the counter reaches zero. When the countdown timer reaches zero, the yellow blinking light turns off and the red light turns on. The red light will remain on until the presentation ends and the moderator stops the timer. Below is a flowchart of the sequence of when the lights turn on and off.

**Radio-Controlled Clock**

The radio-controlled clock keeps accurate time by setting itself to a specific radio signal. When a battery (AA) is installed, the clock makes a beep, signifying that it is looking for a radio signal to set itself to the correct time. Sometimes, the signal cannot be found until at night when the signal strength is stronger. For best results, place the clock near a window with its back facing Colorado.

The clock time can also be set manually (see the Manual Setting the Time and Alarm instructions). For low light condition, a backlight for the clock can be turned on by sliding the
switch that is beneath the clock, to the right. To turn the light off, slide the switch to the left (do not leave the light on for too long because it decreases the life of the battery). The clock also includes an alarm that can be manually set.

**Powering the Master and Slave Stations**
Each station is powered by 120 VAC (from a wall power outlet). On the side of each station there is a hole in which a power adapter plugs into. Plug the power adapter into the hole on the station and plug the other end into a wall power outlet.
Programming the Master Station

1. When the master station is powered on, the **Time’s UP!** screen will display on the LCD:

   Time’s UP!
   Speaker Timing
   System_

2. After 2 seconds, the **Main Menu** screen is displayed:

   Press #,
   1-30min  2-40min
   3-1hr     4-Custom
   1, 3: 5/1min warning_

   - If the presentation length is 30 minutes, press number 1.
   - If the presentation length is 40 minutes, press number 2.
   - If the presentation length is 1 hour, or 60 minutes long, press number 3.
   - For other presentation lengths, press number 4 in which the user will then be able to enter any amount of time, up to 9 hours and 59 minutes, and warning times.

   **NOTE:** For selections 1 and 3, Warning Time 1 (when the yellow warning light turns on) is 5 minutes and Warning Time 2 (when the yellow light blinks) is 1 minute.

   **NOTE:** For selection 2, Warning Time 1 is 10 minutes and Warning Time 2 is 5 minutes.

3. **Directions when numbers 1 – 3 are pressed:**

   - Press number 1, 2, or 3 to display the **Time Remaining** screen:

     *Example:* Press number 1 to display the **Time Remaining** screen below:

     Time Remaining
     0:30:00
     Press ENTER to Start_

     - Press **ENTER** to display the **Time Remaining Countdown** screen.

     Time Remaining
     0:29:59
     Press ENTER to Pause
     Restart, Reboot, Stop_

     - This screen displays the countdown timer counting down. From this screen, the user can **Pause**, **Restart**, **Reboot**, or **Stop** the timer. In addition, the green light turns on.
The countdown timer will count downward until it reaches 0:00:00 or if ENTER is pressed.

When the countdown timer reaches 0:00:00, it will count forward until ENTER is pressed to Pause, Restart, Reboot, or Stop the system.

4. Directions when number 4 (Custom) is pressed:

> From the Main Menu screen:

<table>
<thead>
<tr>
<th>Press #,</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-30min 2-40min</td>
</tr>
<tr>
<td>3-1hr 4-Custom</td>
</tr>
<tr>
<td>1, 3: 5/1min warning</td>
</tr>
</tbody>
</table>

> Press number 4 to display the Speech Length screen:

<table>
<thead>
<tr>
<th>Enter Speech Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format = hmm</td>
</tr>
<tr>
<td>Then Press ENTER</td>
</tr>
</tbody>
</table>

> Enter the number of hours (0 – 9) and the number of minutes (01 – 59).

Example: If the presentation length is 2 hours and 30 minutes, enter 230.

If a mistake is made entering the length, press CLEAR to start over.

> Press ENTER to display the Warning Time 1 screen (when the yellow light turns on):

<table>
<thead>
<tr>
<th>Enter Warning Time 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format = mm</td>
</tr>
<tr>
<td>Then Press ENTER</td>
</tr>
</tbody>
</table>

> Enter the number of minutes (01-59) before the presentation ends that the yellow light is to turn on.

Example: If the yellow light is to turn on when there is 10 minutes left in the presentation, enter 10.

If a mistake is made entering the time, press CLEAR to start over.

> Press ENTER to display the Warning Time 2 screen (when the yellow light blinks on and off):

<table>
<thead>
<tr>
<th>Enter Warning Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format = mm</td>
</tr>
<tr>
<td>Then Press ENTER</td>
</tr>
</tbody>
</table>
Enter the number of minutes (00-59) before the presentation ends that the yellow light is to blink on and off (time is getting really short).

Example: If the yellow light is to blink on and off when there is 5 minutes left in the presentation, enter 05.

If a mistake is made entering the time, press CLEAR to start over.

Press ENTER to display the **Time Remaining** screen:

```
Time Remaining
2:30:00
Press ENTER to Start_
```

Press ENTER to display the **Time Remaining Countdown** screen.

```
Time Remaining
2:29:59
Press ENTER to Pause Restart, Reboot, Stop_
```

This screen displays the countdown timer counting down. From this screen, the user can **Pause**, **Restart**, **Reboot**, or **Stop** the timer. In addition, the green light turns on.

The countdown timer will count downward until it reaches 0:00:00 or if ENTER is pressed.

When the countdown timer reaches 0:00:00, it will count forward until ENTER is pressed to **Pause**, **Restart**, **Reboot**, or **Stop** the system.

5. **To Pause, Restart, Reboot, or Stop the System**

At the **Time Remaining Countdown** screen, press ENTER to **pause** the timer and display the **Pause** screen:

```
Press 1 to resume
Press 2 to restart
Press 3 to reboot
Press 4 to Stop_
```
Press 1 to return to the **Time Remaining Countdown** screen:

<table>
<thead>
<tr>
<th>Time Remaining</th>
<th>0:29:59</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press ENTER to Pause</td>
<td>Restart, Reboot, Stop</td>
</tr>
</tbody>
</table>

- The countdown timer resumes counting where it had left off before being paused.

Press 2 to **restart** the timer and return to the **Time Remaining** screen:

<table>
<thead>
<tr>
<th>Time Remaining</th>
<th>0:30:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press ENTER to Start</td>
<td></td>
</tr>
</tbody>
</table>

- The countdown timer restarts at the original presentation length.
- The countdown timer is ready for another presentation.
- The lights turn off.

Press 3 to **reboot** the system and return to the **Time’s UP!** screen. All lights turn off.

| Time’s UP! |
| Speaker Timing |
| System |

Press 4 to **stop** the timer and display the **STOPPED** screen. All lights turns off.

| STOPPED |
| 0:29:19 |
| Press 1 to restart |
| Press 2 to reboot |

- Press 1 to **restart** the countdown timer and return to the **Time Remaining** screen.
- Press 2 to **reboot** the system and return to the **Time’s UP!** screen.
Manually Setting the Time and the Alarm on the Radio-Controlled Clock

1. Setting the Time Zone and DST (Daylight Savings Time)
   - Press and hold the MODE/MIN button for 4 seconds.
   - Set the time zone using the AL/HR button.
   - Set the DST using the MODE/MIN button.
   - Press SNOOZE twice to exit.

2. Setting the Time
   - Press and hold the MODE/MIN button for 4 seconds.
   - Press SNOOZE button to display the time (time will be flashing).
   - Press AL/HR to adjust the hour.
   - Press MODE/MIN to adjust the minutes.
   - Press SNOOZE to exit.

3. Setting the Alarm
   - Press and hold the AL/HR button for 4 sec.
   - Press AL/HR to adjust the hour.
   - Press MODE/MIN to adjust the minutes.
   - Press SNOOZE to exit.

4. Turning the Alarm Off
   - Press and release the AL/HR button.
   - When (( )) appears, the alarm is turned on.
   - When the alarm beeps, pressing SNOOZE will turn the alarm off for 10 minutes.

5. To switch between the alarm display and the seconds display, press MODE/MIN.
Changing the Battery

1. At the back of the master station, there is a silver plate attached to the case with a screw. Unscrew the screw.

2. Gently pull on the plate until the battery holder is completely out. Don’t pull too far.

3. Replace the Battery (AA)

   - When a fresh battery is inserted into the battery holder, the clock will beep once then the time will start from 12:00. The time zone default is Eastern Standard Time. The time zone and daylight savings time will need to be manually set. The time can be manually set or you can wait for it to automatically set itself.

4. Push the battery holder gently in the hole. Replace the screw (Not too tight).
Quick Reference Guide

Programming the Master Station

- From the **Main Menu**:
  - If number (1, 2, or 3) is pressed: (For 1 and 3, Warning Light 1 is 5 minutes and Warning Light 2 is 1 minute) (For 2, Warning Light 1 is 10 minutes and Warning Light 2 is 5 minutes)
    - Countdown Timer is displayed. Press **ENTER** to start (Timer counts down).
  - If number 4 (Custom) is pressed:
    - Enter the Presentation Length in hmm format (for hours, enter 0-9; for minutes, enter 01-59).
    - Enter the number of minutes for Warning Time 1 in mm format (01-59). If mistake is made, press **CLEAR**. Press **ENTER** when done.
    - Enter the number of minutes for Warning Time 2 in mm format (01-59). If mistake is made, press **CLEAR**. Press **ENTER** when done.
    - Press **ENTER** to display the Countdown Timer.
    - Press **ENTER** to begin the Countdown.

- While the Timer is counting down, the system can be paused and resumed, restarted, rebooted, and stopped:
  - To **PAUSE** the system, press **ENTER**.
  - Press 1 to **RESUME**: Timer will continue counting where it left off.
  - Press 2 to **RESTART**: Timer restarts from the original programmed time.
  - Press 3 to **REBOOT**: System will reboot and go back to the **Main Menu** screen.
  - Press 4 to **STOP**: Timer will stop. Press 1 to **RESTART** or press 2 to **REBOOT** system.

Manually Setting the Time - Radio Controlled Clock

- Setting the Time Zone and DST:
  - Press and hold the **MODE/MIN** button for 4 seconds.
  - Set the time zone using the **AL/HR** button.
  - Set the DST using the **MODE/MIN** button.
  - Press **SNOOZE** twice to exit.

- Setting the Time:
  - Press and hold the **MODE/MIN** button for 4 seconds.
  - Press **SNOOZE** button to display the time (time will be flashing).
  - Press **AL/HR** to adjust the hour.
  - Press **MODE/MIN** to adjust the minutes.
  - Press **SNOOZE** to exit.

- To switch between the alarm display and the seconds display, press the **MODE/MIN** button.

- To turn backlight on, slide the switch, below the clock, to the right. To turn off, slide switch left.

- To set the alarm, see the owner’s manual.