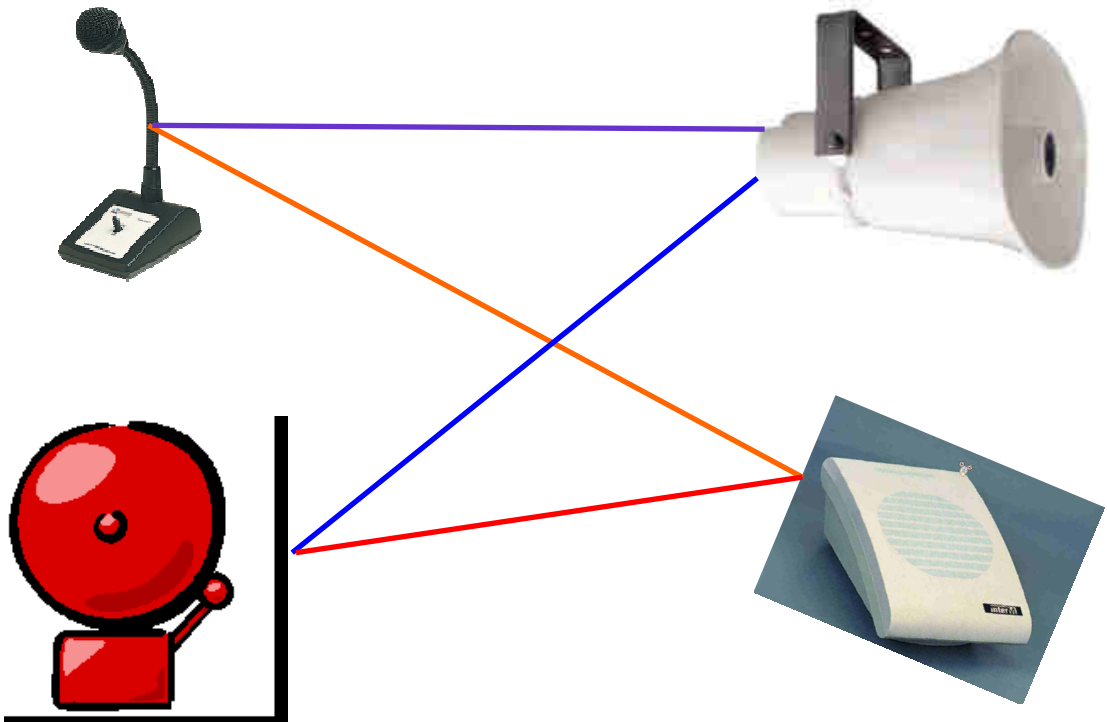


***DELUXE HIGH SCHOOL PA  
SYSTEMS***



***OPERATING MANUAL***

Version 2.2—2012  
Using AM Zoner 16

## **Introduction**

Congratulations. Your investment in a new PA Matthews Audio “high school” communications system will now give your school years and years of trouble free operation. If your system is a *completely new install* then this booklet will explain all the equipment items and how they work. However if your system was a renovation of an older one and still contains some older components (such as an older PA amplifier or music play out equipment) then the operation principles are the same but the actual photographs here may not always be the same as your system.

The photographs in this booklet are taken from a “wall mount” timer system. If you have a fully “rack mount” system then the principles are the same but the actual switches may be in different locations to those shown on the photographs.

## **System Overview**

Your PA system is used to carry out several different tasks including;

- Automatic ringing of period bells with ability to silence individual zones where needed for exams;
- Automatic “Line up Music”, used as a time indicator for when students should be in class after the bell;
- Easy and instant signalling of emergency evacuation or lock down conditions throughout the school;
- Voice paging, with the ability to individually page different blocks and outside areas around the school without disturbing other areas.

*The cabling for your system is completely independent of any existing telephone, power or computer data systems in your school—although in most cases our system cabling will often run in common conduits, ducts or looms, possibly sharing space with these other cables. Only the microphones use existing Cat 5 / cat 6 data cables.*

*A full set of cable records, together with a map showing approximate cable routes and details is kept on site inside the PA system rack. Alternatively you can email us and we’ll email you or your contractor a PDF copy free of charge.*

## **Instruction Booklet**

This booklet is divided into three sections:

### **1.) Quick Guide**

This section contains a series of simple step by step instructions for things that you are likely to need to do with the system on a regular basis. In most cases the answer to your question about using the system can be found in here.

### **2.) Detailed Instructions**

This section has all the finer details about configuring the system and it’s components. These are things you won’t normally have to touch in daily use but you might need to look at when you wish to change the way the system works. For example changing your bell times or changing the music or tones on the system.

### **3.) Troubleshooting Guide & Service Contact**

This section contains a list of possible problems you may encounter with the system and suggests tests you should carry out on the system yourself before calling for service. This way if a service call is required, you can give us accurate information on what’s wrong with the system and we can make sure you get back on the air as soon as possible.

## Quick Guide—Page 3

### 1.1) How to over ride the bell timer or Ring Bell Manually:

To ring the bell manually just push the RED “Manual Bell” button. The bell will continue to ring for as long as you remain pushing the button.



To stop the bell ringing automatically (for example, for a school day where bell times have changed) switch OFF the “Auto Bell” switch and ring the bell manually for that day only. Don’t forget to put it back ON afterwards.



### 1.2) Turning OFF the system for Holidays:

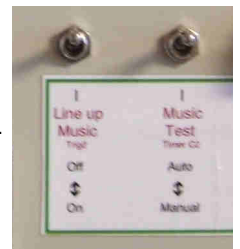
Your timer will have been programmed to exclude Saturdays and Sundays so the system can be left ON over weekends. However for school holidays the system should be turned OFF so as to minimize disruption to neighbours. Just switch OFF the power switch to the bottom right hand side of the amplifier and switch it back ON again when you return after the break. Your bell times and settings will be preserved during this process.



### 1.3) Using the Line Up Music

To use Line Up Music, switch the “Line Up Music” switch DOWN (ON). To isolate, switch OFF.

To test the volume level of the line up music, switch the “Music Test” switch on to MANUAL and then switch it back to AUTO when testing is complete.



### 1.4) Using the Evacuate and Alert (Lock down) tones:

**EVACUATE** is the standard emergency “Whoop whoop” sound and is used to evacuate the school. In event of an emergency it should be switched ON and left there until the your authorised person gives permission to switch it off.

**ALERT** is a “Beep Beep” sound that *fades up slowly* and should be used for about 30 seconds ~ 1 minute to signify LOCK DOWN conditions in the school. Cancellation of a lockdown should be done by making an announcement over the microphone.

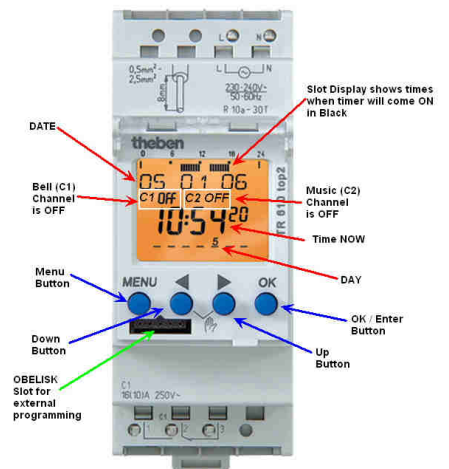
Regular Drills (one per term) should be held in the school to familiarise staff and students with these tones. PA Matthews Audio also strongly recommend these tones be briefly TESTED every month (as a minimum) to ensure they are operational in the case of an emergency. This is normally done after school hours and after an announcement is made “attention, this is a test only” or similar.



### 1.5) Change time for Daylight Savings:

The timer does NOT automatically adjust for daylight savings. This needs to be done MANUALLY using the following process;

- 1.) Open the timer lid and press “Menu” ONCE.
  - 2.) Press “▶” button ONCE.
  - 3.) Press “OK” button TWICE.
  - 4.) Press “▶” or “◀” buttons to select correct hour.
  - 5.) Press “OK”
  - 6.) Change Minutes (if required, otherwise skip this step)
  - 7.) Press “OK”.
- You’re done!



## Quick Guide—Page 4

### 1.6) Isolating individual speaker zones:



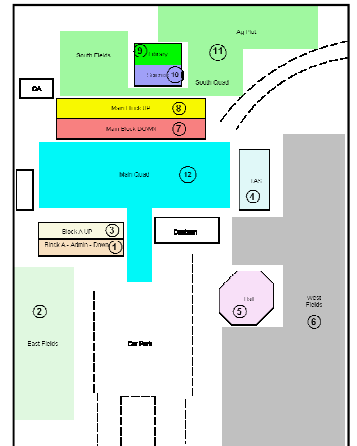
The sector unit controls where the BELL and LINE UP MUSIC will normally be heard around the school. Normally ALL the switches on this unit need to be ON (pushed in) in order to ensure the Bell can be heard everywhere it is needed.

Your installer will have secured a plan or list on the wall next to the unit showing which areas are controlled by each switch. (example shown right).

For example in this plan, if you were having exams in the school hall (shown as Sector 5 on the plan) you would switch OFF sector 5 (to ensure silence during the exam) and leave all the other switches ON. Then simply switch sector 5 ON again once the exams are finished.

**IMPORTANT NOTE :** Activation of an emergency evacuation or lock down signal will be heard through **ALL ZONES** regardless of the position of the background zone switches. Likewise the *isolated sector can still be paged from the microphone* either separately or as part of an “all call” page.

If exams are in progress and a zone has been isolated, *do NOT use the “all call” button on the microphone.* Instead select the individual zones you wish to page—and deliberately leave the exam zone OFF.



### 1.7) Adjusting the Volume Controls:

The installing contractor will have marked white arrows on the volume controls when your system was installed. These are “Ideal starting points” for your system. You can increase or decrease the volume of either the Paging Microphone or the System Tones. The other (unused) channels should always be left OFF. Remember that adjusting these controls will affect the volume level of the *entire system*.

The Bell, Tones and Music are *all controlled by one volume control*. If you find that the (line up) music is too loud we recommend that you re—record the relevant MP3 music file at a reduced level and re load it onto the system, as turning down the “Tones” volume control too far may sounds like the Bell and Evacuation tones too quiet to hear clearly over the whole school.



### 1.8) Using the Paging Microphone:

- 1.) To call all zones simply press “All page” and speak.
- 2.) To select individual zones, press the button for each zone you wish to page. When you have selected the zones, press “Zone page” and speak.
- 3.) Press “Clear” to reset the zones back to normal.

#### Notes:

- When paging an individual zone(s), all other (unselected) zones are blocked out. *If the bell happens to ring at the same time as you are paging specific zones then the bell will only be heard in these same zones.*
- A brief and quiet “click” can sometimes be heard in zones that are otherwise not selected when a page is made. This is normal and is a result of the action of the unit “dropping out” of these other zones.
- The paging microphone can be relocated to anywhere there is a Cat 5 / Cat 6 data outlet simply by re patching the microphone control cord at the building data hub rack from the old outlet to the new one.
- The system can accommodate one zone paging microphone. An additional conventional microphone can be connected directly to the PA amplifier but this will only page the zones selected for use with bells and line up music.



## Detailed Instructions—Page 5

### 2.1) Theben TR622top2 Bell Timer

The timer controls the BELL sound and the LINE UP MUSIC.

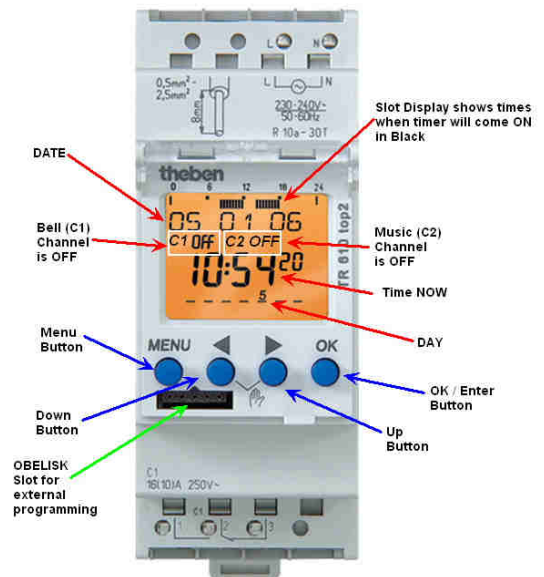
**Bell :** Channel 1 controls the BELL. Each bell is programmed as a PULSE with a normal duration of 10 seconds. Each programmed time is written in to a day (usually Monday or Day 1) and then "Copied" and added to Days 2 to 5. Days 6 and 7 (Weekend) are then skipped before the time is saved into memory and the next time is then programmed.

**Music :** Channel 2 controls the LINE UP MUSIC. Each music play is programmed as a SWITCH or separate "ON" and "OFF" time so there must be two programs entered for each music time. The days are handled in the same way as for bells.

**Reset :** It is possible to modify or delete individual times. However we strongly recommend that for more complex changes (such as changing a complete recess or lunch start and finish time which may involve changing up to six or seven individual events) that you instead perform a FULL RESET of the timer and reprogram it from scratch. This makes errors far less likely, and errors can some times result in the bell or music coming on and / or staying on at weird times (such as midnight) resulting in significant problems.

**Lists :** Before programming we strongly recommend you write out *ALL your proposed bell and music times on a weekly schedule*, even showing times that are the same on each day. This will make programming easier and reduce the chance of making mistakes.

Each panel below shows a step by step procedure to program, modify, delete or clear bell times. **Text shown in PURPLE indicates what you will see on the timer display for each step.**



#### To Program a Bell time—Channel C1 :

- 1.) Press MENU.
- 2.) Press OK TWICE. ("SWITCH")
- 3.) Press ► button ONCE ("PULSE")
- 4.) Press OK FOUR times ("HOUR C1 On 0:00.00")
- 5.) Set HOUR, press OK and then set MINUTES.
- 6.) Press OK 3 TIMES ("PULSE LENGTH C1On 0:00.01")
- 7.) Set how long you want bell to ring (normally 10 seconds)
- 8.) Press OK ONCE. ("MONDAY C1On x:xx.xx")
- 9.) Use ► or ◀ to select first DAY you want bell to ring
- 10.) Press OK ("COPY C1On x:xx.xx")
- 11.) If you want bell to ring more than 1 day press OK again
- 12.) Use ►/◀ and OK buttons to select additional days
- 13.) Press ► a few more times to get to ("SAVE")
- 14.) Press OK to complete—Program is now complete.
- 15.) Either return to (2) to add more times or press MENU TWICE to finish programming.

If you make a mistake press "Menu" and restart from (2).

#### To Program a Music time— Channel C2 :

- 1.) Press MENU.
- 2.) Press OK THREE times. ("Channel C1")
- 3.) Press ► button again ("Channel C2")
- 4.) Press OK THREE times. ("HOUR C2 On 0:00")
- 5.) Set START HOUR, press OK and then set MINUTES.
- 6.) Use ► or ◀ to select first DAY, and follow prompts  
To set days you want this time to trigger music.
- 7.) Press OK at end to *save Start time*.
- 8.) Press OK FIVE times. ("HOUR C2 Off 0:00")
- 9.) Set STOP HOUR (Same as (5) above) & Press OK
- 10.) Set STOP MINUTES (normally 3 mins after time that was set in (5) above & press OK
- 11.) Set days EXACTLY THE SAME as in (6) above.
- 12.) Press OK to *Save Stop Time*.
- 13.) Press OK FIVE times and return to (5) above for next Time or press MENU twice to finish.

*Note you must program both a start and stop time for each music break. Otherwise the music will just keep playing and not turn off. The days must be exactly the same for each start and stop time programmed.*

If you make a mistake press "Menu" and restart from (2).

#### To Check Bell times :

- 1.) Press MENU, then press OK.
- 2.) Press ► button ONCE to Check.
- 3.) Press OK Once.
- 3.) Press ► button ONCE ("PULSE")
- 4.) Press OK TWICE and first time will be displayed.
- 5.) Press OK TWICE to see the next time.
- 6.) Keep stepping through times until all are checked.
- 7.) Press MENU TWICE when finished to get out.

#### To Check Music Times :

- 1.) Press MENU, then press OK.
- 2.) Press ► button ONCE to Check.
- 3.) Press OK TWICE. ("Channel C1")
- 3.) Press ► button ONCE ("Channel C2")
- 4.) Press OK and first START time will be displayed.
- 5.) Press OK TWICE to check the OFF time.
- 6.) Keep stepping through times until all are checked.
- 7.) Press MENU TWICE when finished to get out.

## Detailed Instructions—Page 6

### To completely erase all settings from BOTH CHANNELS of timer and start again

- 1.) Press MENU & Press OK
- 2.) Press ► 3 times (DELETE) & Press OK
- 3.) Press ► 3 times (DELETE ALL) & Press OK (DELETE C1)
- 4.) Press OK (CONFIRM) then press OK again (DELETED)
- 5.) Press OK Once (SWITCH)
- 6.) Press ► 3 times (DELETE ALL) & Press OK (DELETE C1)
- 7.) Press ► ONCE (DELETE C2)
- 8.) Press OK (CONFIRM) then press OK again (DELETED)
- 9.) Press MENU Twice to get back to start.

### To modify or delete a Bell time :

- 1.) Press MENU, then press OK.
- 2.) Press ► button TWICE to Modify, THREE times to delete
- 3.) Press OK Once.
- 3.) Press ► button ONCE ("PULSE")
- 4.) Press OK TWICE and first time will be displayed.
- 5.) Press ► to step to next time or OK to modify.
- 6.) Follow screen prompts to make changes, using OK to step through each one.
- 7.) Press MENU TWICE when finished to get out.

### To Modify Music Times :

- 1.) Press MENU, then press OK.
- 2.) Press ► button TWICE to Modify.
- 3.) Press OK TWICE. ("Channel C1")
- 3.) Press ► button ONCE ("Channel C2")
- 4.) Press OK and first START time will be displayed.
- 5.) Press ► to step to next time or OK to modify.
- 6.) Follow screen prompts to make changes.
- 7.) Press MENU TWICE when finished to get out.

### Using the OBELISK storage card

The OBELISK card is used to transfer programs from the USB computer programmer to the timer (see next page).



It is also used for back up storage of times in the event that something goes wrong with the timer settings and the times need to be restored to their previous settings.

When your install contractor initially programmed your timer, a copy of the initial program was saved on the obelisk card. Even if you don't use or even have an Obelisk computer programmer (which is an option some schools don't choose) you can still use the Obelisk card supplied with your timer to restore settings. This is especially useful if you have attempted to make changes to the timer and made a mistake and now don't know where the mistake is.

The Obelisk card is stored in the lid of the timer. It only goes into the slot one way. Be GENTLE inserting the card. Do NOT force the card into the slot. If it refuses to plug in, gently move it around up and down until it plugs in securely to the slot.

### To LOAD settings from Obelisk card.

- 1.) Insert obelisk card (COPY OBELISK—TIME SWITCH)
- 2.) Press OK (OVERWRITE?)
- 3.) Press OK (Screen shows "COPY" then "END")
- 4.) Press OK (REMOVE OBELISK)
- 5.) Remove Obelisk.

### To SAVE settings TO Obelisk Card

- 1.) Insert obelisk card (COPY OBELISK—TIME SWITCH)
- 2.) Press ► Once. (COPY TIME SWITCH—OBELISK)
- 3.) Press OK (OVERWRITE?)
- 4.) Press OK (Screen shows "COPY" then "END")
- 5.) Press OK (REMOVE OBELISK)
- 6.) Remove Obelisk.

## 2.2) Using the Obelisk card Programmer (if supplied).

### Overview :

The OBELISK top2 programmer allows you to store, recall, back up and easily program your bell timer using a computer screen interface. Many people find this easier than using the menu driven program on the timer itself as it displays the complete weekly program on one screen. This option is recommended for schools that change their bell times regularly or need this flexibility.

The programmer comes with an extra OBELISK card. Many schools use this to establish a "summer" and "winter" set of times, program one card with each and then simply load the relevant times into the timer as the seasons change.

On the next page is an example of the Theben software screen showing bell times programmed into Channel 1.



## Detailed Instructions—Page 7

### 2.2) Using the Obelisk card Programmer (continued).

#### Using the OBELISK top2 :

- 1.) Install the program on the CD to your computer and open the program. Click on “Termina top2” and then select “tr622top2” and then “OK”.
- 2.) Connect the programmer to a free USB slot.
- 3.) Insert the OBELISK card from your timer (it will have been programmed with a back up set of your bell times by our system installer when your system was commissioned).
- 4.) Click on the “read obelisk” button at the top of the screen (it’s just below the “help” menu, with a red arrow). The computer will load the times off the card and onto your screen.
- 5.) You can now make changes and save them back to your card and thence to your timer. We recommend you also make a back up of the times to both your computer AND the new OBELISK card as well.

No.	Type	Status	Time hh:mm:ss	Weekday							Pulse Duration min:ss	Pulse hh:mm:ss	Pause hh:mm:ss	Cycle End hh:mm	End Weekday	Hrt / Error
				Mon	Tue	Wed	Thu	Fri	Sat	Sun						
1	Pulse	On	08:30:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:08					
2	Pulse	On	09:00:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:08					
3	Pulse	On	10:00:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:01					
4	Pulse	On	10:30:00	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:01					
5	Pulse	On	11:00:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:08					
6	Pulse	On	11:30:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:08					
7	Pulse	On	12:45:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:08					
8	Pulse	On	12:55:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:01					
9	Pulse	On	13:15:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:08					
10	Pulse	On	13:35:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:08					
11	Pulse	On	15:00:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	00:08					
	New															

#### Important things to remember:

The OBELISK program contains a comprehensive HELP file which is found simply by clicking “help” at the top left end of the menu bar.

Note that when opening the program make sure you select “tr622top2” as your timer, otherwise the system will not program the OBELISK card correctly.

Remember that “Channel 1” is the *timer channel that controls your BELLS*. ALL times entered into Channel 1 MUST be PULSE TIMES usually of six seconds duration. If you fail to do this properly the bell will get “stuck on” and ring endlessly until you turn it off.

“Channel 2” is the *music channel*. This channel must be programmed with separate “ON” and “OFF” times, usually with 2 minutes between. If you forget to program the “OFF” time then the music will just keep playing and repeat.

We strongly recommend you keep one OBELISK card (usually the one that came with the timer and was programmed by our staff when the system was commissioned) as a BACKUP and do not write to it. Instead, write your modified programs to the NEW card and thence load them onto the timer. That way if you make a mistake you can reload the old times easily while you sort out what went wrong.

## Detailed Instructions—Page 8

### 2.3) Changing the audio files on the MP3 Player.

#### Overview :

The A1740 unit plays MP3 files on demand as controlled by the PA system timer and control box. Each file is placed in a specific folder.

The name of the file is not important. Only the folder in which the file is placed matters.

For example : When the “line up music” starts (C2 timer channel), the system will look for whatever file is located in “trig2” and start playing it. When the timer switches off again, the ployout will stop. If you want to change the line up music, simply change the file in the “trig2” folder on the SD card.

The “alert” and “pre announce chime” files should NOT be changed as these are a specific length, and changing them may prevent the system from working properly.

#### Create Multiple SD Cards:

You can easily change your play out files by simply preparing multiple SD cards and then changing the card in the play out box say, each morning.

To prepare an additional SD card first get the existing card out of the unit. Create a new directory on your computer and then copy all the directories off the SD card to the directory on your computer.

Then insert the new SD card in your computer and copy the directories from your computer onto the new SD card so it is identical to the existing one.

Now you can easily and safely change the data on either SD card.

#### Changing files:

The most commonly changed file on your system is likely to be “trig2” (Line up Music) which is normally 2 mins long. However many schools also change the Bell (trig1), often to a recording of their own school yard bell or similar.

Wet Weather (trig3) can also be changed. “trig4” is undefined so you can use it for any purpose such as a special message for assemblies etc. We advise against changing the “evac” file however some schools change it to include voice announcements to assist with school evacuation such as directing people where to go, etc.

#### Volume Levels:

Please note that the volume level of ALL the files is controlled by a single “tones and music” knob on the amplifier (ref page 4). *Care should be taken when loading any alternative files to make sure they are not too soft or loud.*

The Bell (trig1) should be recorded as LOUD AS POSSIBLE so everyone hears it clearly. The LINE UP MUSIC (trig2) should be recorded on average about 10dB quieter than the other sounds. Because this file runs longer, it is likely to become a problem both for school staff and for your neighbours if it is repeatedly played too loud. We recommend you adjust the overall level of music files by using an “audio editor” program such as Adobe Audition or Audacity to recode your sound file before saving it onto the SD card.

The Alert and Evacuate files have been preset at a reduced level when your system was installed. The last thing you need when evacuating a school is a siren blowing your head off when you’re trying to move kids about and mark rolls!



#### To Remove / Insert SD Card

- 1.) Push on card , it will then pop out.
- 2.) Remove card
- 3.) Push back in until “click” and leave.

Name	Size	Type
alert		File Folder
evac		File Folder
trig1		File Folder
trig2		File Folder
trig3		File Folder
trig4		File Folder
trig5		File Folder
trig6		File Folder
trig7		File Folder
trig8		File Folder
voice		File Folder
xbackup		File Folder

#### Pre Loaded Files:

The current files were pre loaded onto your system SD card when your system was installed.

alert—Standard lock down tone (DO NOT CHANGE)  
evac—Standard evacuate tone  
trig1— Bell tone (6 secs) (Currently 4 tone Inter M PE9103A chime)  
trig2— Line Up Music Song—usually 2 mins (Beautiful day)  
trig3—Wet Weather Call / Song (Usually 30 secs) (Ian Moss—Mr Rain)  
trig4—User Defined (currently 1 hour system test file)  
trig5—Pre Announce Chime (3 secs) (DO NOT CHANGE)  
trig6—not in use  
trig7—not in use  
trig8—not in use  
voice—not in use  
xbackup—Directory contains backup of all above folders



## Troubleshooting Guide—Page 9

This section will enable you to trouble shoot the system so you can either fix most problems yourself or know what to tell us when you call for service. It's written as a series of common problems, the likely fault, and what you should do to test or remedy the problem.

### 3.1) Major Faults

Problem	Test / Likely Cause	Suggested Action
No power to PA. Unit Dead. No indicator lights on equipment.	Electrical problem in building Unplugged power lead(s)	Plug in something that you know works, into the same outlet and check there is power there.
UPS (Uninterruptible Power Supply, if provided) not working or constantly beeping or system goes dead very soon after a blackout.	UPS Battery needs replacing.	Call for service and tell us what is happening. Expected life of UPS batteries is 3 years before replacement is needed.
Speakers in one section of school are completely dead but others are OK in different areas.	Wiring fault. Likely caused by other contractors damaging or digging up cables or rats eating cables.	Call for service immediately.

### 3.2) Timer and Bell Faults

Problem	Test / Likely Cause	Suggested Action
Bell Ringing Continuously.	Timer has been toggled "ON" accidentally. "C1 ON" may be displayed on the timer.  During programming, an "ON" time has been entered instead of a "PULSE" time.	Briefly push ◀ and ▶ buttons SIMULTANEOUSLY to toggle OFF again.  Turn the "AUTO BELL" switch to OFF to silence the bell. Then check bell times (ref Page 5) to see if there is an error time present. If there is, delete it. Alternatively reset the timer (ref Page 6) and reprogram the timer or use the OBELISK card to restore the previous programme.
Music Plays Continuously.	Timer has been toggled "ON" accidentally. "C2 ON" may be displayed on the timer.  "Music Test" switch left on.  Music time has been programmed with an "ON" time but no corresponding "OFF" time.	Briefly push ▶ and "OK" buttons SIMULTANEOUSLY to toggle OFF again.  Turn it off.  Either delete the "ON" time or add an appropriate "OFF" time into C2 to tell the timer to turn off the music.
Bell does not ring.	Press manual bell ring button. Check "Auto Bell" switch is ON. Bell time(s) not programmed.	If bell rings OK then see below. If not then go to "PA faults". Turn it ON if required. Check bell times (ref Page 5)

### 3.3) Pager Faults

Problem	Test / Likely Cause	Suggested Action
Microphone is dead but the other works OK.	Someone has unplugged the patch lead at the data rack.  Faulty patch lead or paging microphone.	Check the data plug number on the socket that the faulty microphone is plugged in to. Check this number against the corresponding socket on the rack and re insert the cable that runs to the PA system rack.  Swap faulty one with the one that works. If OK then the mic is faulty. If doesn't work then the leads or cabling is faulty.
Bell (and music) can't be heard in some parts of the school	Someone has switched out a zone and forgotten to switch it back in again later.	Make sure ALL the switches on the front of the pager unit are ON (i.e. DOWN).
Slight "click" sound comes through speakers when an alternate zone is paged.	Normal condition.	Nothing's wrong, this is normal.

## Troubleshooting Guide—Page 10

### 3.4) MP3 Player Faults.

Problem	Test / Likely Cause	Suggested Action
Wrong sound plays, i.e. bell rings when music should, etc.	Operating system fragged due to surge or brief power interruption	Switch off MP3 unit for 10 seconds, then back on and then try again.
	Wrong files in relevant folders on SD card	Reload SD card with correct files in correct folders.
No tones at all.	Operating system fragged	Switch off unit for 10 seconds, then back on, and then try again. Test ALL tones (Bell, Music, Evac, Alert, Wet Weather) to make sure ALL are working correctly after reset.
	SD Card damaged	When system is switched back on, all ten red LED's should briefly light up and then go out as the system resets. If this does not happen then replace the SD card.
One sound not working, others OK	Missing or corrupt file in relevant directory	Reload card with correct files
	Broken wire on back of unit	Call service.
	Wrong file type (eg .WMA, not .MP3)	Unit will only play MP3 format files and not WMA (Windows Media) files. Make sure all files are encoded in .MP3 format.

### 3.5) PA System Faults.

Problem	Test / Likely Cause	Suggested Action
No Bells either auto or manual. No tones.	Fault in MP3 player. Check Microphone still Works -	If microphone still works OK - then refer above. If not then refer "No Sound at all" below, or refer 3.2.) "pager faults" on previous page,
No sound at all.	Amplifier switched off Speaker selector not set correctly Volume levels not set correctly Faulty Amplifier	Switch ON power. Push in "SP1" switch and leave ON. Adjust all level knobs back to white arrow positions. Call service. Be sure to mention that you think the amplifier is faulty and a standby replacement may be needed.
Volume Level very soft in some parts of school but not others.	Short circuit in speaker line.	After school, set a music file playing at normal volume. Switch OFF all the zone switches on the pager and one by one turn them on and confirm that the speakers in the corresponding area are working properly. When you get to a zone that is either very quiet or not working at all, leave that zone switched OFF and all the others back ON. Then call for service.
Strange noises through PA	Open spare input channel.	Make sure unused channels are turned right down to ZERO. This is normally knobs 3,4,5 and 6 on the amplifier.
	Radio Microphone Faulty (if fitted).	Switch off radio microphone receiver and see if noise goes away.
	Faulty Tone Generator (on systems which do not have an MP3 player).	Switch OFF entire system, wait for 10 seconds and switch back ON. Also switch off UPS (if fitted) using button on front of panel. If fault persists call service.
Parts of school PA too LOUD and others too soft	Unauthorised contractor has replaced a speaker with the wrong type (8 ohm) or extended the system using the wrong type of speaker.	Have the work reversed and repaired accordingly either by the original contractor, or call service.
	Speaker taps not correctly set when system was installed or system incorrectly specified.	Call service / warranty repair

SERVICE CONTACT :