Operating Manual

A 1730 Message Player

Redback® Proudly Made In Australia

Distributed by Altronic Distributors Pty. Ltd.
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IMPORTANT NOTE:

Please read these instructions carefully from front to back prior to installation.
They include important setup instructions.
Failure to follow these instructions may prevent the unit from working as designed.

User manual revision number: 1.1 16/09/2024

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You may be surprised to learn that Altronics is still manufacturing hundreds of product lines right here in Australia. We have resisted the move offshore by offering our customers better quality products with innovations to save them time and money.

Our Balcatta production facility manufactures/assembles:

Redback public address products
One-shot speaker & grill combinations
Zip-Rack 19 inch rack frame products

We strive to support local suppliers wherever possible in our supply chain, helping to support Australia's manufacturing industry.

Redback Audio Products

100% developed, designed & assembled in Australia.

Since 1976 we have been manufacturing Redback amplifiers in Perth, Western Australia. With over 40 years experience in the commercial audio industry, we offer consultants, installers and end users reliable products of high build quality with local product support. We believe there is significant added value for customers when purchasing an Australian made Redback amplifier or PA product.

Local support & feedback.

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There's a reason we have the industry leading DECADE warranty. It's because of a long tried and tested history of bullet-proof reliability. We've heard PA contractors tell us they still see the original Redford amplifier still in service in schools.

We offer this comprehensive parts & labour warranty on almost every Australian Made Redback public address product. This offers both installers and end users peace of mind that they will receive prompt local servicing in the rare event of any problems.

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1.0 OVERVIEW

1.1 INTRODUCTION

The A 1730 is an MP3 based message player and tone generator designed for public address, security, customer direction or emergency evacuation announcements.

This compact message player can be custom programmed with tones, messages or music for use in interactive displays, security, customer entry and emergency evacuation announcements. When combined with a Redback A 1709 timer it can play announcements at prescribed times for in-store advertising and customer notification.
It allows playback of custom MP3 tracks plus standard alert and evacuation tones. A library of commonly used tones, messages and phrases are provided on the unit's internal storage along with standard tones, including bell, bing bong, siren and pre announcement chime, plus Australian Standard alert and evacuationtones (complying to AS1670.4). These can be downloaded to a micro SD card and then custom MP3 tones, music etc may be added as desired. To comply with Australian Standards for evacuation tones, a custom message may be played after every fourth cycle providing evacuation instructions to occupants. Alert tones can be automatically switched to evacuation tones after a set period (adjustable 30-240 seconds).
Playback for each track can be activated by a closing set of contacts. Contacts may be configured between alternate or momentary action. This can include or exclude alert & evacuation tones as desired. Cancel contacts are provided to stop playback of tracks. Playback can also be manually triggered by front panel switches (if activated via the DIP settings on the rear panel). Optional dedicated messages can be played on each trigger cancellation.
A 9-30V DC switched output is available which is activated when any message is active (the switched output is dependent on the input voltage)

1.2 FEATURES

- Allow for up to 8 custom messages
- MP3 audio format for audio files
- Inbuilt tone & phrase library
- Provision for voice over in alert or evac mode
- Provision for cancel messages for all messages
- Triggers for remote activation of the messages
- Auxiliary level RCA output
- Suitable for any amplifier with an auxiliary input
- 12-30V @ 300mA DC operation
- Switched 12-30VDC output (Input voltage dependant)
- Micro SD card included
- Terminations via screw terminals
- Emergency Tones conform to Australian standard
- Stylish 1RU half rack case
- 10 Year Warranty
- Australian Designed and Manufactured

1.3 WHAT'S IN THE BOX

A 1730 Message Player
Micro SD card
24V 1.5A DC Plugpack
Instruction Booklet

2.0 FRONT PANEL CONNECTIONS

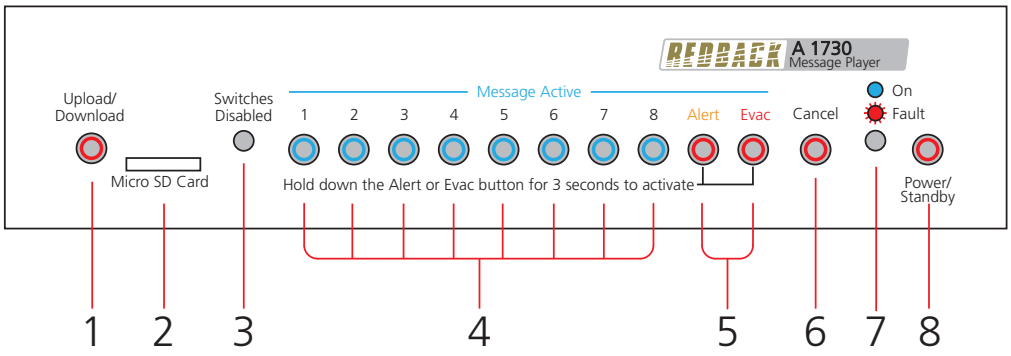

Fig 1

1 Upload/Download Switch
Use this switch to upload MP3 files from the micro SD card to the internal storage of the A 1730, or download the MP3 files from the unit to a micro SD card. (Refer to section 5.0 for details)

2 Micro SD card slot
The Micro SD card which has the messages/tracks (in MP3 format) to be played is inserted here. The Micro SD card can be a maximum of 32GB.

3 Switches Disabled Indicator
This LED illuminates when the front switches are set to be disabled via the DIP switches on the rear of the unit. (See Fig 2 for DIP Switch location).

4 Message Active Switches and Indicators
These switches are used to trigger the messages 1-8. The LED's inside the switches indicate when the associated message is playing. The messages can also be activated by using the triggers on the rear of the unit. (See Fig 2 for details.) NOTE : If DIP switch 3 on the rear of the unit is set to "OFF" the front switches will not operate and the "Switches Disabled" LED will illuminate.

5 Alert and Evac Switches and Indicators
These switches are used to trigger the Alert and Evacuation tones (which conform to AS1670.4). The LED's inside the switches indicate when the associated message is playing. The tones can also be activated by using the Alert and Evac triggers on the rear of the unit. (See Fig 2 for details.) NOTE : If DIP switch 3 on the rear of the unit is set to "OFF" the front Alert and Evac switches will not operate and the "Switches Disabled" LED willilluminate. The Alert and Evac tones can also be disabled from the rear triggers by setting DIP switch 2 to the "OFF" position. (See Fig 2 for details.)

6 Cancel Switch
Use this switch to cancel any MP3 which is playing. (This may need to be held down for 2 seconds to cancel). The Cancel option can also be activated by using the Cancel trigger on the rear of the unit. (See Fig 2 for details.) NOTE : If DIP switch 3 on the rear of the unit is set to "OFF" the front Cancel switch will not operate and the "Switches Disabled" LED will illuminate.

7 Status Led
This LED indicates whether the unit is ON or has a Fault condition. If the LED is "steady blue" the unit is receiving power. If the LED is "flashing red" then a fault has occured with the unit.

8 Standby Switch
When the unit is in standby mode this switch will illuminate. Press this button to switch the unit ON. Once the unit is ON the On indicator will illuminate. Press this switch again to put the unit back in standby mode.

3.0 REAR PANEL CONNECTIONS

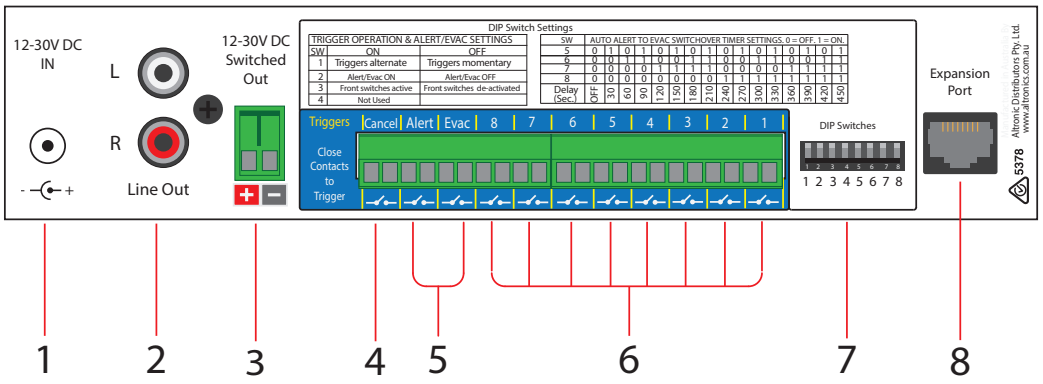

Fig 2

1 DC Input

Power is supplied to the unit via a 2.1mm (tip to positive) DC socket. The A 1730 requires a minimum of 12VDC at 300mA to work correctly with a maximum working voltage of 30VDC. Do not exceed 30VDC as it will cause permanent damage to the unit. A good working voltage is between 12VDC and 24VDC.

2 RCA Stereo Line Output

Connect these outputs to the output amplifier. Output level is nominal 500mV but is related to the recorded level of the MP3.

3 Pluggable 12-30VDC switched output

Connects via Euroblock screw terminals. Please observe correct polarity when connecting.
The switched output terminal is triggered when any message or tone is activated. The output voltage is the same as the power supplied to the unit. ie if the A 1730 is powered by 12V DC, the switched output voltage will be 12V DC.

4 Cancel Trigger

The cancel trigger is activated by closing contacts on the rear of the unit whether by a normally open switch or a timer or controller. The trigger can be set to Momentary or Alternate triggering. See DIP SW settings.

5 Alert and Evac Triggers

The Alert and Evac triggers are activated by closing contacts on the rear of the unit whether by a normally open switch or a timer or controller. The triggers can be set to Momentary or Alternate triggering. See DIP SW settings. (Note: These triggers have a common ground).

6 Message 1-8 Triggers

The message triggers are activated by closing contacts on the rear of the unit whether by a normally open switch or a timer or controller. The triggers can be set to Momentary or Alternate triggering. See DIP SW settings. (Note: These triggers have a common ground).

7 DIP Switches

These DIP switches are used to:
Set the triggers as either momentary or alternate action.
Set the Alert and Evacuation tones to either "ON" or "OFF".
Disable or Enable the front switches for use.
Set the delay between the Alert and Evacuation tones.

8 Expansion Port

Not currently used.

4.0 OPERATION

When a trigger is activated either by the rear trigger contact, or the front switches, the unit will play an MP3 file stored in the corresponding trigger folder (e.g. if trigger 1 is activated, the unit will play the MP3 file located in the folder labelled trig1). Where the unit accesses these folders is determined by the presence of the micro SD card in the front of the unit.

Micro SD card NOT inserted:
The A 1730 has MP3 files stored in it's internal memory, and will use these default files for playback when a micro SD card is not installed. The MP3 files stored in the internal memory can be modified by uploading new files from a micro SD card (refer to section 5.0 for details).
This feature is useful for installs where tampering is an issue, or where theft or loss of the micro SD card from the front of the unit could prevent the unit from operating.

Micro SD card inserted:
When a micro SD card is inserted, the A 1730 will use the MP3 files stored on the SD card for message playback, and ignore the internal memory files.
Note: If a blank micro SD card is inserted, the A 1730 will copy the contents of the internal memory to the SD card, and then use the SD card for playback. The contents of the SD card can then be altered on a PC, and either used with the card inserted back into the unit ,or uploaded back into the internal memory and the card removed (see section 5.0 for details).

4.1 Trigger Modes

Alternate: When the A 1730 is in Alternate mode (DIP1 switch1 OFF) the trigger contact must be held closed for the duration of the MP3 play time, if it is released before the MP3 ends the MP3 will stop playing immediately. If the contact is held closed continually the MP3 will continue to loop over and over until the contact is released.

Momentary: In Momentary mode (DIP1 switch1 ON) a momentary closing trigger contact or pulse on the trigger pins will activate the MP3. The A 1730 will continue to play the MP3 till it finishes, and will stop playing and wait for another trigger activation.
To stop an MP3 playing when in Momentary mode the Cancel trigger or Cancel switch is used. A momentary closing contact on the Cancel trigger or closure of the Cancel switch will stop the MP3 playing (it is recommended that the Cancel contact or switch be held up to 2 seconds to ensure the MP3 stops playing)

4.2 Emergency tones (Alert and Evacuation)

The Alert and evacuation tones conform to Australian Standards AS1670.4 and are used to notify building occupants of an emergency situation.

Alert: The Alert tone is activated by a closing contact on the ALERT trigger or by pressing the Alert button on the front of the unit and can be used in Alternate or Momentary setup as mentioned in section 4.1. The Alert tone comes with a change over option which forces the A 1730 to switch from Alert to the Evacuation tone after a prescribed time. Use DIP switches 5-8 to adjust this time or switch off completely.

Alert message: A message can be inserted every three alert cycles. A Voice message could be something like "please standby". To install an Alert message on the A 1730 refer to section 5.0 and place your message in the Voice/Alert folder and delete any other MP3 file located in the folder.

Evacuation: The Evacuation tone is activated by a closing contact on the Evac trigger or by pressing the Evac button on the front of the unit and and can be used in Alternate or Momentary setup as mentioned in section 4.1.

Evacuation message: A message can be inserted every three evacuation cycles as per the Australian Standards. Voice message could be something like "please evacuate the building by the closest exit". To install a Evacuation message on the A 1730 refer to section 5.0 and place your message in the Voice/Evac folder and delete any other MP3 file located in the folder.

4.3 Priority

The Emergency tones have priority over other triggers (1 to 8) and if activated will stop any other MP3 and activate the selected emergency tone. Evacuation also has priority over Alert.

4.4 Switched Output

The switched output terminal becomes active when any message or tone is activated. The output voltage is the same as the power supplied to the unit. ie if the A 1730 is powered by 12V DC, the switched output voltage will be 12V DC.

4.5 DIP Switch Settings

Switch 1 - Trigger Mode.
ON - alternate mode (refer to section 4.1).
OFF - momentary mode (refer to section 4.1).

Switch 2 - Alert/Evacuation Tones ON or OFF
OFF - the Alert and Evac tones cannot be triggered either by the front switches or the rear terminal contacts.
ON - the Alert and Evac tones can always be triggered via the rear terminal contacts. However the front switch triggering is dictated by DIP Switch 3.

Switch 3 - Front Switch Activation
OFF - the front switches become de-activated from use. When these switches are de-activated the "Switches Disabled" LED on the front of the unit will illuminate. This function disables all the switches including the cancel, alert and evac.
ON - front switches active

Switch 4 - Not used

Switches 5-8 - Alert/Evacuation Tones change over option
The Alert and evacuation tones conform to Australian Standards AS1670.4 and are used to notify building occupants of an emergency situation.
The Alert tone comes with a change over option which forces the A 1730 to switch from the Alert to the Evacuation tone after a prescribed time. DIP switches 5-8 set these change over times from 30 seconds to 450 seconds in 30 second intervals.
If all DIP switches are set to "OFF" the changeover is disabled.

SW	AUTO ALERT TO EVAC SWITCHOVER TIMER SETTINGS. 0 = OFF. 1 = ON.															
5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
6	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
7	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
8	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
Delay (Sec.)	OFF	30	60	90	120	150	180	210	240	270	300	330	360	390	420	450

Fig 3

5.0 ACCESSING FILES ON THE MICRO SD CARD

Remove power from the A 1730 and then remove the micro SD card from the front of the unit.
To remove the micro SD card push the card in and it will eject itself.
The micro SD card will then need to be connected to a PC. You will need a PC equipped with a micro SD card reader to do this (not supplied). If a Micro SD slot is not available then the Altronics D 0371B USB Memory Card Reader or similar would be suitable (not supplied).
Make sure the PC is on and card reader connected and correctly installed. Then insert the micro SD card into the reader.
Go to "My Computer" or "This PC" and open the micro SD card which is usually marked "Removable disk".
In this case it is named "Removable disk (K:)". Click on the Removable disk and the contents of the micro SD card should be listed as shown in figure 4.

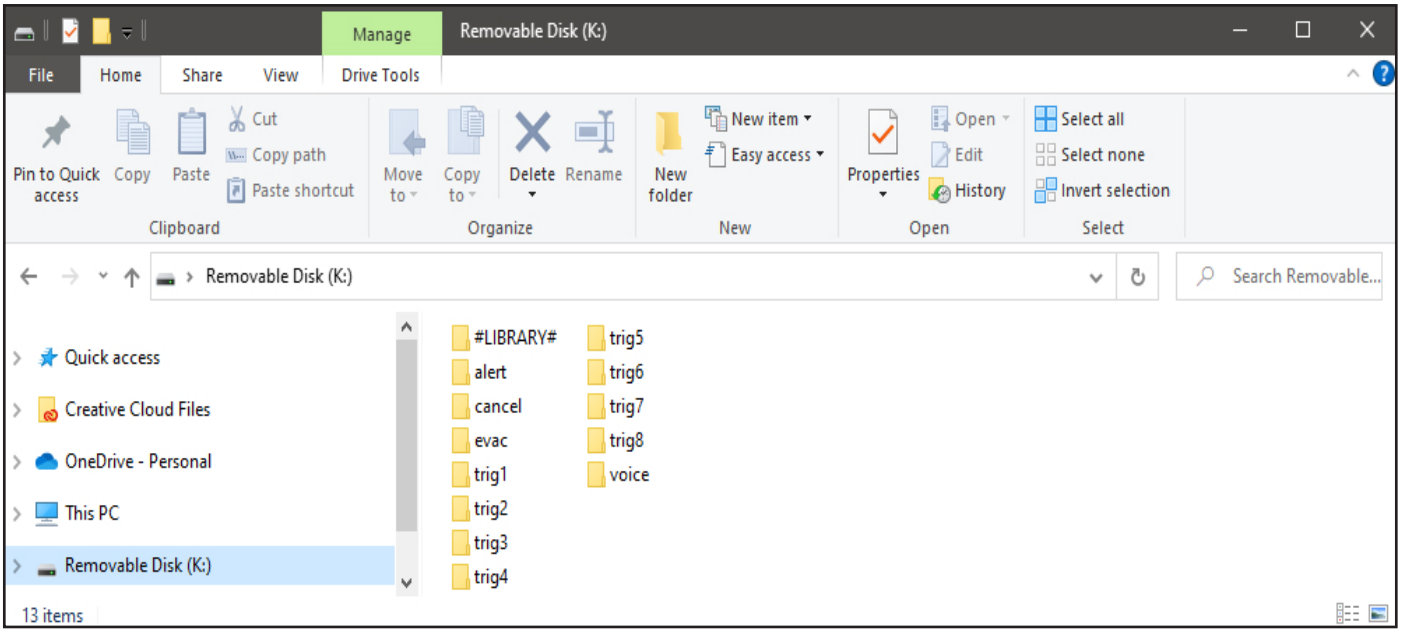

Fig 4

Included on the micro SD card is a folder labelled #LIBRARY# (shown in figure 5) which includes a collection of sample tones and messages which can be used for the trigger MP3's.

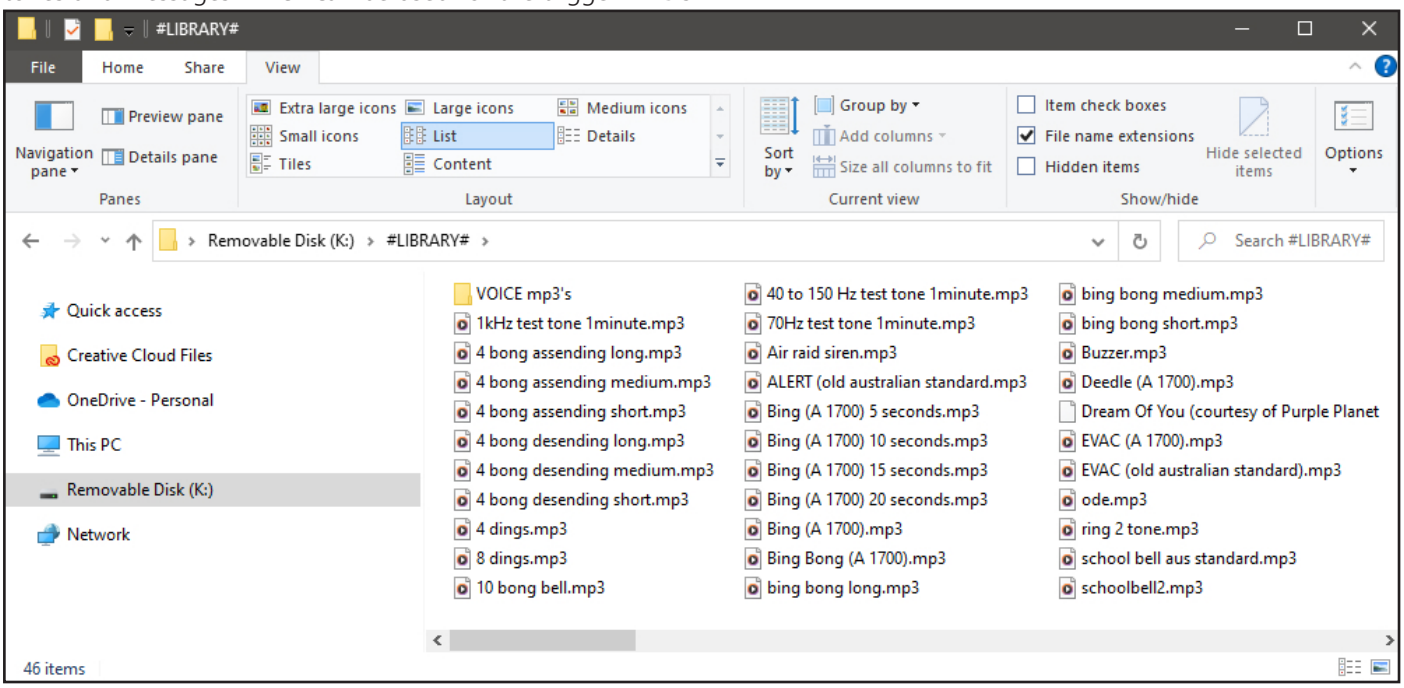

Fig 5

5.1 Installing MP3 files into trigger folders

To open a trigger folder simply double click on the relevant folder, such as our example of the trig2 folder shown in figure 6. Inside the folder will be a default MP3 file, named in this case "trigger2.mp3". This is the audio file that is played when trigger 2 is activated. Delete this file and replace it with an MP3 file you want to play when you activate trigger2. This MP3 could be a file from the #library# folder or an MP3 of your own choosing.
The MP3 file name is not important only that there is a legitimate MP3 file in the trig2 folder (WAV, OGG or other formats do not work).
Repeat this process for the required triggers.

Note: More than one MP3 file can be placed in the trigger folders. These will be played consecutively while the trigger is activated.

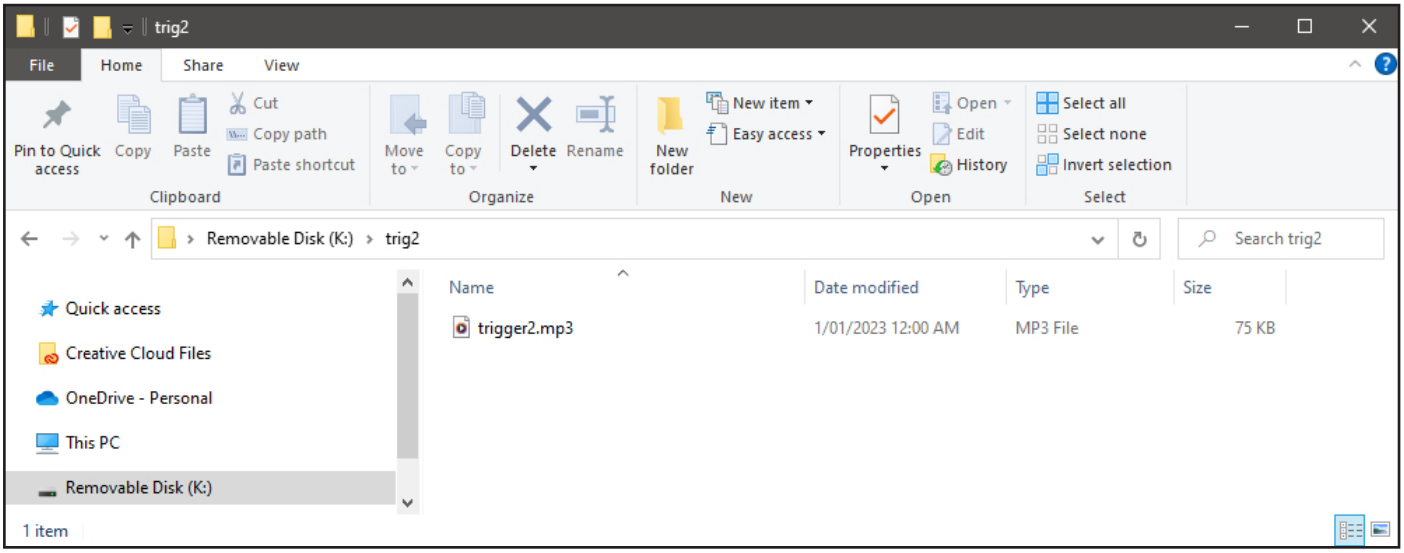

Fig 6

5.2 MP3 file format

The audio files used must be in MP3 format, they cannot be WAV, OGG or other formats. The minimum recommended MP3 format is 128kbps, 44.1kHz, 32bit, VBR or CBR, Stereo (even better as mono).
NOTE: the MP3 files used cannot be "Read only". To check this, right click on the MP3 file and scroll down and select Properties, you will get a popup window. Make sure the "Read Only" box has no tick in it.

5.3 Alert and Evac Messages

A message can be inserted every three alert cycles and/or every three evac cycles . A Voice message could be something like "please evacuate the building". To install an Alert or Evac message open the "voice" folder and then select the alert or evac folder. Figure 7 illustrates the location of the voice/evac folder.
Delete the file in the folder and replace it with an MP3 message file you want to play when you activate the alert or evac. This MP3 could be a file from the #library# folder or an MP3 of your own choosing.
Note: If an Alert or Evac message is not required delete the files in these folders.

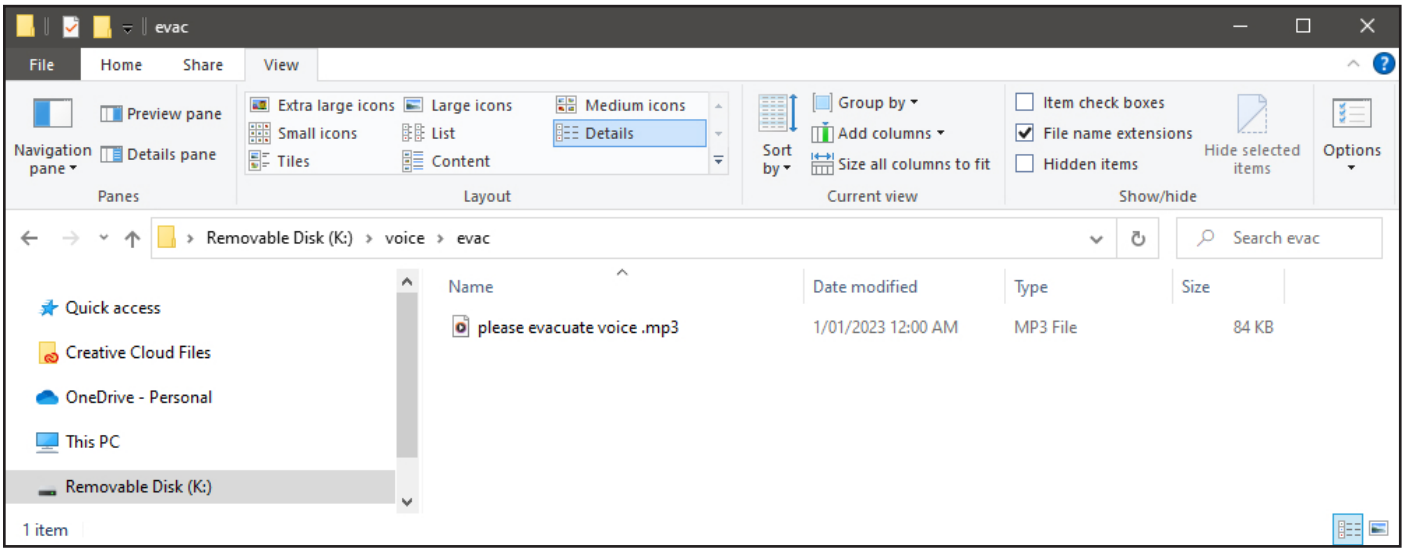

Fig 7

5.4 Cancel Messages

Dedicated messages can be played on each trigger cancellation, including the Alert and Evac triggers. An example might include a message such as "The incident has been resolved, please return to work" played when the Evac trigger is cancelled. To include a cancel message for a trigger, navigate to the cancel folder and then place an MP3 file in the appropriate trigger folder. The location of the folders is illustrated in figure 8.
Note: If a cancel message is not required for a trigger make sure the folder is empty.

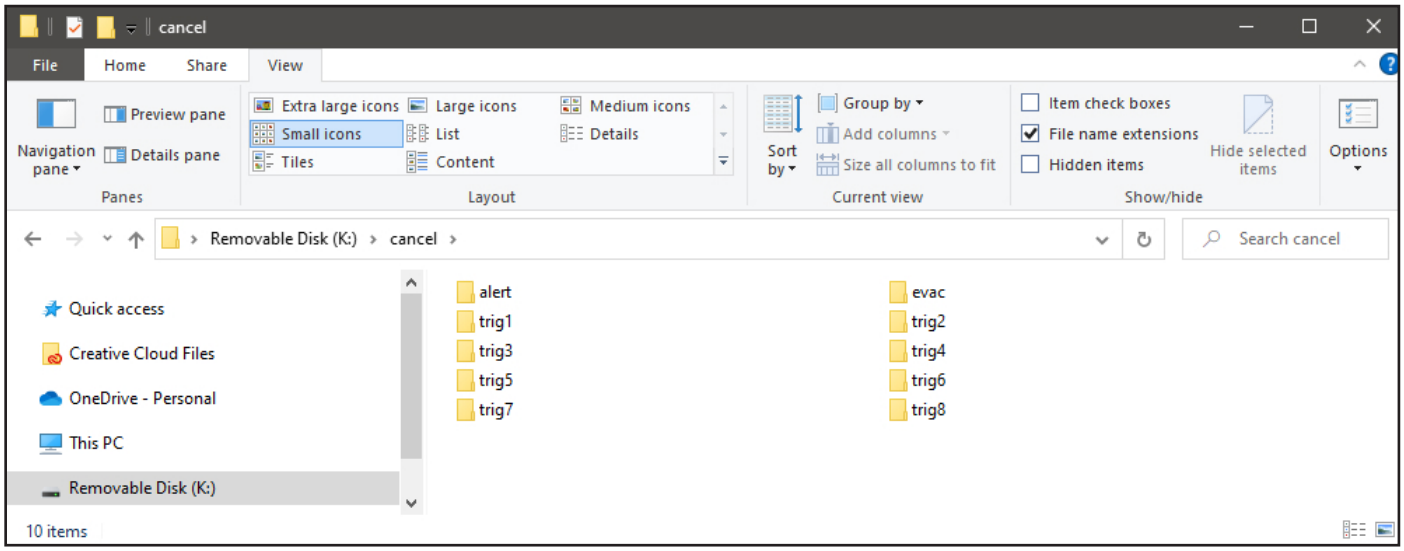

Fig 8

Once the MP3's are installed, the SD card can be removed from the PC following windows safe card removal procedures.

As outlined in section 4.0, the A 1730 will play MP3's from the internal memory or from the micro SD card. If the MP3's are to be played from the micro SD card, make sure the A 1730 is OFF and insert the Micro SD card into the slot in the front; it will click when fully inserted. The A 1730 will now use the files on the SD card for playback.

To use the internal memory for MP3 playback, simply remove the Micro SD card. If the internal memory files needs any changes refer to section 6.0 for details regarding uploading new files.

6.0 DOWNLOADING AND UPLOADING MP3 FILES

6.1 Uploading files to the A 1730

To upload the contents of a micro SD card to the A 1730, a text file named upload.txt is required in the root folder of the micro SD card, as shown in figure 9. This can be created using notepad or some other text file editor and copied on to the micro SD card. Insert the micro SD card in the A 1730. Press the upload/download button on the front of the A 1730. The triggers and alert and evac leds will illuminate if the files are compatible. The upload/download LED will flash while uploading. The trigger LED's will count down as the upload progresses, and the upload/download LED will turn off when the upload is complete. If any file is not compatible the error LED will flash and the upload will not begin.
The upload.txt file will be deleted on completion of a successful upload.

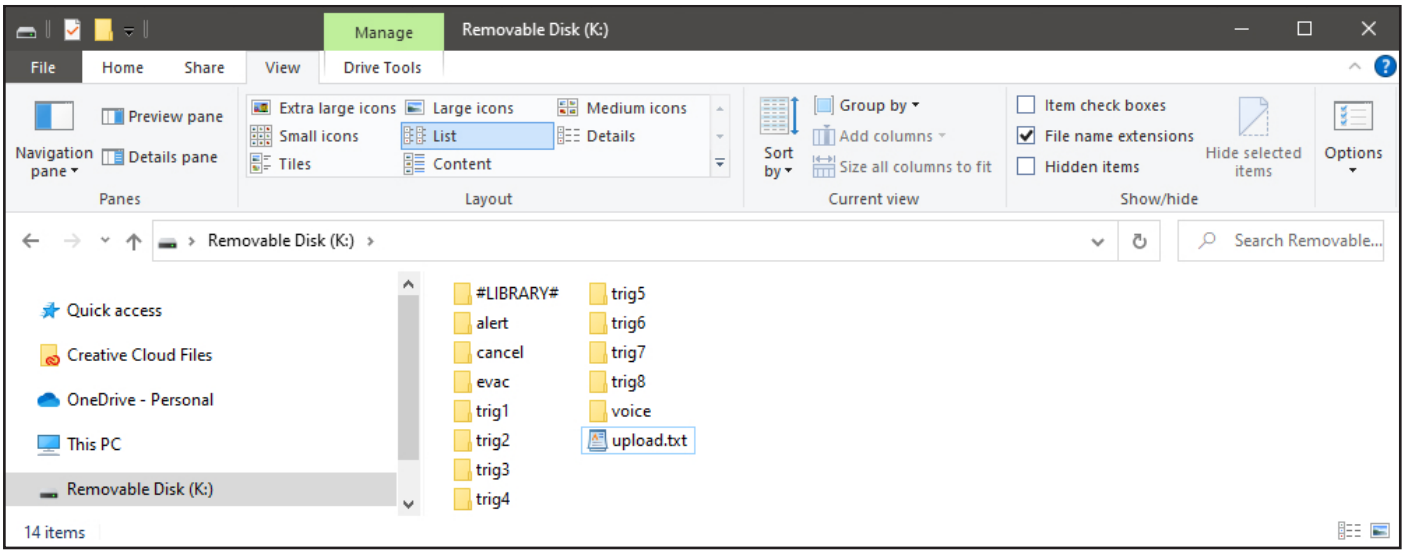

Fig 9

6.2 Downloading files from the A 1730

To download the contents of the A 1730 internal memory to a micro SD card, a text file named download.txt is required in the root folder of the micro SD, as shown in figure 10. This can be created using notepad or some other text file editor and copied on to the micro SD card. Insert the micro SD card in the A 1730. Press the upload/download button on the front of the A 1730. The triggers and alert and evac leds will illuminate if the SD card is compatible. The upload/download LED will flash while downloading. The trigger LED's will count down as the download progresses, and the upload/download LED will turn off when the download is complete. If any file is not compatible the error LED will flash and the download will not begin.
The download.txt file will be deleted on completion of a successful download.

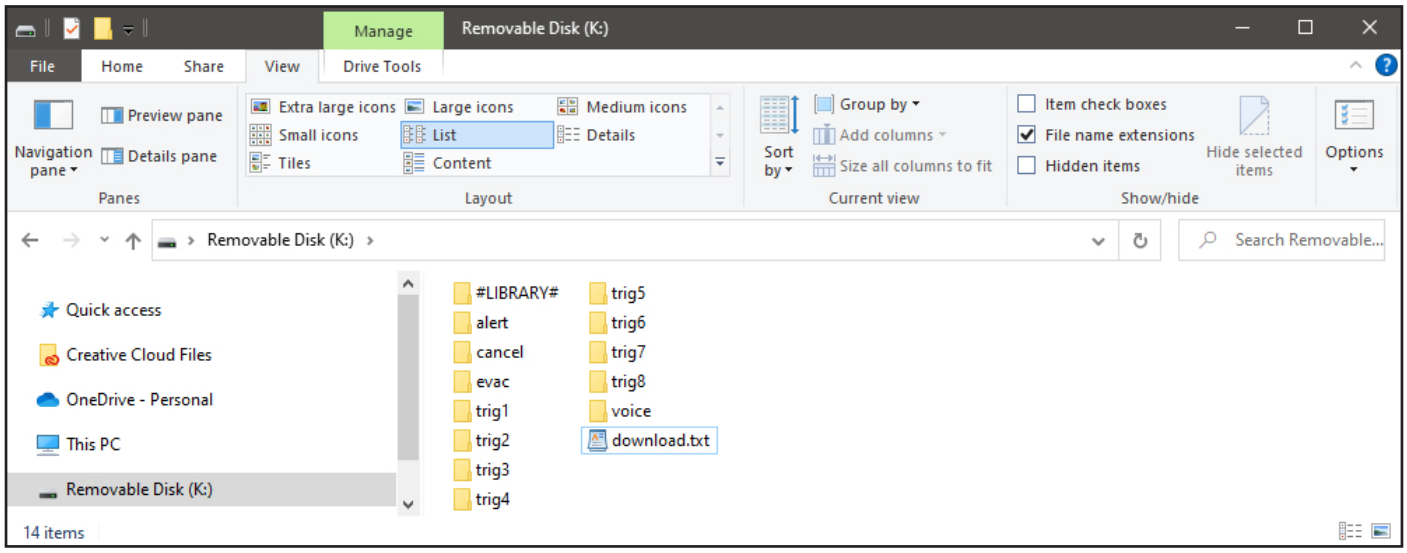

Fig 10

7.0 TROUBLESHOOTING

NO Power (Power LED does not illuminate):
Check power supply DC jack is 2.1mm and not 2.5mm size.
Check the power supply voltage is 12-30VDC.
Check the power supply is a DC output, not AC.

Message active 10 LED flashes all the time:
This is an indicator that the Micro SD card is not inserted correctly or is not formatted.

Emergency tones do not work:
Switch DIP switch 2 ON to activate emergency tones.

A message is played when the Alert or Evac mode is activated
If an Alert or Evac message is not required delete the files in the Voice/Alert and Voice/Evac folders.

8.0 FIRMWARE UPDATE

It is possible to update the firmware for this unit by downloading updated versions from www.altronics.com.au or redbackaudio.com.au.
To perform an update, follow these steps.

1) Download the Zip file from the website.
2) Remove the Micro SD card from the A 1730 and insert it into your PC.
3) Extract the contents of the Zip file to the root folder of the Micro SD Card.
4) Rename the extracted .BIN file to update.BIN.
5) Remove the Micro SD card from the PC following windows safe card removal procedures.
6) With the power turned OFF, insert the Micro SD card back into the A 1730
7) Turn the A 1730 ON. The unit will check the micro SD card and if an update is required the A 1730 will perform the update automatically.

9.0 SPECIFICATIONS

Power supply: ..... 12VDC to 30VDC 300mA (idle/maximum current draw 150mA) tip positive
Output: ..... Stereo RCA 500mV nominal
MP3 File Format: .....128kbps, 44.1kHz, 32bit, VBR or CBR, Stereo (even better as mono)
SD card size: ..... 256MB to 32GB
Trigger activation: .....Closing contact
Switched output: ..... 12-30VDC out (supply voltage dependant)

* Specifications subject to change without notice.

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