

Flash A/V player manual:

INTRODUCTION:

The Flash A/V player is a self-contained Solid State Video/Audio player housed in a small compact metal enclosure. It is a combination of a DVD player and an Audio MP3 player (SR3). Flash A/V utilizes the latest single chip design that eliminates Video/Audio noise usually associated with a multi chip design. The result is an excellent Video/Audio quality surpassing most Video players currently available in the market. The Flash A/V does not require any programming, it has been pre-programmed to play a 2 stage interactive multimedia presentation. The built in program is designed to replace a typical touch screen set up, thus lowering the total exhibit cost. The Flash A/V is a solid state device that will give you a trouble free operation and at a lower cost.

VIDEO PLAYTIME:

	1.1MBPS	4 MBPS	10MBPS
32 Meg	4 Min	50 sec	20 sec
128 Meg	16 Min	200 sec	80 sec
1 Gig	2 Hrs	26 Min	11 Min

AUDIO PLAYTIME:

	128KBS	256KBS
32 Meg	30 Min	60 Min
128 Meg	120 Min	240 Min

HOW DOES THE FLASH A/V WORK:

The Flash A/V uses a Compact Flash card to store the Video and Audio files. The file folder structure of the compact flash card is directly related to the input and playback of the Audio/Video files. The Audio/Video files are stored in the root file folder and inside up to 8 File folders. After powering up, Flash A/V will loop all video/audio files in the root file folder.

This is the HOME position.

NOTE: The Flash video requires at least one video/audio file in the root file folder to start. It will not start without a video/audio file in the root file folder.

From Home position you can select 8 input (8 File Folders). When an input e.g input#1 is triggered, the Flash A/V will immediately go to the associated file folder (file folder #1) and plays the first video file in that file folder once. From this position you can set the Flash A/V to play 8 more input. If no input is triggered, then the Flash A/V will go back to home.

However if a push button is triggered eg Push button #2, then the Flash A/V will play the correspond file plus 1 (file #2+1 = the third file) in that same file folder. After playing that file, Flash A/V will return to play once the First file in that file folder and if no other input is triggered it will return back to home position.

AUDIO AND VIDEO FILE TYPES:

Flash A/V plays the following Audio and Video files:

Audio file: MP3 audio, Max 320kbit/s.

Video files: xxx.mpg (Mpeg1&2, program file)

xxx.vob (DVD video file). Max 10 mbit/s

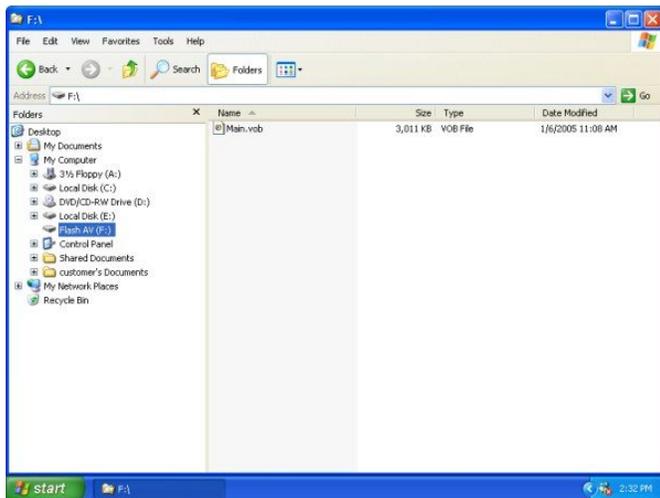
Still picture: xxx.jpg (JPEG), resolution is 680X480

COMPACT FLASH CARD:

Important note: If you are using the Flash AV for Audio or Low bit rate Mpeg video, you can use any standard Compact Flash card. If you are using the Flash AV to replace DVD use Sandisk Ultra II Compact Flash card only. Flash A/V reads any size Windows (98 to XP) DOS format.. You do not need to format a new Compact flash card, it usually has been formatted by the manufacturer. However if you have to format the Compact Flash Card, format it with DOS system, not NTFS. Use a PC and a USB card reader to read the Compact Flash Card such as Memorex USB card reader from Office Depot. The Sandisk Ultra II is available at [www. Techdepot.com](http://www.Techdepot.com) OR Buy.com.

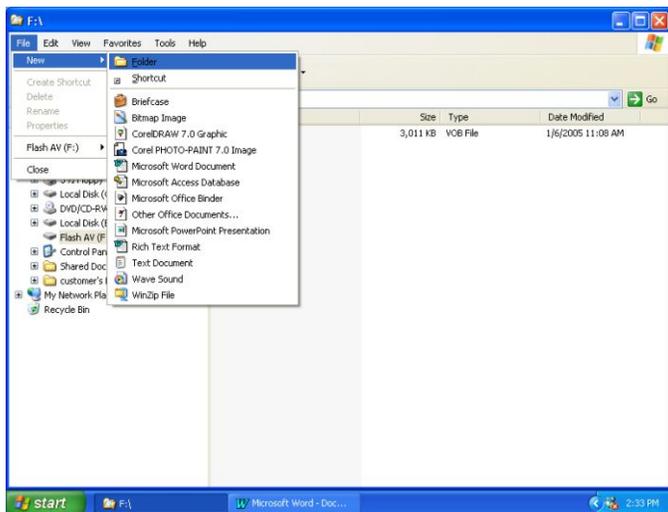
HOW TO PREPARE THE COMPACT FLASH CARD:

Below is a screen print of a brand new Compact Flash card. The PC reads the Compact Flash card as drive F. Please note that Drive F is the root directory of the Compact Flash card and is also the HOME position of the Flash AV.

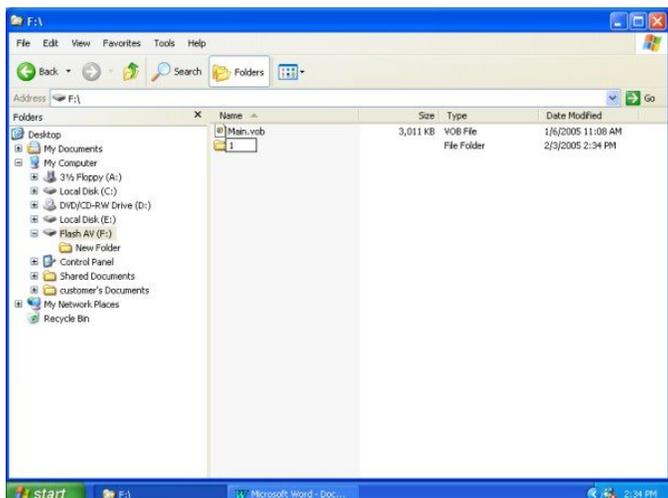


After powering up, the Flash AV will loop Main.vob. You can copy multiple Video/Audio files in the root directory. The Flash AV will loop all files in the root directory.

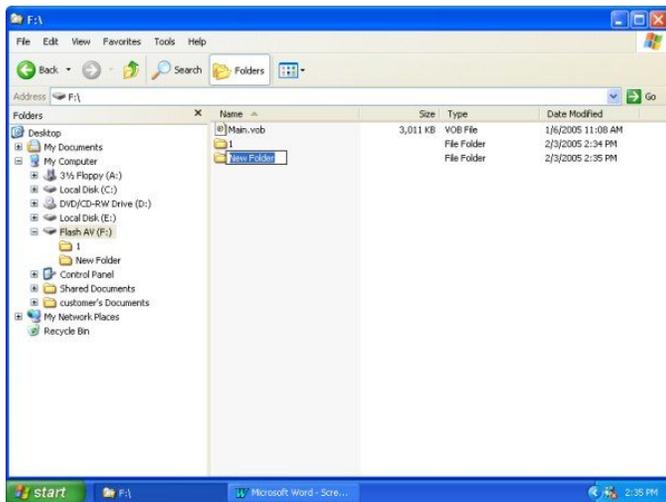
Now create a new file folder for F: (C F card drive).



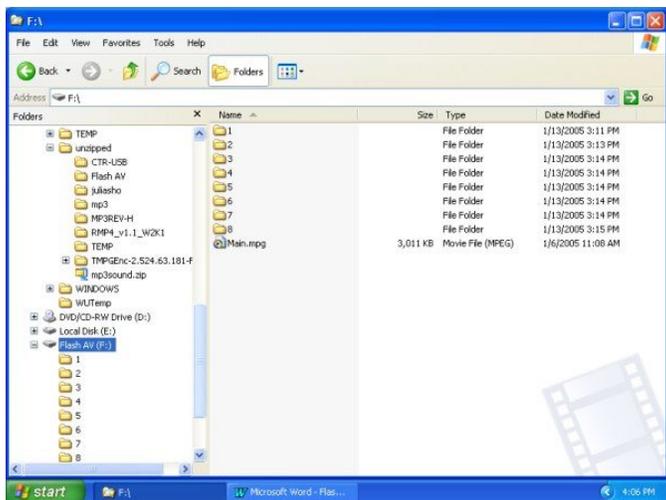
And name the new file folder 1 (numerical 1).



Continue creating new file folder. If you are planning to use only 1 input, then create 1 file folder. If you are planning to use 4 inputs, then create 4 file folders. If you are planning to use 8 inputs, then create 8 file folders.



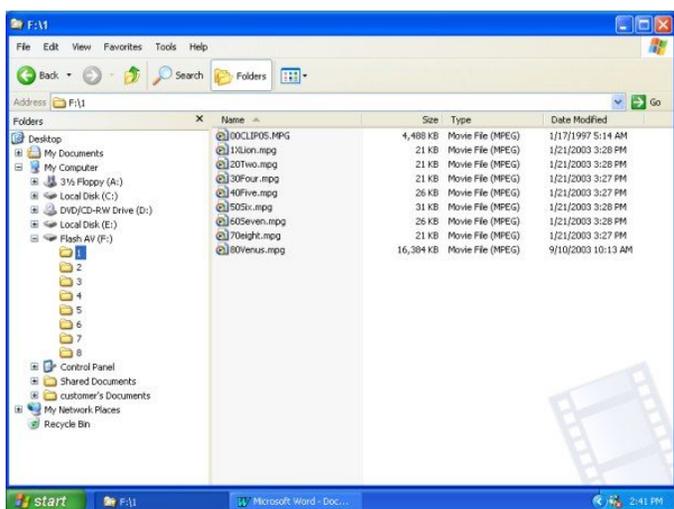
Below is an example of a Compact flash card with 8 file folders.



FILE FOLDER OF THE COMPACT FLASH CARD:

Referring to the above sample, from HOME position if input 1 is triggered, Flash AV will immediately go to File folder1 and play the first file. After finish playing the first file Flash AV return to loop Main.vob again. From HOME position if input 2 is triggered, Flash AV will immediately go to File folder 2 and play the first file . After finish playing the first file Flash AV return to loop Main.vob again . From HOME position if input 8 is triggered, Flash AV will immediately go to File folder 8 and play the first file . After finish playing the first file Flash AV return to loop Main.vob again.

However while inside a file folder, Flash AV is programmed to play another 9 Audio/Video files. Below is an example of file folder1 that contains 9 files.



Here is an example of the content of file folder 1.

Referring to File Folder 1:

If input 1 is triggered, Flash AV will immediately go to File folder1 and play the first file. (00Clip05.mpg). If while playing 00Clip05.mpg (or any other file in this directory), input1 is triggered again then 1Xlion.mpg will play. After finish playing 1Xlion.mpg, Flash AV will play 00Clip05.mpg once and then return to loop Main.vob again.

If while playing 00Clip05.mpg (or any other file in this directory), input2 is triggered then 20Bird.mpg will play. If while playing 00Clip05.mpg (or any other file in this directory), input8 is triggered then 80Venus.mpg will play etc.

Please note that the second letter of 1Xlion.mpg has an X, no interrupt is allowed while playing this file.

FILE FOLDER NAME AND ORDER:

The root directory can contain up to 8 file folders. Name the file folder by using distinct Alphabetical or numerical character to arrange the order such as 1, 2 or A, B etc.

FILE NAME AND ORDER IN A FILE FOLDER:

By using 2 distinct letters/numerical (character) of the file name, you can arrange the file order in the file folder. Rename the original video/audio files accordingly to arrange the order of the files. To arrange the order of the files, use 2 distinct alphabet or numeric for the first 2 characters of a file name. E.g: 00bird.mpg, 10dog.mpg, 20Monkey.mpg, 31Lion.mpg , 41Tiger.vob etc.

The second letter (Character) of the file name has an important no interrupt function as explain below.

NO INTERRUPT:

To play a Video/Audio file to the end without any interruption, use X for the second letter of a file name.

E.g.: 1Xbird.mpg

While playing 1Xbird.mpg, Flash A/V will ignore all input and plays it to the end. After finish playing, then Flash A/V is ready to accept another input.

LOOP FUNCTION: (for Version 2 only).

To play a Video/Audio file in a continuous loop, use Z for the second letter of a file name.

E.g.: 1Zbird.mpg

Flash AV will continuously loop 1Zbird.mpg. To stop playback, use HOME or another input.

FLASH A/V TERMINALS:

There are 5 sets of 4 screw on terminal (Total 20) at the rear of the Flash A/V player. They consist of 8 inputs, 3 Grounds, Home/Next, Relay out /Common , Volume Up/Down and stereo speaker out.

FLASH A/V INPUT 1 to 8:

To trigger an input short it momentarily to ground. E.g: to trigger input#1, momentarily short input #1 to ground etc.

To Trigger HOME, momentarily short it to ground.

To trigger Volume Up/ Down, short it momentarily to ground.

NEXT INPUT:

To trigger Next input, short it momentarily to ground. If Next input is triggered, the first file of the first file folder will be played. If Next is triggered again then the first file of the second file folder will be played etc.

HOME INPUT:

Home position is when the Flash A/V loops the video file(s) in the root directory. If the Flash A/V is not at this position, shorting the Home input momentarily to ground will abort the current playback (providing the file does not have no interrupt) and return the Flash A/V to Home position again.

VOLUME UP/DOWN INPUT:

Shorting the Volume Up/Down momentarily to ground will bring up/down the audio volume. The Flash A/V will memorize the last volume position even if the power is turned OFF after the volume adjustment.

RELAY OUT:

Relay out has 2 terminals. These terminals are Normally open (not connected) when Flash A/V is idling or at HOME position. When an input is triggered, The Flash A/V is active and these terminals are closed (Connected).

AUDIO LINE OUT, 2 RCA:

Connect these outputs into the Audio input of an amplified monitor OR audio line input of an external Audio Amplifier.

Use the Volume Up/Down to adjust the audio line level.

COMPOSITE VIDEO OUT, RCA:

Connect it to a standard RCA input of a monitor.

Video resolution is 720 X 480 (680 X 480)

S-VIDEO OUT, S Connector:

Connect it to a standard S-Video input of a monitor.

Video resolution is 720 X 480 (680 X 480)

STEREO SPEAKER OUT:

The stereo speaker out is available on a 4 screw on terminal. Connect them to a pair of external stereo speakers or the speaker input of a monitor. The Flash A/V amplifier output is 20 watt stereo. Adjust the speaker output using the Volume Up/Down.

Important: Do not mix or combine the ground speaker. Each speaker has to be connected into it's own ground.

POWER INPUT:

Flash A/V is supplied with a 30watt desktop (external) AC switching power supply. The power input is 120VAC to 240VAC, 50 to 60 Hz. The AC power connection into the power supply is a std 3 prong PC style (IDC) complete with a PC style power cord.

APPLICATION EXAMPLES:

1. Exhibit with a main menu video and a selection of 4 push buttons to play 4 video files.

Main Menu Video: Create a main menu video e.g. main.mpg . When creating the main.mpg video, use a graphic program such as Paint shop to create a push button graphic overlay. (see sample video from Akman Inc). This will inform the user to select the push button to play the video. You can also add Home, Vol Up and Vol Down button if you decide to use them.

Root Directory:

Copy the main.vob into the root directory of the CF Card.

File folder:

Create 4 File folders e.g.: 1,2,3 and 4

Video Files: Create 4 video files as follows.:

Eagle.mpg to be played by PB1, copy to file folder 1.

Bird.mpg to be played by PB2, copy to file folder 2.

Dove.mpg to be played by PB3, copy to file folder 3.

Hawk.mpg to be played by PB4, copy to file folder 4.

After powering up, Flash AV will play (loop) main.vob.

If push button 1 is triggered, Eagle.mpg will be played.

If push button 2 is triggered, Bird.mpg will be played etc.

For a no interrupt playback, use 1X for the first 2 letters such as 1Xeagle.mpg, 2Xbird.mpg, 2Xdover.mpg etc

2. Exhibit with a selection of 4 push buttons to play 4 video files.

This example differs from sample 1, the video can be switched directly without returning to home position. To do this, use only one file folder. Copy all video/audio files into this one file folder and use the loop function to loop the first file. While looping the first file, the user can switch to play other files. However to start this program, someone initially has to trigger input 1.

Main Menu Video: Create a main menu video e.g. main.mpg . Use a graphic program such as Paint shop to create a message such as: Press push button 1 to start.

Root Directory:

Copy the main.vob into the root directory of the CF Card.

File folder:

Create 1 File folders e.g.: 1

Video Files: Copy 5 video files as follows.:

0ZBlack.mpg to be loop when PB1 is initially triggered, copy to file folder 1.

10Eagle.mpg to be played by PB1, copy to file folder 1.

20Bird.mpg to be played by PB2, copy to file folder 1.

30Dove.mpg to be played by PB3, copy to file folder 1.

40Hawk.mpg to be played by PB4, copy to file folder 1.

After powering up, Flash AV will play (loop) main.vob. Someone has to press push button 1 to start the program.

If push button 1 is triggered (initially), then Flash AV will go to file folder 1 and stays there and 0ZBlack.mpg will loop. The screen is now black OR you can substitute it with a another screen such as: Input 1 plays Eagle, Input 2 plays Bird etc.

If push button 1 is triggered, 10Eagle.mpg will be played.

If push button 2 is triggered, 20Bird.mpg will be played etc.

If push button 3 is triggered, 30Dove.mpg will be played.

If push button 4 is triggered, 40Hawk.mpg will be played.

Flash AV will stay in file folder 1 until power is turned OFF or Home is triggered.

If you want to loop all files, use Z as a second letter of the file name. E.g.: 1Zeagle.mpg.

3. Exhibit to play audio/video using motion detector. When idling the video screen is dark.

Main Menu Video: Create a 10 seconds black screen video (10Black.mpg), use Mpeg1 video so that the file will be small. This file is also available from our website: [www. Akman.com](http://www.Akman.com).

Root Directory:

Copy 10Black.mpg into the root directory of the CF Card.

File folder:

Create 4 file folders e.g.: 1,2,3 and 4.

Video Files:

Create 4 video files, to prevent double triggering use letter X when naming the audio/video file (no interrupt option). E.g.: 1XEagle.mpg, 2XBird.mpg, 3XDove.mpg and 4Xhawk.mpg. Copy them into the file folder as explained in example 1

Input: Connect the NO output of the motion into the NEXT input of the Flash AV. After powering up, the motion detector will sequentially play the first file (only) of each file folder.

4. Exhibit with a Main menu video, 4 sub menu video and 4 push buttons. Each sub menu has a selection of up to 8 video clips.

Main Menu Video: Follow example 1.

Root File folder:

Copy the main.mpg into the root file folder of the CF Card.

Sub Menu Video: Create them using a similar method as the Main menu video. See example 1. Name them using 2 distinct

character for their first 2 letter. This allows you to position each file as the first file on each file folder list.

File folder:

Create 4 File folders e.g.: 1,2,3 and 4.

Copy the submenu video files accordingly into each file folder.

Video Files: Create the video files accordingly and name them using 2 distinct character for the first 2 letter. This allows you to arrange them accordingly in the file list. E.g: 20Eagle.mpg.

Example of file folder 1:

10Submenu1.mpg (to be played by PB1 from Home position).

20Eagle.mpg (to be played by PB1 while at this file folder).

30Bird.mpg (to be played by PB2 while at this file folder).

40Dove.mpg (to be played by PB3. while at this file folder).

50Hawk.mpg (to be played by PB4 while at this file folder).

For a no interrupt playback, use 1X for the first 2 letters such as 1Xeagle.mpg, 2Xbird.mpg, 3Xdover.mpg etc.

TECHNICAL SPECIFICATIONS:

Video format:

--Mpeg1 and Mpeg2 Programmed video files.

DVD - VOB video files

VCD - DAT video files

JPEG - JPG still pictures

Audio format:

MP3 - MP3 audio files

Bit Rate:

Maximum video bitrate is 10 Mbps.

Maximum MP3 audio bitrate is 320 kbps.

Outputs:

Composite out on RCA jack and Y/C out on S-Video mini 4 pin din connector.

Audio line out is 2 V p/p stereo on 2 RCA jacks.

Audio speaker output is 20 watt on 4 mini screw on terminal.

Audio line out and speaker out are simultaneously controlled by the volume up/down.
Relay output is available on Busy and Common terminals. While idling or at Home position, terminals are not connected. When playing a file, these terminals are connected.

Inputs:

8 Digital input, to trigger short momentarily to ground.

1 Home/Next input, to trigger short momentarily to ground. Volume UP and Volume Down , to trigger short momentarily to ground.

Power supply:

120 - 240VAC Universal switching power supply complete with a standard PC style power cord. Power output is 12VDC, 30 watt.

Enclosures:

Aluminum enclosure, 7.25" Wide X 4.25" Deep X 1.2" High. Weight is 1.5 lbs. Shipping weight with P.S is 3 lbs. NEMA (weatherproof) enclosure is also available.

FOR TECHNICAL INFORMATION CONTACT:

Akman Inc.

Orlando, FL, USA

Tel: (407) 948 0562 & (407) 847 3998

Fax: (321) 459 1086

<http://www.akman.com>