

SR8

Manual

Version 1.0

Akman Inc

Tel: (407) 948 0562

Fax: (321) 459 1086

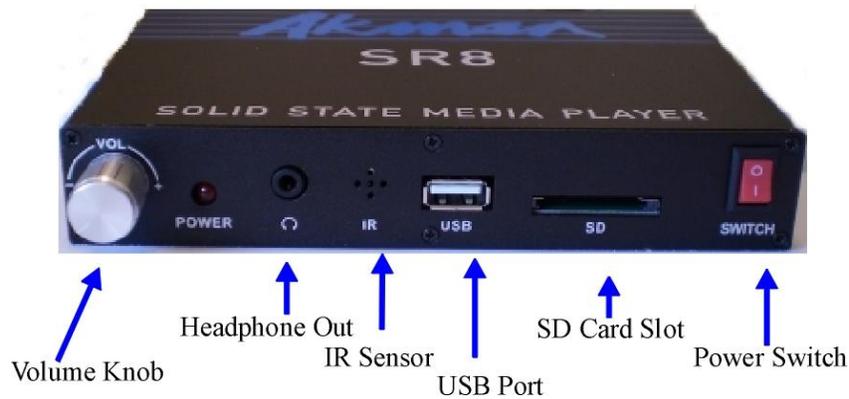
<http://www.akman.com>

May 2014

SR8 Solid State Media Player

Note: The SR8 will play ALL SR6 will play any SR4 content.

FRONT VIEW:



Power switch:

Turn SR8 power ON/OFF. Boot time is approximately 5 seconds.

USB Memory Card slot:

USB card slot, maximum size is 32 GB.

SD Memory Card Slot:

SD Card Slot, maximum size is 32 GB.

Infra red sensor:

Sensor for hand held Remote Control for Menu access and controlling Line Audio Volume.

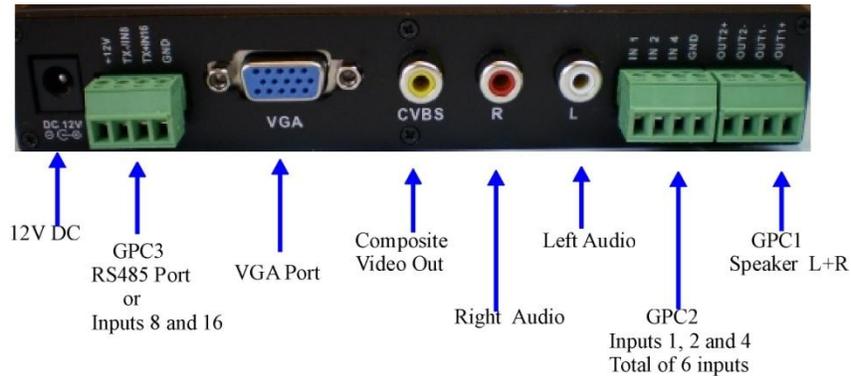
Volume Knob:

Clockwise is volume up, counter clockwise is volume down.

Headphone Out:

Stereo, controlled by volume knob.

REAR VIEW:



Composite Video:

Connect into composite video out of your monitor. Output is always ON. Output is automatically adjusted to NTSC or PAL.

VGA out:

Connect into the VGA input of a PC monitor. Output is always ON. Output is 640 X 480.

Stereo Line Audio out:

Stereo audio line out. Connect this into the audio in of the video monitor or external audio amplifier.

GPC3 (Green Phoenix Connector 3):

Used for Digital Inputs 8 and 16 OR used for RS485 control.

Consists of: 12V+, TX- or IN8, TX+ or IN16 and GND

***WARNING- 1st pin far left side of GPC3 has ACTIVE 12V+ *DO NOT TOUCH GROUND(4th pin on far right) and 12V+**

Grounding the 12V will DAMAGE and reboot the player. 12V intended only for RS485 use.

To change GPC3 from digital inputs to RS485 control you must change the internal jumpers to 12V, T+, R- and Ground(GND).

Please refer to the picture on page 22 for instructions on changing the internal jumpers to switch between digital inputs or RS485 control.

GPC1 (Green Phoenix Connector 1):

Used to connect 2 Speakers. Stereo Audio powered from built-in amplifier. Volume controlled by Volume Knob.

GPC2 (Green Phoenix Connector 2):

Used for Digital Inputs 1,2 and 4.

Consists of: IN1, IN2, IN4 and GND

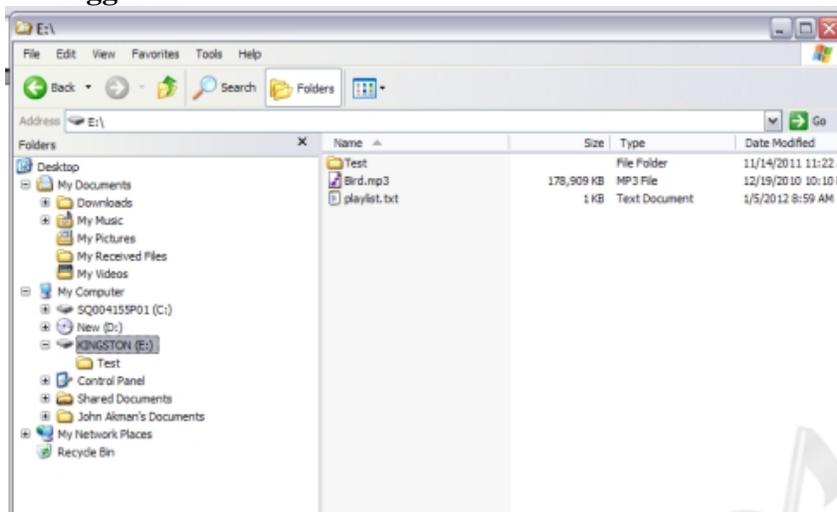
Power input:

Connect the power supply (included with the unit) into this input. Input is 12VDC, 30 watt.

SR8 USB memory card and SD card flash drive:

Note: This SR8 is compatible and will play any SR6 USB/SD flash card.

- To loop file(s) automatically after powering up OR to play using push buttons the Flash Memory card requires at least 1 A/V File in the root (home directory, not in folder), playlist.txt and 1 File Folder.
- The SR8 will automatically loop A/V File (s) in the root after powering up. The files are sorted alphabetically.
- **Please refer to page 11 for instructions on Playlist.txt setup.** Playlist.txt is a text file that contains the SR8setup and instruction on how you want the input (push button) to play the files that are located inside the file folder(s).
- ◆ **File folder(s) contains files that you want to play using the input (push buttons). These files will not play automatically, it will only play when an input (push button) is triggered.**



Here is content of a memory card for looping file(s) only:

F:\

Bird.mp3 (this is the root directory)
Cat.mp3 (file in the root directory needed for Inputs)
Dog.mp3 (a second file in the root directory)
playlist.txt (this is a text file, could be blank)
Test: (note: this is a File folder, could be empty)

TEST file folder is required but this folder can be empty.

The content of playlist.txt can be blank but must be present in the root directory.

Explanation:

SR8 will sort and play the file alphabetically. After powering up, Bird.mp3 will play and then Cat.mp3, Dog.mp3, Bird.mp3 etc.

Here is a typical content of a Memory card if you want to play file(s) using push button(s)*PLAYLIST.txt required:

F:\

Bird.mp3 (file in the root directory needed for Inputs)

playlist.txt (this is a text file)

Test: (note: this is a File folder)

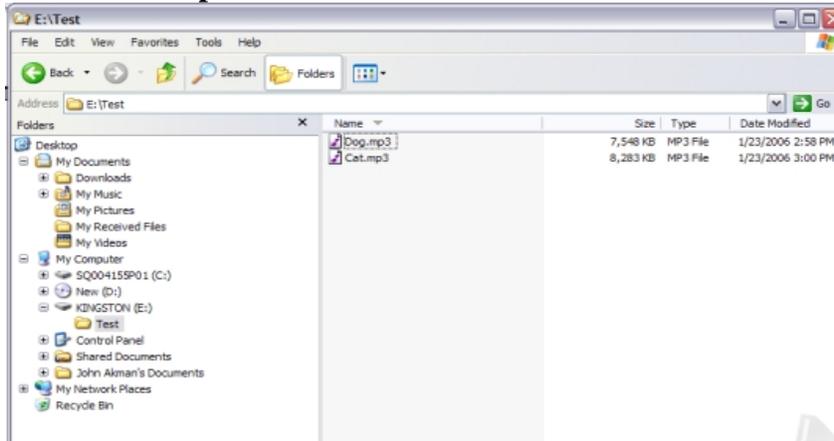
Dog.mp3 (this file will be played by a PB1)

Cat.mp3 (this file will be played by a PB2)

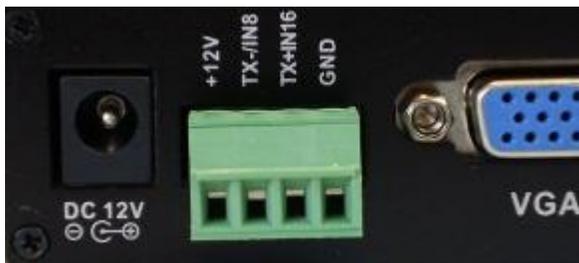
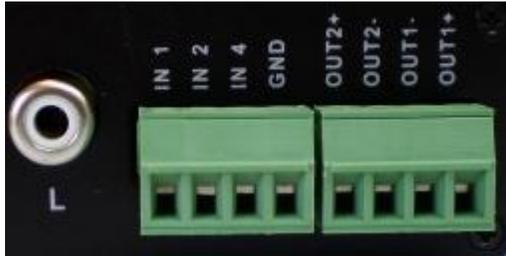
And here is the content of playlist.txt:

010000=Dog.mp3

020000=Cat.mp3



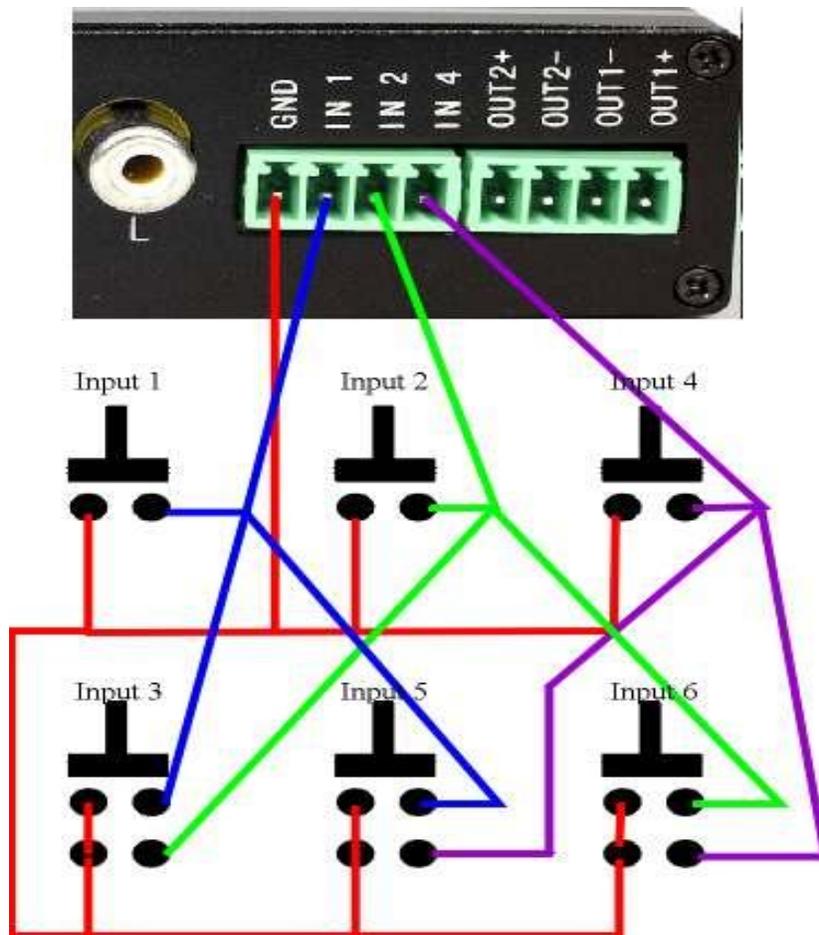
SR8 GPC1, GPC2 and GPC3



***WARNING-** Please note that the 12V on Green Phoenix Connector 3 is ACTIVE. Grounding the 12V will DAMAGE and reboot the player. 12V intended only for RS485 use. To change GPC3 from digital inputs to RS485 control you must change the internal jumpers to 12V, T+, R- and GND.

Please refer to the picture on page 22 for instructions on changing the internal jumpers to switch between digital inputs or RS485 control.

SR8 INPUT wiring using single and double pole push button:



HOW to trigger an INPUT:

To trigger input 1, 2, 4, 8 & 16 short it momentarily to grnd.

To trigger input 3, short both 1&2 momentarily to grnd.

To trigger input 5, short both 1&4 momentarily to grnd.

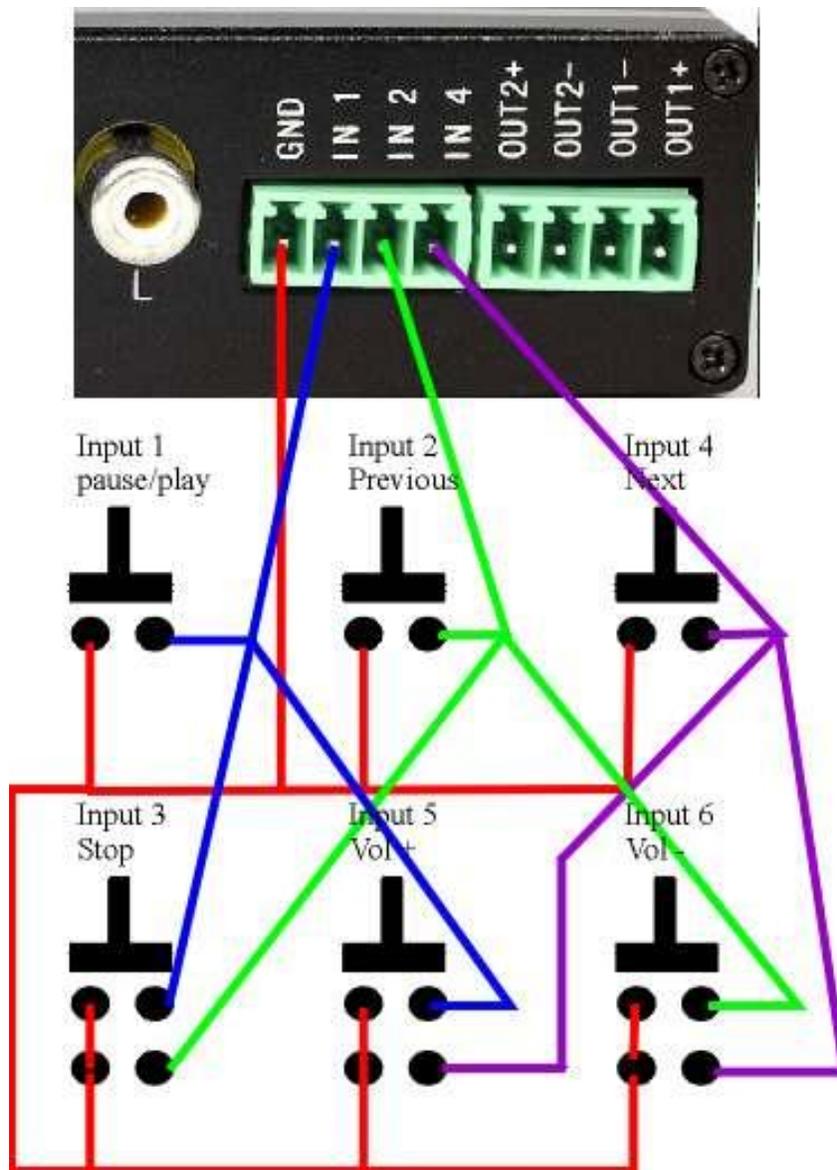
To trigger input 6, short both 2&4 momentarily to grnd.

The single and 2 input combination can be triggered directly using **the push button that is available from our web site.**

To set SR8 to IR mode:

In the playlist.txt add this line:

IRMODE=ON (all capital letters).



SR8 has a total of 5 built in input. In this mode, these inputs operate as follows:

IN1 operates as PAUSE/PLAY.

IN2 operates as PREV (previous, lines 60-79 in playlist.txt).

IN4 operates as NEXT (next, lines 60 to 79 in playlist.txt only).

IN3 (IN1+IN2) operates as STOP.

IN5 (IN1+IN4) operates as VOL + (volume up).

IN6 (IN2+IN4) operates as VOL- (volume down).

To enter IR mode, add this line into the playlist.txt file:

IRMODE=ON(all capital letters only)

In this mode, IN2 (previous input) and IN4 (next input) will only play lines 600000 to 990000 in the playlist.txt, total of 40 files.

If you want to cycle only 6 files, then add this statement in the playlist.txt:

LOOP=6 (all capital letters only).

This statement will cause the SR8 to play lines 600000 to 650000 using IN2 (prev) and IN4 (next).

Example: Refer to page 14 for another example

You want to sequentially play 4 files using a single push button.

Here is the memory card content:

F:

Bird.mp3 (file in the root directory needed for Inputs)

playlist.txt (this is a text file)

Test:\ (note: this is a File folder)

Dog.mp3

Cat.mp3

Lion.mp3

Tiger.mp3

And here is the content of playlist.txt:

IRMODE=ON

LOOP=4

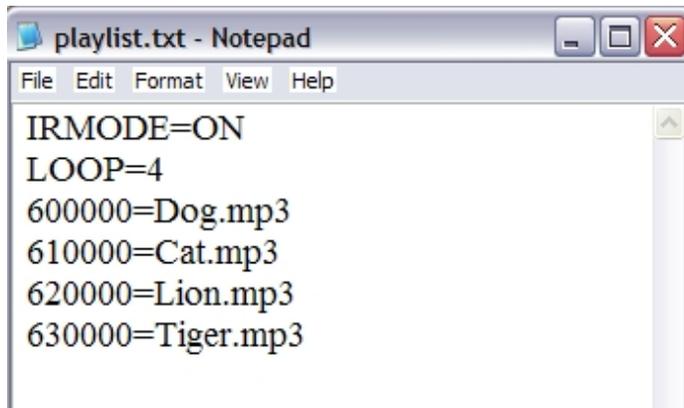
600000=Dog.mp3

610000=Cat.mp3

620000=Lion.mp3

630000=Tiger.mp3

Sample of playlist.txt:

A screenshot of a Notepad window titled "playlist.txt - Notepad". The window has a menu bar with "File", "Edit", "Format", "View", and "Help". The text content of the file is as follows:

```
IRMODE=ON
LOOP=4
600000=Dog.mp3
610000=Cat.mp3
620000=Lion.mp3
630000=Tiger.mp3
```

Explanation:

After powering up, the SR8 will automatically loop Bird.mp3.
If input 4 (Next input) is triggered, Dog.mp3 will play because of this statement:
60000=Dog.mp3. After playing Dog.mp3, SR8 will return to home position and loop.
If input 4 is triggered again, Cat.mp3 will play because of this statement: **610000=Cat.mp3**.
After playing Cat.mp3, SR8 will return to root and loop. After playing the last file Tiger.mp3,
the SR8 will be ready to play Dog.mp3 again.

HAND HELD IR UNIT :

The Hand held IR unit has functions similar to a DVD such as Forward, Rev, Step, Pause, Stop, A-B etc. The IR hand held unit can also be used to bring up the Main Menu. Use the arrow UP/Down and Left/Right keys to navigate the menu. From this main menu you can access and modify SR8 settings. From the main menu you can change various Audio setting, Audio/video setting and other preferences.

The Hand held IR unit can be used to trigger SR8 input. Use this to test your play list program.

Example:

To trigger SR8's input 1, press key 1.

To trigger SR8's input 2, press key 2.

To trigger SR8's input 16, press key 1 then key 6 immediately.

PLAYLIST:

playlist.txt: (do not use MAC to create this, use PC only!)

NOTE: Save as name playlist using lower case letters. Do not use capital letters. Save as plain text(.txt) with ANSI encoding.

Playlist.txt file is required only if you want to play video using push buttons.

The playlist.txt is a file that relates (lists) video files to certain inputs. The purpose of this playlist is to create "software input" so that each file can be associated with "an input". Create playlist.txt using any text editor such as Notepad, Wordpad etc.

If using NOTEPAD, save the file as follows:

Use your cursor and Go to FILE

Go to SAVE AS

Choose the location on your hard drive

In the File name column type lower case only: **playlist**

Important: DO NOT type playlist.txt, type playlist only

All letters in lower case only. Save as type: Plain Text (.txt). Encoding: ANSI and save the file.

If using WORDPAD, save the file as follows:

Use your cursor and Go to FILE

Go to SAVE AS.

Choose the location on your hard drive

In the File name column type lower case only: **playlist**
Important: DO NOT type playlist.txt, type playlist only
All letters in lower case only. Save as type: Plain Text(.txt).

If using MSWORD, save the file as follows:

Use your cursor and Go to FILE
Go to SAVE AS
Choose the location on your hard drive
In the File name column type lower case only: **playlist**
Important: DO NOT type playlist.txt, type playlist only
All letters in lower case only.
Save as type: Plain Text(.txt) and save the file.

INPUT DEFINITION in PLAYLIST.TXT:

Each input is define by using a six number system.

SIX NUMBER DEFINITION:

First and second numbers are for input.

Third number is not used.

Fourth number is for interrupt.

Fifth and sixth numbers are for what to do OR where to go after playing a file.

First and second numbers are for input.

Example:

<u>01</u> 0199=Dog.mp3	Input 1 plays dog.mp3.
<u>02</u> 0020=bird.mp3	Input 2 plays bird.mp3.
<u>08</u> 0198=Cat.mp3	Input 8 plays cat.mp3

Third number is NOT USED.

Fourth number is for interrupt.

Fourth number: if 0 play the file with **interrupt**
if 1 play the file **NO interrupt.**

Example:

<u>01</u> 0199= Dog.mp3	Play this file with NO interrupt.
<u>02</u> 0020=bird.mp3	Play this file with interrupt.

080198=Cat.mp3

Play this file with NO interrupt

Fifth and sixth numbers are for “what to do” OR “where to go” after playing a file.

Example:

010120=bird.mp3 (jump to an input after playing the file, in this case jump to input 20).

20 Fifth and Sixth number is for Jump to input OR one of the special functions below. In this case jump to Input20.

SPECIAL FUNCTIONS for fifth and sixth number.

Numbers: 00, 99, 98 and 97

CODE 00, return to home position after playing a file

011000=cats.mp3

RETURN TO HOME POSITION after playing a file.

Fifth and Sixth number is NUMBER **00**

CODE99, stop after playing and wait for another input.

011099=cats.mp3

STOP after playing a file and WAIT for Input.

Fifth and Sixth number is NUMBER **99**:

CODE98, Loop this file.

011098=cats.mp3

LOOP this file.

Fifth and Sixth number is NUMBER **98**:

CODE97,

97:for Stop after playing a file and wait for input. If the same input is triggered again, then play the next file on the list.

eg. 011097=Cat.mp3

010097=Lion.mp3

010097=Brid.mp3

APPLICATION EXAMPLE:

Example 1:

F:\

Cats.mp3 (file in the root directory needed for Inputs)

Playlist.txt (this is a text file)

TEST: (note: this is a File folder)

Bird.mp3

Cat.mp3

Lion.mp3

Tiger.mp3

And below is the content of the Playlist.txt:

010100=Bird.mp3 Third number is 1, no interrupt.

020099=Cat.mp3Code 99, after playing wait for an input.

080098=Lion.mp3 Code 98, loop this file.

160001=Tiger.mp3 After play this file, jump to play 01

Explanation of example 1:

After powering up, the SR8 will loop Cats.mp3.

If input 1 is triggered, Bird.mp3 will play. While playing SR8 will ignore other inputs (NO INTERRUPT). After playing SR8 will return to root and loop Cat.mp3.

If input 2 is triggered, Cat.mp3 will play. After playing SR8 will wait for other input.

If input 8 is triggered, Lion.mp3 will loop.

If input 16 is triggered, Tiger.mp3 will play. After finish playing, SR8 will automatically play Bird.mp3.

Example 2:

Special IR function using a single push button to play different files sequentially.

F:\

Cats.mp3 (file in the root directory needed for Inputs)

Playlist.txt (this is a text file)

TEST: (note: this is a File folder)

Bird1.mp3

Bird 2.mp3

Bird 3.mp3

Bird 4.mp3

Bird5.mp3

Bird6.mp3

And below is the content of the Playlist.txt:

playlist.txt

IRMODE=ON Capital letters only, set SR8 to IR mode.

LOOP=6 Set SR8 to play 6 files only.

600000=Bird1.mp3

610000=Bird2.mp3

620000=Bird3.mp3

630099=Bird4.mp3

640099= Bird5.mp3

650000= Bird6.mp3

Explanation of example 2:

After powering up, the SR8 will loop Cats.mp3.

SR8 will automatically enter IR mode because of this statement: IRMODE=ON.

It is also ready to play lines 60xxxx to 99xxxx in the playlist.

If input 4 (next) is triggered, Bird1.mp3 will play. After playing SR8 will return to home position and loop Cats.mp3.

If input 4 (next) is triggered again, Bird2.mp3 will play. After playing SR8 will return to home position and loop Cats.mp3 etc.

After playing Bird6.mp3, SR8 recycles ready to play Bird1.mp3.

How to connect SR8 into IN6:



Reversed 6p, 6C RJ12 cable

Using the RJ12 cable, connect one end into the SR8 and the other end into the IN port of the IN6. To connect the second IN6 board, use the RJ12 to connect the OUT port of the first IN6 board into the IN port of the second IN6 board. Make sure to set the IN6 board address correctly.

IN6 BOARD ADDRESS:

Each board can be set for a board address 1,2,3 OR 4. The address is set using switch1 and 2 of the IN6 Dip Switch.

If SW1 and SW2 are OFF (Down position), board address is 0.

The digital input of IN6 is 1 to 12.

If only SW1 is ON (Down position) board address is 1.

The digital input of IN6 is 13 to 24.

If only SW2 is ON (Down position) board address is 2.

The digital input of IN6 is 25 to 36.

If SW1 and SW2 are ON (all down) board address is 3.

The digital input of IN6 is 37 to 48.

IN6 input board:

For IN6 input wiring go to page 18.



The IN6 input board does not require power supply. The 12 vdc power comes from the RS485 port. If you are using a single IN6 board, use the RJ12 cable to connect the IN side of the RS485 port of the IN6 board into the SR8's RS485 port.

The IN6 input board has a total of 8 terminals. Facing the green terminals from left to right:.

The first terminal is GROUND.

IN1 is the **second terminal**.

To trigger input #1, momentarily short IN1 to ground. Line 0100xx=xxx.mp3 in the playlist.txt will play.

IN2 is the **third terminal**.

To trigger input #2, momentarily short IN2 to ground. Line 0200xx=xxx.mp3 in the playlist.txt will play.

IN3 is the **fourth terminal**. IN4 is the **fifth terminal**.

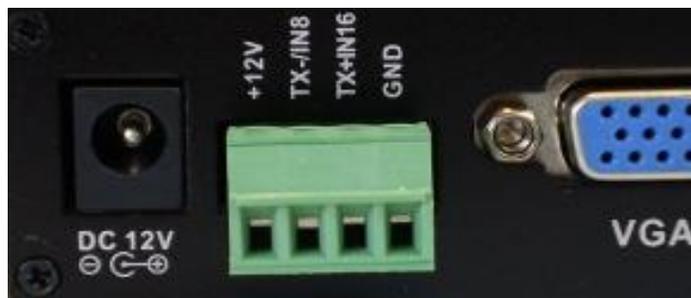
IN5 is the **sixth terminal** and IN6 is the **seventh terminal**.

The last terminal is UP. Use this input to trigger IN7 to IN12 as follows:

To trigger input #7, momentarily short IN1 and UP together to ground to play input 07 in the playlist.txt.

Do the same by combining inputs 1 to 6 plus UP input to trigger inputs 8 to 12.

SR8 RS485 port:



***WARINING DO NOT GROUND 12V. WILL CAUSE DAMAGE TO PLAYER AND REBOOT.**

***SR8 is factory set to have internal jumpers on digital inputs(K4&K5). To use RS485 you must change internal jumpers to TX+&TX-. Please refer to page 22 for instruction.**

RS485 port:

The RS485 port is a bi-directional port. It uses RJ12 cable to communicate with the SR8.

RJ12 cable is a 6 conductor (wire), 2 station telephone OR Modem cable. This cable has 6 wires (NOT 4 wires) with 2 telephone plugs, one on each end. The RJ12 cable is a crossed wire cable.

This means that one of the telephone plug is a reversed image of the other telephone plug. Pin 1 on one of the plug is pin 6 on the other plug.

To test that the wires are crossed, do the following: Place each plug facing each other and look at the color of the wires. If the colors of the wires match, then the wires are crossed. This 2 station

telephone/Modem cable is available from Wal_Mart, Radio Shack etc. Or you can build it yourself using a bulk telephone cable, RJ12 plugs and the crimping tool.

RS485 commands:

The format is as follows: #NN:BBBBBE

1: "#" is the start string of the command, hex value is 0x23.

Every command must begin with #.

2:"NN" (2 digit) is the address of the player from 01 to 99.

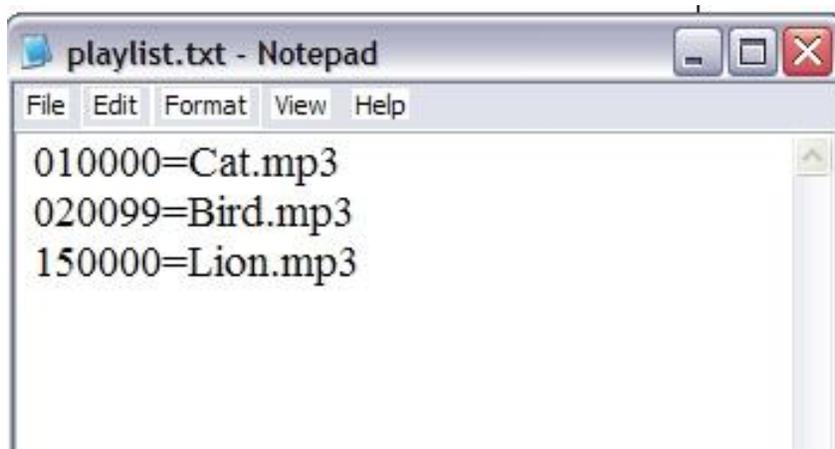
Note: Use #0 for GLOBAL to address all SR8 players.

3:BBBBB, this part is for the actual RS485 command.

4:E is the end command mark. The hex value is 0x0d, 0x24(\$) or 0x0a. You can use any of the above hex value to end a command.

Example:

The following examples uses \$ (0x24 hex) to end the command.



To trigger 010000=Cat.mp3, the command is: #0:1\$

To trigger 020099=Bird.mp3, the command is: #0:2\$

To trigger 150000=Lion.mp3, the command is: #0:15\$

Other functions include:

Pause command is #0:PAUSE\$.

STOP command is #0:STOP\$

NEXT command is #0:NEXT\$.

The IR command is exactly as written on the IR remote keys.

POWER REQUIREMENT:

The SR8 is supplied with a desktop switching power supply. The power supply operates from 120VAC to 240VAC at 50/60Hz. Power draw is 30 watt. The power supply is supplied with a Laptop style plug AC power cord that fits a standard North American power jack.

AUDIO file types:

xxx.mp3 (Std MP3 audio format):

The SR8 plays only standard **stereo mp3 audio format** at up to 320kbps.

xxx.wav (Std pcm16 wav audio format):

The SR8 plays only standard **stereo PCM 16 bit audio format** at up to 48Khz. The file extension is xxx.wav.

VIDEO file types:

Note: SR8 is identical to a DVD player. Any xxx.vob video file that has been created for a DVD disk, can be played by SR8.

xxx.vob (VOB file from DVD, 16X9 format):

The SR8 plays std wide screen format (4X3) VOB files. It will also play wide screen format. (Anamorphic or Square Pixel).

xxx.mpg (Mpeg2):

The SR8 will play Mpeg2 video files at up to 9 Mbps. The bit rate is limited by the CF card transfer speed. It will decode wide screen format.

JPEG PICTURE File:

While looping a single Jpeg picture, the SR8 will display the picture continuously without any black screen in between. When playing a series of jpeg pictures, the SR8 will go into a slide mode. Use the IR remote to access the onscreen menu and adjust the slide mode by pressing the RESUME key .

MONITOR TYPES:

PC Monitor with VGA input

The SR8 has VGA out for direct connection into a std VGA monitor. Connect the RCA Audio out of the SR8 into the RCA audio in of the monitor.

SR8 SLIDESHOW:

When playing a group of Jpeg pictures, you can adjust the slide show effect and also the timing as follows:

The slide show has 2 settings:

Slide show effect and Slide show timing.

Slide show effect:

To see the slide show effect, do the following:

WHILE PLAYING a JPEG file:

press RESUME key (under the VOL- key on the remote control) to see the different slideshow effect. Select the desired slide effect and enter it in the playlist.txt. There are a total of 13 slide show effects.

Here is an example of playlist.txt:

SLIDESHOW=13
SLIDETIME=10
010000=birds.vob

SLIDESHOW=xx where xx is the selected slide show effect.

Slide show selection is from 1 to 13.

Note for selection 13:

Selection 13 is for RANDOM effect.

If there is NO SLIDESHOW=XX statement in playlist.txt, the SR8 will use slideshow effect selection NONE.

Slide show timing:

To enable the time add this statement in playlist.txt:

SLIDETIME=tt where tt is time in seconds.

“tt” timing is from 2 seconds to 59 seconds.

Example: SLIDETIME=5 means slide show timing is 5 seconds.

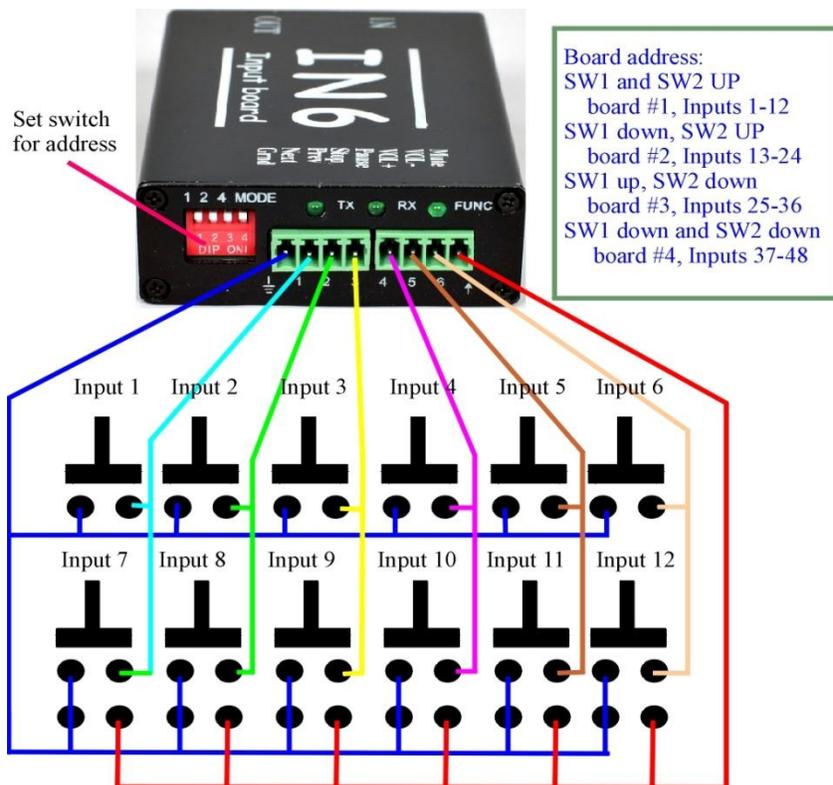
TIME of the slideshow is the length of time the Jpeg file is shown on screen. Time is in second.

Explanation for the above playlist:

After powering up, the SR8 will play the jpeg files using RANDOM effect (slideshow 13).

The time between picture is 10 seconds.

IN6 input board wiring:



Use RJ12 cable that comes with the IN6 unit. This RJ12 cable is a 6 pin, 6 conductor reversed cable.

Note: when input is triggered, the green LED will blink rapidly.

Using the RJ12 cable, connect one end into the SR8 and the other end into the IN port of the IN6. To connect the second IN6 board, use the RJ12 to connect the OUT port of the first IN6 board into the IN port of the second IN6 board. Make sure to set the IN6 board address correctly. To connect the third IN6 board, use the RJ12 to connect the OUT port of the second IN6 board into the IN port of the third IN6 board. Make sure to set the IN6 board address correctly. Do the same for the fourth IN6 board.

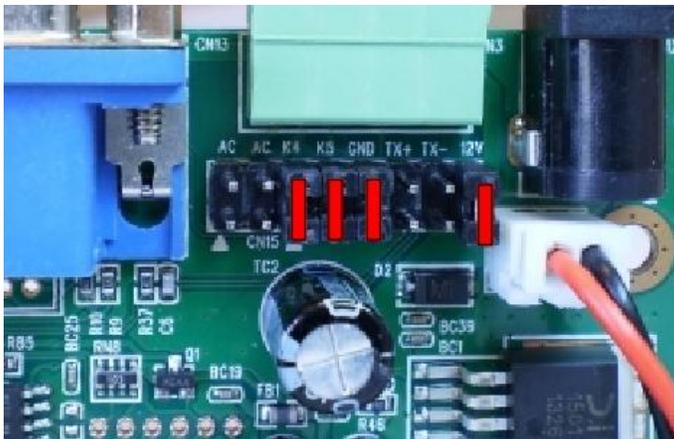
Changing Internal Jumpers on GPC3 for Digital Inputs 8 and 16 OR for RS485 control:

The 4 Internal Jumpers behind GPC3 control GPC3 to switch between either digital inputs 8 and 16 OR to control player via RS485. There is a total of 4 jumpers. The 2 jumpers on the 12V and GND positions should remain constant. The other 2 jumpers need to change position to switch between digital input and RS485.

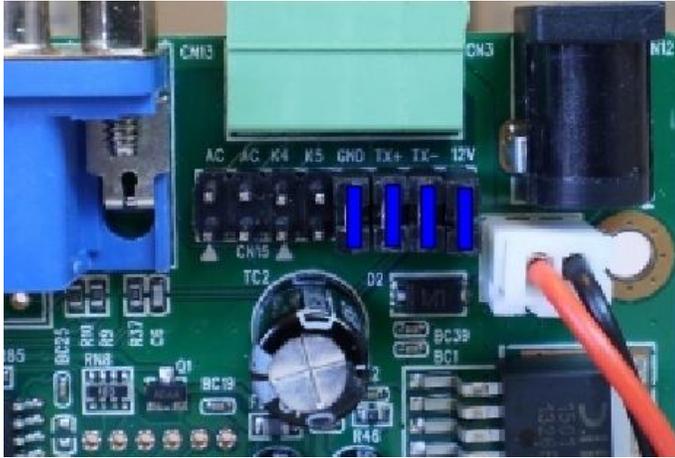
-For digital inputs 8 and 16 the 4 jumpers should be placed on the 12V, GND, K4 and K5 positions.

-For RS485 the 4 jumpers should be placed on the 12V, GND, TX+ and TX- positions.

Positioning of Internal Jumpers for Digital Inputs 8 and 16 via GPC3 (Factory Setting) marked with **Red lines:**



Positioning of Internal Jumpers for RS485 control via GPC3 marked with **Blue Lines**:



Warranty

1. THIRTY DAY MONEY BACK GUARANTEE

If for any reason you are not satisfied with the performance of our product, you may return it for a full refund, minus shipping, credit card and restocking charges not to exceed 15% of the purchase price. This warranty is valid for 30 days after the date of delivery. Units must be returned in undamaged and unmodified condition.

2. ONE YEAR LIMITED WARRANTY

For a period of one year from the date of delivery, Akman Incorporated warrants that our product shall be free from defects in materials and workmanship under normal use and service. Akman Incorporated obligations under this warranty shall be limited to repairing or replacing the defective part. Buyer may return it only after permission has been obtained from Akman Incorporated. Buyer will pay all freight charges. This limited warranty does not cover loss or damages occurring in shipment to or from buyer, improper installation, modification, misuse, or any other cause other than ordinary commercial or industrial application. Akman Incorporated liability shall not exceed the price of the individual unit that is the basis of the claim. In no event shall Akman Incorporated be liable for any loss of profits, loss of use of facilities, of equipment, or other indirect, incidental, or consequential damages.

Akman Inc

Tel: (407) 948 0562

Fax: (321) 459 1086

<http://www.akman.com>