

4. Reading and confirming the programmed projector control code and Projector communication parameter

Header code (4 byte) + Data code length (1 byte) + Command ID (3 byte) + Data code (2 byte).

Header code : 53H 45H 54H 52H

Data code length : 02H

Command ID : 53H 54H 53H

Data code : XXH YYH

XXH YYH => the respective code that has been programmed as followed:

- (1). 50H 4EH : Projector "Power ON" RS232 Control code.
- (2). 50H 46H : Projector "Power OFF" RS232 Control code.
- (3). 56H 31H : Projector "Input Source-1" RS232 Control code.
- (4). 50H 31H : Projector "Input source-2" RS232 Control code.
- (5). 42H 55H : Projector "Communication Parameter" set code.

Example:

Eg1 : To retrieved POWER ON RS232 Control code.

Transmitted code : 53 45 54 52 02 53 54 53 50 4E

Return Code for

POWER ON

02 00 00 00 00 02

Eg 2 : To retrieved the projector Communication Parameter

Transmitted code : 53 45 54 52 02 53 54 53 42 55

Return Code for

Baud rate : 9600bps.

Data length : 8bits.

Parity : No Parity.

03 00



www.abtussingapore.com



AVS-SSR8/1 (Universal Projector and Motorized Screen Controller)

AVS-SSR8/1 is a Universal IR Motorized Screen and Projector Controller. It can be easily be integrated into a Home Theater, a Media Class Room, a Meeting Room and more. It is also able to integrate with any third party central control system. Simple integration with direct power control of 220 to 240 VAC 50Hz/60Hz.

Integrated with IR/RS-232 projector control capability in one single controller. With the programming software, projector control can be set easily. It is also integrated with a self-contain universal IR learning function enable the switcher to be program to control any brand or model of projector that are out in the market.

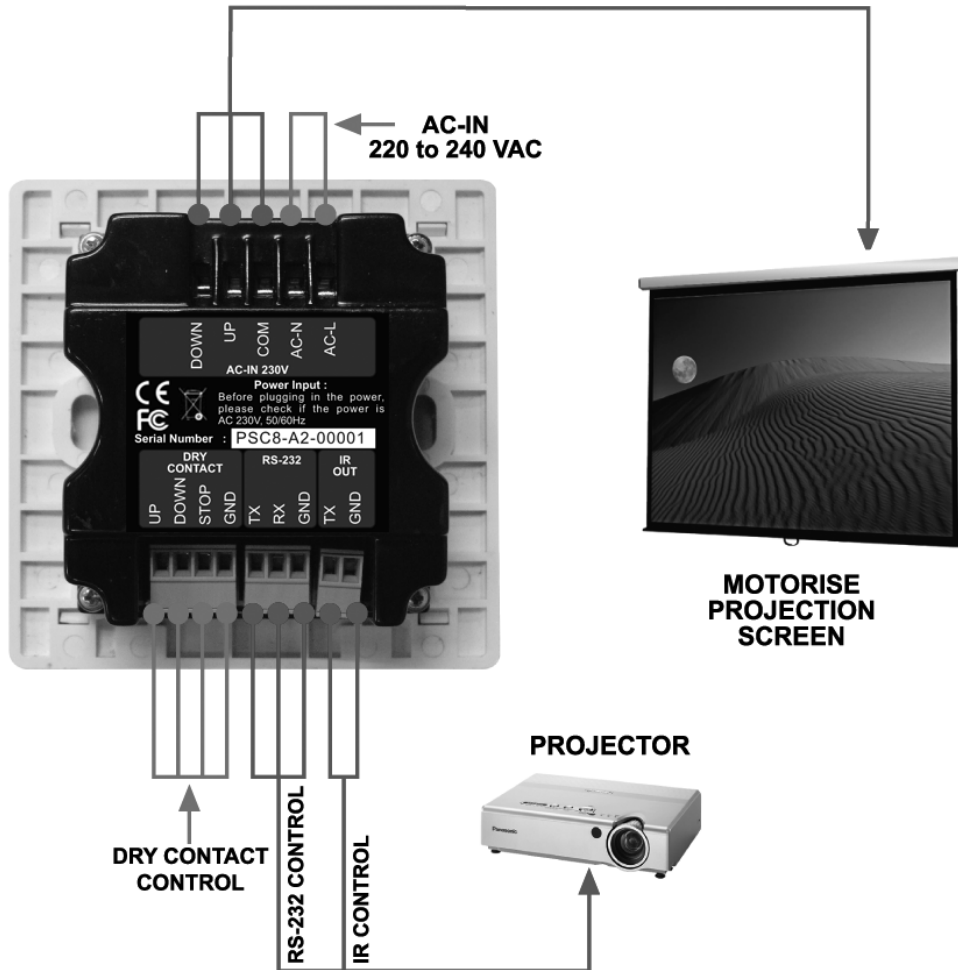
Technical Specifications	AVS-SSR8/1
CONTROL:	Hard button, IR Remote or Dry Contact Closure (Voltage Free)
I/O PORT:	5 X 5.0mm Screw Type Connector (AC-N, AC-L, Common, Screen Up and Screen Down) 1x4 port 3.8mm screw type terminal block (Dry contact control) 1x3 port 3.8mm screw type terminal block (RS-232) 1x2 port 3.8mm screw type terminal block (IR)
CURRENT RATING:	MAX. Load 1.8A
HOUSING:	ABS
DIMENSION / WEIGHT:	89mm X 89mm X 45mm / 130g
POWER SOURCE:	220VAC to 240 VAC, 50/60 Hz
ACCESSORIES:	1 x IR Remote Controller and 1x IR probe

* Specifications are subject to changes without notification

Warning

Caution with main supply and live wires. Install with qualified technician or trained personnel only.

* Wiring configuration and connection to motorized Screen and Video Projector.



Works on momentary contact closure (dry contact, normally open, voltage free) only. Contact closure must set close for 1.5 seconds. (Warranty void if damaged is caused by inappropriate use.)

Example:

Projector communication parameter are as followed :

Baud rate : 19200bps, Data length : 8bits, Parity : No Parity, Stop bit : One bits.

****As the SCR8V2 could ONLY support "one stop bit" hence there NO requirement for "STOP" bit setting**

Transmitted Code : 53 45 54 52 02 42 41 55 01 00

Returned Code : 52 54 55 4E 02 42 41 55 01 00

3. Setting the "Layering Function" :

Header code : 53H 45H 54H 52H

Data code length : 02H

Command ID : 53H 50H 46H

Data code : XXH YYH

XXH =>Function as stated below:

- 00H => STOP KEY function, "Stop" function for screen control ONLY.
- 01H => RS232/IR Projector command code Auto repeater function for Power ON and Power OFF. **WHEN Enabled:** ONLY "Power ON" a second set of command RS-232 command will sent automatically. ****Some projector would require a second "Power ON"code to turn the Power ON. And for "Power OFF" a second set of IR command will be send as most projector would require a second set of "Power OFF" to confirm and OFF command.**
- 02H => Setting the First / Second layer
WHEN Enable: The switcher will operate both screen and projector in just "one press"of a button. Else it would be under normal condition where by the "first layer, one press" will ONLY operate the screen while the "second layer, press and hold for 2 sec" this will then operate both the screen and Projector.

YYH => Enable and disable function.

00H => To Enable

01H => To Disable

Example:

To enable the STOP function:

Transmitted Code : 53 45 54 520253 50 460000

Returned Code : 52 54 55 4E0253 50 460000

To enable the Auto repeater function:

Transmitted Code : 53 45 54 520253 50 460100

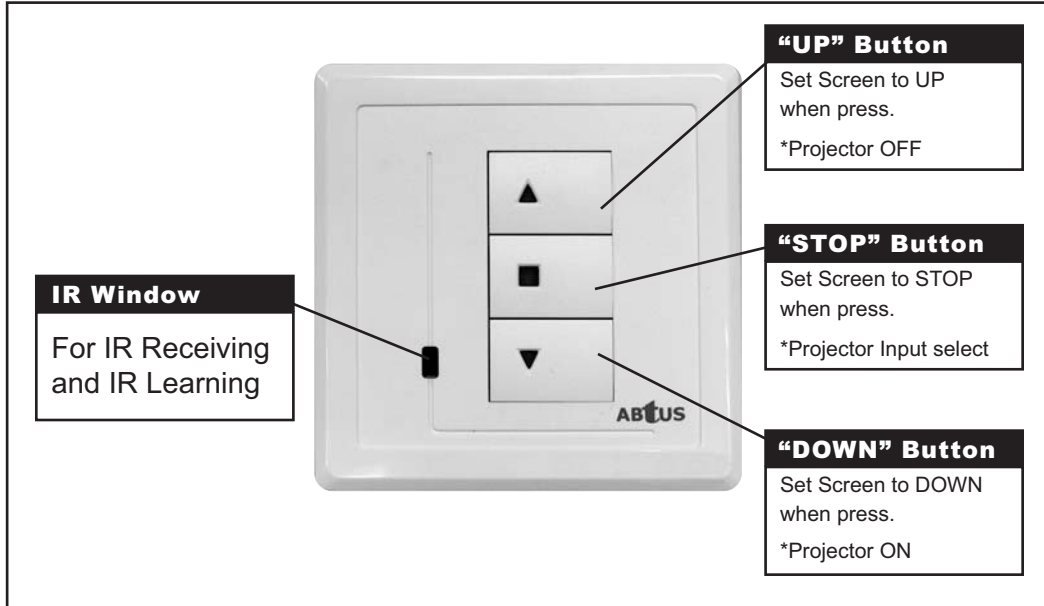
Returned Code : 52 54 55 4E0253 50 460100

To enable the First / Second layer:

Transmitted Code : 53 45 54 520253 50 4602 00

Returned Code : 52 54 55 4E0253 50 460200

to be continued..



First layer Control First layer will control both the projector and screen relay in one go (*Press Once)

- A)** Press the "DOWN" button once.
 - 1) Close the "Down" relay contact to activate Screen Down
 - 2) Send out a IR code "Projector Power ON"
 - 3) Send out a RS-232 code for "Projector Power ON"
- B)** Press the "UP" button once
 - 1) Close the "Up" relay contact to activate Screen Up
 - 2) Send out IR code "Projector Power OFF"
 - 3) Send out RS-232 code for "Projector Power OFF"
- C)** Press the "STOP" button once
 - 1) Reset all contact both "Up" and "Down" relay
 - 2) Send out IR and RS-232 code for "Projector Input Select" (*Max of two input is allows)

Second Layer Control Second layer control will only control the screen relay (*Press and Hold for 1sec)

Setting between AVS-SSR8/1 and PC for programming of the Projector RS232 control code:

Any RS-232 utility software could be used for this programming

To set the switcher into Programming Mode:

Under normal model press and hold "Up" "Stop" and "Down" button at the same time for 3 to 4 sec.

The button LED will start to Run from "Up" "Stop" then "Down" continually as confirmation. To return to Normal mode, press and hold the "Stop" button for 3 to 4 sec. LED will stop running and "Stop" LED will stay "ON"

Communications Settings

Signal Level	RS-232C
Sync. Method	Asynchronous
Baud Rate	9600 bps
Parity	None
Character Length	8 bits
Stop Bit	1 bits

1. Setting the Projector RS232 control code:

Basic format

The data sent from the computer to the controller is transmitted in the Hex format shown below:
Header code (4 byte) + **Data code length** (1 byte) + **Command ID** (3 byte) + **Data code** (maximum : 20 byte).

Header code : 53H 45H 54H 52H

Data code length : 00H ~ 14H

Command ID :

- (1). 50H 57H 4EH : ID Code for setting Projector "Power On" RS232 control code.
- (2). 50H 57H 46H : ID Code for setting Projector "Power Off" RS232 control code.
- (3). 56H 44H 31H : ID Code for setting Projector "Input source-1" RS232 control code.
- (4). 50H 43H 31H : ID Code for setting Projector "Input source-2" RS232 control code.

Data code : Projector RS232 command control code.

Basic Return command code from the AVS-SSR8/1

The data sent from the computer to the controller is transmitted in the Hex format shown below:
Header code (4 byte) + **Data code length** (1 byte) + **Command ID** (3 byte) + **Data code** (maximum : 20 byte).

to be continued..

Example:

Projector Command format:

POWER ON => 02H 00H 00H 00H 00H 02H
 POWER OFF => 02H 01H 00H 00H 00H 03H
 Video Source => 02H 03H 00H 00H 02H 01H 01H 09H 31H 12H 5FH AAH
 RGB Source => 02H 03H 00H 00H 02H 01H 01H 09H 31H 12H 5FH

Coding set are as followed:

(1). POWER ON

Transmitted code : 53 45 54 52 06 50 57 4E 02 00 00 00 00 02
 Confirm Return code : 52 54 55 4E 06 50 57 4E 02 00 00 00 00 02

(2). POWER OFF

Transmitted code : 53 45 54 52 06 50 57 46 02 01 00 00 00 03
 Confirm Return code : 52 54 55 4E 06 50 57 46 02 01 00 00 00 03

(3). Input Source - 1

Transmitted code : 53 45 54 52 0C 56 44 31 02 03 00 00 02 01 01 09 31 12 5F AA
 Confirm Return code : 52 54 55 4E 0C 56 44 31 02 03 00 00 02 01 01 09 31 12 5F AA

(4). Input Source - 2

Transmitted code : 53 45 54 52 0B 50 43 31 02 03 00 00 02 01 01 09 31 13 5F
 Confirm Return code : 52 54 55 4E 0B 50 43 31 02 03 00 00 02 01 01 09 31 13 5F

2. Setting the Projector Communication parameter :

Header code (4 byte) + **Data code length** (1 byte) + **Command ID** (3 byte) + **Data code** (2 byte).

Header code : 53H 45H 54H 52H

Data code length : 02H

Command ID : 42H 41H 55H

Data code : XXH YYH

XXH => Projector Baud rate and reference are as followed :

- (1). 00H : 1200bps. (5). 04H : 19200bps.
- (2). 01H : 2400bps. (6). 05H : 38400bps.
- (3). 02H : 4800bps. (7). 06H : 115200bps.
- (4). 03H : 9600bps.

YYH =>Projector Data Length and Parity bit and reference are as followed :

- (1). 00H : Data length 8bits, No Parity.
- (2). 01H : Data length 8bits, Odd Parity.
- (3). 02H : Data length 8bits, Even Parity.

to be continued..

LEARNING OF PROJECTOR IR CODE

OPERATION:

1) Setting the unit to “IR Learning mode”:

Press and hold “UP” and “DOWN” button at the same time for 3 sec.
 both “UP” and “DOWN” button LED will be blinking. “IR Learn Mode” activated.

1.1) Learning “Projector Power OFF”

- In “IR Learn Mode”, press the “UP” button. The “UP” button LED will be blinking.
- Point the Projector remote at about 1-2cm away from the “IR window”, press and hold the “Power” button till the STOP LED is “ON”.
- IR learning completed.

1.2) Learning “Projector Power ON”

- In “IR Learn Mode”, press the “DOWN” button. The “DOWN” button LED will be blinking.
- Point the Projector remote at about 1-2cm away from the “IR window”, press and hold the “Power” button again till the STOP LED is “ON”.
- IR learning completed.

1.3) Learning “Projector PC source select”

- In “IR Learn Mode”, press the “UP” and “STOP” button at the same time. The “UP” button LED will be blinking while the “STOP” button LED stays ON.
- Point the Projector remote at about 1-2cm away from the “IR window”, press and hold the “VGA Input” button till the STOP LED is “ON”.
- IR learning completed.

1.4) Learning “Projector Video source select”

- In IR Learn Mode, press the “DOWN” and “STOP” button at the same time. The “DOWN” button LED will be blinking while the “STOP” button LED stays ON.
- Point the Projector remote at about 1-2cm away from the “IR window”, press and hold the “Video Input” button till the STOP LED is “ON”.
- IR learning completed.

Important Note: After termination, if motor does not move.
 Reset by switch on and off the incoming supply.