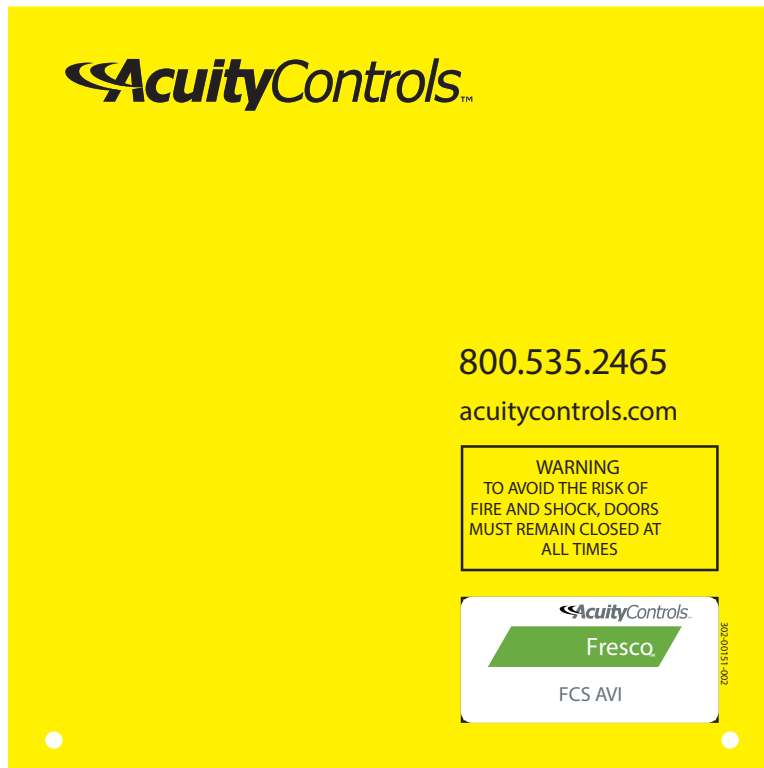


FCS AVI INTERFACE COMMANDS



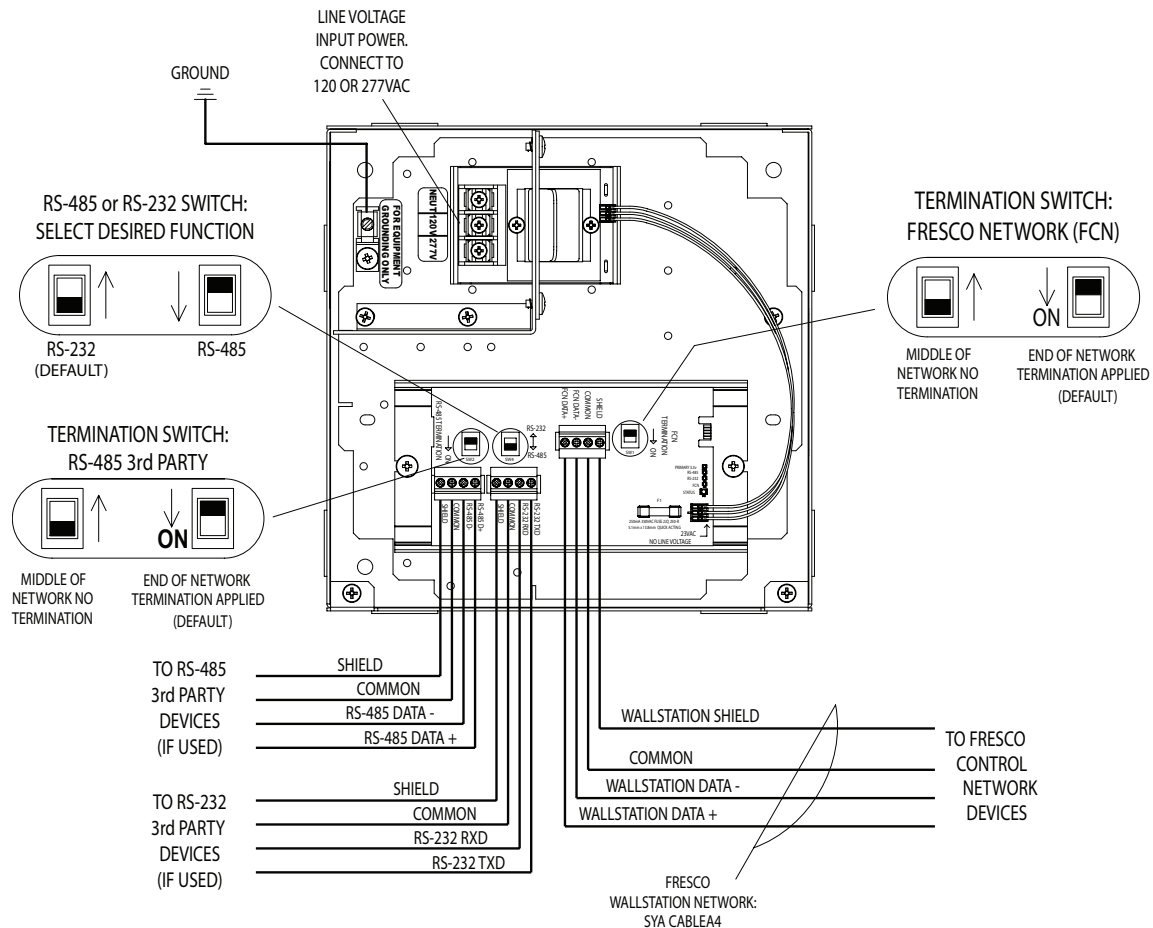


Figure 1- FCS AVI Wiring Details

Please refer to the "FCS AVI" Installation Instructions (912-00005-001) for full mounting and wiring details.

TABLE OF CONTENTS

Application Notes	4
Command Reference.....	4
Help & Device Information Commands.....	4
?? or help	4
?	4
about	4
serial	4
Configuration Commands and Status	4
reset.....	4
status channel <channel ID or ALL> [0 <room>]	4
status scene <scene ID or ALL> [0 <room>]	4
status input <input ID or ALL>	4
status links.....	4
status zone [zone ID]	4
status group [group ID]	4
input <ID> <Level>	4
input <ID> cov <start/stop>	4
input <ID> <raise/lower/stop> [fade] [0 <room ID>]	5
scene <Scene ID> <Level> [0 <room ID>]	5
channel <Channel ID> <Level> [fade] [0 <room ID>]	5
channel <Channel ID> <+/-> [fade] [0 <room ID>]	5
channel <Channel ID> <raise/lower/stop> [fade] [0 <room ID>]	5
link <room IDs>	5
unlink <room IDs>	5
zone <zone ID> <level> [fade]	5
zone <zone ID> <+/-> [fade]	5
group <group ID> <level> [fade]	6
group <group ID> <+/-> [fade]	6
Command & Response Examples.....	6
Status.....	6
Scenes	7
Channels.....	7
Links	7
Zones	7
Input.....	8

APPLICATION NOTES

- Please refer to the "FCS AVI" Installation Instructions (912-00005-001) for full mounting and wiring details.
- The default baud rate for the interface is 115,200
- Communication Settings
 - o Bits Per Second = 115,200
 - o Data Bits = 8
 - o Parity = None
 - o Stop Bits = 1
 - o Flow Control = None
- All commands are expressed as ASCII text and must be followed with a Carriage Return and Line Feed.
- < > indicates required parameters
- [] indicates optional parameters
- "Ok" is returned after a command has been successfully received and executed
- "Fail" is returned if a command has not been able to be executed

COMMAND REFERENCE

Category	Command Syntax	Command Description
Help & Device Information Commands	?? or help	Verbose Help: returns a list of all commands available with a short description
	?	Quick Help: returns a simple list of available commands
	about	Returns information about the A/V interface, including the firmware version, name, assigned short address, and serial #
	serial	Returns the serial number
Configuration Commands and Status	reset	Reboots AVI. Note that any cov subscriptions will be cleared upon reset.
	status channel <channel ID or ALL> [0 <room>]	Returns the current level of the specified channel (or all channels). The Room ID is a letter from A-X. If the Room ID is not specified, then the AVI's current room settings will be used.
	status scene <scene ID or ALL> [0 <room>]	Returns the current state of the specified scene (or all scenes). The Room ID is a letter from A-X. If the Room ID is not specified, then the AVI's current room settings will be used.
	status input <input ID or ALL>	Returns the current state of the specified input (or all inputs). If the input controls a Channel or Zone, a number in the range of 0-100 will be returned to indicate the level of the controlled object as a percentage. If the input controls a Scene or Link, a number of 0 or 100 will be returned to indicate that the input is inactive or active, respectively.
	status links	Returns the link state of all rooms. If no links are active, "No Links Active" is returned.
	status zone <zone ID>	Returns the current level of the specified zone.
	status group <group ID>	Returns the current level of the specified group.
	input <ID> <Level>	Sets the level of the programmable input specified in the ID field. The ID is a decimal in the range of 1-36. The Level is expressed as a percentage, 0-100. A Level of "on" or "off" can also be sent to represent 100 or 0, respectively.
	input <ID> cov <start/stop>	Configures the A/V interface to start or stop sending an unsolicited notification over the serial port whenever the status of the Input specified by the ID field changes state. Note that change notifications are sent no more frequently than once per second.

Category	Command Syntax	Command Description
Configuration Commands and Status (continued)	input <ID> <raise/lower/stop> [fade][0 <room ID>]	Overrides the intensity of the Input specified in the ID field in the specified room. Input ID is a decimal number in the range of 1-36. The raise/lower/stop will raise/lower until a stop command is received. Fade is the time in seconds over which the channel changes from its current level to the new level. If not specified, a fade value of 0 is used. The Room ID is a letter from A-X. If the Room ID is not specified, then the AVI's current room settings will be used.
	scene <Scene ID> <Level> [0 <room ID>]	Overrides the scene specified in the ID field in the specified Room. The Scene ID is a decimal number in the range of 1-36. The Level is expressed as a percentage, 0-100, which acts as a multiplier to the channel levels stored in the Scene. A Level of "on" or "off" can also be sent to represent 100 or 0, respectively. For example, a Scene set to 100 will set the Channel intensities exactly as stored; a Scene set to 50 would set the affected channel intensities to 50% of their stored values; a Scene set to 0 would turn off all Channels included in the Scene. The Room ID is a letter from A-X. If the Room ID is not specified, then the AVI's current room settings will be used. Note that any other attributes set by the Scene (e.g. color, color temperature) will not be modified by a level less than 100.
	channel <Channel ID> <Level> [fade][0 <room ID>]	Overrides the intensity of the Channel specified in the ID field in the specified room. Channel ID is a decimal number in the range of 1-36. The Level is expressed as a percentage, 0-100. Fade is the time in seconds over which the channel changes from its current level to the new level. If not specified, a fade value of 0 is used. The Room ID is a letter from A-X. If the Room ID is not specified, then the AVI's current room settings will be used. Note that any other attributes of the lights controlled by the Channel (e.g. color, color temperature) will not be modified.
	channel <Channel ID> <+/-> [fade][0 <room ID>]	Overrides the intensity of the Channel specified in the ID field in the specified room. Channel ID is a decimal number in the range of 1-36. The +/- indicates the percentage points to change the intensity (e.g. +10 adds 10 percentage points) Fade is the time in seconds over which the channel changes from its current level to the new level. If not specified, a fade value of 0 is used. The Room ID is a letter from A-X. If the Room ID is not specified, then the AVI's current room settings will be used. Note that any other attributes of the lights controlled by the Channel (e.g. color, color temperature) will not be modified.
	channel <Channel ID> <raise/lower/stop> [fade][0 <room ID>]	Overrides the intensity of the Channel specified in the ID field in the specified room. Channel ID is a decimal number in the range of 1-36. The raise/lower/stop will raise/lower until a stop command is received. Fade is the time in seconds over which the channel changes from its current level to the new level. If not specified, a fade value of 0 is used. The Room ID is a letter from A-X. If the Room ID is not specified, then the AVI's current room settings will be used. Note that any other attributes of the lights controlled by the Channel (e.g. color, color temperature) will not be modified.
	link <room IDs>	Activates a room link. The room IDs parameter is made up by simply combining the IDs of the rooms to be linked.
	unlink <room IDs>	Deactivates a room link. The room IDs parameter is made up by simply combining the IDs of the rooms to be unlinked.
	zone <zone ID> <level> [fade]	Overrides the intensity of the Zone specified in the ID field in the local room. The Zone ID is a decimal number in the range 1 to 65535. The Level is expressed as a percentage (0-100). Fade is the time in seconds over which the channel changes from its current level to the new level. Note that any other attributes of the lights controlled by the Channel (e.g. color, color temperature) will not be modified.
	zone <zone ID> <+/-> [fade]	Overrides the intensity of the Zone specified in the ID field in the specified room. Zone ID is a decimal number in the range of 1-65535. The +/- indicates the percentage points to change the intensity (e.g. +10 adds 10 percentage points) Fade is the time in seconds over which the Zone changes from its current level to the new level. If not specified, a fade value of 0 is used. Note that any other attributes of the lights controlled by the Channel (e.g. color, color temperature) will not be modified.

Category	Command Syntax	Command Description
Configuration Commands and Status (continued)	group <group ID> <level> [fade]	Overrides the intensity of the Group specified in the ID field in the local room. The Group ID is a decimal number in the range 1 to 65535. The Level is expressed as a percentage (0-100). Fade is the time in seconds over which the channel changes from its current level to the new level. Note that any other attributes of the lights controlled by the Channel (e.g. color, color temperature) will not be modified.
	group <group ID> <+/-> [fade]	Overrides the intensity of the Group specified in the ID field in the specified room. Group ID is a decimal number in the range of 1-65535. The +/- indicates the percentage points to change the intensity (e.g. +10 adds 10 percentage points) Fade is the time in seconds over which the Group changes from its current level to the new level. If not specified, a fade value of 0 is used. Note that any other attributes of the lights controlled by the Channel (e.g. color, color temperature) will not be modified.

COMMAND & RESPONSE EXAMPLES

Status

Read the current state of a particular Channel:

Command	Response
status channel 1	25

Read the current state of all Scenes (in this example configuration, 5 Scenes have been defined):

Command	Response
status scene ALL	0 0 100 0 0

Read the current state of all 36 inputs:

Command	Response
status input ALL	000000000000000000000000000000 00000000000000

Read the current state of all Rooms:

Command	Response
status links	AB BC

Scenes

Activate a Scene at its stored Channel levels in a different Room:

Command	Response
scene 2 100 0 B	Ok

Activate a Scene at reduced Channel levels in the local Room:

Command	Response
scene 3 25	Ok

Channels

Set the level of a Channel in the local Room:

Command	Response
channel 2 50	Ok

Links

Activate a Room Link:

Command	Response
link AB	Ok
link BDG	Ok

Deactivate a Room Link:

Command	Response
unlink AB	Ok

Zones

Set the intensity of a Zone and have it fade to the new intensity over a period of time:

Command	Response
Zone 1 75 10	Ok

Input

Command a programmable input to begin raising/lowering its associated shade zone:

Command	Response
input 1 raise	Ok
input 3 lower	Ok

Command a programmable input to stop raising/lowering its associated shade zone:

Command	Response
input 2 stop	Ok

Set the level of a programmable input:

Command	Response
input 5 23	Ok

Configure the A/V interface to begin sending change-of-value messages over the serial port

Command	Response
input 4 cov start	Ok