



# CSP Processors

Serial Control Protocol Guide v1.0

## Overview

This guide describes how to control the Bose Professional CSP-428 and CSP-1248 commercial sound processors via serial over IP (SoIP).

## Requirements

The CSP device must use software version **2.2** or later.

The CSP network IP address must be set to **Static**. You can set the IP address by using the Discovery Tool application (download from [BoseProfessional.com](https://www.boseprofessional.com)) or the browser-based user interface on the CSP device (**Settings > Network**).

The CSP processors can be controlled via SoIP, Port **10055**. You can control the CSP processor via SoIP concurrently with the ControlSpace Remote app and/or the ControlSpace CC-1D, CC-2D, and CC-3D digital zone controllers.

To set or change a module parameter (**SA**):

SA "**Listening Area Function**">Index 1=Value<CR>

Replace **Listening Area** with the Listening Area name that corresponds with the CSP design. Listening Area labels must have unique names.

Replace **Function** with **Gain**, **Selector**, or **AV**, depending on the function.

Response:

**<ACK>** if command is successful (ASCII 0x06)

or

**<NAK> nn** if command is received but unsuccessful (ASCII 0x15), where **nn** is one of the following 2-digit error codes:

- 01 Invalid module name (no match found for module name, or it is a duplicate name)
- 02 Illegal index (index value or quantity incorrect for specified module)
- 03 Value is out-of-range (value is not permitted for the specified parameter)
- 99 Unknown error

To query a module parameter (**GA**):

GA "**Listening Area Function**">Index 1<CR>

Replace **Listening Area** with the Listening Area name that corresponds with the CSP design. Listening Area labels must have unique names and are configured in the Bose Professional Configuration Utility.

Replace **Function** with **Gain**, **Selector**, or **AV**, depending on the function.

For the examples below, we created listening areas in the CSP configuration utility named: "Bar" "Restaurant" "Lobby" "Fitness" and "Hall":

## Listening Area Gain / Mute

	Parameter	Format	Value Range
Index 1	<b>1</b> Level	(-)NN.N	You can enter a new listening area gain level between -60.5 dB to +12.0 dB, 0.5 dB Step
	<b>2</b> Mute	O,F,T	O=On, F= Off, T= Toggle
	<b>3</b> Inc/Dec Gain	(-)NN.N	You can inc/dec by any number, but the final results are capped not to exceed the listening area min/max set in the web UI

### EXAMPLES:

**Note:** Setting the gain level is possible only when **AutoVolume** is set to **Off**.

SA"Bar Gain">1=-10<CR> Set the gain level for listening area "Bar" to -10 dB.

SA"Restaurant Gain">2=F<CR> Set mute state of listening area "Restaurant" to unmuted.

GA"Fitness Gain">1<CR> Query the current gain level of listening area "Fitness."

GA"Fitness Gain">1=3<CR> Response indicating level of listening area "Fitness" is currently 3 dB.

## Listening Area Source Selection

	Parameter	Format	Value Range
Index 1	<b>1</b> Source	N	CSP-428: 1-4 CSP-1248: 1-12

### EXAMPLES:

SA"Bar Selector">1=3<CR> Set the source selection to input 3.

GA"Lobby Selector">1<CR> Query which input is currently selected for listening area "Lobby."

GA"Lobby Selector">1=2<CR> Response indicating input 2 is currently selected for listening area "Lobby."

# Listening Area AutoVolume

	Parameter	Format	Value Range
Index 1	1 Source	N	1 = AV Off, 2 = AV On

## EXAMPLES:

**Note:** Setting AutoVolume On/Off is only possible when AutoVolume is calibrated for the specific listening area.

SA"Hall AV">1=1      Set AutoVolume state of listening area "Hall" to Off.

GA"Hall AV">1      Query the current state of the AutoVolume.

GA"Hall AV">1=2      Response indicating the AutoVolume for listening area "Hall" is set to On.