

FlexiDim™ Command Summary for Crestron/AMX Systems

Crestron, AMX and other systems may send commands to FlexiDim™ via the cascade input on the Switch Controller. This interface is normally RS485, although an RS232 interface is available on request. The message format is 19200, 8 bit, no parity.

The interface allows messages to be sent that simulate button presses on any switch on the system. This may be a real, physical switch or a virtual switch. In either case, FlexiDim™ treats the command in exactly the same way as that received from a switch plate on the wall. Two-way, multiple press, sequences etc. are therefore all possible.

The basic message format is three characters. The first will always have bit 7 (MSB) set and specifies the switch number (0 – 63). The second character determines the button pressed. This has valid values of 1 – 12, 1 to 8 corresponding to the 8 Scene buttons, 9 being Dim Up (raise), 10 being dim down (lower) and 12 being the on/off function. Button 11 is not implemented on the actual wall plates, but is implemented in the FlexiDim™ system in the same way as buttons 1 to 8.

Note that the switch number is zero based. i.e. the first switch on the system is 0. Within the Installer Configuration software, switches are numbered from 1 to 64. Therefore, subtract 1 from the actual switch number when using this interface.

The engineer commissioning FlexiDim™ can provide a list of switch numbers and corresponding names.

All buttons may be used for scene setting where the switch is virtual – i.e. does not correspond to an existing wall plate.

Note that all scene creation and mapping to switch/button is carried out using the FlexiDim™ User Configuration software (supplied with every system).

All messages implement a 7bit BCC (check character) this is the addition of the preceding characters truncated to 0x7F.

Switch Press

<Switch> <Code> <BCC>

Switch = 0 to 63 bit 7 set
Code = 1 to 12 Button number
BCC = (Switch + Code) and 7Fh

It is also possible to directly invoke a Scene by its number. This is not usually the preferred method, as scene numbers are automatically assigned and therefore may change. It is provided for systems that query the configuration and therefore obtain the scene details at run-time. It is not used by statically programmed systems, where the change in the Scene Number would require reprogramming of the control system

Invoke Scene

<SceneH> <SceneL> <BCC>

SceneH=0 to 7 bits 6 & 7 set, bits 3,4,5 = 0

SceneL = 0 to 127

BCC = (SceneH + SceneL) and 7Fh

Scene number = (SceneH * 128) + SceneL

The following messages allow direct manipulation of individual lighting circuits. Messages are combined, so to set Channel 6 to 50%, the sequence would be: 0xE0 0x05 0x65 0xE1 0x32 0x13

Note that the channel number is zero based. i.e. the first channel on the system is 0. Within the Installer Configuration software, channels are numbered from 1 to 128. Therefore, subtract 1 from the actual channel number when using this interface,

The engineer commissioning FlexiDim™ can provide a list of channel numbers and the corresponding circuit name/details.

Set Active Channel

<SAC Mode> <Channel> <BCC>

SAC Mode 1110 0000 (0xE0)

Channel = 0 to 127 Channel number

BCC = (0xE0 + Channel) and 7Fh

Set Active Channel LV

<SACLV Mode> <LV> <BCC>

SAC Mode 1110 0001 (0xE1)

LV = 0 to 100 new value

BCC = (0xE1 + LV) and 7Fh

Active Channel Dim Up

<ACDU Mode> <DeltaLV> <BCC>

ACDU Mode 1110 0010 (0xE2)

DeltaLV = 0 to 100 percentage to change

BCC = (0xE2 + DeltaLV) and 7Fh

Active Channel Dim Down

<ACDD Mode> <DeltaLV> <BCC>

ACDD Mode 1110 0011 (0xE3)

DeltaLV = 0 to 100 percentage to change

BCC = (0xE3 + DeltaLV) and 7Fh

For applications requiring notification of dimmer information, please refer to the FlexiDim™ Output Protocol Summary.

For applications requiring interactive communications with the FlexiDim™ system via TCP socket connection, please refer to the FlexiDim™ Home Automation Gateway Documentation.

The information contained in this document is proprietary and may not be disclosed to a third party without the prior written consent of John Clayton Lighting Limited.