Cary Audio Design

CAI 1 Integrated Amplifier

RS-232 Protocol and Control Details

Com Port Setup:

Use standard communications settings. The default that most devices use/accept is:

Baud Rate - 9600
Data Bits - 8
Parity - None
Stop Bits - 1

Com Port Pin Configuration:

Use standard pin configuration. A configuration that allows direct connection to a PC via 9-pin straight through serial cable is best. Use of only 3 pins(Transmit, Receive, Ground)is best.

9 pin female D connector
Pin 2 = Transmit
Pin 3 = Receive
Pin 5 = Ground

RS-232 interface :

Commands are to be sent to the unit via RS-232 using the following format:

<Command> = <Command ID><Argument>
<Command ID> = <Byte>
<Argument> = 0x0d
<Byte> = 0x33,0x30,0x30

Status Byte:

Upon receiving the command and done, a single status byte will be transmitted
The format for the status byte is :

<Status Byte> = <Command>
<Command> = 0x31,0x33,0x30,0x30

RS232-Interface Usage Details:

The RS-232 interface has a first-in-first-out (FIFO) buffer which will allow each commands to be received in direct succession. Commands are executed in the order in which they are received with approximately a 1/2 second delay between each command. If a longer string of commands is necessary, a minimum of 1/2 second delay should be added before sending additional commands.

Example for sending a long string of commands:
[Command 1]
<Delay 1/2 second>
[Command 2]
<Delay 1/2 second>
[Command 3]
<Delay 1/2 second>

If receiving the errors data, a single status byte will be transmitted. The status byte is:
Rs232 = <ERR>

Upon Recei ving the Command and done			A Single Status byte will transmitted		
Command description	Rs232 Command	ASCII Command	Status Command Description	Rs232 Command	ASCII Command
POWER ON/OFF	300	0x33,0x30,0x30,0x0d	Power on/off	1300	0x31,0x33,0x30,0x30
POWER ON	301	0x33,0x30,0x31,0x0d	Power on	1301	0x31,0x33,0x30,0x31
POWER OFF	302	0x33,0x30,0x32,0x0d	Power off	1302	0x31,0x33,0x30,0x32
< SELECTOR	309	0x33,0x30,0x39,0x0d	< Selector	1309	0x31,0x33,0x30,0x39
SELECTOR >	310	0x33,0x31,0x30,0x0d	Selector >	1310	0x31,0x33,0x31,0x30
BALANCE LIFT	322	0x33,0x32,0x32,0x0d	Balance lift	1322	0x31,0x33,0x32,0x32
BALANCE RIGHT	323	0x33,0x32,0x33,0x0d	Balance right	1323	0x31,0x33,0x32,0x33
BRIGHT-OFF	328	0x33,0x32,0x38,0x0d	Bright-off	1328	0x31,0x33,0x32,0x38
BRIGHT-L	329	0x33,0x32,0x39,0x0d	Bright-L	1329	0x31,0x33,0x32,0x39
BRIGHT-M	330	0x33,0x33,0x30,0x0d	Bright-M	1330	0x31,0x33,0x33,0x30
BRIGHT-H	331	0x33,0x33,0x31,0x0d	Bright-H	1331	0x31,0x33,0x33,0x31
BALANCED	332	0x33,0x33,0x32,0x0d	BALANCED input	1332	0x31,0x33,0x33,0x32
CD	333	0x33,0x33,0x33,0x0d	CD input	1333	0x31,0x33,0x33,0x33
TUNER	334	0x33,0x33,0x34,0x0d	TUNER input	1334	0x31,0x33,0x33,0x34
AUX 1	335	0x33,0x33,0x35,0x0d	AUX 1 input	1335	0x31,0x33,0x33,0x35
AUX 2	336	0x33,0x33,0x36,0x0d	AUX 2 input	1336	0x31,0x33,0x33,0x36
CINEMA	337	0x33,0x33,0x37,0x0d	CINEMA input	1337	0x31,0x33,0x33,0x37
TAPE MONITOR	343	0x33,0x34,0x33,0x0d	TAPE MONITOR input	1343	0x31,0x33,0x34,0x33
MUTE ON	338	0x33,0x33,0x38,0x0d	Mute on	1338	0x31,0x33,0x33,0x38
MUTE OFF	342	0x33,0x34,0x32,0x0d	Mute off	1342	0x31,0x33,0x34,0x32
VOLUME -	326	0x33,0x32,0x36,0x0d	Volume -	1326	0x31,0x33,0x32,0x36
VOLUME +	327	0x33,0x32,0x37,0x0d	Volume +	1327	0x31,0x33,0x32,0x37