BROADCAST tools ®

Installation and Operation Manual

CC-IIA
Console Controller IIA

For Serial Numbers Greater Than 38500

Manual Update: 11/4/2002

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Table of Contents

Section Title   **Page #**

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INTRODUCTION

Thank you for your purchase of a Broadcast Tools® CCIIA, Console Controller IIA (referred to as the CCIIA throughout this manual). We're confident that this product will give you many years of dependable service. This manual is intended to give you all the information needed to install and operate the Broadcast Tools® CCIIA, Console Controller IIA.

SAFETY INFORMATION

Only qualified personnel should install Broadcast Tools® products. Incorrect or inappropriate use and/or installation could result in a hazardous condition.

WHO TO CONTACT FOR HELP

If you have any questions regarding your product or you need assistance, please contact your distributor from whom you purchased this equipment.

If you would like more information about Broadcast Tools® products, you may reach us at:

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BROADCAST TOOLS® BRAND PRODUCTS!

Assembled in the USA,
by American Workers

CAUTION!

Broadcast Tools® Products, as with any electronic device, can fail without warning. Do not use this product in applications where a life threatening condition could result due to failure.

NOTE:

This manual should be read thoroughly before installation and operation.

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PRODUCT DESCRIPTION

The Broadcast Tools® CC-IIA, provides the solution for interfacing non-Broadcast consoles and digital workstations to the broadcast studio. The CC-IIA is equipped with three channels of insert switching. These three channels allow for ON/OFF control of each microphone channel when connected to the console's insert points or between a source's output and a device's input. The CC-IIA also provides front panel switching for internal (the console) and external (air signal) monitor inputs. This allows monitoring of the console output or an external source to a monitor amplifier and speakers. The microprocessor within the CC-IIA provides all muting and external warning light/skimmer control. A level control is conveniently mounted on the front panel of the CC-IIA for ease of monitor level adjustments.

Your CC-IIA may be used to switch virtually any audio source. The CC-IIA utilizes sealed relays bifurcated-crossbar silver alloy with gold overlay contacts. Any input level and impedance can be used. Inputs may be balanced or unbalanced. Output levels, impedance, distortion, noise and balancing will match that of the selected input.

The CC-IIA is controlled by means of front panel switches with integrated LED indicators providing switch status. Optional control and status is provided from a rear panel 9 pin male "D" connector. The CC-IIA may be cascaded, enabling more than three insert points to be controlled. Internal jumper JP-1 is provided allowing the three channel switch indicators to either flash or light when energized. The CC-IIA may be further configured to disable the mute function on channel three. This allows channel three to be used for applications such as the telephone hybrid channel. Refer to JP-2. This jumper is installed from the factory for channel three muting.

FRONT PANEL DESCRIPTION

Insert Channel Switches: (1-2-3)
Each of the three switches represents a channel to be turned on or off. The switches are equipped with bright red LED's to indicate the on or off status of each channel. To turn a channel **ON**, press the switch once. The LED will light or flash indicating that the channel is **ON**. To turn the channel **OFF**, press the switch once again. The LED will extinguish and the channel will turn **OFF**. During power-up, the logic defaults to ALL channels being **OFF**. Activating any one or combination of channel switches will MUTE the monitor amp feed and close the Warning light/Skimmer relay. The switches are highly reliable giving the user years of dependable service.

Int-Ext Switch: (Monitor Input Select)
This switch is equipped with a bright red LED to indicate which monitor source is being monitored. With the Int-Ext Status LED extinguished, the **EXTERNAL** monitor input is being monitored. By pressing the switch once, the LED will light denoting that the INTERNAL monitor source is being monitored. During power-up, the logic defaults to monitoring the EXTERNAL monitor source. This may be changed by simply reversing the Int/Ext monitor inputs.

FRONT PANEL DESCRIPTION

Monitor Level:
This control adjusts the level feeding the monitor amp. Each of the two input sources (Int-Ext) should be adjusted for the same level.

REAR PANEL DESCRIPTION

The rear panel contains all the input, output, insert and remote control interfacing connectors. Signal inputs, outputs and inserts are 1/4" T/R/S jacks **(UNBALANCED)**. Remote control is accomplished through the 9 pin male "D" connector.

Power:
Connect the 2.1mm power connector to the unit and the wall transformer into a 120 Vac 50-60 Hz power source. (220 Vac 50-60 Hz wall transformer OPTIONAL)

INSTALLATION GUIDELINES

The Console Controller-II is very simple to install.

Installation of the Console Controller-II consists of five steps:

1. Inspect the unit.
2. Bench Test.
3. Mount the unit.
4. Connect your equipment to the unit.
5. Label the front panel switches.

STEP 1: INSPECTION
Please examine your CC-IIA carefully for any damage that may have been sustained during shipping; if any is noted, please notify the shipper immediately. Retain the packaging for inspection by the shipper. The package should contain the CC-IIA, 9 pin D-sub connector and shell, this manual and wall transformer.

✎ NOTE:

Preassembled T/R/S patch cords may be purchased and modified to suit most situations from Radio Shack or your local music store.

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DESCRIPTION

INSTALLATION GUIDELINES

STEP 2: BENCH TEST

Place the unit on a workspace and connect power to the unit. Verify that ___NONE___ of the LED's are lit. Insert one end of the customer supplied (see the HOOK-UP EXAMPLES section of this manual) T/R/S 1/2" connector or patch cord into insert channel one of the CC-IIA and the other end into the console's insert point channel requiring control. Complete this for each channel that is to be controlled, proceed by connecting the second T/R/S/ 1/2" connector or patch cord from the monitor or headphone jack on the console, and the other end of this T/R/S/ 1/2" connector or patch cord into the INT jack on the CC-IIA. Finally connect a T/R/S 1/2" connector or patch cord from the Monitor Amp jack on the CC-IIA to your monitor amp input. Feed stereo audio into a console channel not being controlled by the CC-IIA. You should be able to adjust the front panel monitor level and by pressing any of the three insert channel switches, mute the monitors. Now connect a microphone to the channel being controlled by insert channel one. Turn up the channel one fader to the normal position, and turn on insert channel one on the CC-IIA. Speak into the microphone, you should see movement on the meters of the console and the monitor speakers should mute. If the above scenario performs satisfactory, the CC-IIA is operating correctly.

STEP 3: MOUNTING

Mount the unit in a convenient place near the console. Rubber feet are attached to protect your cabinetry.

STEP 4: CONNECT YOUR EQUIPMENT

Follow the install procedure as you performed in step number 2. Bench Test and also check the HOOK-UP EXAMPLES section of this manual for additional installation tips.

STEP 5: DESIGNATION STRIP

The designation strip is provided to write function descriptions under each switch.

Reapply power to the unit. Your CC-IIA should now be fully functional.

✎ NOTE:

Please be advised that when connecting the unbalanced monitor audio from the CC-IIA to a balanced monitor amplifiers input, the monitor amp should be configured for UNBALANCED input operation.

✎ NOTE:

The CC-IIA is configured at the factory with jumpers JP-1 and JP-2 installed. To configure the CC-IIA for non-flashing channel indicators, remove and stow the jumper on JP-1. To configure the CC-IIA for non-muting operation on channel three, remove and stow JP-2.

INSTALLATION

REMOTE CONTROL CONNECTOR PINOUTS

Control:

The front panel insert channel switches are brought out through the rear panel REMOTE CONTROL connector, providing a means of controlling the CC-IIA from a remote point.

J7 - Remote Insert Channel Switch Pin Numbers:

| Pin 1 | Insert channel # 1 | Pin 5 | Insert channel #3 |
| Pin 3 | Insert channel # 2 | Pin 9 | Digital ground |

Status:

The status from the front panel indicator LED's are brought out through the REMOTE CONTROL connector as normally open relay contacts, with one contact tied to digital ground. These may be used for Status to a remote control point from each insert channel. The Status output for the selected channel will go low. The warning light/skimmer normally open contacts will remain closed while any or all of the insert channel LED's are illuminated.

J7 - Insert Channel Status And Warning Light/Skimmer Pin Numbers:

Pin 2   Insert channel Status # 1   Pin 6 Insert channel Status # 3

Pin 4   Insert channel Status # 2   Pin 7 Warning light/Skim relay, N.O.

Pin 8   Warning light/Skimmer relay COM.

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CCIIA SPECIFICATIONS

Inputs/Outputs: *Any input level and impedance can be used.*
Inputs may be balanced or unbalanced.
Output levels, impedance, distortion, noise and balancing will match that of the selected input.

Switching Method: *Passive. Sealed relays utilizing 2-form-C Bifurcated-Crossbar silver alloy with gold overlay contacts.*

Logic: *Microprocessor*

Operation Control: *Front Panel - Momentary switches*
Remote - closure to ground

Status: *Front Panel - Indicator LED in Switch*
Remote - Relay contact to ground.

Interfacing: *Rear panel T/R/S 1/2" jacks.*
Remote Control - Male DB-9 connector. Mate supplied.
Warning light/skimmer relay N.O. contacts rated at 50v, 500 ma DC.

Power Requirements: *9 Vac @ 500 ma. 120 Vac, 50-60Hz wall transformer. Supplied.*

Physical Dimensions: *5.25" X 5.25" X 2.0" Sloped front (WDH)*

Weight: *3.0 lb.*

Shipping Weight: *3.5 lb.*

NOTE:

*For safety, do **NOT** connect 120VAC circuits to the relays.*

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SPECIFICATIONS

LIMITED WARRANTY

The term "Buyer" as used in this document refers to and includes both (but only) (a) any person or entity who acquires such an item for the purpose of resale to others (i.e., a dealer or distributor of an item), and (b) the first person or entity who acquires such an item for such person's or entity's own use.

Broadcast Tools warrants to each Buyer of any item manufactured by Broadcast Tools that the item will be free from defects in materials and workmanship at the time it is shipped by Broadcast Tools if the item is properly installed, used and maintained.

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If Broadcast Tools is notified, in writing, of a failure of any item manufactured by Broadcast Tools to conform to the foregoing Limited Warranty within one (1) year following the date of the Buyer's acquisition of the item, and if the item is returned to Broadcast Tools in accordance with Broadcast Tools' instructions for confirmation by inspection of the defect (which at Broadcast Tools' election may include, without limitation, a requirement that the Buyer first obtain a Return Authorization number from Broadcast Tools, that the Buyer furnish proof of purchase in the form of an invoice and/or receipt, and that the Buyer prepay all freight charges associated with any return of the item to Broadcast Tools using such freight service as Broadcast Tools reasonably may specify, Broadcast Tools will repair or replace the defective item, or will refund the purchase price paid by the Buyer for the item. Broadcast Tools shall have the exclusive right to choose between these alternative remedies.

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