



broadcastvision entertainment

## CAB – MATRIX 7xe/7xi

**The Matrix 7xe and 7xi consoles can now control ANY cable, satellite or IPTV set top box using the CAB from Broadcastvision Entertainment.**



**Online Service Manuals available at: [www.broadcastvision.com](http://www.broadcastvision.com)**

### **Benefits:**

- Eliminates the hand-held battery operated remote control.
- Members can control the TV using cardio equipment console controls.
- An expensive head-end system is not required.
- Club operators can choose ANY cable, satellite or IPTV provider.
- TV channels are not restricted.
- Members can access all the channels available per your subscription.
- No troublesome wireless devices to manage.
- Proven Technology - Broadcastvision first offered a solution for set top box control in 2011 and is the clear-cut market leader in this technology.

BroadcastVision Entertainment Technical Support  
Telephone: 1(888) 330-4283 ext.3 Email: [support@broadcastvision.com](mailto:support@broadcastvision.com)



broadcastvision entertainment



**Your CAB is enabled for an application as follows:**

Proposal Number: \_\_\_\_\_

Set Top Box: \_\_\_\_\_

Console Description: Matrix 7xe/7xi console

If your equipment differs from the information above, please call **BVE technical support** at **1(888)330-4283 ext.3** for instructions on how to reprogram the CAB onsite.

**CAB CONFIGURATION**

The CAB ships pre-configured by BVE for the target STB at customer facility. Normally no additional configuration steps are required. **If the CAB does not work for any reason please call technical support at 1(888)330-4283 ext.3 before leaving the facility.** BVE’s technical support staff is happy to help troubleshoot your problems and get the CAB working properly.

The CAB contains 8 dip-switches internally. Normally these should all be in the OFF position. To help solve specific deployment compatibility challenges, BVE Technical Support may instruct that some of the switch positions be changed – see the Troubleshooting section at the end of this manual for common settings or call Broadcastvision technical support for additional assistance.

**Note:** The Broadcastvision CAB should always be installed after the cable/satellite service has already been installed, and you have a picture on the screen. If the Set Top Box (STB) is not available at the time of installation you can still run all of the wires and hook up the CAB, but you will not be able to test the CAB to make sure that it is changing channels on the STB.



broadcastvision entertainment

## Installation Instructions

1. Before attempting to install the CAB start by making sure that the cable/satellite box is properly hooked up to the screen and you have a picture on the screen. If you do not have picture make sure that you are on the appropriate input or channel (usually 3 or 4) before proceeding to the next step.
2. The CAB connects to the RJ45 connection on the back of the console labeled **TV**.



3. Next secure the CAB to the back of the screen with the supplied Velcro adhesive strip.

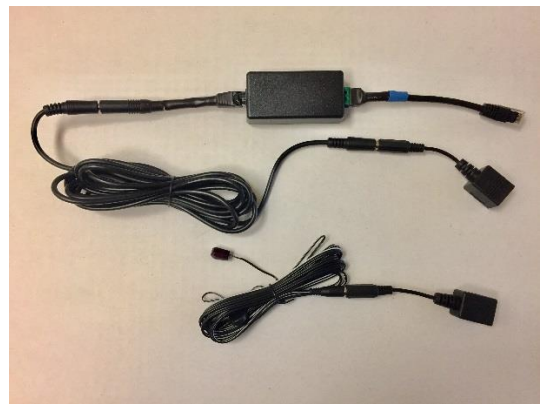
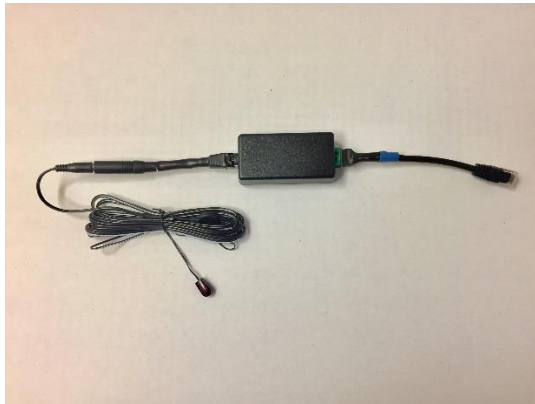




broadcastvision entertainment

- Once the CAB is hooked up you will need to run the IR emitter cable down the machine to the base of the cardio. There it will connect to either the set top box or a cat5/6 cable for sending the signal to an AV closet.

**Tip:** since the IR wire is very thin and easily damaged it is better to run the emitter wire through the machine (see page 5 for a wire management example).



- After the IR cable has been run through the machine the IR emitter should be placed over the infrared eye on the front of the set top box. If you cannot see where the IR eye is on the front of the STB, shining a flashlight at the front of the box will usually help you to see the IR eye. Please see the IR eye locations of some of the most common STB's below:





broadcastvision entertainment

6. If the set top boxes are located in another room, the supplied cat5 adapters will allow you to use a standard cat5/6 wire from each cardio machine to pass the IR signal back to the AV closet.



7. IR emitter shields are included with each CAB in order to help protect the emitter and keep it in place. Do not install the emitter shields until you are sure that the CAB is working properly.



**Once installed if the CAB does not work for any reason check the Troubleshooting Guide below or if necessary call technical support at 1(888)330-4283 ext.3 before leaving the facility.**

## Instructions – Enabling CAB Features on new 7xe and 7xi Consoles

1. Install the 7xi and Cable box as though you won't have a CAB.
  - a. Connect all cables as normal
  - b. Go to manager mode □ TV
  - c. Set the source to Coaxial ATSC / DVB –T
2. Run a channel scan.
  - a. You should be able to use ANALOG\_CABLE (that's what worked in our office), though it may vary with a different type of Set Top Box.



- b. Once the channel scan is complete, go to the Program List, and select U.S.A. Analog (or the corresponding list based on the scan you ran).





**broadcastvision entertainment**

3. You should see a channel 3 on your Channel list on the right.
  - a. Set Channel 3 as the default channel in the TV menu



4. Reboot the console, start a workout, and turn on the TV to confirm that the TV will show content from the Set Top Box.
5. End workout.
6. Go To Manager Mode  TV
7. Select 'CAB' as the source
8. Install the CAB as normal. (Plug into port, and run IR line back to STB).
9. Reboot the console.



broadcastvision entertainment

## **Troubleshooting Guide:**

1. **Double button presses** – Some set top boxes respond to more than one of the IR codes that we send out. If you notice that pressing a channel button on the console results in multiple presses, simply remove the 2 screws that hold the lid on the CAB and turn on dip switch 2 and 4. If this does not solve the problem, call (888)330-4283 ext.3 for further assistance.

2. **No control over set top box**

- a. **Check if CAB is getting power and channel commands from the console** – CAB contains internal LED power lights. Two indicator LEDs are located on either side of the console-side connector inside the enclosure.
  - **GREEN** - Power LED, on whenever the CAB is powered
  - **RED** - Activity LED, flashes whenever the CAB receives and processes commands

The location of the LEDs is such that they should be visible through the enclosure around the CAB connector to the console.

- b. **Incorrect IR emitter placement** – If the IR emitter is not in the correct location on the front of the box you may need to move it around until you find the location that works.

**Tip:** Try initially holding the IR emitter away from the front of the STB initially then continue pressing the channel button while “zeroing in” on the correct IR emitter placement.

- c. **Set top box is in RF mode – change to IR mode** – Many set top boxes can operate with a hand-held remote in RF or IR mode. For the CAB to function, it is critical that the STB accepts IR channel commands. To test if the STB is in RF mode, place your hand over the hand-held remote control IR transmitter and see if the STB receives channel change commands. If the answer is yes, the STB is in RF mode. Check online for instructions to change the STB remote control mode from RF to IR.

- d. **IR signal strength issue** – In rare circumstances, the CAB may output too strong of an IR signal for the set top box IR receiver. To test if the IR emitter is over-driving the set top box receiver, pull the emitter away from the front of the set top box, and press the channel button to see if the set top box now receives the channel command. Opening up the CAB and turning on dip switch #8 will reduce the IR current by 50% and solve this issue.

BroadcastVision Entertainment Technical Support

Telephone: 1(888) 330-4283 ext.3 Email: support@broadcastvision.com



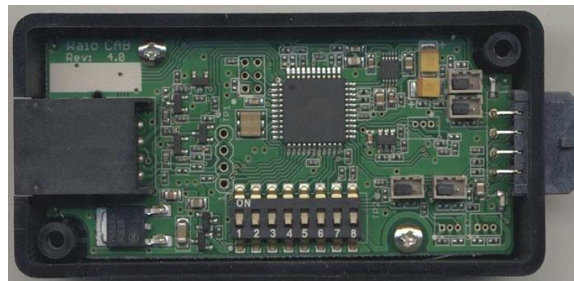
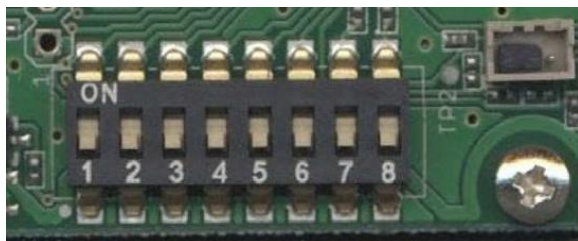


broadcastvision entertainment

- e. **No Continuity between CAB and IR emitter** – In some circumstances utilizing the “Far” set top box scenario, the CAT5/6 cable between the set top box and the CAB may not provide full continuity through wall plates etc. It may be helpful to re-locate the STB at the base of the cardio and re-test. Or, it may be helpful to temporarily run an alternate CAT5/6 cable from the CAB to the set top box then re-test.
  
- f. **CAB not programed for the correct set top box** - Your CAB is defaulted for Broadcastvision’s popular “Unicode” setting which provides control of the most popular cable and IPTV set top boxes including, but not limited to:
  - AT&T Uverse, Brighthouse, Comcast, Time Warner, and Verizon

The CAB can be quickly configured on site to operate other popular set top boxes by flipping dip switches inside the CAB enclosure as pictured below. CAB operates with many other set top boxes not included in the list below. Please call BroadcastVision support at 8883304283 x3 to determine the dip switch settings for your cable, satellite, or IPTV provider.

- 1 2 3 4 5 = Dip Switch settings for the following set top boxes:
- 0 0 0 1 1 - CAB will output commands for Amino set top boxes
  - 1 1 1 0 1 - CAB will output commands for Enseo set top boxes
  - 0 0 1 0 1 - CAB will output commands for LG set top boxes
  - 0 1 0 0 1 - CAB will output commands for Rogers set top boxes
  - 1 0 0 0 1 - CAB will output commands for Cox set top boxes
  - 0 1 0 1 0 - CAB will output commands for Charter set top boxes
  - 1 0 0 1 0 - CAB will output commands for Unicode-Satellite for DirecTV and Dish set top boxes





broadcastvision entertainment

## **Broadcastvision Entertainment Terms and Conditions**

### BVE Stock Items Returned for Credit

BVE manufactured products may only be returned for credit with written authorization from BVE within 30 days of the original invoice date. A 25% restocking fee will be charged for all returns. All products being returned to BVE require a Return Authorization number. Products must be returned in original condition with the original packaging, components and support material. Credit is contingent upon inspection of returned items.

### Return Authorizations

A Return Authorization number must be issued from BVE prior to any item being returned for credit, repair or exchange. Items returned without approval will be refused and returned to the sender. Requests for a Return Authorization number may be made to our Customer Service Department at 1-888-330-4283.

### Repairs and Replacements

A warranty repair of BVE manufactured product includes parts, labor and the return GROUND shipping to the customer. Repairs made while under warranty are covered for the duration of the valid warranty period. Non-Warranty repairs receive a "Repair Warranty" of 90 days parts and labor only. Warranties do not include on-site service. Advance Replacements of items in question may be arranged if the product is within 30 days of invoice date and is subject to product availability. Advance Replacements must be secured by the customer with a valid Credit Card or Net30 terms of an account in good standing.

### Shipping

Shipping dates are estimates only. Products will be shipped per the designated Shipping Method. Paying for an accelerated Shipping Method only indicates the product will ship by that method when the product or repair is available. BVE will not be held responsible to accelerate shipping, discount invoices or compensate customers for loss of profits, business or goodwill due to back orders, shortages, shipping complications, damages, product malfunction, labor, construction, nature or delays.

### Warranties

All products sold by BVE carry the original manufacturers' warranty. Warranty begins on the invoice date of purchase from BVE or an authorized BVE Dealer / Distributor. Warranty may alternately begin on the date of installation with a valid Installation Completion Form from an authorized BVE Dealer, Distributor or Installer. Warranties do not cover damage due to abuse, misuse, modification or the result of any third party. Warranties are not transferable and cover only the original purchaser with a valid invoice. Manufacturers will, at their option repair or replace equipment, as they deem necessary. Warranties do not include "on-site" service.

BroadcastVision Entertainment Technical Support

Telephone: 1(888) 330-4283 ext.3 Email: support@broadcastvision.com