

# THE C.A.R.E.<sup>®</sup> CHANNEL

HEART™ Video Broadcaster Model C100-BYP

## *INSTALLATION GUIDE*



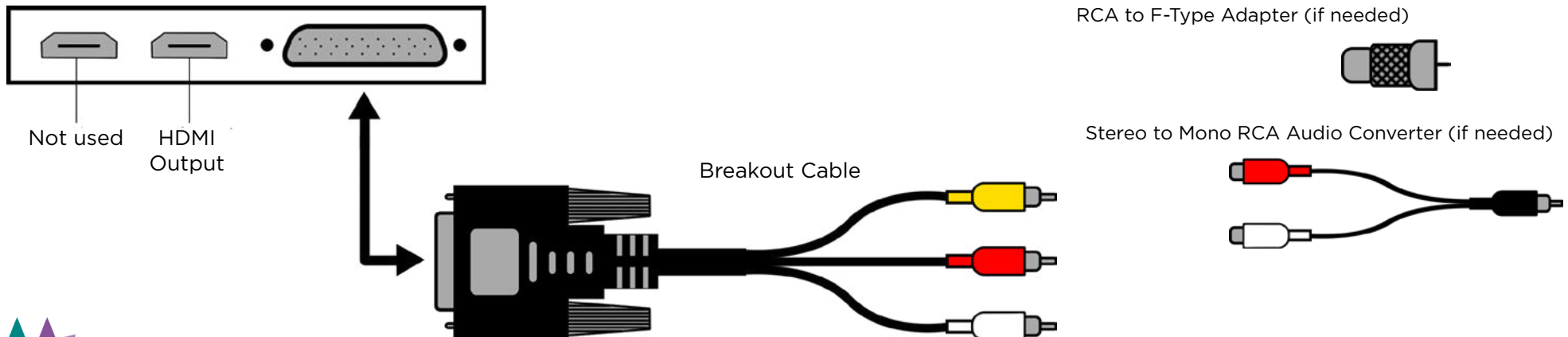


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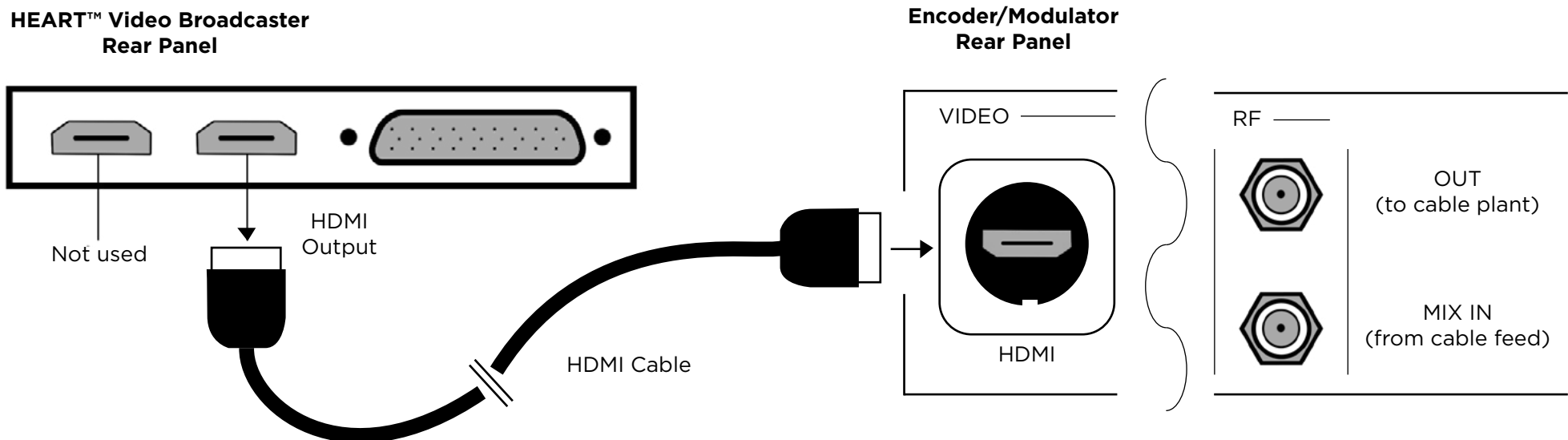
# Quick Start Installation Instructions - Analog

1. Unpack your new HEART™ Video Broadcaster.
2. Install the unit in desired location. If you are installing the HEART™ System in an equipment rack, it should have at least one rack space left empty above it to aid in proper ventilation. If you are not racking the broadcaster, place it on a sturdy surface with proper ventilation.
3. Plug the unit into the provided UPS, ensuring it is plugged into the side of the unit labeled “Battery Backup” and not “Surge Only.”
4. Attach the provided 3ft. RCA Breakout cable to the A/V output on the rear of the broadcaster and connect it to the modulator. You may need to use the included RCA to F-type adapter depending upon your modulator’s input.
5. A stereo to mono RCA ‘Y’ cable has been included for modulators that have a mono rather than stereo input (See diagram below).
6. Press the power switch on the front of the broadcaster. Programming will begin broadcasting after startup (<1 min).
7. Should programming not begin broadcasting within 5 minutes, contact HHS Technical Support at 800.348.0799.
8. Adjust RF Output Level, using an RF meter for measurement, to match the RF level of adjacent channels. If the modulator is a fixed RF output type and has no adjustment, use cable RF attenuators (“pads”) to match the levels.
9. Adjust the audio level on the modulator as needed to match other channel audio levels as heard in patient rooms.
10. Read through this entire Technical Information Guide for requirements and hints. The HEART™ system should not need any additional changes or adjustments, however if adjustments are needed, contact HHS Technical Support for assistance at 800.348.0799.



# Quick Start Installation Instructions - Digital

1. Unpack your new HEART™ Video Broadcaster.
2. Install the unit in desired location. If you are installing the HEART™ Broadcaster in an equipment rack, it should have at least one rack space left empty above it to aid in proper ventilation. If you are not racking the broadcaster, place it on a sturdy surface with proper ventilation.
3. Plug the unit into the provided UPS, ensuring it is plugged into the side of the unit labeled “Battery Backup” and not “Surge Only.”
4. Connect the power supply to your encoder/modulator (be sure to use the included UPS as your power source).
5. Connect the encoder/modulator to the HEART™ Video Broadcaster (HDMI OUT) using the provided HDMI cable (see diagram below).
6. Power on the HEART™ Video Broadcaster and the encoder/modulator.
7. Adjustments to the RF output, and channel selection, of the encoder/modulator can be made using the unit’s front panel interface. For instructions on configuring the encoder/modulator, please refer to the included encoder/modulator manual, or contact HHS.



**Please Note:** Digital Signals should be 7-10dB **lower** than analog signals when broadcasting in mixed environments.



# System Overview

- The C.A.R.E. Channel programming for patient television is broadcast using the HEART™ Video Broadcaster
- The HEART™ plays studio quality full HD video files. Using high quality downscaling algorithms, the HEART™ Video Broadcaster delivers a crisp analog NTSC video signal to Composite (RCA) outputs (adapter to F-type is included). In addition, the HEART™ can output HD quality signals via HDMI, SDI, or Component video connections. When bundled with our HDMI to QAM encoder/modulator, the unit can provide a clear QAM RF digital signal, along with an optional IPTV stream.
- The HEART™ Broadcaster can be rack mounted in a standard 19 inch rack.
- Outputs are compatible with typical headend cable TV systems.
- Content is provided on an internal removable hard drive; updates are provided annually via easily swappable hard drive.

# Installation Considerations

## **General Considerations**

- Verification of the new channel setup should be made in a patient room in order to verify the proper operation of the video distribution amplifier.
- The HEART™ System should have at least one rack space left empty above it to prevent overheating problems.
- Temperature control, good ventilation and a clean environment are required for both the HEART™ System and UPS unit. Environments with temperatures exceeding the recommended range may void warranty.

## **Analog Broadcast Environments**

- The video and audio output from the HEART™ into the CCTV system may have to be adjusted at the modulator to match adjacent channels. This should be done using an RF signal strength meter. A professional AV Technician is recommended to perform this work. The adjustment is made at the modulator using the trim screws. Adjustment of the modulator requires use of a signal meter to balance video signal and color balance. The meter is needed to adjust the variance between televisions and the various video components. A television monitor at the headend is recommended to verify adjustments.
- Channel Elimination Filters are recommended even if you have an open television channel available as cable programming can change and free channels can be reassigned signal without notice.

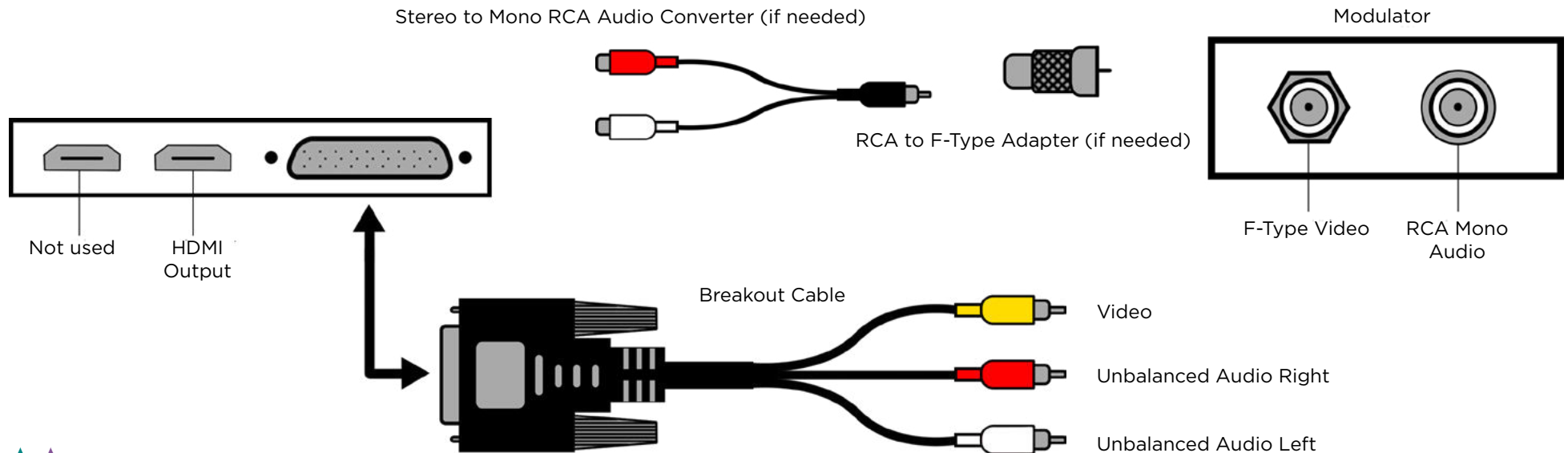
## **Digital Broadcast Environments**

- The RF dB output level on our QAM modulator can be adjusted by accessing the unit's front panel interface. Details of the available configuration options are listed in the included manual for the modulator. Please contact HHS if adjustments are needed and we will provide full details and support.
- The QAM encoder/modulator can only broadcast one full quality channel per major channel, therefore it requires an entire 6MHz frequency for broadcast of the channel. If multiple subchannel broadcast is required at your site, please contact HHS.
- If you require IPTV distribution, a bundled encoder/modulator can be configured to output to a multicast group, or unicast address. Please contact HHS to assist in setting this feature up.

# Interface with CCTV System - Analog

- The 60 Hertz NTSC video output of the HEART™ is fed into a modulator which converts the signal to the desired channel frequency for the patient-room television channel. The HEART™ outputs via The included RCA breakout cable F-type using the supplied adapters. (See diagram below)
- A Channel Elimination Filter may be needed to block any incoming programming on the channel that has been designated by the hospital to broadcast C.A.R.E. programming. The filter is recommended to further isolate the channel and prevent potential interference from adjacent channels. It also protects against any future changes in the channel lineup that may interfere with currently open channels.
- The HEART™ supports audio broadcast to a modulator which sends audio signal along with video to the CCTV system. Audio is delivered via the included RCA breakout cable. If the modulator on site supports only mono audio, use the included stereo to mono RCA 'Y' cable included. (See diagram below)
- Proper installation requires balancing the video and audio signals, optimizing the quality of the broadcast picture and audio levels as seen and heard on facility televisions.
- Programming of individual televisions in each hospital room may be necessary to add the new channel into the line-up. This may be accomplished with a remote control, however check your television manuals for exact instructions.

NOTE: If you require COMPONENT analog outputs, please contact HHS to guide you through special configuration and to obtain a custom breakout cable.

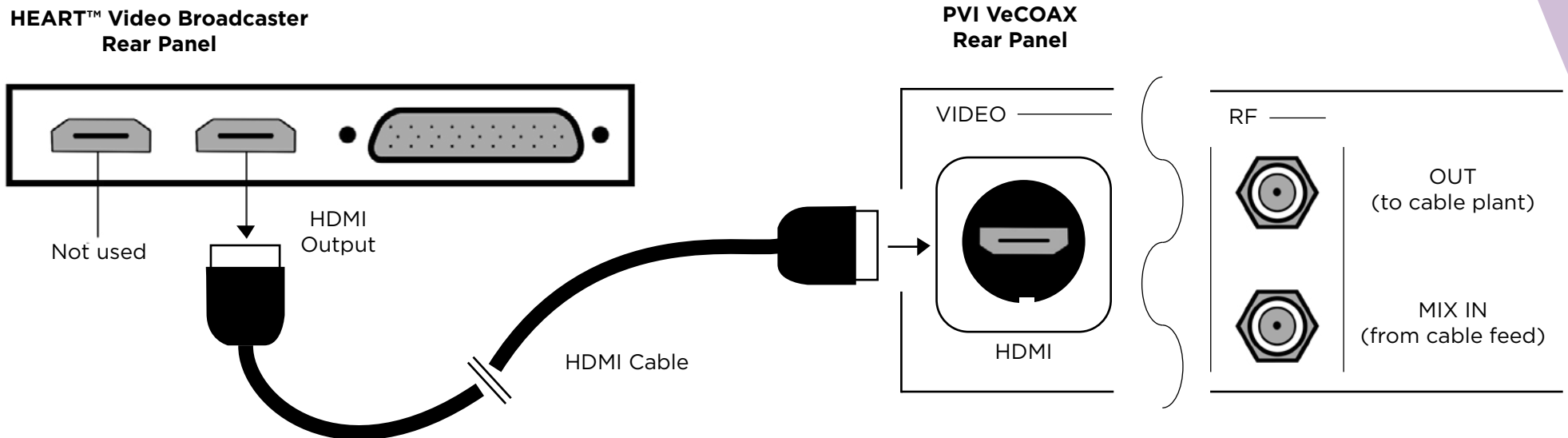




# Interface with CCTV System - Digital

## Clear QAM Modulation

- The HEART™ delivers a digital HDMI signal, which is converted into a Clear QAM RF signal via the bundled PVI VeCOAX modulator. The HEART™ and encoder/modulator will come pre-configured for your specified channel, so all that is required during installation is to connect and power on the equipment, and balance RF levels with adjacent channels using the modulator's front panel interface. See the diagram below.



## IPTV Broadcast

- If an IPTV signal is desired for broadcast over an Ethernet infrastructure, a bundled encoder/modulator can be configured to output a multicast or unicast IP stream. For details on this option, please contact HHS.

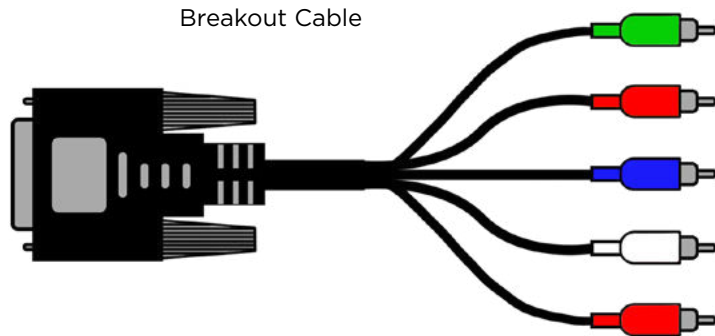
# Optional Outputs

## ANALOG COMPONENT OUTPUT

### HEART™ Video Broadcaster Rear Panel



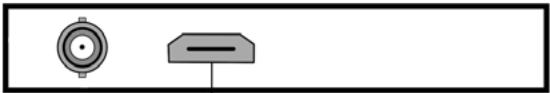
Not used Available  
HDMI  
Output



Y Video Output  
R Video Output  
B Video Output  
Unbalanced Audio Left  
Unbalanced Audio Right

## DIGITAL SDI OUTPUT

### HEART™ Video Broadcaster Rear Panel



Available  
HDMI  
Output



SDI Cable (BNC)

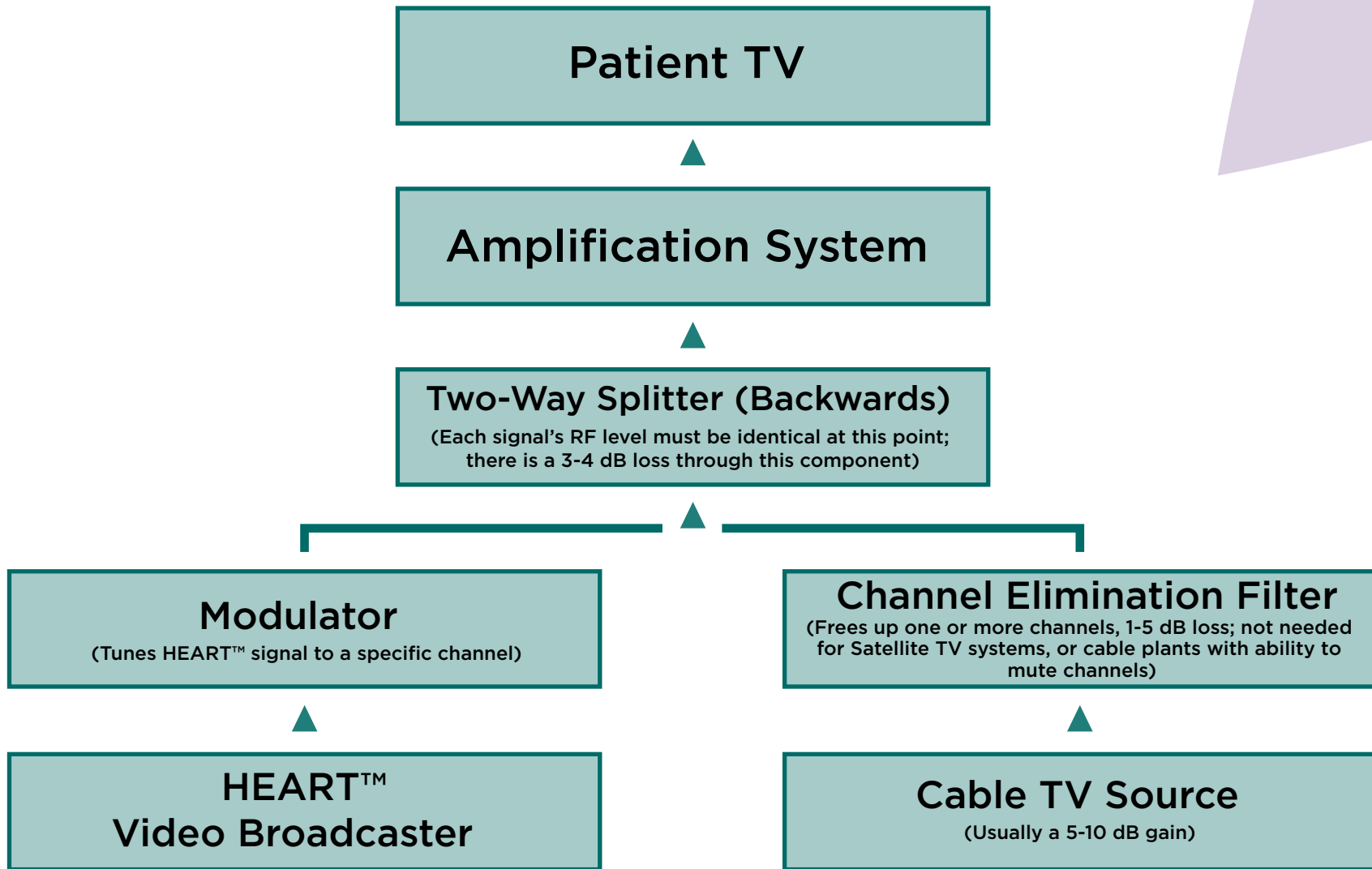


Modulator / Encoder

# *Uninterruptible Power Supply (UPS)*

- The Uninterruptible Power Supply (UPS) provided with the HEART™ System is required to avoid interruption of programming due to brownouts, power outages and power fluctuations or surges.
- A UPS will prevent corruption of files, loss of schedule, damage to hardware, and other issues related to equipment loads on the same electrical circuit.
- Ensure the HEART™ is plugged into the side of the UPS unit labeled “Battery Backup” and not “Surge Only.”
- Temperature control, good ventilation and a clean environment are required for both the HEART™ System and UPS unit.
- **IMPORTANT:** Failure to install a UPS will void your warranty.

# Simplified Typical CCTV System Flow Chart



## Post-Installation Checklist

- All cabling is securely connected
  - Audio
  - Video
  - Power
- HEART™ is connected to Uninterruptible Power Supply which is securely connected to a power source
- Power has been turned on to all components
- Filter has been installed (if needed)
- Modulator is calibrated properly (both audio and video)
- On a patient room television, confirm quality of C.A.R.E. programming on its designated channel; view the channel above and the channel below to verify there is no audio or video bleed-over or interference with existing programs.

# Troubleshooting

If you have any problems with the installation or with the HEART™ not playing properly, take the following steps to evaluate which device has the problem.

## **No Picture/Picture Quality:**

1. Is all equipment turned on and connected properly? Be sure to check all cable connections, reseal all cables, and power cycle all devices. If picture is still absent or fuzzy, move to step 2.
2. Is the problem apparent on all hospital televisions? If yes, move to step 3. If no, and the problem exists on only the TV you are viewing, there may be an issue with the individual television set. If no, and the picture is missing or distorted in certain areas of the building, an issue with the cabling infrastructure is likely.
3. Connect the HEART™ Broadcaster directly to a TV using the RCA breakout cable or HDMI port. If there is no output from the HEART™ Broadcaster to your TV directly, contact HHS Technical Support at 800.348.0799. If there is good picture output, move to step 4.
4. Check to see if the modulator is adjusted properly. An RF meter will be needed to determine this. An improperly adjusted modulator can cause 'ghosting,' fuzzy picture, or poor quality on adjacent channels. If wavy lines or extreme color distortions are present, a defective modulator may be the issue. If the modulator cannot be adjusted to correct the picture, contact HHS Technical Support at 800.348.0799.

## **No Sound/Sound Level Inappropriate:**

1. Is all equipment turned on and connected properly? Be sure to check all cable connections, reseal all cables, and power cycle all devices. If there are still sound issues, move to step 2.
2. To ensure that the issue is with only The C.A.R.E. Channel, compare sound on another channel to confirm it is different. If all channels are experiencing the same issue, the problem is likely with the TV or amplification system. If only The C.A.R.E. Channel experiences sound problems, move to step 3.
3. Connect the HEART™ Broadcaster directly to a TV using the RCA audio connector. If there is no audio output from the HEART™ Broadcaster to the TV directly, contact HHS Technical Support at 800.348.0799. If there is sound output, move to step 4.
4. Check the volume adjustment on the modulator and make appropriate adjustments. If adjusting the modulator volume does not work, contact HHS Technical Support at 800.348.0799. NOTE: When adjusting volume levels, please keep in mind that many newer TV sets have built in protections against over-modulated volume. If gain is adjusted too high, the TV may not emit any sound and downward (not upward) adjustment may be needed even though there is no sound.

**If you have confirmed a problem with your HEART™ Broadcaster or are experiencing an interruption in broadcast of The C.A.R.E. Channel, please contact HHS Technical Support immediately at 800.348.0799.**



# Installation of Updates

Updates for the HEART™ Broadcaster are sent on an annual basis, on or near the anniversary of the date of first broadcast. The updates for the broadcaster are delivered on a swappable hard drive and include a pre-paid return label for your convenience. To install updates, follow the instructions below.

1. Power down the HEART™ Broadcaster by pressing and releasing the red button on the far right side of the front panel. The unit will power off within 30 seconds of pressing the button.
2. Locate the removable hard drives on the left side of the HEART™ Broadcaster's front panel. The upper drive is labeled "CONTENT" and has a BLACK handle, while the lower drive is labeled "SYSTEM" and has a WHITE handle. You will be replacing the upper, "CONTENT", drive with the BLACK handle. To the right of the black handle you will find a small dark red release button. Slide this button to the right to release the black handle. Once the handle releases and opens slightly, carefully pull the handle outwards to remove the hard drive.
3. Insert the new content update hard drive, making sure that its handle is in the open position. Push on the front of the drive, not the handle, to seat the drive until the handle begins to close. Once the handle has begun to close from contact, push the handle the rest of the way closed until it is locked. If you are unsure whether the drive is completely seated, you may compare the distance the handle extends from the front panel with the "SYSTEM" drive handle below it. The handles should be even.
4. Once you have confirmed the new content drive is seated, press the power button again to turn on the HEART™ Broadcaster. Video broadcast will resume within one minute; check the channel on a TV in the facility to ensure broadcast with the new content drive is restored.

# HEART™ Specifications

## SPECIFICATIONS - Model C100-BYP

Power	100-240VAC / 480 Watts
Frequency Limits	50-60Hz
Power requirement (Maximum)	4A-2A
Operating Temperatures	50° - 90° F (10° - 32° C)
Operating Humidity	Maximum 70% (Non-condensing)
Dimensions (WxHxD)	17.2"x1.7"x11.3"
Rack Space Requirements	1 RU
Weight	12 lbs.
Outputs	<b>Digital:</b> HDMI or SDI <b>Analog:</b> RCA Composite; Component VGA monitor, Keyboard
Diagnostics	
Warranty	3 Years Full Warranty (Extended warranties available)



# Warranty

## 1. PROVISIONS:

**1.1. Years One - Three:** Within 36 months of the date of original purchase, Healing HealthCare Systems, Inc. (HHS) agrees to replace or repair, free of charge, any C.A.R.E. CHANNEL HEART™ that, upon inspection by HHS or its duly authorized representative, is found to have been defective in workmanship or materials. This Warranty expires 36 months from the date of original shipment.

**1.2. Beyond Year Three:** For repairs that may be required following these three years, parts and labor (plus shipping, handling, and insurance) will be charged. This Warranty gives the purchaser specific legal rights, and the purchaser may also have other rights, which vary from state to state.

**1.3. Extended Warranties:** At the time of purchase, client may chose to purchase an extended warranty for up to FIVE years from date of original shipment. If client has purchased an extended warranty, provisions under section 1.1 will apply for the term of the warranty period purchased.

## 2. CONDITIONS:

**2.1.** The unit, along with purchaser's written claim of a defect shall have been shipped pre-paid to HHS offices in Reno, Nevada (or at such address as HHS shall specify) for inspection, within one yea of the date of original purchase. The product will be either replaced or repaired at the sole discretion of HHS.

**2.2.** Any damage incurred during shipping must be reported to HHS within three(3) business days of receipt of the unit. Failure to do so will void warranty provisions. Any costs incurred to repair damages sustained during shipping will fall under the sole responsibility of the purchaser should HHS not be notified of the damage within the aforementioned time frame.

**2.3.** This warranty requires that the HEART™ be attached to an Uninterrupted Power Supply (UPS) at all times. This warranty is void if a UPS is not used.

## 3. EXCLUSIONS:

**3.1.** HHS will not pay for or warrant repairs made by anyone other than personnel authorized by HHS to make repairs, unless prior written agreement has been obtained by the claimant from HHS.

**3.2.** HHS assumes no further responsibility or liability,whether for delays,damages to persons or property,special,indirect or consequential damages,or from any damages arising from the use of the C.A.R.E. CHANNEL HEART™, or component parts. Some states do not allow limitation or exclusion of incidental or consequential damages, so the above limitation may not apply to you.

**3.3.** No HHS representative, employee, or dealer has the authority to make or imply any representation, promise, or agreement which in any way varies from the terms of this Warranty.

**3.4.** The remedies provided in this warranty shall be the exclusive sole remedies of the purchaser. There is no implied warranty that the C.A.R.E. CHANNEL HEART™ or parts thereof sold under this Warranty are of merchantable quality or that they are fit for any particular purpose other than broadcast distribution of The C.A.R.E. Channel.

To make inquiries regarding this Warranty, or to obtain a valid Return Authorization Number, please call +1.800.348.0799.  
All shipping costs to and from HHS shall be borne by Purchaser. Any tampering or unauthorized use of system voids warranty.



**HEALING  
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SYSTEMS®**

6121 Lakeside Drive, Suite 200  
Reno, Nevada 89511

800 348 0799  
[www.healinghealth.com](http://www.healinghealth.com)





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