



**CC100**  
***CLOSED CAPTIONING DECODER***

**broadcast video systems corp.**

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# CC100 CLOSED CAPTIONING DECODER

## Installation and Operation

The CC100 is powered by the accompanying 9V DC adapter. Connect program video containing closed captioning data to the video input BNC. In the case of the S-video version CC100, connect program video to the video input mini-DIN connector. Connect the video output to a picture monitor. Power must be applied at all times in order to pass video through the unit. (Power adapter spec: 9V DC at 100 mA, center pin is positive). The left-hand toggle switch selects language 1 or language 2 in the case of bilingual captioning. The right-hand toggle switch selects closed captioning on or off.

If this unit is equipped with optional GPI disable, the BNC connector located between the IN and OUT connectors on the rear panel will allow the user to turn the closed captioning on and off from a remote location. Shorting the center pin to ground (connector ring) will disable captioning. Prepare a coax cable of desired length with a BNC connector at one end and an on/off toggle switch at the other end. Connect this cable to the BNC on the CC100 rear panel marked "GPI", and mount the toggle switch at the location where captioning is to be switched on/off.

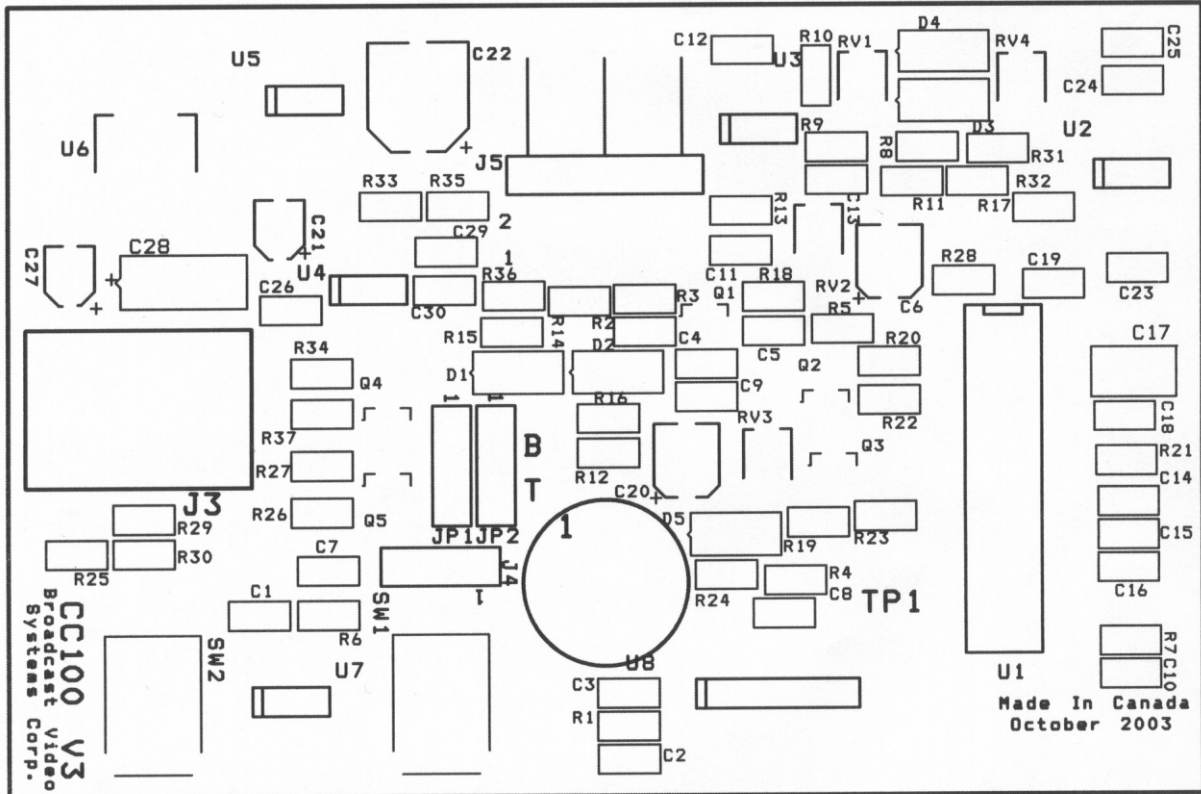
There are two modes of operation available in the CC100:

- 1) "Black Box" - for maximum readability, the window in which captions are placed will remain at 7.5 IRE regardless of program level. This produces greater contrast between the background window and the text, to allow easier reading by hearing impaired viewers.
- 2) "Transparent Box" - in this mode, the captioning box remains transparent so that captions are readable, but less distracting. This mode is best suited for use in master control, to verify correct captioning.

Normally, the mode is set at the factory for "Black Box" operation as this is most widely used. Should the customer wish to change the mode in the field at a later date, please contact BVS for instructions.

## Setup and Calibration

- 1) Connect a multi-burst signal to the input and view the output on a waveform monitor. Adjust RV2 for 100 IRE or 1 Vp-p on white bar.
- 2) Connect a video signal that contains line 21 captioning to the input.
- 3) Place the switches in position '1' and 'ON'.
- 4) Adjust RV1 so that the level of the black text box is at setup (7.5 IRE).
- 5) Adjust RV3 for captioning character level of 100 IRE.



CC100 Ver 3  
Component Layout

## CC-100 CLOSED-CAPTION DECODER

### Parts List

Item	Quan	Reference	Part
1	1	C4	AOT
2	1	C6	1u0/50v
3	9	C9,C12,C13,C16,C19,C23,C26,C29,C30	0u1
4	1	C10	n56
5	4	C11,R15,C15,C18	AOT
6	1	C14	3300pF
7	1	C17	82n
8	1	C20	2u2/50V
9	2	C27,C21	10u/16V
10	1	C22	100u/50V
11	2	C25,C24	4n7
12	1	C28	10u
13	5	D1,D2,D3,D4,D5	1N4148
14	2	JP1,JP2	HDR 1X3
15	1	J3	PWR IN
16	1	J4	CON3
17	1	J5	RA HDR 2X5
18	3	Q1,Q2,Q3	2N4124
19	2	RV1,R22	2k2
20	8	RV2,RV3,RV4,R7,R12,R16,R20,R23	470R
21	2	R21, R2	6K8
22	3	R3, R14, R19	75R
23	6	R5, R17, R25, R29,R30,R32	4k7
24	1	R8	330R
25	2	R9,R11	1k0
26	2	R10, R13	680R
27	1	R18	270K
28	1	R24	47K
29	1	R28	220R
30	2	R37,R31	10K
31	1	R33	820R
32	1	R34	750R
33	2	R36,R35	75R 1%
34	2	SW1,SW2	SW SPDT
35	1	U1	Z8612812PSC
36	1	U2	LM555
37	2	U3,U4	LMH6720MA (sub CLC430)
38	1	U5	ADM660AR
39	1	U6	ZSR500GTA