COLOR CELLS

PROGRAMING GUIDE
CC784

6 COLOR MOVING MESSAGE SIGN
INTRODUCTION

Congratulations! You have now a powerful “Silent Sales Tool” – “COLOR CELLS”!

This carton contains your display, power pack, keypad and hardware for mounting the display.

These are the main features of the CC 784, the “State of the Art”.

- 6 ULTRA BRIGHT COLORS, RED, ORANGE, YELLOW, LIME, GREEN AND BLACK
- FLASHERS, BEEPS, SCROLLS UP & DOWN, FORWARDS, BACKWARDS AND JUMPS
- REAL TIME CLOCK
- LARGE MEMORY FOR UP TO 1200 CHARACTERS
- MEMORY BANKS ALLOW RETENTION OF UP TO 10 MESSAGES AT ANY ONE TIME
- VARIETY OF LETTER STYLES: BIG, BOLD, ITALIC AND NORMAL
- UPPER AND lower case LETTERS
- 16 SPECIAL GRAPHICS AND MANY USEFUL SYMBOLS
- HANDHELD ALPHANUMERIC KEYBOARD
- MESSAGES CAN BE DISPLAYED IN ANY DESIRED SEQUENCE
- ADJUSTABLE SPEED
- "MAGIC" FEATURE AUTOMATICALLY CHANGES THE COLORS OF YOUR MESSAGE EVERY TIME IT IS DISPLAYED.
- RS 232 COMPATIBLE
- 90 DAY BATTERY BACK-UP FOR MESSAGE MEMORY
ASSEMBLING THE DISPLAY FOR OPERATION

Power Pack:
Examine the power pack and note that there are two types of plugs attached to it; a small round plug and a conventional 2-prong plug.
* Place the round shaped plug into its socket on the rear side of the display. NOTE: There is only ONE socket suitable for the power pack on the back side of the display.
* Plug the conventional 2-prong plug into a standard 110Volt wall outlet.
This display will automatically begin to run a demonstration message that gives you a preview of its range of capabilities.

Keypad:
The handheld keypad is the device which allows you to program and operate your display.
Extending from the top edge of the keypad is a flat cable which is terminated with a small rectangular plug.
To use the keypad, insert the small plug into the rectangular socket on the rear of the display. NOTE: The connector has a small tooth to ensure correct insertion. Please check that this tooth is correctly aligned with the slot in the display before inserting the plug. See illustration below.

To test whether your keypad is functioning, place the round and rectangular plugs FIRMLY into the back of the display. Then, place the “two prong” plug into your wall outlet. A “Demonstration” message will be displayed.

Should your unit “Beep” continuously or not turn on, remove the wall plug check that the plugs on the rear of the display are inserted correctly and plug into the wall outlet again.

Should your CC 784 come on showing odd numbers or symbols, DON'T PANIC. You can clear the display by pushing STOP/RUN and then PROG 0 , CLEAR , PROG 1 CLEAR through to PROG 9 CLEAR then STOP/RUN to see demonstration message.
PROGRAMING YOUR 'COLOR CELLS'

"Practice makes perfect"

You cannot do anything to damage the sign from the keypad. Please feel free to experiment and practice to become an expert.

Your Color Cells display has memory available for up to 4 minutes of messages. There are 10 separate memory buffers - separate places to store 10 different messages. There is also an additional factory set "Demonstration" message in a separate "DEMO" channel which runs when you turn the display on the first time. You can recall the "DEMO" at any time by pressing [SEQ] [D] followed by [STOP/RUN]. (It will also run automatically if all your message channels are empty).

TO PROGRAM A MESSAGE

The following steps will illustrate how to program a sample message.

* PRESS [STOP/RUN] to FREEZE THE DISPLAY

Display Shows:

* PRESS [PROG]
You must specify a memory buffer between 0 and 9.

* PRESS [1] key in our example.

* Type in "HELLO MOM" using letter keys.

Input your message in this step.

* PRESS [SEQ] key

The display is asking what order to display messages it contains.

* PRESS [1] key

* PRESS [STOP/RUN] key to playback message.

If "HELLO MOM" does not repeatedly scroll across the display, go back and start over.
ADDITIONAL TRAINING EXERCISES

Exercise II

* Press **STOP/RUN**
* Press **PROG**
* Press **1**

To remove "Hello Mom" — to clear entire message:
* Press **CLEAR**

Now input the following new message:
* Type in "HELLO" **SPACE**
* Press **BOLD**
* Press **FLASH**
* Type in "TOM" **SPACE**
* Push **BIG**
* Type in your last name "JONES" for eg. **SPACE**

Now to view your message
* Press **SEQ** ; Press **1** ; Press **STOP/RUN**

A new message: "HELLO TOM JONES" should appear.
The name "TOM" should appear in BOLD letters and should be flashing. The last name "JONES" should appear in BIG letters.

Exercise III

Let's make a green sign:
* Press **STOP/RUN**
* Press **PROG**
* Press **2**

The colour of foreground/background is specified by the "FORE" and "BACK" keys.

For a GREEN SIGN and BLACK BACKGROUND
* Press **FORE** E **BACK** F to select green letters
* Press **GRAPH** A
* Press **SPACE** four times
* Press **BOLD**; type in “MONEY”
* Press **SPACE** four times
* Press **NORMAL**; type in “BUYS” ; **SPACE** ; **SPACE**
* Press **BIG** ; Press **GRAPH** then J
* Press **SPACE** three times
* Press **GRAPH** B; Press **SPACE** three times
* Type in “OR GIVES US CASH FOR A”
* Press **GRAPH** K; Press **SPACE** three times
* Press **GRAPH** E; Press **SPACE** three times
* Type in “VACATION”

NOW, to view message:
* Press **SEQ** ; Press **2** ; Press **STOP/RUN**

The message should read "MONEY BUYS " OR GIVES US CASH FOR A VACATION"

If it doesn't, go back and start over.

Exercise IV

Let's do a short message of your choice and make the sign all RED. Use Prog. 3.
* Press **STOP/RUN** ; Press **PROG** ; Press **3**
* Press **FORE** A : Press **BACK** F to select red letters
* Input the message your choice...

Once finished inputting your message:
* Press **SEQ** ; Press **3** ; Press **STOP/RUN**
Exercise V
Do a one or two word message in all "YELLOW" Use PROG. 4
* Press [STOP/RUN]
* Press [FORE] [D] [BACK] [F] to select yellow letters
Input the message of your choice...
Once finished inputting your message:

Exercise VI
Now to demonstrate COLOR CELLS EXCLUSIVE "MAGIC".
* Press [STOP/RUN]
* Press [MAGIC]
* Type in "MY GOAL IS TO SELL ONE WIDGET A DAY"
* Press [STOP/RUN]
MESSAGE WILL BE DISPLAYED AND CHANGE COLOR RANDOMLY WITH EACH PASS.

TO LINK ALL 5 MESSAGES
To link all five messages so that they run together
* Press [STOP/RUN]
* Press [SEQ]
* Press [STOP/RUN]
All five messages should now be displayed in the order specified above. NOTE: The order can be varied by specifying a different order after pressing the [SEQ] key (e.g. "2, 1, 3, 5, 4)

USING GRAPHIC CHARACTERS
Color Cells comes with 16 graphics preprogrammed into your display.
To insert a graphic into your message, first press the [GRAPH] key
then type a letter from A to P which corresponds to the graphic you desire
by referring to the top of the keypad.
For example, push [GRAPH] [E] to insert the "Wine Glass" graphic.
Press [GRAPH] [E] ; [GRAPH] [E] ; [GRAPH] [E] this will give you 3 wine glasses.

USING BEEP AND FLASH
The [BEEP] and [FLASH] keys can be inserted at any point to add beep tones or to flash the next word in your message. To ensure that your selected word flashes, enter [FLASH] immediately before the word with no spaces in between.

CHANGING THE COLOR OF YOUR MESSAGE
To select the color of your message and its background use the [FORE] and [BACK] keys.
The [FORE] key allows you to select the color of your message.
The [BACK] key allows you to select the color of the background behind your message.
To specify a color, press either [FORE] or [BACK] and then the letter corresponding to the color you desire.
For example, to create an all red message on a black background: press [FORE] [A] [BACK] [F]. You have a Red letter sign. You may do the same to create an all yellow sign, green sign, etc.
NOTE: Colors corresponding to letters B & D cannot be used as background colors.
MAKING YOUR MESSAGE GO UP, DOWN, BACK AND JUMP

In addition to your message ‘crawling’ across to display from right to left, you can also program your message to move up, down, backwards and jump.

**Up, Down, Back, Jump**

- **Press** `STOP/RUN` to stop
- **Press** `~` to move up
- **Press** `CLEAR` to clear
- **Press** `SHIFT` `BIG` = (JUMP)
- **Type** “WINNER”
  - **Press** `CLEAR` `~` `~` `STOP/RUN` to end the JUMP command
  - **Type** “LOVE”
    - **Press** `SHIFT` `~` `~` `STOP/RUN` to end the UP command

**NOTE:** Letters and graphics default to show in **BOLD** font whenever you use UP, DOWN, JUMP or BCRAWL. Also the letters only show in Red and Green stripes.

- **Press** `SEQ` `6`
- **Press** `STOP/RUN`

The word “WINNER” should appear instantly on the screen followed by the word “LOVE” rolling up. If this doesn’t happen, please start over.

Use the same format of `COMMAND` followed by the text followed by the CRAWL command.

For: BACKWARD BCRAWL = [SHIFT] [MAGIC]
For: DOWN DOWN = [SHIFT] [ITALIC]

**TO PAUSE OR STOP YOUR MESSAGE ON THE SCREEN**

Pressing `[SHIFT] BOLD` inserts a ‘PAUSE’ command in your message. This will cause your message to stop at that point for 1 second. If you wish a longer stop then press ‘PAUSE’ multiple times. e.g.: (PAUSE) (PAUSE) (PAUSE) for a 3 second wait.

**NOTE:** Whenever a (PAUSE) is shown the message on the screen will change from your selected color to Red and Green letters on a black background when paused and Yellow there after.

**TO CORRECT ERRORS**

If you type in an error in your message, use the arrow keys `<` or `>` to move within your message to the character(s) that need correction and position the mistake on the right hand side of the screen.

To remove a character it must be located in the last column on the right hand side of the display.

To remove a character, press the `DEL` key. By repeatedly pressing the `DEL` key you can remove as many characters as you wish.

To remove an entire message from its memory register, press the `CLEAR` key. This completely removes the entire message from this memory register.

**ADDITIONAL PROGRAMMING FEATURES**

Color Cells has many features which allow you to enhance the presentation of your messages. These features are listed below.

**TO CHANGE LETTER STYLE**

Color Cells can present letters in four styles: "Normal, Big, Bold, or Italic.”

Unless you change the letter style it will automatically present ALL letters in the “Normal” style.

To Change Style:

- **Press** either `BIG`, `BOLD`, or `ITALIC` key immediately preceding characters or phrases for which you want a different style.

For example, pressing `BIG` will make all characters after this instruction appear in the BIG style.

To return the display to Normal style, just press the `NORMAL` key and all following characters or phrases will appear in Normal style.
USE OF "MAGIC" FEATURE
Exclusive to Color Cells. By using the "magic" key, each time your message scrolls across the screen the colors of the message (or whatever portion you may select) will randomly change. This feature creates and holds customers' interest. The choice is yours as to whether a word, or the entire message is affected by "MAGIC".

USING THE REAL TIME CLOCK
Your Color Cells is equipped with a time clock function. Upon your request it will show the time in your message. The clock will reset to 12:00 AM when ever you turn the display on.

To set the time in the display:
* Press [STOP/RUN] to freeze the display
* Press [SHIFT] [NORMAL] = (SET TIME)
  
  Display shows

* Type in the time NOTE: YOU MUST ALWAYS TYPE IN 4 NUMERALS.
  e.g. 09 35
  for 09:35

  TIME 09 35
  AM Y/N

* Press [Y] for AM
  or [N] for PM

* Press [STOP/RUN] to run your message.
Your clock is now set internally.

To display the time in your message simply press [SHIFT] [GRAPH] in your message and whenever the message is shown the time will be displayed at that position in your message.

ADDITIONAL FEATURES OF THE KEYBOARD
To following keys are also available on the keyboard and can be used in programming your messages.

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Press [SHIFT] or [UPPER/LOWER] to achieve upper or lower case letters and the alternate commands above the keys on the keypad.

e.g. [SHIFT] [GRAPH] allows you to enter "time".

SUMMARY
This provides an overview for operating your Color Cells Display. Please refer to the following pages for a summary of Color Cell's features.
## CC784 Keypad Keys and Functions (Alphabetical Order)

<table>
<thead>
<tr>
<th>Function</th>
<th>Key(s) to Enter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back</td>
<td>BACK</td>
<td>Background color select. Use with letters A, C, E, F to select either RED, YELLOW, GREEN or BLACK background color.</td>
</tr>
<tr>
<td>Bcrawl</td>
<td>SHIFT BCRAWL</td>
<td>This is a frame movement, a word following this command will wipe back e.g. [BCRAWL] &quot;SAFE&quot; &quot;SALE&quot; [CRAWL]</td>
</tr>
<tr>
<td>Beep</td>
<td>BEEP</td>
<td>Causes the display to make a Beep sound at that point e.g. [BEEP]</td>
</tr>
<tr>
<td>Big</td>
<td>BIG</td>
<td>The letters and words following this command are displayed in a BIG font style. e.g. [BIG] &quot;SALE&quot; Use the NORMAL command to reset to the standard font.</td>
</tr>
<tr>
<td>Bold</td>
<td>BOLD</td>
<td>The letters and words following this command are displayed in a BOLD font style e.g. [BOLD] &quot;LOOK&quot;. Use the NORMAL command to reset to the standard font.</td>
</tr>
<tr>
<td>Clear</td>
<td>CLEAR</td>
<td>Clears ALL the text out of the message buffer you are currently editing.</td>
</tr>
<tr>
<td>Crawl</td>
<td>SHIFT CRAWL</td>
<td>This is the default type of movement on the display. Messages crawl across the display from right to left. e.g. [CRAWL] &quot;THIS IS A ...&quot; Also use this command to end any other movement e.g. JUMP.</td>
</tr>
<tr>
<td>Delete</td>
<td>DEL</td>
<td>Use this key to remove errors from your message. Position the character to be deleted at the very right hand side of the display using &lt; and &gt;, then press [DEL] to delete it.</td>
</tr>
<tr>
<td>Flash</td>
<td>FLASH</td>
<td>The letters and words following this command are displayed FLASHING. Press FLASH immediately in front of the word you wish to flash as FLASH is turned off by a space. e.g. [FLASH] &quot;SALE&quot; Use the NORMAL command to turn FLASH off within a word.</td>
</tr>
<tr>
<td>Fore</td>
<td>FORE</td>
<td>Foreground color select. Use with the letters A-F to select either RED, ORANGE, YELLOW, LIME GREEN or BLACK e.g. [FORE] [E] for green letters.</td>
</tr>
<tr>
<td>Graph</td>
<td>GRAPH</td>
<td>Graphic select. Use with the letters A-P to select a graphic to insert in your message. e.g. [GRAPH] [B] to display a car.</td>
</tr>
<tr>
<td>Italic</td>
<td>ITALIC</td>
<td>The letters and words following this command are displayed in an ITALIC font style. This font can be combined with BOLD or BIG to create other fonts. e.g. [ITALIC] [BOLD] &quot;SALE&quot; Use the NORMAL command to reset to the standard font.</td>
</tr>
<tr>
<td>Command</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>Jump</td>
<td>Shift Jump</td>
<td>This is a frame movement, a word following this command will appear instantly on the display. e.g. [JUMP] “SALE” [CRAWL]</td>
</tr>
<tr>
<td>Magic</td>
<td>Magic</td>
<td>Automatically changes the color of your message: — with each pass of your message — whenever you select a different font e.g. [BIG] — whenever you enter two consecutive spaces Normally you would enter [MAGIC] at the start of your message.</td>
</tr>
<tr>
<td>Normal</td>
<td>Normal</td>
<td>Resets fonts back to standard and turns flashing characters off. e.g. [BOLD] [FLASH] “SALE” [NORMAL] “SALE”</td>
</tr>
<tr>
<td>Pause</td>
<td>Shift Pause</td>
<td>Causes the message to pause on the display for 1 second. NOTE: All colors revert to red and green during a pause. Press PAUSE multiple times for a longer pause. e.g. “SPECIAL” [PAUSE]</td>
</tr>
<tr>
<td>Roll Down</td>
<td>Shift Roll Down</td>
<td>This is a frame movement, the word following this command will wipe DOWN onto the display. e.g. [ROLL DOWN] “SALE” [CRAWL]</td>
</tr>
<tr>
<td>Roll Up</td>
<td>Shift Roll Up</td>
<td>This is a frame movement, the word following this command will wipe UP onto the display. e.g. [ROLL UP] “SALE” [CRAWL]</td>
</tr>
<tr>
<td>Set Time</td>
<td>Shift Set Time</td>
<td>Use this command to adjust the internal clock in the display. NOTE: This command should be used each time the power is connected to the display to set the time. Use TIME command to insert a time display in your message — See separate heading for details.</td>
</tr>
<tr>
<td>Sequence</td>
<td>Seq</td>
<td>Allows selection of the message(s) you wish to run. e.g. [SEQ] [1] [2] [STOP RUN] will run messages 1 and 2 in that order. You can enter message numbers in any order and up to 32 total entries.</td>
</tr>
<tr>
<td>Shift</td>
<td>Shift</td>
<td>Press the Shift key to access letters and commands indicated on the top of the key, including lowercase. Press [SHIFT] again to cancel an inadvertently pressed [SHIFT]. e.g. [SHIFT] [FLASH] = [CRAWL]</td>
</tr>
<tr>
<td>Space</td>
<td>Space</td>
<td>Space bar — enters a blank character in your message. Use this key to separate words.</td>
</tr>
<tr>
<td>Speed</td>
<td>Shift Prog</td>
<td>Allows you to change the speed of the display in your message. NOTE: Slower speeds used with red or green colors may cause the unit to flicker. Use the numbers 0-7. 0 is the fastest (default) e.g. [SHIFT] [PROG] [2] = S2 = speed 2.</td>
</tr>
<tr>
<td>Stop</td>
<td>Stop Run</td>
<td>This key toggles so that if the display is running and you press this key the sign will STOP and visa versa the sign will run if you press this key while it is stopped.</td>
</tr>
</tbody>
</table>
Time

SHIFT TIME

Use this command to show the time in your message.
e.g. “THE TIME IS ” [TIME]
NOTE: Please refer to SETTIME to adjust the actual internal clock time.

Upper/lower

UPPER/LOWER

This swaps between Uppercase and Lowercase letters.
e.g. “SALE” [UPPER/LOWER] “sale”.

SPECIFICATIONS

CC784 Display Unit

Cabinet Material
Aluminium housing with plastic end caps

Cabinet Size
29.5” × 5.25” × 2”

Weight
5.5 lb approx.

Display area
2” × 25.2”

Number of Characters
Average 14

Character height
2”

Number of Pixels
588

Vertical Resolution
7

Horizontal Resolution
84

Pixel Type
Extra Bright Light Emitting Diodes

Colors
6 — RED, ORANGE, YELLOW, LIME, GREEN, BLACK

Memory Capacity
1200 characters

Power Consumption
20-30W typical, 40W max.

Battery Backup
90 days

NOTE: INDOOR USE ONLY

All specifications are subject to change without notice.
CC784 KEYBOARD

<table>
<thead>
<tr>
<th>Case material</th>
<th>Injection molded plastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Size</td>
<td>8&quot; × 3.1&quot; × .75&quot; max.</td>
</tr>
<tr>
<td>Number of keys</td>
<td>62</td>
</tr>
<tr>
<td>Key Type</td>
<td>Rubber Tactile</td>
</tr>
<tr>
<td>Cable length -</td>
<td>8'</td>
</tr>
<tr>
<td>NOTE: INDOOR USE ONLY</td>
<td></td>
</tr>
</tbody>
</table>

POWER SUPPLY UNIT

![Power Supply Diagram]

<table>
<thead>
<tr>
<th>Case material</th>
<th>Injection molded plastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output power</td>
<td>9 Volts AC 2.5 Amps min.</td>
</tr>
<tr>
<td>Input power</td>
<td>117V 60Hz</td>
</tr>
<tr>
<td>NOTE: INDOOR USE ONLY</td>
<td></td>
</tr>
</tbody>
</table>
RS232 OPTION

USING RS232 ON YOUR CC784

Your CC784 display is RS232 compatible and can receive all its commands via RS232.

To use RS232, insert the required cable into the keypad socket on the rear of your display. This cable can be purchased from supplier - or you can construct the cable yourself using the circuit diagram shown.

Now apply power to the display. It is important to re-apply the power to your display each time you change from RS232 to keypad or vice versa. The display checks to see which is connected (either RS232 or Keypad) when power is applied and will not accept the other until power is applied again.

The other end of the cable (25pin ‘D’) plugs into the RS232 port of your PC or modem.

You can now program your sign direct from your PC using a communication program.

You should set the following parameters:

- **BAUD**: 300
- **STOP**: 2
- **DATA**: 8
- **PARITY**: NONE
- **DUPLEX**: FULL

Set the port to either COM 1 or COM 2 depending which you are using.

Now you can use the PC keyboard to program your sign. To use functions like ‘STOP’ or ‘PAUSE’ etc, simply hold down the ‘ALT’ key and type the ASCII decimal number onto the numerical keypad as per the table below.

Downloading complete messages thru RS232.

The CC784 echos back to the computer each character the computer sends it once it has accepted the character and is ready for the next character. If you send the next character before the display has echoed the previous character the display may miss characters causing errors in the displayed message.

---

**DISPLAY** 10 PIN IDT **PC** 25 PIN ‘D’ FEMALE

<table>
<thead>
<tr>
<th>Display 10 PIN IDT</th>
<th>PC 25 PIN ‘D’ FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GND 2</td>
<td>2 TXD</td>
</tr>
<tr>
<td>TXD 3</td>
<td>3 RXD</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>RXD 6</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

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RS232 ADAPTER CABLE FOR CC784
Networking / Multi-drop

Two special ASCII codes are allocated to allow the CC784 to be networked in a multi drop system.

These are

1. "^" (05Eh) – This character tells the display that the next character it receives is a character it should save as its unique address. The format is -- ^ n -- where n is any 8 bit ASCII character. This allows up to 256 separate displays to be connected to the network. For example to set a sign with address “a” simply send ^a.

2. "~" (07Eh) – This character should be used to stop the displays when in a network situation. Sending this character will cause all the displays on the network to STOP and wait for an address character. You should then send the address of the display you wish to change. Upon receipt of the address character the displays compare it to their own address (set as per point 1) and if it doesn't match they immediately commence running again. Only the display with the matching address remains STOPPED. You can now send the your message to that display alone.
Table of ASCII commands for CC784 in RS232 mode

<table>
<thead>
<tr>
<th>ASCII Dec</th>
<th>Function</th>
<th>ASCII Dec</th>
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<th>Function</th>
<th>ASCII Dec</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Stop</td>
<td>32</td>
<td>Space</td>
<td>64</td>
<td>@</td>
<td>96</td>
<td>a</td>
</tr>
<tr>
<td>1</td>
<td>Speed</td>
<td>33</td>
<td>!</td>
<td>65</td>
<td>A</td>
<td>97</td>
<td>b</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>34</td>
<td>&quot;</td>
<td>66</td>
<td>B</td>
<td>98</td>
<td>c</td>
</tr>
<tr>
<td>3</td>
<td>Sequence</td>
<td>35</td>
<td>#</td>
<td>67</td>
<td>C</td>
<td>99</td>
<td>d</td>
</tr>
<tr>
<td>4</td>
<td>Top of text</td>
<td>36</td>
<td>$</td>
<td>68</td>
<td>D</td>
<td>100</td>
<td>e</td>
</tr>
<tr>
<td>5</td>
<td>Pause</td>
<td>37</td>
<td>%</td>
<td>69</td>
<td>E</td>
<td>101</td>
<td>f</td>
</tr>
<tr>
<td>6</td>
<td>Beep</td>
<td>38</td>
<td>&amp;</td>
<td>70</td>
<td>F</td>
<td>102</td>
<td>g</td>
</tr>
<tr>
<td>7</td>
<td>Curser &lt;</td>
<td>40</td>
<td>(</td>
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ASCII values 128 to 255 are reserved and should not be used.
SPEED SLOW DOWN CONTROL

The speed that the message runs across the screen is controllable from the keypad and can be varied through out your messages. The default speed (that is the speed it runs automatically) is 0 which is the fastest, and the slowest selection is 7.

TO SET THE SPEED OF YOUR MESSAGE

Step 1 PRESS STOP to freeze the display

Step 2 PRESS PROG and the number of the message bank of which you wish to set the speed for example 1

Step 3 PRESS CLR To empty message bank

Step 4 PRESS SHIFT PROG and the speed number (0 is fastest — 7 is slowest) for example 4 to set the speed to 4

Type in your message, for example: “THIS IS SPEED 4”

Step 5 PRESS SEQ 1 to enter this message

Step 6 PRESS STOP RUN to view your message

The message will crawl across the screen at a slower pace than normal. If not then go back to Step 1.

NOTE:

1. The speed command can be included at any point in your message and as many times as you like. Each time the message reaches the point where the speed command was entered, it adjusts its running speed accordingly.

2. Using very slow speeds (5, 6, 7) on Red or Green letters will cause the display to flicker. Very low speeds should be limited to characters of Orange, Yellow and Lime.
PLEASE NOTE

IMPORTANT

1. Place the round and the rectangular plugs firmly into the back of the display. Then, place the two prong end into your wall outlet.

2. Should your unit “Beep” and not turn on, pull wall plug, check the plugs on the display and plug into the wall again. Should your CC 784 come on showing odd numbers or symbols, DON’T PANIC. You can simply cleanse the display by:
   - pressing STOP/RUN, next push PROG 0 and than press CLEAR; repeat this process for ALL 10 memory banks, PROG 1, PROG 2 and so on through to PROG 9.

3. Now restart the unit. The DEMO message will appear automatically.

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

SERVICE AND CAUTIONARY INFORMATION

Cleaning
The unit should be cleaned using a mild detergent on a soft cloth. Abrasive and active cleaning agents should not be used. Special care should be taken to ensure that no moisture enters the unit during cleaning.

Service
Your Color Cells CC784 Display System has been manufactured using the highest quality materials and methods. The Warranty Certificate sets out the period of Warranty. There are no user serviceable parts in either the Display or the Keyboard and no attempt to open these should be made by unqualified personnel. The Power Supply Unit is completely sealed.