

**BATTING CAGE CONTROL COMPUTER
MODEL BC2-1A
OPERATION MANUAL**

(Pages 13 thru 28)

**THE WARRANTY ON THIS PRODUCT IS NOT VALID UNTIL
THIS OPERATION MANUAL HAS BEEN READ**



BC2-1A PROCESSOR MANUAL

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CONTROL COMPUTER FEATURES

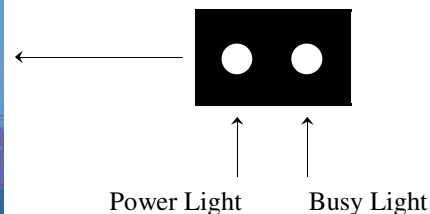
- A) LCD Display
- B) Time (15, 30, 45, 60 and 90 minutes) Ball (50,100,150 and 250 balls) “Rentals”
- C) Start, Pause and Delete all or individual games from the office
- D) Baseball and Softball Rentals
- E) Free Play Feature
- F) 1 to 30 cages controlled (60 pitching machines)
- G) Allow monitoring of the remaining or the balls left to be pitched in any cage at any time
- H) Provide a control and auditing system that cannot be circumvented or altered by employees
- I) Permit programmable control of the number of balls to be pitched and the number of coins collected per game
- J) Allow auditing of the keypad to determine the number of times each function has been used

CONTROL COMPUTER DESCRIPTION

Model BC2-1A is a computer. It provides control 1 to 30 cages from an office.



microprocessor controlled batting cage and auditing of



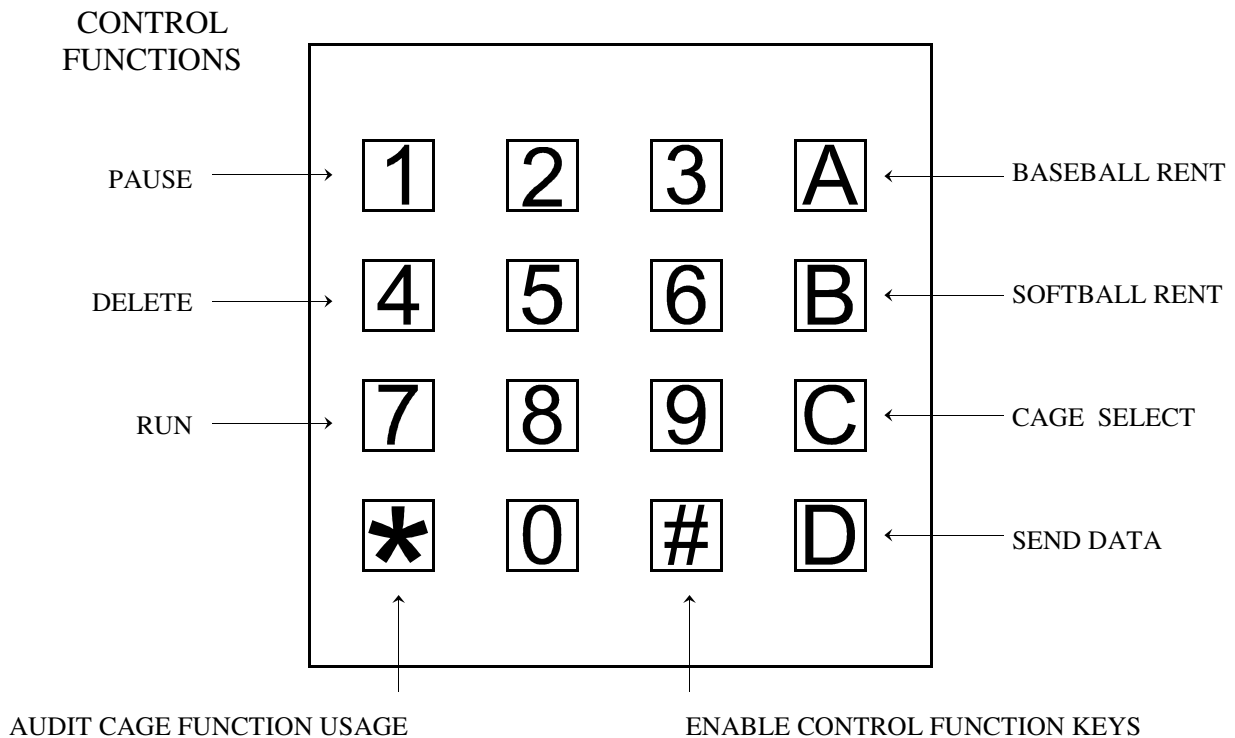
EMERGENCY PROCEDURES

The Batting Cage Control System is not designed to be a safety system. It is only designed to provide specific control of batting cages. Safety is the responsibility of the batting cage owners & operators through proper operating procedures.

QUICKLY PAUSE ALL CAGES FROM MASTER PANEL

The quickest way to stop all cages is to put them into pause mode by: **PRESS “#” button then “C” button.** (This will pause all cages. This will give the batting cage operators time to decide which cages to **RUN** and which cage to **DELETE**. Pausing is preferable to deleting because customers do not lose games that they have paid for.

KEYPAD FUNCTIONS



FIRMWARE UPDATES

This Manual is for Master Panel Model BC2-1A with firmware “PGM 877603.” This Manual applies to Master Panels manufactured with firmware update after May 1, 2005.

If “Free” is displayed when “C”, then “#”, then “A”, and Finally “1” are pressed, then you have the latest firmware “PGM 877603.” (Contact ABC for firmware updates.)

REQUESTING CAGE INFORMATION

To find out the status of any cage:

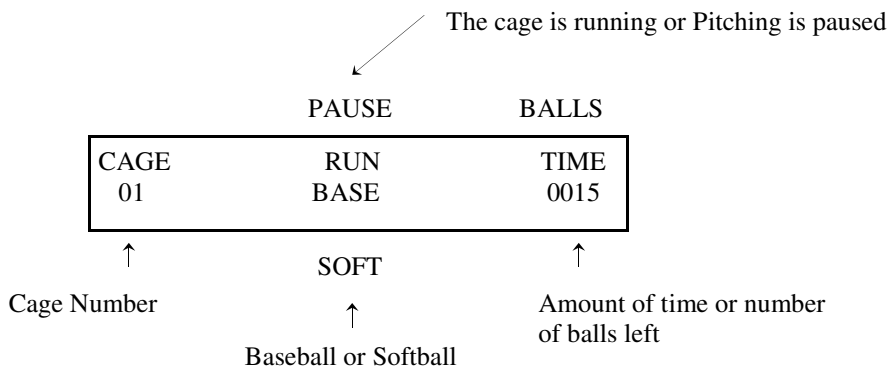
1. Press "C"
2. Enter the cage number "1-30"
3. Press "D"

The "Busy" light will come on while the computer gets data from the cage. If no cage is connected at that cage number, the display will show.

CAGE 01

If the cage is connected and the cage is not being used, the display will show. The display will show any of the following operating conditions:

CAGE 01	OFF 0000
------------	-------------



NOTE: The information on the display does not change until new data is requested.

SPECIAL FEATURES

FREE PLAY		
<p>To Start Free Play:</p> <ol style="list-style-type: none"> 1) Press "C" 2) Press "0" for all cages {default} or enter the cage number "1-30" 3) Press "#" 4) Press "A" 5) Press "I" 6) Press "D" <p>NOTE: The Computer will not indicate the cage is in Free Play.</p>	<table border="1" style="margin: 0 auto;"> <tr> <td>CAGE FREE 00</td> </tr> </table> <p>Figure A</p>	CAGE FREE 00
CAGE FREE 00		
ENDING FREE PLAY		
<p>To End Free Play From the Computer:</p> <ol style="list-style-type: none"> 1) Press "C" 2) Press "0" for all cages {default} or enter the cage number "1-30" 3) Press "#" 4) Press "4, 5, or 6" 5) Press "D" 	<table border="1" style="margin: 0 auto;"> <tr> <td>CAGE DEL 00</td> </tr> </table> <p>Figure B</p>	CAGE DEL 00
CAGE DEL 00		

BALLS

RENTING

To Rent Balls:

1. Press "C"
2. Enter the cage number "1-30"
3. Press "A" for baseball or "B" for softball
4. Enter the number of balls to rent "50, 100, 150, 200 or 250"
5. Press "D"

The display will show figure 1 for baseball or figure 2 for softball. When "D" is pressed "Rent" will change to "Run." Balls will start pitching when "Run" is activated at the cage.

CAGE	RENT	BALLS
01	BASE	0050

Figure 1

CAGE	RENT	BALLS
01	SOFT	0050

Figure 2

TIME

To Rent Balls:

1. Press "C"
2. Enter the cage number "1-30"
3. Press "A" for baseball or "B" for softball
4. Enter the number of time to rent "15, 30, 45, 60 or 90"
5. Press "D"

The display will show figure 3 for baseball or figure 4 for softball. When "D" is pressed "Rent" will change to "Stop." Balls will start pitching when "Run" is activated at the cage.

CAGE	RENT	TIME
01	BASE	0015

Figure 3

CAGE	RENT	TIME
01	SOFT	0015

Figure 4

GAME

To Rent Balls:

1. Press "C"
2. Enter the cage number "1-30"
3. Press "A" for baseball or "B" for softball
4. Enter "11"
5. Press "D"

The display will show figure 5 for baseball or figure 6 for softball. The number displayed under "GAME" is the number of balls that will be pitched. This number is set in the Programming mode under Balls/Vend. When "D" is pressed "Rent" will change to "Stop." Balls will start pitching when "Run" is activated at the cage.

CAGE	RENT	GAME
01	BASE	0012

Figure 5

CAGE	RENT	GAME
01	SOFT	0050

Figure 6

RUNNING, PAUSING AND DELETING GAMES

Running when a game is paused

To run games:

1. Press “C”, “0”, and then “D”
2. Press “0” for all cages [default] or enter the cage number “1-30”
3. Press “#”
4. Press “7, 8 or 9”
5. Press “D”



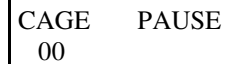
CAGE	RUN
00	

Figure 7

Pausing when a game is running

To pause games:

1. Press “C”, “0”, and then “D”
2. Press “0” for all cages [default] or enter the cage number “1-30”
3. Press “#”
4. Press “1, 2 or 3”
5. Press “D”



CAGE	PAUSE
00	

Figure 8

Deleting

To delete games:

1. Press “C”, “0”, and then “D”
2. Press “0” for all cages [default] or enter the cage number “1-30”
3. Press “#”
4. Press “4, 5 or 6”
5. Press “D”



CAGE	DEL
00	

Figure 9

AUDITING

TIME

To find out how many times “15, 30, 45, 60 or 90 minutes” have been rented:

1. Press “C”, “0”, and then “D”
2. Press “*”
3. Press “1, 2, 3, 4 or 5” for 15, 30, 45, 60 or 90” minute rental

The number displayed under “MEM” is the memory location. The number displayed under “TIME” represents the number of times that this function has been used. In this example we are checking memory location **1** which is for “15 minute time rental”; the number under “TIME” shows that this function has only been used once.

CAGE	MEM	GAME
00	01	0001

Figure 10

BALL

To find out how many times “50, 100, 150, 200 or 250 balls” have been rented:

1. Press “C”, “0”, and then “D”
2. Press “*”
3. Press “6, 7, 8, 9 or 10” for 50, 100, 150, 200 or 250” ball rental

The number displayed under “MEM” is the memory location. The number displayed under “BALLS” represents the number of times that this function has been used. In this example we are checking memory location **10** which is for “250 ball rental”; the number under “TIME” shows that this function has only been used once.

CAGE	MEM	GAME
00	10	0001

Figure 11

GAME

GAME, PAUSE and RUN USAGE

To find out how many times a game has been rented from the computer:

1. Press "C", "0", and then "D"
2. Press "*"
3. Press "11"

The number displayed under "MEM" is the memory location. The number displayed under "GAME" represents the number of times that this function has been used. In this example we are checking memory location **11** which is for "Game Rental"; the number under "GAME" shows that this function has only been used once.

CAGE	MEM	DEL
00	12	0001

Figure 12

PAUSE

To find out how many times the pause function has been used from the computer:

1. Press "C", "0", and then "D"
2. Press "*"
3. Press "14"

The number displayed under "MEM" is the memory location. The number displayed under "PAUSE" represents the number of times that this function has been used. In this example we are checking memory location **14** which is for "Game Pausing"; the number under "PAUSE" shows that this function has only been used once.

CAGE	MEM	PAUSE
00	14	0001

Figure 13

RUN

To find out how many times the start function has been used from the computer:

1. Press "C", "0", and then "D"
2. Press "*"
3. Press "13"

The number displayed under "MEM" is the memory location. The number displayed under "RUNS" represents the number of times that this function has been used. In this example we are checking memory location **13** which is for "Game Run"; the number under "RUNS" shows that this function has only been used once.

CAGE	MEM	RUNS
00	13	0001

Figure 14

DELETE and COIN GAMES USAGE

DELETE

To find out how many times the delete function has been used from the computer:

1. Press "C", "0", and then "D"
2. Press "*"
3. Press "12"

The number displayed under "MEM" is the memory location. The number displayed under "DEL" represents the number of times that this function has been used. In this example we are checking memory location **12** which is for "Game Deleting"; the number under "DEL" shows that this function has only been used once.

CAGE	MEM	DEL
00	13	0001

Figure 15

COIN GAMES

To find out how many coins have been dropped into a cage:

1. Press "C", "0", and then "D"
2. Press "*"
3. Press "16"
4. Enter the cage number "1-30"
5. Press "D"

To find out how many coins have been dropped into another cage repeat steps 4 and 5. To exit from Auditing mode press "C." The number displayed under "MEM" is the memory location. The number displayed under "CAGE" represents the cage number. The number displayed under "COINS" shows the number of coins that have been dropped into this cage. In this example we are checking memory location **16** which is for "COINS"; the number under "CAGE" shows that we are checking Cage 1, and the number under "COINS" shows that only one coin has been dropped into this cage.

CAGE	MEM	COINS
01	16	0001

Figure 16

PROGRAMMING

NOTE: Refer to page 24 for recommended programming.

ENTERING PROGRAM MODE

To enter the programming mode:

1. Press “C”, “0”, and then “D”
2. Press “31”
3. Enter the computer code i.e. “1234”

If the correct code is entered the display will change to the programming screen. (Figure 18.)

If the wrong code is entered press “#” and start over.

You need to be in the programming mode to change the coins/ vend, balls/vend or the cage number.

CAGE	CODE
00	

Figure 17

PGM	C/VEN	B/VEN
000	001	0018

Figure 18

COINS PER VEND

BALLS PER VEND

To change the number of coins needed to start a game:

1. Enter the number of coins “1-255”
2. Press “A”
3. Press “D”

To change the number of balls pitched per game:

1. Enter the number of balls “1-255”
2. Press “B”
3. Press “D”

NOTE: Disconnect all cages from line except the cage you are going to program otherwise any cage connected to the line will have its cage number changed also.

COINS PER VEND

To program a cage number:

1. Press “C”
2. Enter the cage number “1-30”
3. Press “*”
4. Press “D”

EXITING PROGRAM MODE

Press “#” to exit from the programming mode

APPENDIX A – BASEBALL PANEL FUNCTIONS

FUNCTION	KEY 1	KEY 2	KEY 3	KEY 4	KEY 5
Request Run	C	1-30	D		
Rent Baseball	C	1-30	A	Time / Balls (1)	D
Rent Balls / Vend	C	1-30	A	11	D
Rent Softball	C	1-30	B	Time / Balls (1)	D
Rent Balls / Vend	C	1-30	B	11	D
Stop all Games	C	0	#	1	D
Stop a Game	C	1-30	#	1	D
Restart all Games	C	0	#	7	D
Restart a Game	C	1-30	#	7	D
Delete all Games	C	0	#	4	D
Delete a Game	C	1-30	#	4	D
Display Rents	C	*	1-14		
Display Cage Rents	C	*	16	1-30	
Enter Program Mode	C	31	Code (2)		
Program Balls	Enter Balls (3)	B	D		
Program Coins	Enter Coins (3)	A	D		
Program Cage Numbers	C	1-30	*	D	
End Program Mode	#				

- (1) Valid Time Rentals 15, 30, 45, 60 & 90 (1) Valid Ball Rentals 50, 100, 150, 200 & 250
 (2) 4 Digit Managers Code
 (3) Valid Numbers 1-255

Memory Location		Memory Location	
1	15 Minute Time Rental	9	200 Ball Rental
2	30 Minute Time Rental	10	250 Ball Rental
3	45 Minute Time Rental	11	Game Rental
4	60 Minute Time Rental	12	Deletes
5	90 Minute Time Rental	13	[Re-] Start
6	50 Ball Rental	14	Pauses
7	100 Ball Rental	15	Not Used
8	150 Ball Rental	16	Coins

PROGRAMMING BALL & COIN COUNTS

RECOMMENDED PROGRAMMING PROCEDURE

Since you must install a jumper on each light box when programming, you may find it easier to perform the entire programming sequence with this individual method. **NOTE: During normal operation, only 1 jumper for the entire system and on any PT-6 Light Box can be in place.**

When programming individual PT-6 Light Box, jumper must be in place. For location of jumper, see PT-6 drawing on page 49.

Shown below are two examples, Example 1 for cage 1 and Example 2 for cage 2. The only difference will be the code for the **cage number**. Coin and ball program remains the same for all cages.

NOTE: Disconnect power from all cages except the cage you are going to program otherwise any cage connected to power will have its cage number changed also. (Make sure you have the jumper in place on the cage you are programming)

EXAMPLE 1: 1 TOKEN = 15 BALLS CAGE NUMBER 1

Install jumper at indicated location (See page 49)

Plug in light box located in cage 1 only.

Enter: C 31 1234 255 A D 176 B D 1 A D 15 B D C 1 * D (Press # to exit)

Unplug Cage 1 light box

Remove jumper (Retighten screws)

EXAMPLE 2: 1 TOKEN = 15 BALLS CAGE NUMBER 2

Install jumper at indicated location (See page 49)

Plug in light box located in cage 2 only.

Enter: C 31 1234 255 A D 176 B D 1 A D 15 B D C 2 * D (Press # to exit)

Unplug Cage 1 light box

Remove jumper (Retighten screws)

REMEMBER: When programming is complete, have only 1 jumper installed in any light box .

PROGRAMMING BALL & COIN COUNTS

TO PROGRAM COIN AND BALL AMOUNTS IN ALL STATIONS

NOTE: For this programming sequence, only 1 jumper for the entire system on any PT-6 Light Box, (the 1 normal operation jumper already installed) is required.

- 1) Plug in all light boxes.
- 2) Code to enter program mode: C, 31, 1234
- 3) Enter number of coins (Example: 1)
- 4) Press A
- 5) Press D
- 6) Enter number of balls (Example: 2)
- 7) Press B
- 8) Press D
- 9) Press # to exit program

EXAMPLE:

Sequence to enter coin and ball program for all cages: (Example 1 coin = 15 pitches)

Plug in all light boxes. Press C3112341AD15BD Press # to exit program.

COMPUTER FIRMWARE AFTER OCTOBER 1, 2006:

C31-1234-C1-* -hold ballcount switch-D-release ballcount switch-C-255A-176BD-1A-15BD#

COMPUTER FIRMWARE BEFORE OCTOBER 1, 2006:

C31-1234-255A-176BD-1A-15BD-C1-* -D#

SYSTEMS WITH MIXED VERSIONS OF FIRMWARE:

C31-1234-C1-* -hold ballcount switch-D-release ballcount switch-C-255A-176BD-240-A-165-B-1A-15BD#

PROGRAMMING BALL & COIN COUNTS

BC2 ABBREVIATED OPERATING INSTRUCTIONS

- NOTE:** 1) **Single Machine** A = Baseball/Softball Machine B = Not Used
2) **Dual Machine** A = Baseball Machine B = Softball Machine
3) **When (Cage Number) is listed in the sequence press the number of the cage you wish to respond.**
4) **If you get out of sequence, start over with first symbol in sequence.**

PAUSE ALL CAGES - C 0 # 1 D

PAUSE INDIVIDUAL CAGE - C (Cage Number) # 1 D

RE-START ALL CAGES - C 0 # 7 D

RE-START INDIVIDUAL CAGE - C (Cage Number) # 7 D

DELETE ALL CAGES - C 0 # 4 D

DELETE INDIVIDUAL CAGE - C (Cage Number) # 4 D

MANUAL GAME - C (Cage Number) A or B 11 D
(NOTE: A or B must be selected – Baseball = A Softball = B)

30 MINUTE RENTAL - C (Cage Number) A or B 30 D
(NOTE: A or B must be selected – Baseball = A Softball = B)

60 MINUTE RENTAL - C (Cage Number) A or B 60 D
(NOTE: A or B must be selected – Baseball = A Softball = B)

90 MINUTE RENTAL - C (Cage Number) A or B 90 D
(NOTE: A or B must be selected – Baseball = A Softball = B)

ABBREVIATED AUDITING INSTRUCTIONS

BC2 ABBREVIATED AUDITING INSTRUCTIONS

You will use this mode to determine total use of the cage different operation.

Time Rentals – All Cages

C * (Time Category / 1 - 5)

Legend 1 = 15 Minutes
2 = 30 Minutes
3 = 45 Minutes
4 = 60 Minutes
5 = 90 Minutes

Example: C * 4 will display total amount of 60 minute rentals

Ball Quantity Rentals – All Cages

C * (Ball Quantity / 6 – 10)

Legend 6 = 50 Balls
7 = 100 Balls
8 = 150 Balls
9 = 200 Balls
10 = 250 Balls

Example: C * 6 will display total 50 ball rentals

Manual Games – All Cages

C * 11

Deletes – All Cages

C * 12

Games Per Cage – Total Coins on Individual Cage

C * 16 (Cage Number) D

OPERATING MODES

The Baseball System has the following features that can be set or cleared:

Mode	Description	Set	Cleared
0	This mode affects how a baseball or softball is selected in a Time Rental . If this mode is set, baseball or softball is selected with the “ Run/Start ” button. If this mode is cleared, baseball or softball is selected with a coin drop.	1	0
1	Mode 1 and Mode 2 affect how a baseball or softball game is selected and run in a Game Rental . If this mode is set, baseball or softball is selected with a coin drop and activated with a “ Run/Start ” button. If this mode is cleared, Mode 2 is enabled.	2	0
2	Note: This mode is only enabled if Mode 1 is cleared. Mode 1 and Mode 2 affect how a baseball or softball game is selected and run in a Game Rental . If this mode is set, baseball or softball is selected and run with the “ Run/Start A ” or “ Run/Start B ” button. If this mode is cleared, baseball or softball is selected and run with a coin drop.	4	0
3	(Implemented in Light Boxes with PGM 917103 and later.) If this mode is set, the light box does not go into the “ pause ” mode after a game has been pitched. Mode 7 should be cleared.	8	0
4	This mode tells the computer if there is only one machine at this cage. If this mode is set, “ B ” rental is enabled. If this mode is cleared, “ B ” rental is disabled.	16	0
5	This mode enables or disables missing ball shutdown. If this mode is set, the cage changes to the “ pause ” condition when no ball is pitched within 1 minute. Pitching can be resumed by pressing the “ Run/Start ” button.	32	0
7	This mode enables or disables the accumulation of coins after run/start is activated. If this mode is set, multiple games can be rented by dropping in multiple coins after run/start button is activated. If this mode is cleared, multiple games can only be rented until run/start is activated; any more coins dropped in after run/start is activated do not accumulate games.	128	0

These modes are programmed into the computer by adding the mode numbers. For example, if modes 0 and 2 are cleared and modes 1, 4, 5 and 7 are set, the operating number is 178.

NOTE: Disconnect all cages from line except the cage you are going to program otherwise any cage connected to the line will have its mode changed also.

NOTE: Balls/vend and Coins/vend will have to be re-entered after setting the modes.

Mode 0 disabled	0
Mode 1 disabled	2
Mode 2 disabled	0
Mode 4 enabled	16
Mode 5 enabled	32
Mode 7 enabled	+128
Operating Number	178

To change the operating mode:

1. Enter “255”
2. Press “A”
3. Enter the operating number (0-255)
4. Press “B”
5. Press “D”

Warning Light Brightness

This setting allows you to change the level of brightness of the warning lights.

<p>To change the warning lights brightness:</p> <ol style="list-style-type: none"> 6. Enter “254” 7. Press “A” 8. Enter the level of brightness (0-255) 9. Press “B” 10. Press “D” 	<p>Settings:</p> <p>1 to 128 → Dimming Range 129 to 255 → Full Brightness</p>
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Note: Balls/vend and Coins/vend will have to be re-entered after setting the mode and the warning light brightness.

Exiting Program Mode: (Press “#” to exit from the programming mode.)