



# APPLICATION Note

**TELECOM SOLUTIONS FOR THE 21ST CENTURY**

**Using the AES-2000 with Multiple C-3000 Controllers**

July 11, 2022

## Expand Capacity of the AES-2000/C-3000 Combination from 96 Tenants Up to 288 Tenants



Model AES-2000

A bank of eight C-3000's has a 96 tenant capacity. By using a C-1000B, three groups of eight C-3000's can be combined, expanding tenant capacity up to 288.



Model C-3000



Model C-1000B

[www.VikingElectronics.com](http://www.VikingElectronics.com)

Information: 715-386-8861

## Installation

The following steps are to be used in conjunction with the diagram on the following page (page 2).

<b>Step 1.</b>	Connect a pair of wires from the <b>AES-2000's C-3000</b> screw terminals to the <b>C-1000B's LINE OUT TO PHONES</b> screw terminals.
<b>Step 2.</b>	To connect the first group of eight <b>C-3000s</b> : Connect the <b>C-1000B's LINE IN</b> screw terminals to the Primary 1 <b>C-3000's ENTRY 1</b> screw terminals.
<b>Step 3.</b>	To connect the second group of eight <b>C-3000s</b> : Connect the <b>C-1000B's DOOR BOX 1</b> terminals to Primary 2 <b>C-3000's ENTRY 1</b> screw terminals.
<b>Step 4.</b>	To connect the third group of eight <b>C-3000s</b> : Connect the <b>C-1000B's DOOR BOX 2</b> terminals to Primary 3 <b>C-3000's ENTRY 1</b> screw terminals.
<b>Step 5.</b>	Set DIP switch 3 of the <b>C-1000B</b> to the OFF position and set Talk Battery switch to OFF.
<b>Step 6.</b>	A telephone line can be connected to the <b>AES-2000's CO</b> screw terminals for remote <b>AES-2000</b> programming or calling tenants that have phone service.

**Note:** Connect the group of eight C-3000s in a Primary/Secondary configuration as shown in the C-3000 Technical Practice.

## Programming

For the **AES-2000** and the **C-3000** to work in harmony, program them to have identical phone entry Call Times and Ring Counts. Failure to do so will result in unexpected disconnects. The **AES-2000** Call Time and Ring Count fields are found in the Building Selection's "Setup" pull down menu, under "Parameters." See the **C-3000** Technical Practice, **Programming** section **B** for programming the Call Time and Ring Count on the **C-3000s**.

Additional **C-3000** Programming:

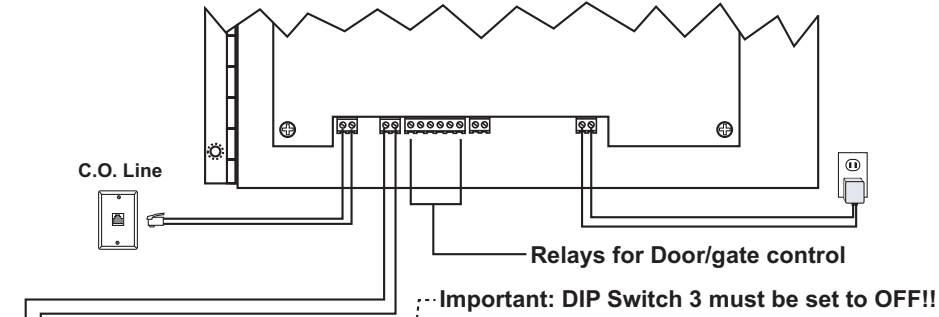
- A. Program all **C-3000's** with "##4" to disable the **C-3000** relay activation.
- B. Each primary **C-3000** must be programmed with the total number of units in the group. For a group of 8 units, program "8##8" into the groups primary unit, for a group of 7 enter "7##8", etc.

When programming the **AES-2000's** Apartment Selection screen, a "C" is entered before the tenant's phone number to access the first **C-3000** group. The second and third **C-3000** groups require a "C" and a "#1" or a "#2" before the tenant's phone number.

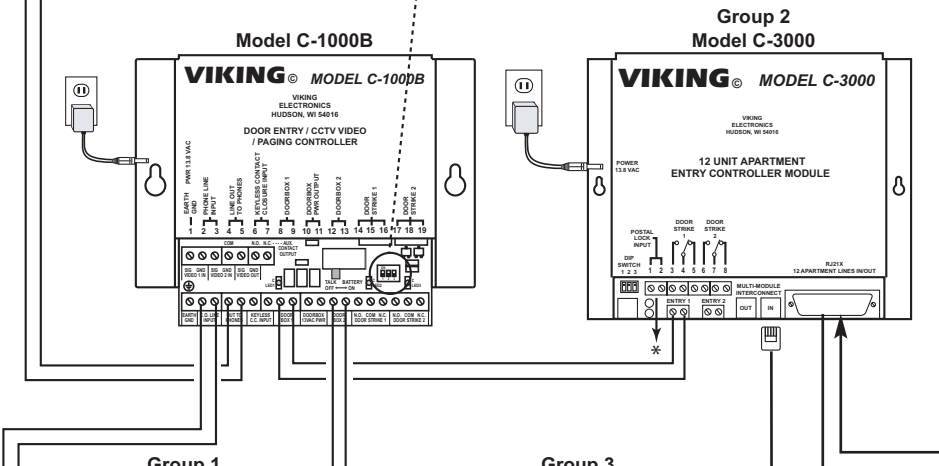
**For Example:** C01 - C96 for group one, C#1,01 - C#1,96 for group two, C#2,01 - C#2,96 for group three.

**Important:** The comma shown in the dialing string is for a 2 second pause, which is required for the **C-1000B** to switch to group 2 or 3.

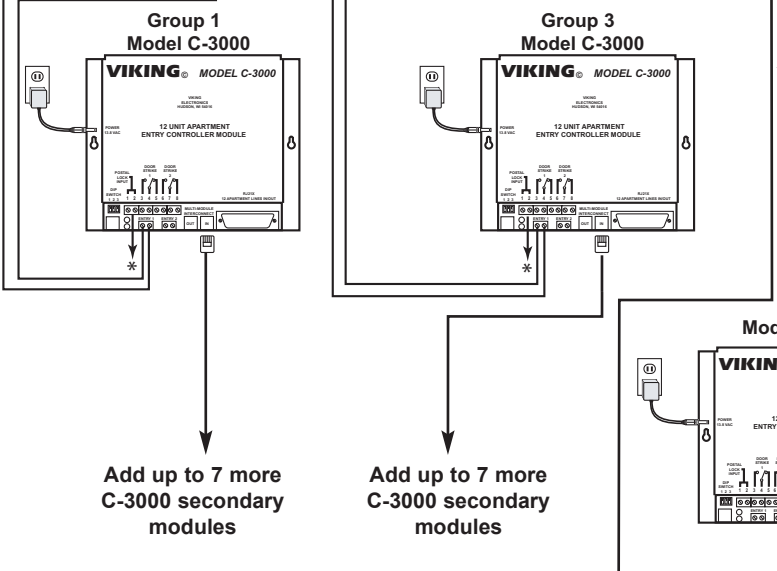
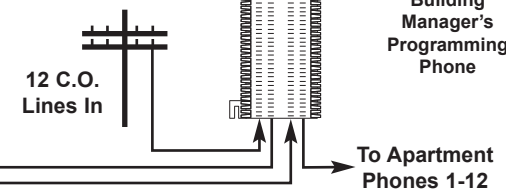
**Rear View of the AES-2000**



Bridged		Bridged	
Row 1 C.O. Lines	Row 2 C-3000	Row 3 C-3000	Row 4 Apt Phns
1T	26 W/BL	27 W/O	1T
1R	1 BL/W	2 O/W	1R
2T	28 W/G	29 W/BN	2T
2R	3 G/W	4 BN/W	2R
3T	30 W/S	31 R/BL	3T
3R	5 S/W	6 BL/R	3R
4T	32 R/O	33 R/G	4T
4R	7 O/R	8 G/R	4R
5T	34 R/BN	35 R/S	5T
5R	9 BN/R	10 S/R	5R
6T	36 BK/BL	37 BK/O	6T
6R	11 BL/BK	12 O/BK	6R
7T	38 BK/G	39 BK/BN	7T
7R	13 G/BK	14 BN/BK	7R
8T	40 BK/S	41 Y/BL	8T
8R	15 S/BK	16 BL/Y	8R
9T	42 Y/O	43 Y/G	9T
9R	17 O/Y	18 G/Y	9R
10T	44 Y/BN	45 Y/S	10T
10R	19 BN/Y	20 S/Y	10R
11T	46 V/BL	47 V/O	11T
11R	21 BL/V	22 O/V	11R
12T	48 V/G	49 V/BN	12T
12R	23 G/V	24 BN/V	12R
		50 V/S	T
		25 S/V	R



Example: Type 66 Punchdown Terminal Block with Split Center (not included)



**Important:** Interconnect all modules coming OUT of the last secondary module to the IN of the next, continuing from module to module on up to the Primary module. After wiring is complete, power up the last secondary module first, continuing forward to the primary module.

If the length of the multi-unit interconnection must be extended, only a single pair is required (the center pair or red/green) but this pair must be non-polarity reversing. The "in-use" LED on the primary C-3000 will light constant if any secondary C-3000 is connected in reverse polarity.

Add up to 7 more C-3000 secondary modules

Add up to 7 more C-3000 secondary modules

\* Common the postal lock input terminal 2 from primary C-3000 to all secondary C-3000's in the group.

Add up to 6 more C-3000 secondary modules

Bridged		Bridged	
Row 1 C.O. Lines	Row 2 C-3000	Row 3 C-3000	Row 4 Apt Phns
1T	26 W/BL	27 W/O	1T
1R	1 BL/W	2 O/W	1R
2T	28 W/G	29 W/BN	2T
2R	3 G/W	4 BN/W	2R
3T	30 W/S	31 R/BL	3T
3R	5 S/W	6 BL/R	3R
4T	32 R/O	33 R/G	4T
4R	7 O/R	8 G/R	4R
5T	34 R/BN	35 R/S	5T
5R	9 BN/R	10 S/R	5R
6T	36 BK/BL	37 BK/O	6T
6R	11 BL/BK	12 O/BK	6R
7T	38 BK/G	39 BK/BN	7T
7R	13 G/BK	14 BN/BK	7R
8T	40 BK/S	41 Y/BL	8T
8R	15 S/BK	16 BL/Y	8R
9T	42 Y/O	43 Y/G	9T
9R	17 O/Y	18 G/Y	9R
10T	44 Y/BN	45 Y/S	10T
10R	19 BN/Y	20 S/Y	10R
11T	46 V/BL	47 V/O	11T
11R	21 BL/V	22 O/V	11R
12T	48 V/G	49 V/BN	12T
12R	23 G/V	24 BN/V	12R

12 C.O. Lines In

To Apartment Phones 13-24

**Product Support: 715-386-8666**

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