



# D168 Remote Telephone Arming Module Installation Instructions

## Introduction

The D168 is a remote control module connecting to the telephone line in parallel with all other devices, including the control/communicator, answering machines, fax machines, and house phones.

The user can call the D168 from any outside phone line. It answers in a pre-programmed number of rings, depending upon the armed status of the control panel.

The D168 responds with voice messages in English. The caller has 15 seconds to enter a 4 digit access code. If the code is not received, the D168 hangs up. The user can check current On/Off status and change it by entering the access code when prompted. If a valid code is entered, a relay closes causing the panel's On/Off status to toggle.

The panel's On/Off status can be changed as many times as desired during the same call. A voice message is generated each time status is changed, confirming the action.

Packaged with the D168:

- D168 Remote Telephone Arming Module
- D133 Relay Module
- Installation Instructions

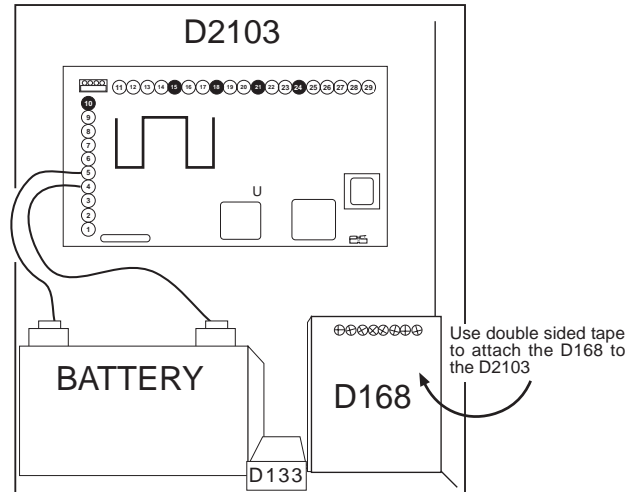
## Installation

1. Wire the D168 to the D133 and D2212 as shown in Figure 2 on page 2.
2. Use the attached tape to mount the non-component side of the D168 to the D2103 enclosure, as shown in Figure 1.
3. Program the D2212 relay you've wired to the D168 to follow arming state. See the *D2212 Program Entry Guide (74-07386-000)*.
4. Program the point you've wired to the D168 for keyswitch operation. See the *D2212 Program Entry Guide (74-07386-000)*.

## Changing Access Codes

The D168 supports three access passcode types:

- Maintenance Code - Used by the installation company to change system programming. The Maintenance code cannot be used to activate



**Figure 1**

the D168's control relay nor can it be used to reprogram the Primary or Secondary access codes. The default Maintenance Code is 1234.

- Primary Access Code - This code is used to activate the D168's control relay. The default Primary Access Code is 5678.
- Secondary Access Code - Similar to the Primary Access Code but can only be used to turn the control panel On. The default Secondary Access Code is 9192.

### To change access codes:

1. Call the telephone number to which the D168 is connected.
2. After the D168 answers, press the \* key and then the 9 key. **Enter the access code** you wish to change.
3. After entering the last digit of the old code, you'll hear "Code Program Mode. Enter new access code."
4. Enter the new 4 digit access code. After entering the last digit of the new code, you'll hear "End of Program Mode." The D168 automatically exits the code programming mode.

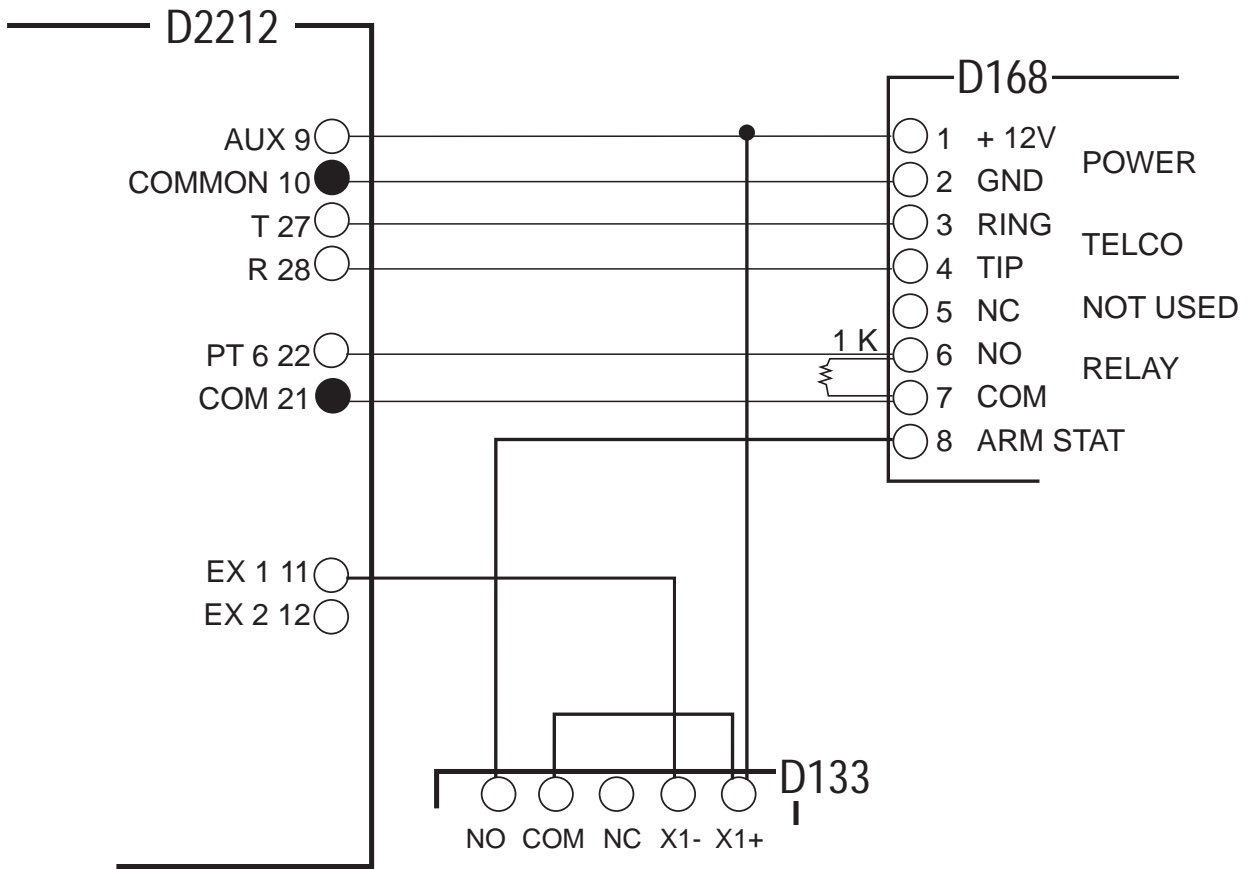


Figure 2

## Programming

The D168 comes pre-programmed for use with Radionics products. If you will be using the D168 with other manufacturers' products, follow the procedures below to adapt the module to the specific application. Use the telephone's touchpad to make inputs. Should the end user lose the access codes, the default codes shown below can be re-loaded into the D168 by momentarily connecting the 2 pins of connector P2 (next to Terminals 2 and 3 on the D168 board) with the D168 powered on.

Option	Description	Selections	Default
1	(Address 0). Determines the status (momentary or alternating) of the relay that turns the system On and Off.	1 = Momentary 2 = Alternating	1 = Momentary
2	(Address 1). This option tells the D168 how to interpret the Status input.	1 = A voltage > 2 VDC means the panel is Off. A voltage < 2 VDC means the panel is On. 2 = A voltage < 2 VDC means the panel is Off. A voltage > 2 VDC means the panel is On.	1 = A voltage < 2 VDC means the panel is Off. A voltage > 2 VDC means the panel is On.
3	(Address 2). Secondary access code settings.	1 = Secondary access code can only turn system on. 2 = Secondary access code can turn system on and off.	1 = Secondary access code can only turn system on.
4	(Address 3). Selects the activation time of the D168's control relay, if the relay is selected as Momentary (see Option 1). For Option 4, a 0 entered from the telephone is interpreted as a 10.	Enter a number from 1 to 0. The number entered is multiplied by 0.5 seconds. For example, a 3 entered here will cause the control relay to close for 1.5 seconds.	2 = 1 second.
5	(Address 4). Selects the number of rings before the D168 answers when the panel is On. For Option 5, a 0 entered from the telephone is interpreted as a 10.	Entering a number from 1 to 0 = 1 - 10 rings.	1 = 1 ring
6	(Address 5). Selects the number of rings before the D168 answers when the panel is Off. For Option 6, a 0 entered from the telephone is interpreted as a 10.	Entering a number from 1 to 0 = 1 - 10 rings.	2 = 2 rings
7	Input the Maintenance codes.	Address 6 = First digit, Address 7 = Second digit, Address 8 = Third digit, Address 9 = Fourth digit.	3 4

If you enter the Programming mode by mistake, or wish to exit for any reason without saving the changes you've made, press the \* key twice. The message "End of Program Mode" is generated. Once exiting Programming mode, the system returns to normal operating mode.

1. Call the telephone number to which the D168 is connected.
2. After the D168 answers, press the \* key and then the 0 key and then **enter the Maintenance code**. (Only the Maintenance code can be used to reprogram the system.)
3. When the last digit of the Maintenance code is entered, the message "Main Program Mode, Enter New Options." is generated.
4. Programming of system options starts at Address 0 and progresses sequentially to the last digit of the Maintenance code which is at Address 9. You may not skip an option, even if you do not wish to change that option. System options are shown in the table above.
5. Although the options must be changed in sequential order, you can leave the Programming mode at any time. For example, to change Option 2 you first re-enter the data for Option 1, then enter the data for Option 2. At this point you can save your changes and exit Programming mode (without having to re-program the remaining options) by pressing \* and then #.

## Operation

Follow this procedure to turn the D2212 On and Off or to check current system status.

1. Call the telephone number to which the D168 is attached.
2. After the D168 answers, it responds "Hello. For system status, please enter access code." You now have 15 seconds to enter your 4 digit access code.
3. **Enter your access code**. Current status is announced. If the control panel is turned on, the system responds "Your security system is On. To turn it Off, please enter access code. To hang up, press \* twice." If the system is off, it responds "Your security system is Off. To turn it On, please enter access code. To hang up, press \* twice."
4. To change system status, enter your access code again. The new status is announced.

5. When finished, press the \* key twice. The system responds "Thank you, good-bye." If you do not hang-up the D168 it will automatically hang-up 30 seconds after the last touch-tone digit is received. This is true even if you are still on the line.

**If an answering machine, modem, or similar device** is connected to the same line as the D168 and this device answers first, you can still connect to the D168 by entering an access code during a "quiet" time. Once the access code is received, the D168 will connect in parallel with the device. The D168 will respond "Hello. For system status, please enter access code." and operation will be the same as it would without other devices on the phone line.

## Command Menu

Here is a summary of D168 commands:

Entering Program Modes:

- \* + 9 + (any code) - Accesses new code program mode.
- \* + 0 + (Maintenance code) - Accesses the Programming mode.

Programming Mode Control:

- \* - Returns to Option 1 without saving changes.
- \* + # - Saves all changes and exits Programming mode.
- \* + \* - Exits Programming mode without saving any changes.

Normal Operating Mode:

- \* + \* - Hangs up the D168.

## Programming Form

Use the following to record chosen programming options. Should the end user lose the access codes, the default codes shown below can be re-loaded into the D168 by momentarily connecting the 2 pins of connector P2 (next to Terminals 2 and 3 on the D168 board) with the D168 powered on.

	Default
Option 1. _____	1 = Momentary
Option 2. _____	2 = < 2 VDC (Not Armed)
Option 3. _____	1 = Turn On only
Option 4. _____	2 = 1 second
Option 5. _____	1 = 1 ring if On
Option 6. _____	2 = 2 rings Not On
Option 7. _____	1 2 3 4

## Specifications

**Dimensions:** 4.0 " x 4.0"

**Operating Voltage:** Nominal 12 VDC supplied by the control/communicator.

**Current Requirement:** 40 mA Standby / 80 mA Active.

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