

# Installation Instructions for the DS7465 Input/Output Module

## 1.0 SPECIFICATIONS

The DS7465 is an Input/Output Module designed to operate with compatible two-wire multiplex systems such as Detection Systems' DS7400 Series Control/Communicators. It supplies a Form "C" relay (Output Loop) to be programmed to activate on several different system events. It also supplies an Input Loop intended to monitor conventional NO or NC contacts and report their status as a multiplex address to the control system. Up to twenty DS7465 Modules can be used per DS7400X or DS7400Xi system.

**Control Panel Requirements:** DS7400X or DS7400Xi control panel with a DS7430 Multiplex Expansion Module installed. The DS7400X require ROM version 1.07 or greater.

**Current Draw:** 1.0 mA (standby or alarm)

**Operating Temperature Range:** +32° to +120°F  
(0° to +49°C)

**Relay Contact Rating:** 1 A @ 30 VDC

## 2.0 PROGRAMMING

Before installing the DS7465, its address and other information must be programmed into the control panel.

- Program the control panel using the DS7400X or DS7400Xi Reference Guide. Refer to the Zone Programming section in the appropriate Reference Guide.
- Define the DS7465's address (zone number), its type (multiple zone input device), its partition (1-4), and which zone function and output function it will follow (1-15).

For example: Program zone 9 to be a DS7465 in partition 1 that follows zone function 1.

- Procedure:
- Enter the programmer's mode.
  - Enter address 0030 DS7400X or address 0026 (DS7400Xi).
  - Enter the data digits as [8] and [1] followed by the [#] button.
  - Exit the programmer's mode.

**Note:** When programming the DS7465, program the Input Zone first. The control panel will then program the Output loop of the DS7465 as the next even numbered zone.

- If you wish to use the BusLoc® feature you must program a 5 digit code (e.g. 5 4 3 2 1) at programming address 9999. BusLoc® is a proprietary method of tying the multiplex zones to the control panel to prevent the system from being taken over. Using BusLoc® will program an invisible identification code into the multiplex zones. If you are not using the BusLoc® feature skip the next procedure.

For example: Program the BusLoc® code to be 54321.

- Procedure:
- Enter the programmer's mode.
  - Enter address 9999.
  - Enter the 5 digit code followed by the [#/  
Command] button (**do not lose this code**).
  - Exit the programmer's mode.

- Once the pre-programming is done, you are ready to program the DS7465.

- Disconnect all multiplex devices from the DS7430.

- Program the DS7465 through the control panel.

- Enter the programmer's mode.
- Enter the multiplex programming mode by entering [9] [9] [9] [5] followed by the [#] button.
- The control will then take a few seconds to check the multiplex connection to confirm nothing is connected to it.

The display will show the following:

**Checking  
Multiplex Bus**

- The display will then call-up the first zone you have pre-programmed to be a multiplex zone. To access a different zone, press the [\*] key, then enter the three digit value of the zone you want. The display will show the following:

**2 Input 009  
Press # to Prog**

**Note:** When programming the DS7465 with the DS7432, the keypad display will not distinguish between the two. The display will read "2 Input" for both devices. The address you have pre-programmed for each must be used to differentiate the two.

**Before doing anything else,** reconnect the DS7465 (that coincides with the displayed zone) to the multiplex bus of the DS7430.

**NOTE:** When programming the DS7465 the tamper switch must be depressed or the DS7465 will not program.

Press the [#] button now. This will program the DS7465 to the control panel. Remember, these devices take up two addresses. When address 009 (for example) is a DS7465, pressing the [#] button now will program both addresses input zone 009 and output function zone 010.

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If the DS7465 is successfully programmed, the keypad will increment to the next zone (if there is one) pre-programmed as a multiplex zone. If the zone is unsuccessfully programmed, the keypad will sound a three-beep error tone.

**Hint:** Mark the zone numbers on each unit to assist with device location.

**Important:** Disconnect the device you just programmed and connect the next device (that belongs to the displayed zone) to the multiplex bus of the DS7430 and press the [#] button. Continue programming.

**CAUTION:** Any devices that are programmed as 24-hour zones will cause an alarm when you exit programmer's mode. Reports for these zones will be sent if they are programmed.

If no other zones have been pre-programmed, the display will show the following:

Mux Zone  
Enter Zone

If you wish to exit the Zone Programmer's mode, press the [\*] button for 2 seconds. This brings you back to the Programmer's Mode. To exit the Programmer's Mode, press the [\*] button for 2 seconds.

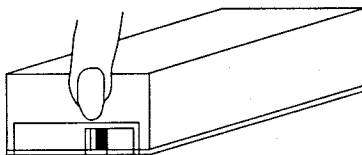
### 3.0 INSTALLATION

These instructions assume the control panel is installed and is in proper working order.

**NOTE:** The DS7465 must be programmed before it is installed.

**After the programming is complete, perform the following:**

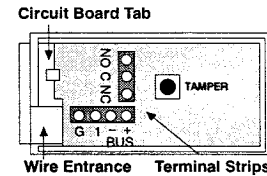
- Disconnect power to the multiplex loop before running wires and connecting the DS7465 Module.
- Remove the cover of the DS7465 by pressing in and up with your thumb and nail directly above the lip of the DS7465 (see Figure A).
- Remove the circuit board by pressing the circuit board retainer tab and pulling the circuit board out of the base.



**Figure A** - Removing the cover

**NOTE:** Handle the circuit board carefully. Hold it by the edges.

- Route wiring through the wire entrance of the base; mount the base using the supplied screws. The DS7465 should be surface mounted near the devices it will control or monitor.
- Return the circuit board to the base.



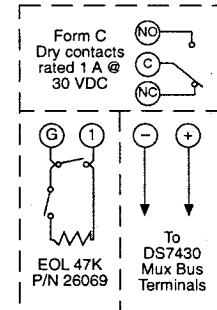
**Figure B**

### 4.0 WIRING

- Connect wiring as shown in Figure C.

#### Terminal Descriptions:

- + = Positive Multiplex bus input.
- = Negative Multiplex bus input
- 1 = Input Loop positive input.
- G = Input Loop ground
- NO = Normally Open relay contact
- NC = Normally Closed relay contact
- C = Common relay contact



**Figure C**

- The Input Loop is designed to monitor NO or NC dry contacts. It is supervised using a 47K Ohm end-of line resistor. If using as a fire alarm input, order the Multiplex EOL resistor kit P/N 28010.
- The relay contacts are rated 1 A @ 30 VDC for resistive loads; do not use with inductive or capacitive loads.