

# Dialog™ Telephone Interface Module

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## Product Summary

The Dialog Telephone Interface Module (DTIM) is a battery operated communication link between the security system control panel and the central monitoring station. The DTIM provides added security by separating the telephone interface from the panel. If the panel is damaged during a break-in or fire, the DTIM can still report to the central monitoring station.

The DTIM receives radio signals from the panel, then uses the phone line to report security system events to the central monitoring station.

The DTIM is a supervised device that transmits supervisory signals every hour for the panel to receive. When the battery is low, the module transmits a low battery signal.

### Note

The DTIM does not have a backup power supply. Therefore, the battery must be replaced immediately when a low battery condition occurs to ensure that system events can be reported. If the battery is allowed to completely drain, the panel identifies the DTIM as being in a supervisory (non-working) state, which prevents system events from being reported.

## Installation Guidelines

Use the following guidelines when installing the DTIM.

- ❑ Before permanently mounting to a wall, test the DTIM from the desired location to ensure communication with the panel. This means you must first add (learn) the DTIM into panel memory, then perform a sensor test.
- ❑ Mount the module within 100 feet of the panel, but not closer than 10 feet to another DTIM or the panel.
- ❑ Always mount the DTIM in the upright vertical position.
- ❑ The DTIM can be connected to a standard analog (loop-start) phone line, with or without digital subscriber line (DSL) service.

### Note

The DTIM cannot be used on digital or PBX phone lines, which are designed only for digital type devices that operate anywhere from 5 volts DC and up. The DTIM uses an analog modem and does not have a digital converter, adapter, or interface to operate with such systems.

- ❑ When connecting the DTIM to a standard analog phone line, it is recommended that you install an RJ-31X jack (CA-38A in Canada) ahead of all phones and other devices on the line for full line seizure. This allows the DTIM to take control of the phone line when an alarm occurs, even if the phone is in use or off-hook. It also

## Installation Instructions

provides customers with a quick disconnect in case the DTIM malfunctions, allowing them to use their phone.

- ❑ For UL Listed installations, mount the RJ-31X jack within 5 feet of the DTIM.

## Tools Needed

- ❑ Phillips screwdriver
- ❑ Two #6 phillips-head screws (included)
- ❑ Two wall anchors (included)
- ❑ Pencil

## Installation

This section describes programming, testing, mounting, and phone line connections.

## Programming—Adding the DTIM to Panel Memory

This section describes the steps for adding (learning) the DTIM into panel memory, which requires a series of module tamper switch activations and module LED responses (see Figure 1).

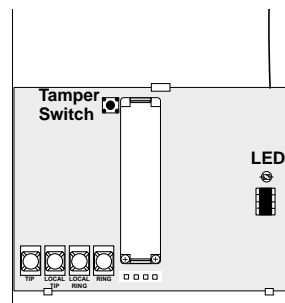


Figure 1. Tamper Switch and LED Locations

The DTIM uses a 3-2-1 tamper switch activation sequence for learning, which causes the LED to blink in a corresponding 3-2-1 sequence. You must wait for the LED to turn off after each flash sequence before releasing the tamper switch.

### Note

The DTIM should be learned into panel memory as zone 1.

## To learn the DTIM into the panel:

### Important !

Timing is the key to success with this procedure. Do not wait more than 1-2 seconds between steps 4 and 5 or steps 5 and 6 after releasing the tamper switch. If you wait too long between these steps, the LED will not flash and you will have to start over. Also, do not release the tamper switch before the LED is done flashing or you will have to start over.

1. Remove the DTIM cover and set it aside (see Figure 2).

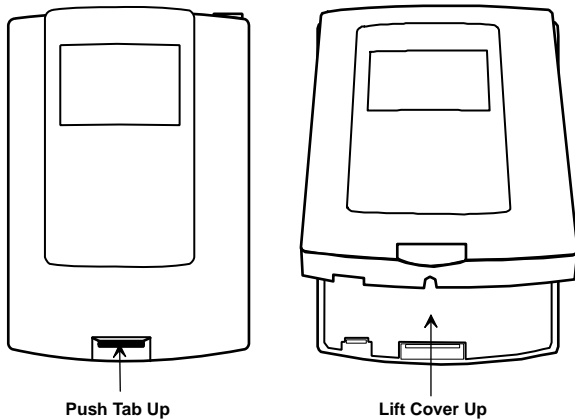


Figure 2. Removing the Cover

2. With the system disarmed, enter program mode by pressing **[8] + [C][0][D][E]**.
3. Press **▼** twice and **#** twice. The display shows ZONE 01 - TRIP.
4. Press the DTIM tamper switch three times, holding the tamper switch down on the third press and wait for the the LED to flash 3 times, then release the tamper switch after the third flash.
5. Press the DTIM tamper switch twice, holding the tamper switch down on the second press and wait for the LED to flash two times, then release the tamper switch after the second flash.
6. Press and hold the tamper switch down until the LED flashes once, then release the tamper switch after the flash. The panel beeps twice and the display shows the next available sensor number.
7. Exit from program mode.

## Testing

This section describes the basic steps for testing transmitting range from the DTIM to the panel. For complete testing instructions, see the panel installation instructions.

### Note

Be sure to attach the cover onto the DTIM before testing wireless communications.

1. Straighten the antenna to a vertical position.
2. Place the DTIM in the desired location.
3. Put the panel into sensor test mode.
4. Listen for the panel piezo to sound 7 - 8 beeps. This indicates good reception from the DTIM to the panel.

5. If you hear fewer than 7 beeps, test the DTIM in different locations. Mounting locations should be limited to areas where the panel responds with 7 - 8 beeps.
6. To retest transmitting range after relocating the DTIM, press **[\*]** then **[#]** and listen for 7 - 8 beeps.
7. Exit from test mode after determining acceptable locations.

## Mounting/Receiving Antenna Positioning

After finding an acceptable mounting location (based on testing), mount the DTIM and position the antenna as described. The antenna can be inserted into a wall or positioned upright inside the antenna housing.

### Note

For best range, it is recommended to insert the antenna into the wall.

## Mounting with Receiving Antenna in Wall

### CAUTION

You must be free of static electricity before handling circuit boards. Touch a bare metal surface or wear a grounding strap to discharge yourself.

1. Remove the circuit board from the plastic housing by pushing up on the tab and pulling the board outward (see A in Figure 3). Place the board in the cover.

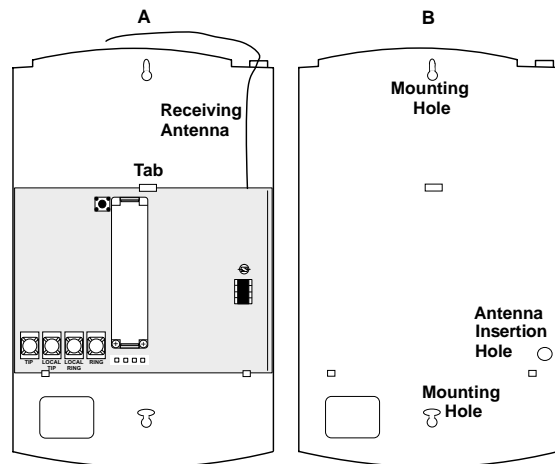


Figure 3. Removing the Circuit Board to Mark Mounting and Antenna Holes

2. Mark the mounting holes and the antenna insertion hole (see B in Figure 3).
3. Make holes in the wall for anchors at the marked locations.
4. Insert wall anchors where necessary, then use two #6 screws to secure the plastic housing to the wall.
5. Insert the antenna into the antenna insertion hole and re-install the board onto the plastic base, bottom first then push in at the top until it snaps in under the tab.
6. Install the protective dust cap (included in accessory packet) in the hole located on the top-right of the DTIM plastic housing.

## Mounting with Antenna Housing

1. Hold the DTIM against the wall and mark the mounting holes (see A in Figure 4). Be sure to leave at least 4 inches above the DTIM for the antenna housing.

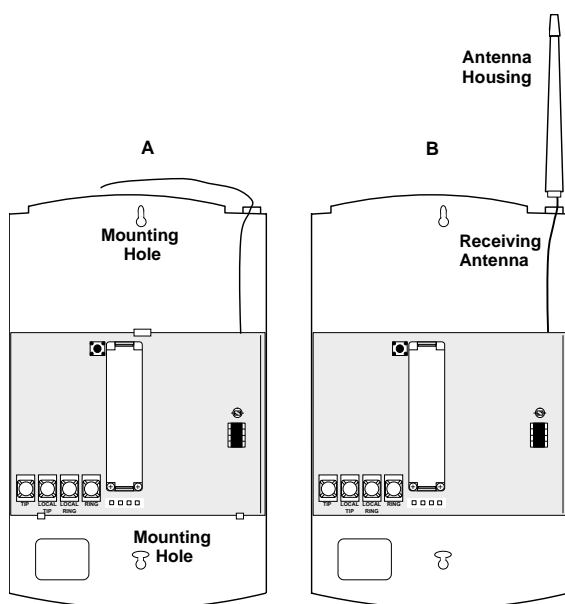


Figure 4. Mounting Hole Locations and Antenna Housing Installation

2. Slide the antenna housing over the antenna and snap the housing into the upper-right hole (see B in Figure 4).
3. Make holes in the wall for anchors at the marked locations, then insert wall anchors where necessary and secure the module to the wall using two #6 screws.

## Wiring a Phone Line to the Module

Basically, there are two methods for connecting the DTIM to a phone line; full line seizure and no line seizure.

### Full Line Seizure

This method requires that the DTIM be wired ahead (or in front) of all other phones, answering machines, computers, or any other devices on the phone line. This allows the DTIM to take over (seize) the phone line, even if another device on the line is in use.

An RJ-31X (CA-38A) jack should be installed when wiring for full line seizure. This lets the user quickly and easily disconnect the DTIM from the phone line in case the DTIM disables the phone line due to a malfunction.

### Full Line Seizure Wiring with an RJ-31X

#### Note

For UL Listed systems, the RJ-31X jack must be mounted within 5 feet of the DTIM.

1. Run a 4-conductor cable from the TELCO block to the RJ-31X (A in Figure 5).
2. Connect the 4-conductor cable wires to the RJ-31X (B in Figure 5).

3. Disconnect the Green and Red premises phone jack wires from the TELCO block and splice them to the 4-conductor cable Black and White (or Yellow) wires (C in Figure 5). Use weatherproof wire connectors for these splices.
4. Connect the 4-conductor cable Green and Red wires to the TELCO block TIP (+) and Red to RING (-) posts (D in Figure 5).
5. Connect the DB-8 cord (not included) to the RJ-31X and the DTIM terminals (E in Figure 5).

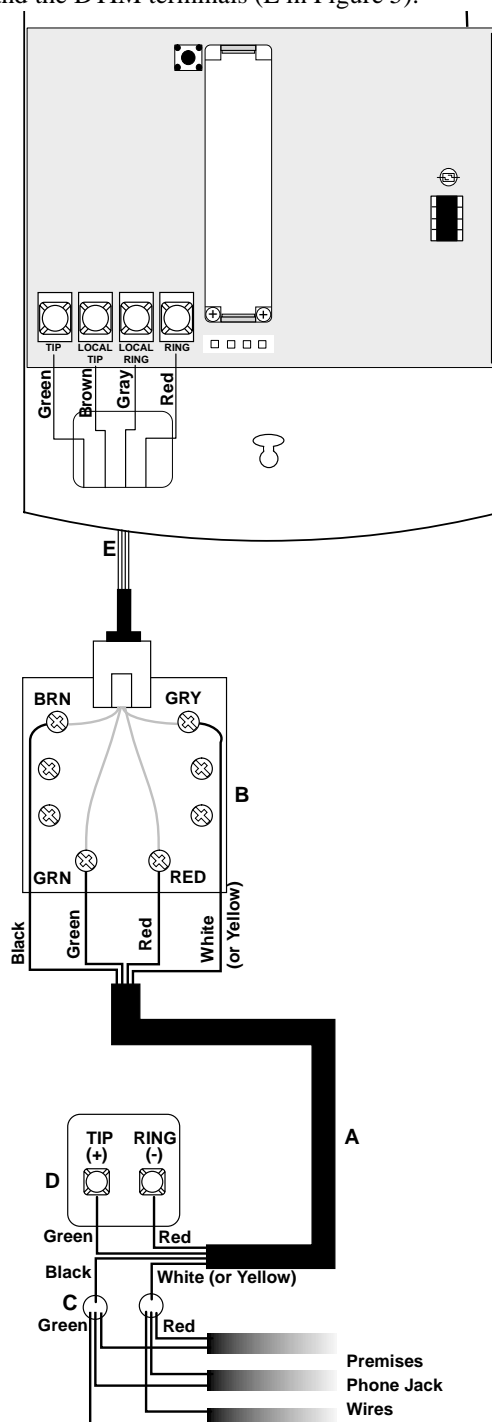


Figure 5. Full Line Seizure Wiring with an RJ-31X

## No Line Seizure

This method is typically used where DSL (digital subscriber line) service exists. DSL allows multiple devices on a single phone line to be used simultaneously. Simply connecting a standard phone cord to an available phone jack on the premises is all that is required. An in-line filter may be required to ensure panel reporting is successful (see Figure 6).

### Note

Connecting the DTIM to a standard phone (voice) line without DSL service in this manner should be avoided. Other devices in use at the same time the DTIM is using the line can prevent reports from going through.

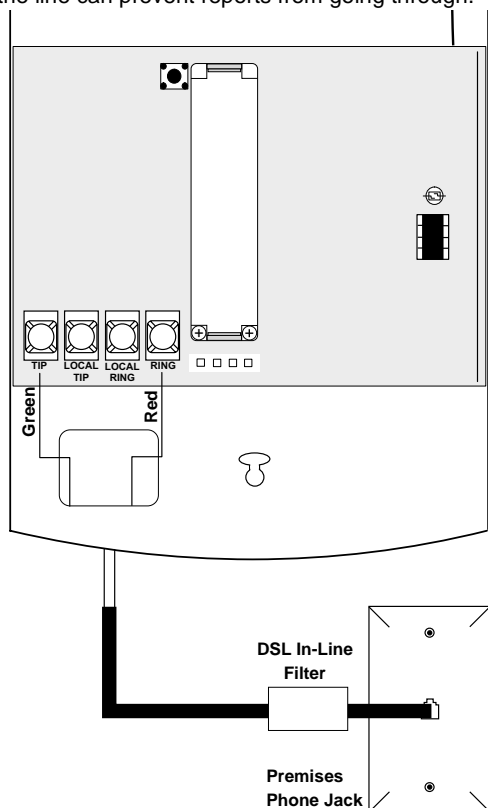


Figure 6. No Line Seizure with DSL Service

## Troubleshooting

### No Dial Tone

If there is no dial tone at on-site phones after wiring the RJ-31X jack, use the following to find the cause.

- Wait 2 minutes and try again. The DTIM may be busy trying to report to the central station.
- Check the DB-8 cord connections at the module and RJ-31X jack. Replace the cord if necessary.
- Disconnect the DB-8 cord from the RJ-31X jack. If the phone still doesn't work, the problem is in the RJ-31X jack wiring. Check the RJ-31X jack wiring and TELCO block wiring. Replace the RJ-31X jack if necessary.
- Perform a phone test after troubleshooting the phone line (see your panel installation instructions for phone test procedures).

### Constant Dial Tone

- If a constant dial tone prevents you from using the phone, there may be one or more polarity-sensitive phones on the premises. Reverse the phone wires connected to the brown and gray wire terminals on the RJ-31X jack.

### No System Response

If the system does not respond in sensor test (as described in the panel installation instructions), try the following:

- Change the antenna position. Best range is achieved by inserting the antenna into the wall.
- Check that the DTIM battery is installed.
- Check the DTIM battery for low voltage. Replace the battery if necessary.
- Use an RF Sniffer (60-401) to verify that the DTIM is transmitting.
- Verify that the DTIM was added (learned) into panel memory correctly.

### Trouble Condition

- The tamper switch may have been tripped. Check that the cover is securely in place.
- The DTIM battery may be low. Check the battery and replace if necessary.

### Module Supervisory

- If the panel indicates a DTIM supervisory condition, use an RF Sniffer (60-401) to verify that the DTIM transmits when the tamper switch is pressed. If it does not transmit, check the battery and replace it if necessary.
- If the sniffer indicates that the DTIM is transmitting, it may be out of panel receiving range. Use the sensor test to verify that the DTIM is within panel range. If necessary, test the DTIM from other locations until an acceptable location is found.

## Specifications

Compatibility: ..... Allegro™

Wireless Range ..... 500 feet open-air (nominal)

Power Source: ..... 3.6 V AA Lithium Battery

Storage Temperature: .... -30° F to 140° F (-34° C to 60° C)

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

Maximum Humidity: ... 90% relative humidity, noncondensing

Dimensions: ..... W = 4.6 inches (11.7 cm) x D = 1.2 inches (3.0 cm) x H = 6.6 inches (16.8 cm) plus 3.5 inches (8.9 cm) for antenna housing

## Notices

### FCC Part 15 Information to the User

Changes or modifications not expressly approved by Interlogix, Inc. can void the user's authority to operate the equipment.

### FCC Part 15 Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the affected equipment and the panel receiver to separate outlets, on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.

FCC ID No. B4Z-786A-DTIM

### FCC Part 68

This equipment complies with Part 68 of the FCC Rules. Located on this equipment is a label that contains, among other information, the FCC registration number and the ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The REN is used to determine the maximum number of devices that may be connected to your telephone line. In most areas, the sum of all device RENs should not exceed five (5.0).

If this equipment causes harm to the telephone network, the telephone company may temporarily disconnect your service. If possible, you will be notified in advance. When advance notice is not practical, you will be notified as soon as possible. You will also be advised of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper operation of your equipment. You will be given advanced notice in order to maintain uninterrupted service.

If you experience trouble with this equipment, please contact:

ITI  
2266 Second Street North  
North Saint Paul, MN 55109  
1-800-777-2624

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

### Declaration of Conformity (DoC)

Interactive Technologies, Inc. declares that the ITI model no. 60-879-95R is in conformity with Part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### Canada Notice

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly (telephone extension cord). The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

For your protection, make sure that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together.



### CAUTION

Do not attempt to make connections yourself. Contact the appropriate electrician or electric inspections authority.

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop that is used by the device to prevent overloading. The termination on a loop may consist of any combination of devices subject only to the requirement that the total of the LNs of all the devices does not exceed 100. Load Number: 0.2B AC

“AVIS: - L'étiquette du ministère des Communications du Canada identifie le matériel homologué. Cette étiquette certifie que le matériel est conforme à certaines normes de protection, d'exploitation et de sécurité des réseaux de télécommunications. Le ministère n'assure toutefois pas que le matériel fonctionnera à la satisfaction de l'utilisateur.”

Avant d'installer ce matériel, l'utilisateur doit s'assurer qu'il est permis de le raccorder aux installations de l'entreprise locale de télécommunication. Le matériel doit également être installé en suivant une méthode acceptée de raccordement. Dans certains cas, les fils intérieurs de l'entreprise utilisés pour un service individuel à ligne unique peuvent être prolongés au moyen d'un dispositif homologué de raccordement (cordon prolongateur téléphonique interne). L'abonné ne doit pas oublier qu'il est possible que la conformité aux conditions énoncées ci-dessus n'empêche pas la dégradation du service dans certaines situations. Actuellement, les entreprises de télécommunication ne permettent pas que l'on raccorde leur matériel à des jacks d'abonné, sauf dans les cas précis prévus par les tarifs particuliers de ces entreprises.

Les réparations de matériel homologué doivent être effectuées par un centre d'entretien canadien autorisé désigné par le fournisseur. La compagnie de télécommunications peut demander à l'utilisateur de débrancher un appareil à la suite de réparations ou de modifications effectuées par l'utilisateur ou à cause de mauvais fonctionnement.

Pour sa propre protection, l'utilisateur doit s'assurer que tous les fils de mise à la terre de la source d'énergie électrique, des lignes téléphoniques et des canalisations d'eau métalliques, s'il y en a, sont raccordés ensemble. Cette précaution est particulièrement importante dans les régions rurales.

Avertissement. - L'utilisateur ne doit pas tenter de faire ces raccordements lui-même; il doit avoir recours à un service d'inspection des installations électriques, ou à un électricien, selon le cas.”

Une note explicative sur les indices de charge (voir 1.6) et leur emploi, à l'intention des utilisateurs du matériel terminal, doit être incluse dans l'information qui accompagne le matériel homologué. La note pourrait être rédigée selon le modèle suivant:

“L'indice de charge (IC) assigné à chaque dispositif terminal indique, pour éviter toute surcharge, le pourcentage de la charge totale qui peut être raccordée à un circuit téléphonique bouclé utilisé par ce dispositif. La terminaison du circuit bouclé peut être constituée de n'importe quelle somme des indices de charge de l'ensemble des dispositifs ne dépassant pas 100.”

L'Indice de charge de ce produit est \_\_\_\_\_.



SECURITY & LIFE SAFETY GROUP

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