



# DASMA TECHNICAL DATA SHEET

Door & Access Systems  
Manufacturers Association  
International

DOOR OPERATOR & ELECTRONICS DIVISION

#379

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## Telephone Entry Systems Purposes, Types and Installation Basics

### Introduction

One of the most common methods of controlling visitor access at gates and doors is through the use of a Telephone Entry System (TES). This Technical Data Sheet, intended for general users or specifiers, describes the purpose of a TES, types of telephone entry and access control systems, and installation basics.

Note: For more comprehensive information, please refer to specific manufacturer's instruction manuals.

### Purpose

A TES provides communication from a secured entry point, to a resident, tenant or into a building, by communicating through the telephone lines. Once communication is established, the person at the gate can speak with the person inside the property. If the resident/tenant wishes to grant access, they can dial a number on their telephone, which in turn activates a relay inside the TES. In more complex and sophisticated systems, telephone entry units may also provide control of access devices such as keypads, card readers or RF controls. These are known as Telephone Entry and Access Control Systems.

### Types

#### Dedicated Phone Line Systems (Autodialers)

These phone systems typically require a dedicated telephone service for the entry system. The TES stores pre-programmed phone numbers in memory. From the keypad of the TES, a phone number can be selected by entering a Directory Code. The TES will dial the phone number, connecting through the telephone company service. Both parties can speak and converse. If the person receiving the call wishes to grant access, they dial a number on their telephone ("9" for example).

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**Note: Technical Data Sheets are information tools only and should not be used as substitutes for instructions from individual manufacturers. Always consult with individual manufacturers for specific recommendations for their products and check the applicable local regulations.**

This Technical Data Sheet was prepared by the members of DASMA's Operator & Electronics Division Technical Committee. DASMA is a trade association comprising manufacturers of rolling doors, fire doors, grilles, counter shutters, sheet doors, and related products; upward-acting residential and commercial garage doors; operating devices for garage doors and gates, sensing devices, and electronic remote controls for garage doors and gate operators; as well as companies that manufacture or supply either raw materials or significant components used in the manufacture and installation of the Active Members' products.

A dedicated phone line system is, in essence, a speed dialer. An individual can access and call phone numbers that are programmed into the system memory. An individual cannot walk up to the unit and use the keypad to dial a telephone number. A dedicated phone line system requires an active telephone service, and phone charges would be incurred by the entry system.

### Shared Phone Line Systems (No Phone Bill, No Phone Line, Telephone Intercom)

These phone systems typically will connect in series with an incoming telephone line. To initiate communication, the entry system will seize the phone wiring going into the house or apartment and switch these wire connection over to the entry system control board. The entry system now becomes the phone company. It can ring all the house telephones. Both parties can speak and converse. If the person receiving the call wishes to grant access, they dial a number on their telephone ("9" for example).

In a shared line system, the telephone entry system is connected to the incoming phone line. There are no phone charges related to the entry system. It simply dials into the house, using the house telephones as an intercom.

## Installation Basics

### Mounting

Telephone Entry Systems often include multiple solid state control boards interconnected inside the entry system housing. There may also be memory chips, microprocessors or other modular components inside the system. This may make the system vulnerable to vibration, which may result in faulty performance of the system.

Make sure the TES is mounted on a solid, stable mounting platform. Acceptable mounting methods may include:

- Mounting Post: Gooseneck or Straight
- Wall Mounting
- Column or Pilaster

Areas to avoid:

- Fence Panel
- Fence Post, especially when adjacent to a gate - particularly one that is automated.

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*WARNING: A person should not be able to reach around, over, under or through an automated gate to operate a TES. The TES should be located at least 6 feet away from such a gate.*

See DASMA Technical Data Sheet #365 for dimensions to consider when installing an accessible communications system.

#### Wiring

- Use correct wire gauge for application.
- Do not share power with a door strike or mag-lock.
- Ground the unit.
- Use external surge suppression.
- Use continuous interconnect wire.

Ground rod should be at minimum an 8' copper rod. If a surge suppresser is used, the length of the ground wire from the suppresser ground to the ground rod should be 3' or less for best performance. The ground wire from the TES to the ground rod should be of greater length than the ground wire from the suppresser ground to the ground rod. In all cases, interconnect wire should be kept as straight as possible, and should be 12 gauge or thicker. Check you local NEC code for local grounding requirements.

#### Unit Handling and Placement

- Try not to touch board components unless you are grounded.
- It is best to face LCD units either north or south so they do not get direct sunlight.
- Do not mount the unit in direct proximity to a 115 VAC line as it may induce audio hum.
- Data/audio lines should ALWAYS be in a separate conduit from power lines.
- Keypads for walk-up usage should be no higher than 42" from the ground.

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