## BELL SYSTEM PRACTICES Plant Series

SECTION 512-520-100 Issue 2, January 1970 AT&TCo Standard

# APARTMENT DOOR ANSWERING TELEPHONE SETS—2755A IDENTIFICATION, INSTALLATION, AND OPERATION

# 1. GENERAL

- 1.01 This section is reissued to:
  - •Revise text and figures for clarity
  - •Add information on P-90D275 Dial and Housing Assembly

• Include C4A Ringer as an optional component

# 2. IDENTIFICATION

Apartment Door Answering (ADA) Service is an apartment building lobby-to-apartment communication system which utilizes the tenant's regular exchange service, special central office equipment, and a 2755A TOUCH-TONE<sup>®</sup> dial panel type telephone set (Fig. 1, 2, and 3) installed in the outer lobby of an apartment building.

2.02 This system provides telephone communication between a visitor and tenant, established by the visitor dialing a 3-digit code associated with the desired apartment and the tenant dialing a single digit to release the lobby door latch to admit the visitor to the building interior.

## **ORDERING GUIDE**

Set, Telephone, 2755A-52

**Note:** -52 indicates gray handset. Door panel and frame are stainless steel.

- (a) Replaceable Components
  - Assembly, Lock, KS-19277
  - •P-15E766 Hook
  - P-23F543 Stud Fastener
  - P-23F553 Door and Frame Assembly

- •P-26E153 Dial and Housing Assembly (includes 35G3A dial) or
- P-90D275 Dial and Housing Assembly (includes 35T3A dial)
- P-269601 Instruction Card
- P-90D240 Network and Chassis Assembly
- Set, Hand, G3P-52 (Includes a 2-foot, 5-inch H4CY Armored Cord)
- (b) Associated Apparatus or Equipment (ordered separately)
  - •Box, Apparatus, 118A
  - Relay, KS-16626L12
- (c) **•***Optional Apparatus or Equipment (ordered separately)* 
  - ●Ringer, C4A♦

# APPLICATION

- Initially intended for apartment door answering service, to screen persons desiring admittance to an apartment building interior.
- Used in conjunction with a tenants regular exchange service.

#### **General Description af ADA Service**

- (a) Apartment Door Answering (ADA) Service includes a lobby door opening feature activated by the tenant's exchange telephone. A typical installation of a 2755A telephone set is shown in Fig. 4.
- (b) This service can be used with the tenants residence or business service on individual

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Fig. 1-2755A Telephone Set

or 2-party ringing service. Where a tenant has more than one exchange line, the service is limited to only one line and all extensions associated with that line which are located in the apartment.

- (c) The lobby telephone(s) and KS-16626L12 relay(s) which operates the door release mechanism are connected to the Common Control equipment located in the telephone central office.
- (d) One system may serve a maximum of four entrances and 400 terminations in the same apartment building.

Lobby

(a) ♦A 2755A panel type telephone set equipped with a 12-button TOUCH-TONE dial must be installed at each lobby entrance. A maximum of four entrances in the same apartment building can be provided. A KS-16626L12 relay must be associated with each entrance, and a cable pair to the central office must be furnished for each 2755A telephone set and KS-16626L12 relay.



# Fig. 2—2755A Telephone Set, Installed in 118A Apparatus Box

(b) The customer provides and maintains a building directory which indicates the 3-digit dial code assigned to each apartment. A directory should be provided at each entrance where a lobby telephone is installed.

#### **Tenant's Apartment**

(a) This system utilizes the tenants regular exchange service facilities. Where a tenant does not have exchange service or an apartment



Fig. 3—2755A Telephone Set, Rear View of Door Assembly

is vacant, a standard black rotary dial telephone is connected directly to the common control equipment for ADA. This station does not have access to the DDD network.

(b) Calls may be received from the lobby telephone and the door opening feature activated only by telephones or extensions located in the tenant's apartment. Each apartment using ADA service must be connected to the common control equipment via cut-through relays located at the central office. Off premise extensions, answering service lines, etc., must be connected from their separate cable pairs directly to the originating equipment to prevent unauthorized access to ADA service.

#### **Common Control Equipment**

(a) The common control equipment for ADA

service is located in the central office which serves the tenant's apartment (Fig. 6). The system is integrated with and dependent on the exchange network and existing central office facilities. Initially it will be compatible with all types of central office switching equipment except ESS.

## 3. INSTALLATION

# (a) Customer Provides and Maintains the Following:

 A minimum wall opening 11-9/16 inches high by 8-3/4 inches wide by 2-3/4 inches deep for each telephone set to be installed, located 63 inches from the floor surface to the top of opening into which a telephone company supplied 118A apparatus box is installed by the customer. The telephone set should be located near the lobby door entrance. Refer to appropriate section in Division 463 for detailed installation information on the 118A apparatus box.

- (2) A wall directory located by or above each lobby telephone listing the tenants name, apartment number, and 3-digit number code.
- (3) Conduit, 3/4-inch size from the apparatus box to basement or other agreed location near the apartment buildings main terminal box.
- (4) A lobby door opener or releaser and associated uninterrupted separately fused power supply which conforms to the applicable electrical code.
- (5) Wiring from the door releaser and power supply to the telephone company supplied KS-16626L12 power relay. Refer to Section 463-110-400 for connections to relay.
- (6) Connections from the door releaser and power supply to the power relay will be made by the customers electrician. The KS-16626L12 relay contacts are rated at 5 amperes, 115 volt ac 60 Hz.

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Fig. 4—Typical Installation of 2755A (Apartment Building) Telephone Set

# (b) Installing 2755A Telephone Set in 118A Apparatus Box, Telephone Company Function:

 Component part subassemblies of the 2755A telephone set are shipped from the factory assembled as the:

P-90D240 network and chassis assembly

♦(C4A ringer optional, ordered separately)♦

P-23F553 door and frame assembly includes:

P-26E153 or P-90D275 dial and housing assembly

#### P-15E766 hook

# KS-19277 lock assembly

Mounting hardware consists of seven P-181678 screws shipped loose with the telephone set assemblies.

 (2) Install steel P-23F548 stud fastener (shipped loose with set assemblies) in 118A
 apparatus box (Fig. 2). ◆Screw shorter end of stud fastener colored red into threaded standoff nut located at back right side of the apparatus box. Stud should be fully seated.

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When installing the stud fastener in the apparatus box, use an adjustable wrench or equivalent to securely fasten stud fastener. Do not use long-nosed pliers.

- (3) Position P-23F553 door and frame assembly so the mounting holes located in the frame align with the mounting holes in the apparatus box. Use four P-181678 mounting screws to secure door and frame assembly to the apparatus box (Fig. 3).
- (4) ●Install instruction card (shipped loose) in location shown in Fig. 1.4



27 Be careful not to scratch or damage painted surface on back side of instruction card when installing card.

- (5) Install the P-90D240 network and chassis assembly (Fig. 5) in the apparatus box using three P-181678 mounting screws. Position assembly as shown in (Fig. 2).
- (6) \$Should a ringer be required, provisions have been made to install a C4A ringer on the upper left arm of the network and chassis assembly (Fig. 5).
- (7) Refer to Section 512-520-400 for connections when C4A ringer is required.
- (8) Connect P1 plug of the P-26E153 or P-90D2754 dial and housing assembly to J1 jack of the P-90D240 network and chassis assembly.

Caution: Once the connection has been made the door assembly can only be partially opened. To fully open the door, it is necessary that they be disconnected. Make sure all cables and handset conductors are properly dressed before closing and locking the door of set.

- (c) Dedicated Cable Pairs:
  - (a) A dedicated cable pair is required from each lobby telephone back to the common control equipment if more than one entrance is equipped.



#### Fig. 5—P-90D240 Network and Chassis Assembly

(b) A dedicated cable pair is required from each KS-16626L12 relay back to the common control equipment if more than one entrance is equipped.

#### Operation

- (a) After the visitor lifts the receiver on the lobby telephone and receives dial tone, he dials the appropriate number code for the apartment he wishes to visit.
- (b) The tenant's telephone rings with a distinctively different ring (split ringing) from his normal exchange call ring. A normal ringing signal is heard in the lobby set receiver and continues until the call is answered by the tenant or abandoned by the visitor.

(c) After the tenant answers a lobby call and wishes to admit a visitor he dials the digit "4" to release the lobby door latch. The visitor should hang up receiver and wait for sound indicating door releaser is operating. The lobby door must be opened within a 5 second interval after the digit "4" is dialed. The tenant may hang up when he hears a ringing signal, the sound indicating the door latch release circuit is operating.

(d) When a tenant is talking on an exchange call and a visitor dials the apartment code from the lobby, a "lobby call waiting" tone will be superimposed on tenant's line every 5 seconds. This tone will only be heard by the apartment tenant. The tenant may choose to:

(1) Disregard the lobby call.

(2) Terminate the exchange call, hang up and after the distinctive lobby call ring is heard, answer the lobby call.

(3) Hold the exchange call and transfer to the lobby call automatically by depressing and releasing the switch hook once. The tenant after dealing with the lobby visitor as he desires, may return to the exchange call again by depressing and releasing the switch hook once.

(e) If a tenant receives an incoming exchange call while he is talking to the lobby telephone he will hear a "call waiting" tone every 5 seconds. The tenant may choose to:

(1) Disregard the exchange call.

- (2) Complete the lobby call and hang up to allow connection to the incoming exchange call in the normal manner.
- (3) Hold the lobby call and transfer to the exchange call by depressing and releasing the switch hook once. He can return to the lobby call in the same manner.

(f) When an exchange or a lobby call is being held, the "call waiting" remains superimposed on the line as a reminder to the tenant that he is holding another call. Should the tenant inadvertently hang up, he is automatically rung back on either type of call, providing the held party does not abandon, thus canceling the callback feature.

(g) Where a tenant with more than one central office line holds an exchange call on the line associated with ADA service to answer a second line, the "lobby call waiting" tone will not be heard unless the tenant returns to the original call.

(h) If a tenant has a manual cutoff associated with the ringer on his exchange service, he will not receive the ringing signal from the lobby telephone when the cutoff is operated.

(i) Tenants with party-line service may receive calls from the lobby telephone even though another party is using the exchange line. Party lines must be central office bridged at the originating equipment using separate cable pairs.

(j) Where lobby telephones are located at more than one entrance (served from the same common equipment) only one lobby call can be completed at a time. While a lobby call is in progress a call placed from another lobby telephone will receive a busy signal which automatically returns to dial tone when the first call is completed. Multiple entries are served in sequence. Therefore when the first call is completed that entrance is placed last in the sequence and must wait until the other lobbies have completed their calls, if any.

 (k) There is a 36 second overall timer (connect, or talking timer) which prevents one lobby from monopolizing the ADA system, and also discourages the use of ADA for soliciting sales or other annoyance calls. This timer is used in both the single and multiple lobby configurations.

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#### APARTMENT BLDG EQUIPMENT

CENTRAL OFFICE EQUIPMENT



Fig. 6—Block Diagram-Apartment Door Answering Service

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