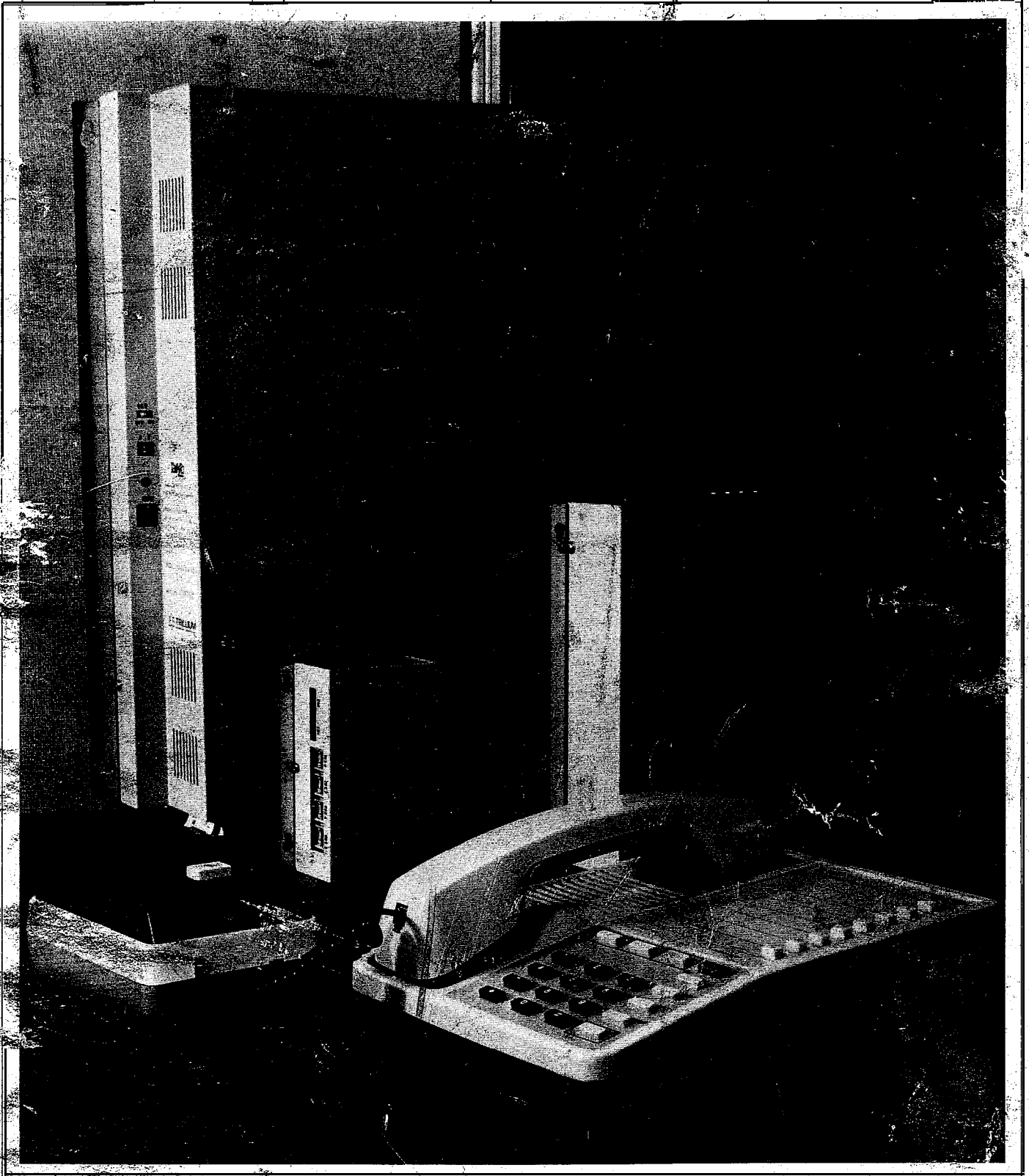


**TalkTo**<sup>TM</sup>  
308

# Electronic Key Telephone System



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## **FCC Requirements**

The Federal Communications Commission (FCC) has established rules which permit the Trillium Telephone Systems *TalkTo* 308 Electronic Key Telephone System to be directly connected to the telephone network. A jack is provided by the telephone company. Jacks for this type of customer provided equipment will not be provided on party lines or coin lines.

If the system is malfunctioning, it may also be causing harm to the telephone network; the system should be disconnected until the source of the problem can be determined and until repair has been made. If this is not done, the telephone company may temporarily disconnect service.

The telephone company may make changes in its technical operations and procedures; if such changes affect the compatibility or use of the system, the telephone company is required to give adequate notice of the changes.

## **Service Requirements**

In the event of equipment malfunction, all repairs will be implemented by Trillium Telephone Systems. It is the responsibility of users requiring service to report the need for service to Trillium Telephone Systems or to one of their authorized agents.

### **Company Notification**

Before connecting the *TalkTo* 308 Electronic Key Telephone System to the telephone network, the telephone company must be provided with the following:

- four telephone number
- The FCC Registration Number
- The Ringer Equivalence Number
- The USOC jacks required.

The FCC Registration Number, and the Ringer Equivalence are indicated on the System label.

The jacks for the system are:

- Lines one and two RJ14C.
- Line three — RJ11C.

## **Warnings**

### **Radio Frequency Energy**

The *TalkTo* 308 Electronic Key Telephone System generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart I of Part 15 of FCC rules which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that Interference will not occur in a particular installation. If this

equipment causes interference to radio or television reception, which can be determined by unplugging the *TalkTo* 308 Key Service Unit (KSU), from electrical power, the user is encouraged to try to correct the interferences by one of the following measures:

- Re-orient the receiving antenna.
- Relocate *TalkTo* 308 units with respect to the receiver.
- Move *TalkTo* 308 units away from the receiver

If necessary, the user should consult the supplier or an experienced radio/television technician for additional suggestions. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: "How to Identify and Resolve Radio-TV Interference Problems": This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

### **Hearing Aid Compatibility**

"This telephone is not hearing aid-compatible as is defined in Section 68.316 of Part 68 FCC Rules. As such, the FCC rules prohibit the use of this telephone in the following locations:

a) Coin telephones. All new and existing coin-operated telephones whether located on public property or in a semi-public location (e.g. drugstore, gas station, private club).

b) Emergency use telephones. Telephones "provided for emergency use" include the following:

1) Telephones in places where a person with impaired hearing might be isolated in an emergency, including but not limited to, elevators, automobiles, railroad or subway tunnels, and highways.

2) Telephones specifically installed to alert emergency authorities, including, but not limited to, police or fire departments or medical assistance personnel.

3) Telephones needed to signal life-threatening or emergency situations in confined settings, including, but not limited to, rooms in hospitals, residential health care facilities for senior citizens convalescent homes, and prisons. A telephone is not needed to signal life-threatening or emergency situations if an alternative means of signaling such a situation is available.

c) Telephones frequently needed by the hearing impaired.

1) Any telephone on which calls may only be paid for by credit card or other pre-arranged credit. Each such telephone must be hearing aid-compatible unless a hearing aid-compatible coin-operated telephone providing similar services is nearby and readily available

2) Any telephone made available at the work station of a hearing-impaired employee for use by that employee in his or her employment duty. An employee's "work station" is defined as the location within a workplace where that employee is usually found in the course of his or her employment duties. .

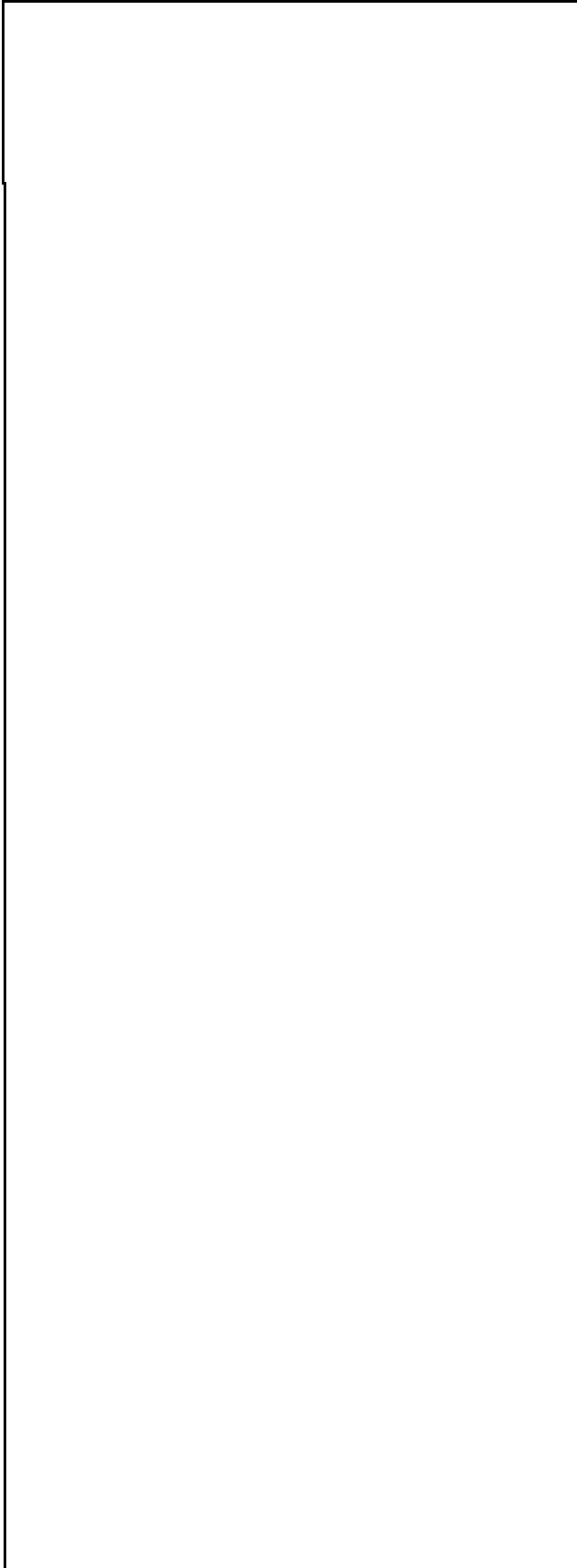
3) Any telephone, including internal extensions and telephones restricted to local calling areas, made available for use by the public in places of business or buildings in which visits by the public are reasonably expected. Examples include, but are not limited to, telephones located in lobbies of hotels or apartment buildings; telephones in stores, which are used by patrons to order merchandise; telephones in public transportation terminals which are used to call taxis or to reserve rental automobiles.

4) Any telephone in a hotel or motel room. **Provided that**, if at least ten percent of the rooms in a hotel or motel are equipped to accommodate a hearing impaired customer, the hotel or motel need not purchase or install a compatible telephone when it replaces a telephone. A room is equipped to accommodate a hearing impaired customer if (1) it contains a permanently installed hearing aid-compatible telephone; or (2) it contains a telephone which will accept a plug-in hearing aid-compatible handset, which shall be provided to the hearing impaired customer by the hotel or motel; or (3) the room contains a jack into which a hearing aid-compatible telephone provided to the customer by the hotel or motel may be plugged (i.e., in addition to a permanently installed telephone which is not hearing aid-compatible).

If fewer than ten percent of the rooms in a hotel or motel are hearing aid-compatible, when replacing a telephone the hotel or motel must, until the ten percent minimum is reached: (1) replace it with a hearing aid-compatible telephone, or (2) procure and maintain a plug-in hearing aid-compatible telephone handset which it will provide to a hearing impaired customer upon request at check-in.

5) Any telephone in the locations listed in (b) (3) in which an alternative means of signalling a life-threatening or emergency situation is not available.

\* \* \*



# INSTALLATION

## Introduction

This manual details the procedures to install and program the TalkTo 308 Electronic Key Telephone System. A section on Troubleshooting is also included.

Installation is easy, and can be carried out by a certified installer, using standard cable runs and modular jacks; or if so desired by the end-user, using standard modular telephone line cords, extension cords, and adapters.

## Preparation

The installer should ensure that the area chosen to mount the KSU is:

- Clean, dry and well ventilated. The temperature should be between 0° and 40°C (32° and 104°F). The relative humidity should be 90% or less, and be non-condensing,
- Within seven feet of the C.O./PABX line terminations.
- Within close proximity to the station terminations (in the case where outdated equipment is being replaced). The distance to each station is limited to a maximum of 2000 feet (609 meters) when 24 AWG wire is used.
- Within five feet (1.5 meters) of a 110V ac 60Hz three-wire dedicated unswitched power outlet.

Station wiring should be standard two pair twisted communication cable, 24 AWG. It is assumed that the C.O. lines are terminated at RJ style modular jacks.

## Pre-installation Requirements

Unpack the system and check that all items conform to the list of parts ordered. Make sure that the customer's feature requirements have been documented on a Customer Feature Selection form.

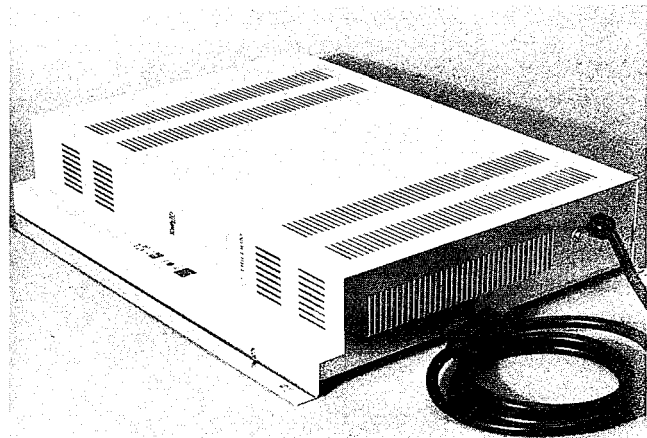
Description	Part Number
TalkTo 308 Key Service Unit (KSU) (DTMF)	90-0048
TalkTo 308 Key Service Unit (KSU) (Rotary or DTMF)	go-0053
TalkTo 308 Set	90-0055
TalkTo 308 Set (Handsfree)	go-0049
TalkTo Door Answer Unit	go-0057
TalkTo Door Module	90-0058
TalkTo Power Fail Transfer Unit	go-0052

If the Key Service Unit (KSU) is to be mounted on a concrete or masonry wall, a plywood backboard should be provided.

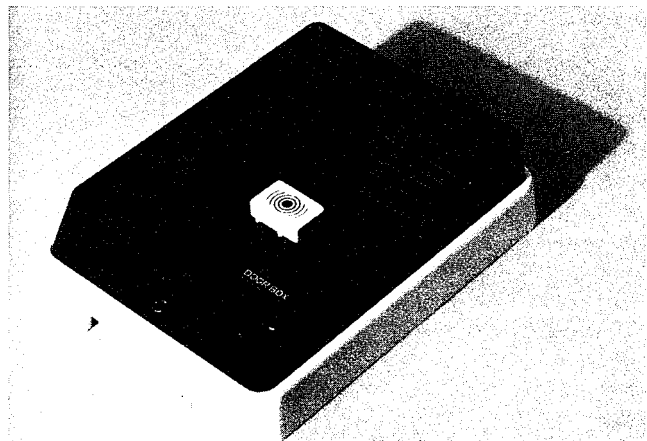
It is recommended that a surge protector be provided for the dedicated power outlet. A suitable device is the TII Model.428 plug-in protector or equivalent.



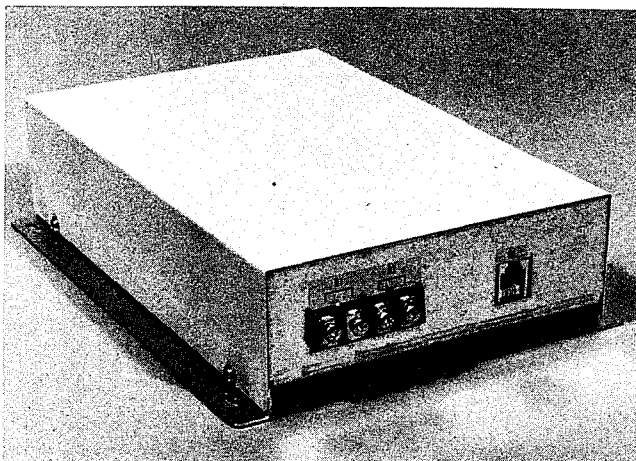
The TalkTo 308 Set is intended for desk or table use, but can be wall mounted using a special bracket available as an option.



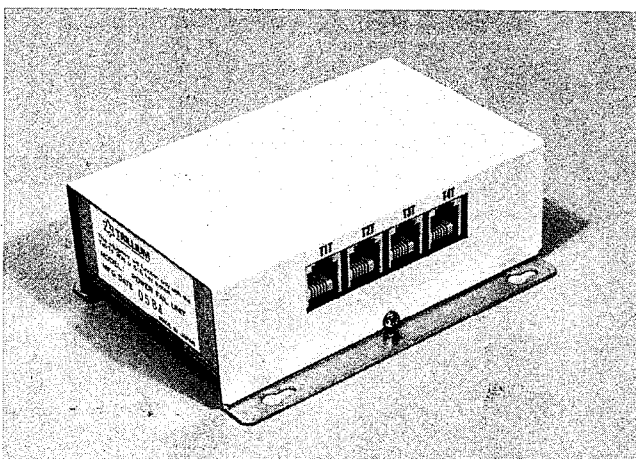
The Key Service Unit (KSU) is contained in a metal cabinet and should be wall mounted.



The Door Answer Module is moulded in plastic, measures 4 inches x 5 inches, and is fitted at the door requiring intercom service.



The Door Answer Unit measures 6.25 inches x 8 inches and should be wall mounted adjacent to the KSU.



The Power Fail Transfer Unit measures 3.5 inches x 4.5 inches and should be wall mounted adjacent to the KSU.

\* \* \*

### Installation

The TalkTo 308 System is easily installed using the following procedures:

- KSU installation
- Station Wiring (2 methods)
- Music Input,
- Paging Output
- Door Answer Option
- Power Fail Transfer Option

### KSU Installation

The KSU contains no user adjustable controls or parts. All switches used during programming are accessible at the exterior of the KSU. An indicator on the left side of the KSU flashes when the system is up and running..

**The 110V ac three-wire outlet should be dedicated to the KSU.** At the service panel, the electrical breaker for this outlet should be equipped with a locking clip, or marked with label, to prevent accidental shut-down of the system. A surge protector should be installed at the 110V ac outlet,

A suitable unit is the TII Model 428, plug-in power line surge protector. Install the protector in accordance with the manufacturer's instructions.

The KSU is intended for wall mounting only. If a backboard is to be used, start the KSU installation by mounting the backboard on the wall. Then:

- Mark the position of the four KSU mounting screws on the backboard.
- Drive in four screws (supplied with the KSU) to within 1/8 inch of the board surface.
- Using the four keyhole slots in the KSU cabinet, hang the unit on the four screws.
- Tighten the screws to secure the KSU to the backboard

Connect the ground lug of the KSU, to a metal cold water pipe or ground stake, using 12 AWG (2.64mm diameter) or heavier, copper wire. If a cold water pipe is used, ensure that the continuity to ground is not broken by the use of plastic pipe. If a ground stake is used for this purpose, it must be properly installed in accordance with the local electrical code.

**Caution: Failure to properly ground the KSU may affect the system warranty.**

Carry out a preliminary check of the KSU operation as follows:

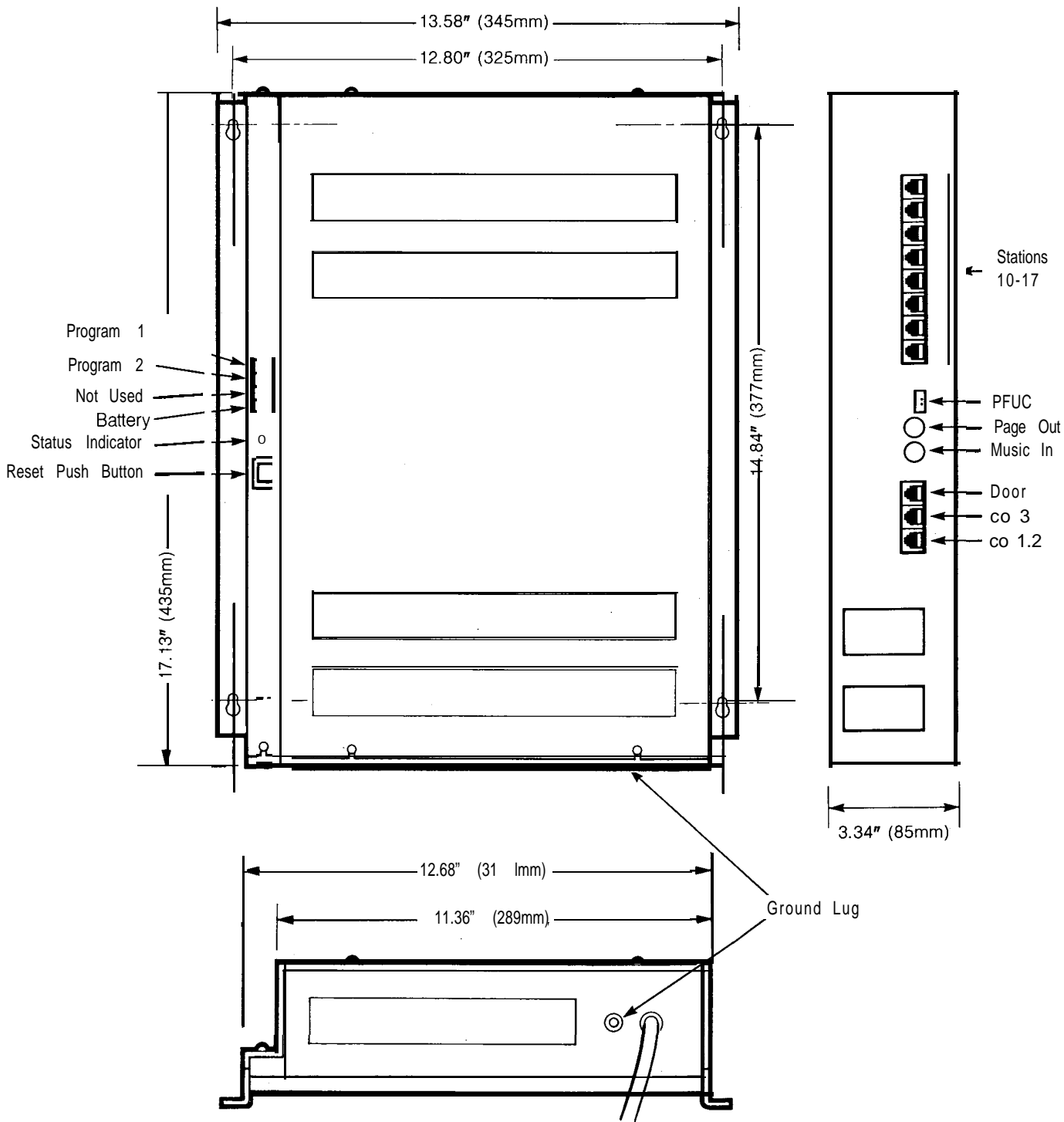
- Set the switch, **Battery**, to On.
- Set the Switches, **Program 1** and 2, to Off.
- Connect the KSU power cord to the surge protector previously installed at the 110V ac power outlet.

• **Status indicator** lamp should flash.. ,  
This indicates that the KSU is operative

To prevent accidental damage to the KSU while the system wiring is being installed, remove the power from the KSU as follows:

- Set the switch, **Battery**, to Off.
- Disconnect the power cord from the surge protector.

**INSTALLATION**



**TalkTo 308 KSU Cabinet – Dimensions**

**Station Wiring — Method 1**

This method uses standard station wiring equipment such as:

- 625 type four-wire jacks
- communication cable — two pair, twisted, 24 AWG wire.
- modular telephone line cords. Two 625 type jacks and one short modular line cord are required for each set to be installed.

At the KSU location mount one jack for each station line. Jacks should be mounted to the right of the KSU, with jack opening facing the KSU. Leave about six to nine inches (225mm) between the KSU cabinet and the jacks. It is recommended that jacks be arranged neatly in a vertical line.

At each location where a Set is to be installed, mount a 625 type modular jack in a suitable position. Run the communication cable between the KSU location and the Set positions. Connect the cable to the 625 type jacks, obeying color codes shown in the following Table. Older quad type cable is shown for reference.

625 Type Jack	Quad Cable	Communication Cable	Function
Green	Green	White/Blue	Voice Tip
Red	Red	Blue/White	Voice Ring
Black	Black	White/Orange	Data Tip
Yellow	Yellow	Orange/White	Data Ring

At the KSU, connect the KSU station jacks to the appropriate 625 type line jacks, using short modular line cords.

You are now ready to connect the KSU to the C.O./PABX lines.

**Station Wiring — Method 2**

This method uses a Proto-Tel adapter (8 RJ14 plugs to one 50 pin amphenol plug), a 66 Type Punch down block, communications cable (2 pair 24 AWG), industry standard 50 pin connectors, industry standard 25 pair cable (24 AWG), 625 type 4 wire jacks, and modular line cords.

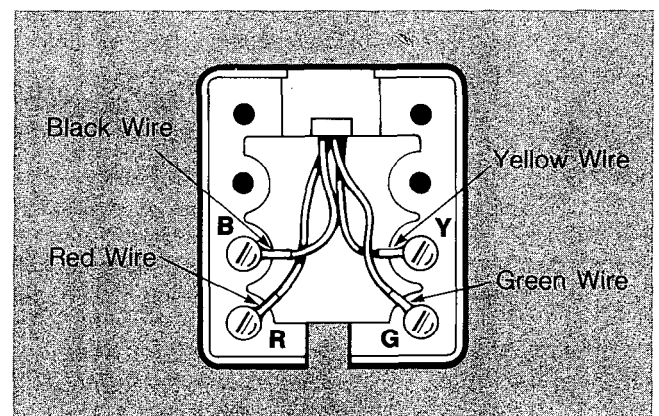
At the KSU, install the Proto-Tel adapter (**PM8-25ST4-I**) in the station modular jacks using the manufacturers instructions. Prepare a 25 pair cable of appropriate length with a jack on the KSU end and a plug at the S66 **MI-50R** end. (A **66MI-50** block may be used but requires installer cut down). Connect the 25 pair cable at the KSU, and replace the cover of the adaptor box. Connect the other end of the cable to the 66 type block. (See Method 2 Wiring Table). Run communication cable to each station location from the 66 type block and terminate each run with a 625 type modular jack. Install each set using a modular line cord.

You are now ready to connect the KSU to the C.O./PABX lines.

**Method 2 Wiring Table**

Pin	Lead Desig.	25 Pair Cable Colors	Comm. Cable Colors	Line Cord Colors	Sta. No.
26 1	1VT 1VR	White-Blue Blue-White	White-Blue Blue-White	Green Red	10
27 2	1DT 1DR	White-Orange Orange-White	White-Orange Orange-White	Black Yellow	
28 3	2VT 2VR	White-Green Green-White	White-Blue Blue-White	Green Red	11
29 4	2DT 2DR	White-Brown Brown-White	White-Orange Orange-White	Black Yellow	
30 5	3VT 3VR	White-Slate Slate-White	White-Blue Blue-White	Green Red	12
31 6	3DT 3DR	Red-Blue Blue-Red	White-Orange Orange-White	Black Yellow	
32 7	4VT 4VR	Red-Orange Orange-Red	White-Blue Blue-White	Green Red	13
33 8	4DT 4DR	Red-Green Green-Red	White-Orange Orange-White	Black Yellow	
34 9	5VT 5VR	Red-Brown Brown-Red	White-Blue Blue-White	Green Red	14
35 10	5DT 5DR	Red-Slate Slate-Red	White-Orange Orange-White	Black Yellow	
36 11	6VT 6VR	Black-Blue Blue-Black	White-Blue Blue-White	Green Red	15
37 12	6DT 6DR	Black-Orange Orange-Black	White-Orange Orange-White	Black Yellow	
38 13	7VT 7VR	Black-Green Green-Black	White-Blue Blue-White	Green Red	16
39 14	7DT 7DR	Black-Brown Brown-Black	White-Orange Orange-White	Black Yellow	
40 15	8VT 8VR	Black-Slate Slate-Black	White-Blue Blue-White	Green Red	17
41 16	8DT 8DR	Yellow-Blue Blue-Yellow	White-Orange Orange-White	Black Yellow	

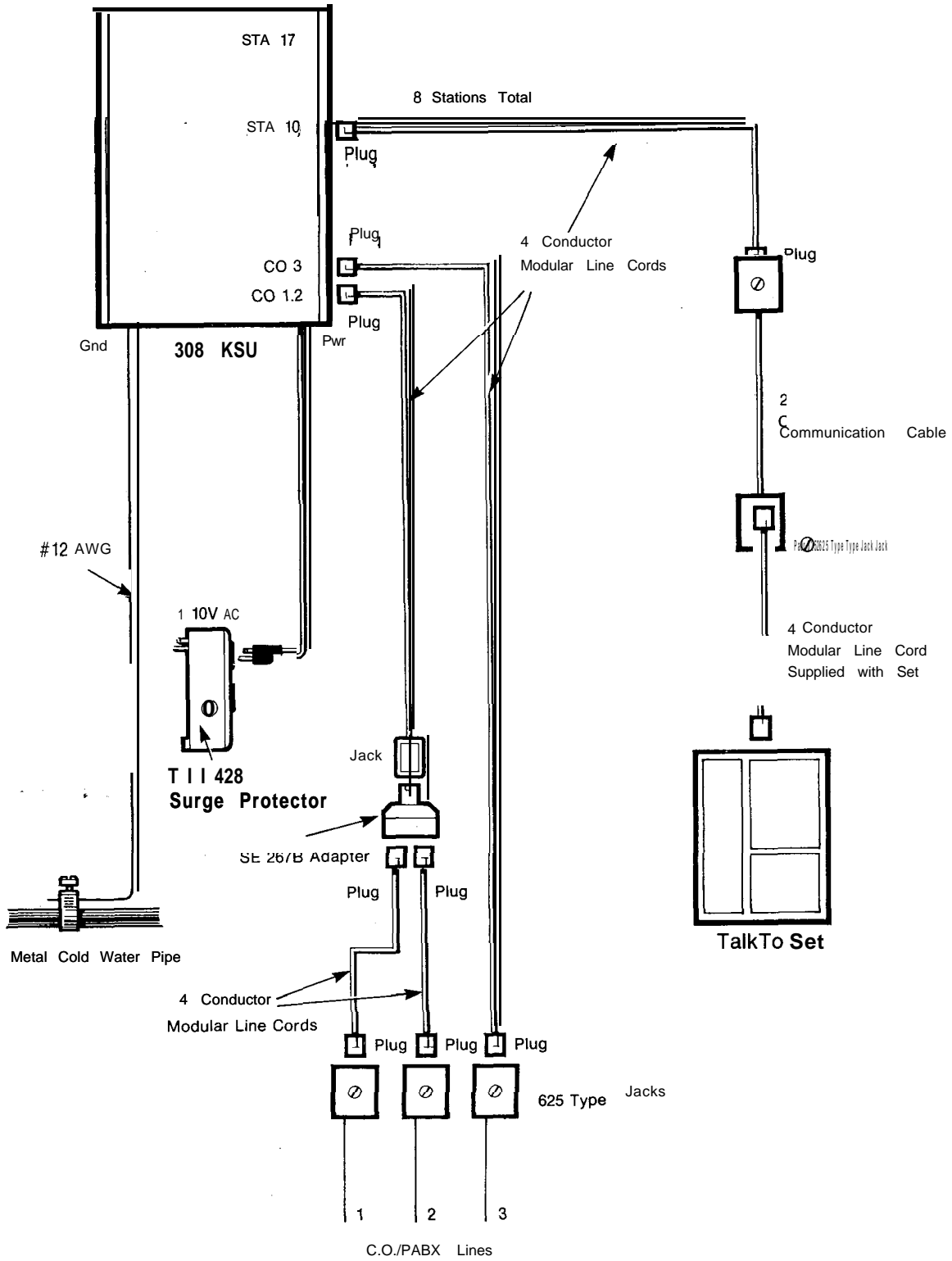
VT: Voice Tip    VR: Voice Ring    DT: Data Tip    DR: Data Ring



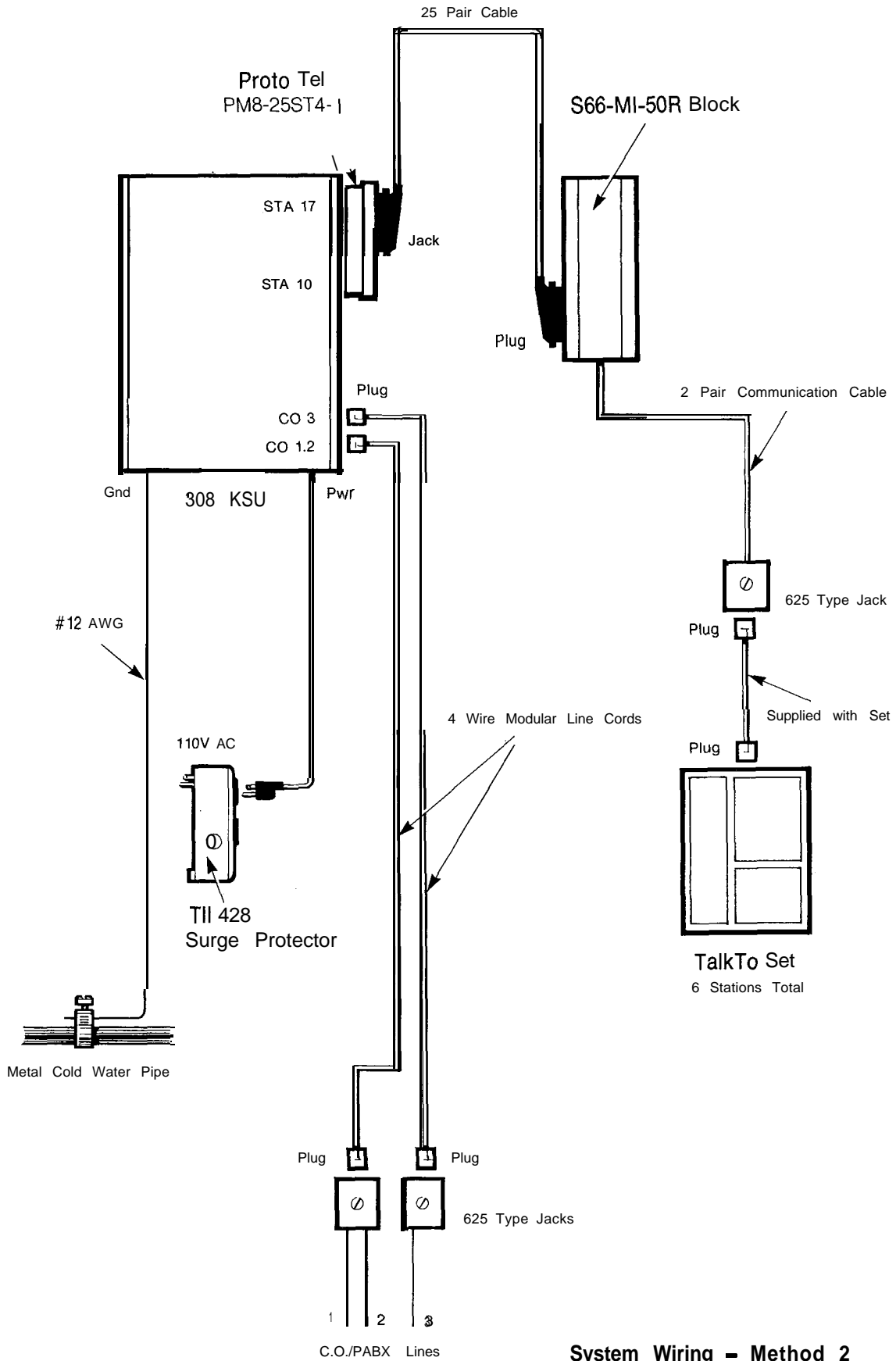
Typical 625 type jack showing wiring connections.



# INSTALLATION



System Wiring - Method 1



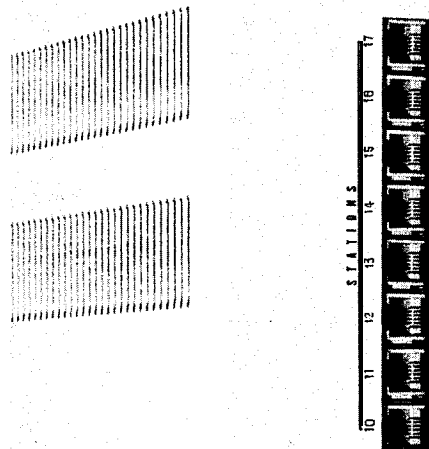
System Wiring - Method 2

**Central Office/PABX Line Connection**

These lines are normally terminated by RJ11C type jacks. When requesting service from the telephone company, please request that the first two lines are terminated with an RJ14C type jack. Alternatively, if the lines are already installed using RJ11C type jacks, an adapter such as an **SE 2678** (Suttle Apparatus Corp.) will be required.

Where the connection is made directly from the CO. line 625 type jack to the KSU, use a four conductor modular line cord.

Where the connection is made using the splitter adapter (SE 267B), the connections from the 625 type CO. line jacks to the adapter are made using modular line cords. The connection from the adapter to the KSU is made using a modular telephone extension cord (female to male).

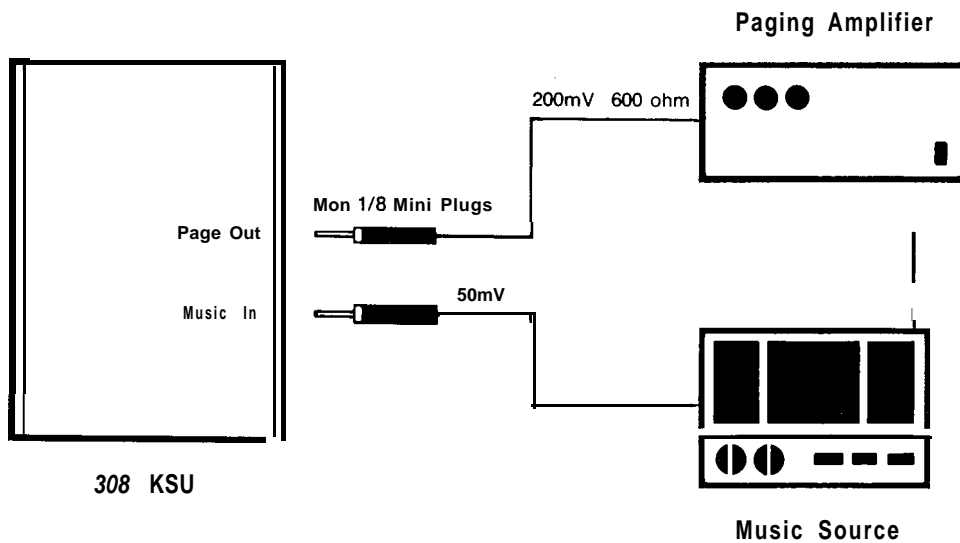


**Music Input**

The *TalkTo* 308 System provides both music on hold (MOH) and background music if an external music source is provided. This music source is connected via the Music **In** jack on the KSU with a 1/8 inch miniature plug. The KSU requires a music signal not exceeding 50mV rms.

**Paging Output**

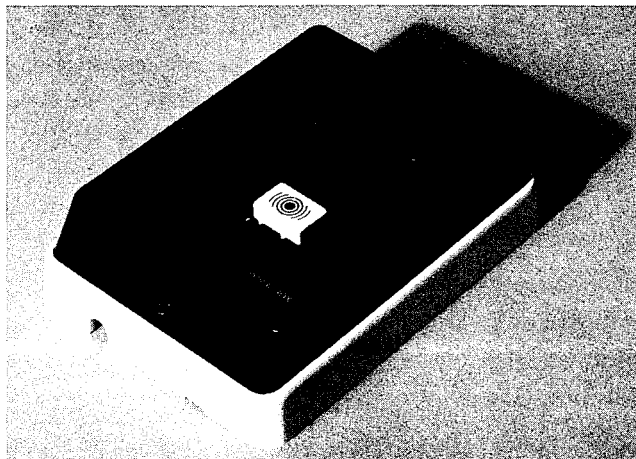
The *TalkTo* 308 System provides external loudspeaker paging by the stations through the **Page Out** jack. The voice output from the KSU to the customer provided external amplifier is connected with a 1/8 inch miniature plug. The output is 200mV rms at 600 ohm impedance.



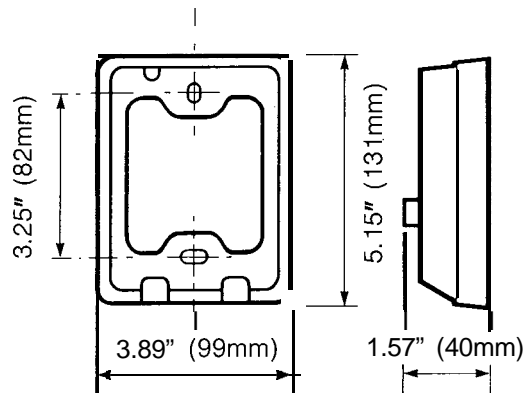
**Music and Paging Connections**

**Door Answer Option**

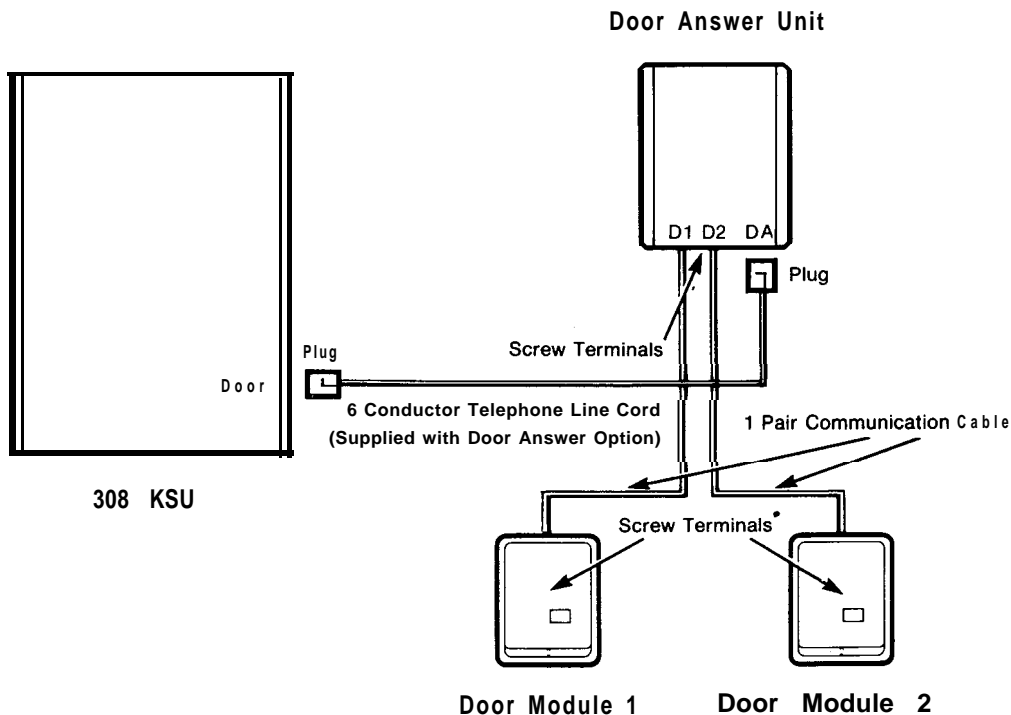
The *TalkTo* 308 System will provide door signaling and 2 way conversation with up to 2 doors. To provide this option, one door answer unit and a maximum of 2 door modules are required.



The Door Answer Module is moulded in plastic, measures 4 inches x 5 inches, and is fitted at the door requiring intercom service.

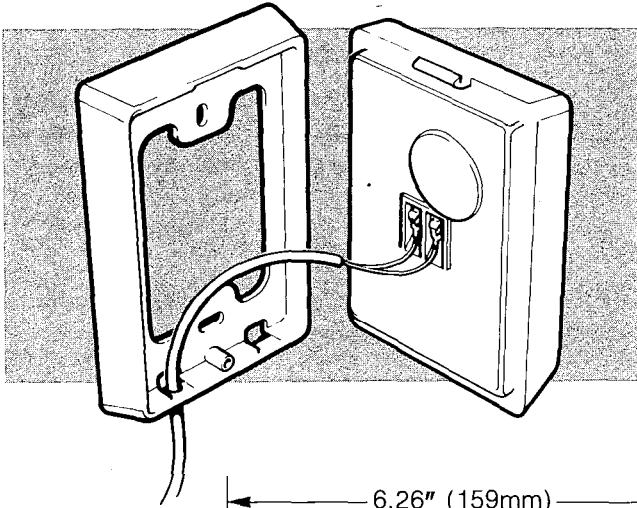


Mount each of the door modules adjacent to the door to be equipped with intercom service. The door module consists of 2 pieces, the base and the electronics unit. To separate the base from the electronics unit, remove one screw at the bottom front face. Mount the base on the wall or on an electrical outlet box using the screws provided.



**Door Answer Option Connections**

# INSTALLATION

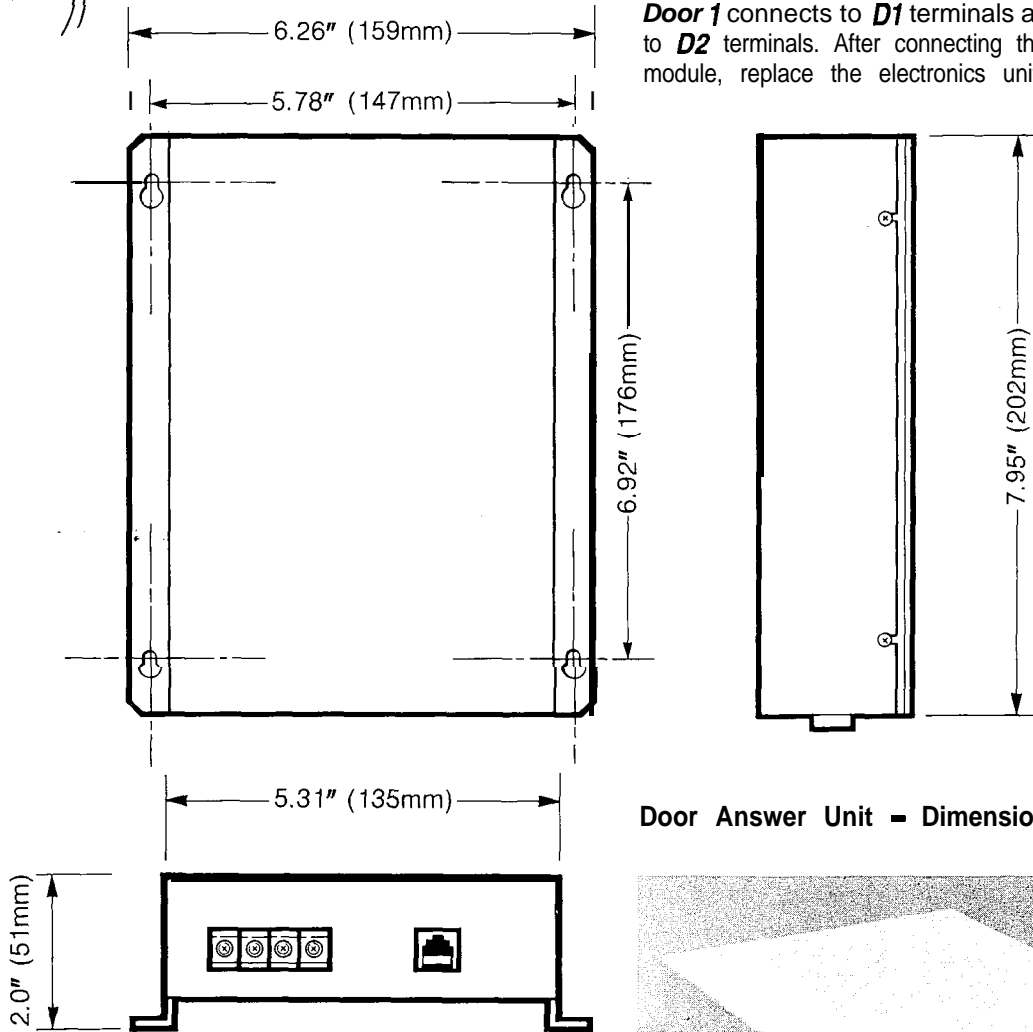


◀ The Door Answer Module with front cover Detached showing the two screw terminals.

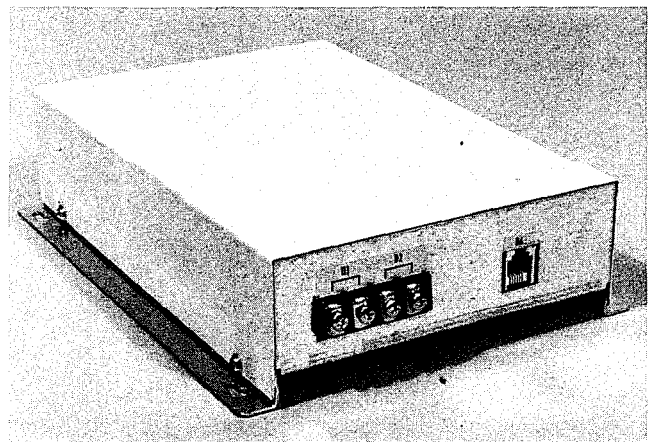
## Door Answer Unit

The Door Answer Unit (DAU) is mounted on the backboard with the screws supplied. The Door Answer Unit is connected with a modular 6 conductor cord supplied with the Unit. At the KSU plug the 6 conductor cord into the jack labeled **Door**. At the Door Answer Unit, plug the cord into the jack labeled **DA**.

Run 2 conductor cable from the Door Answer Unit to each of the door modules. Connect the wires under the screw terminals at each end. At the Door Answer Unit, **Door 1** connects to **D1** terminals and **Door 2** connects to **D2** terminals. After connecting the 2 wires at the door module, replace the electronics unit in the base.



Door Answer Unit - Dimensions



**Caution:** If the Door Answer Unit is connected it replaces the third C. O./PABX line; therefore with the door option installed the system will only accommodate 2 C.O./PABX lines. Do not use jack C.0.3.

**Power Failure Transfer Option**

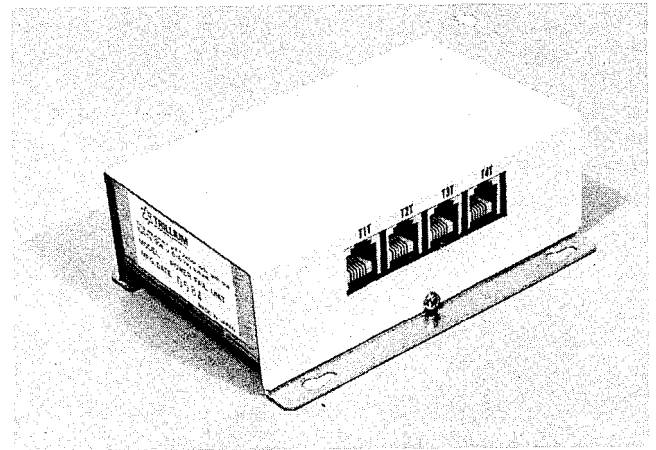
To provide Telephone service in the event of a commercial power outage, a Power Failure Transfer Unit (PFT) must be installed. The PFT will allow all 3 of the *TalkTo* 308 system's C.O./PABX lines to be transferred to 3 individual industry standard 2 wire telephones when the commercial power fails.

Mount the PFT unit on the backboard near the KSU. Install the 2 conductor special cable supplied with the unit. At the KSU, plug one end into the jack marked **PFUC**. At the PFT unit, plug the other end into the jack marked **CNJ**.

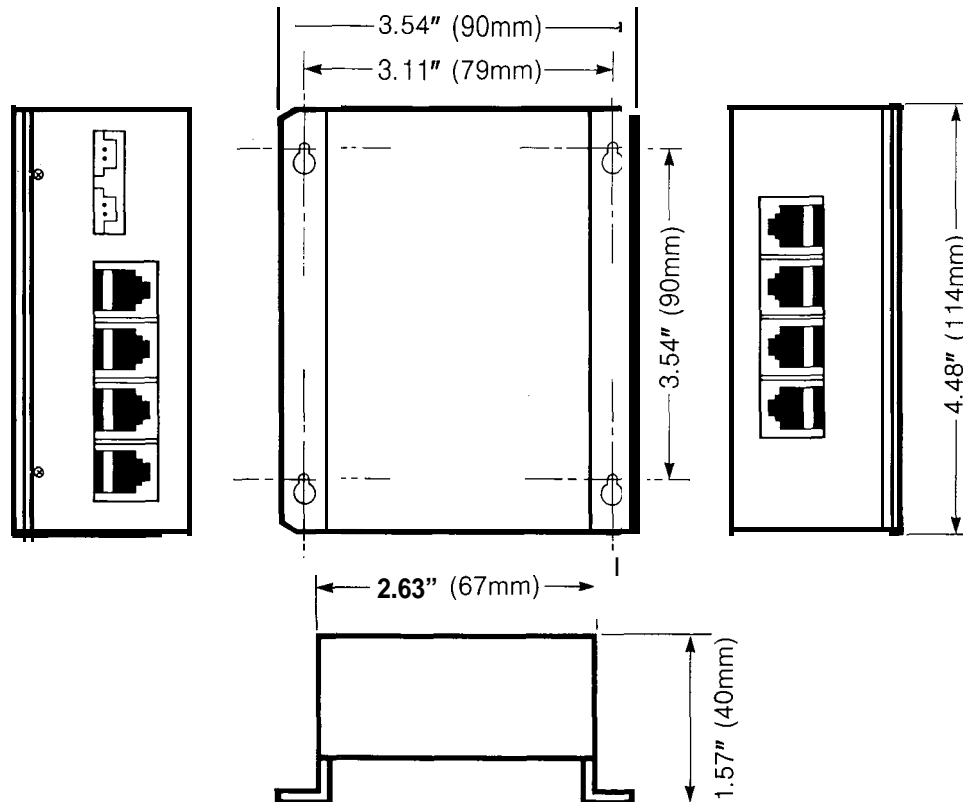
Using 4 conductor modular line cords, connect the C.O./PABX lines to the jacks marked CO 1.2, CO 3.4 on the PFT unit. Connect the PFT line outputs to the KSU using two 4 conductor modular line cords. **TK 1.2** on PFT to CO 7.2 on KSU and **TK 3.4** on PFT to CO 3 on KSU.

Mount up to 3 industry standard 2 wire telephone sets in convenient locations and connect each of them to the jacks marked **T1T** through **T3T** on the PFT unit.

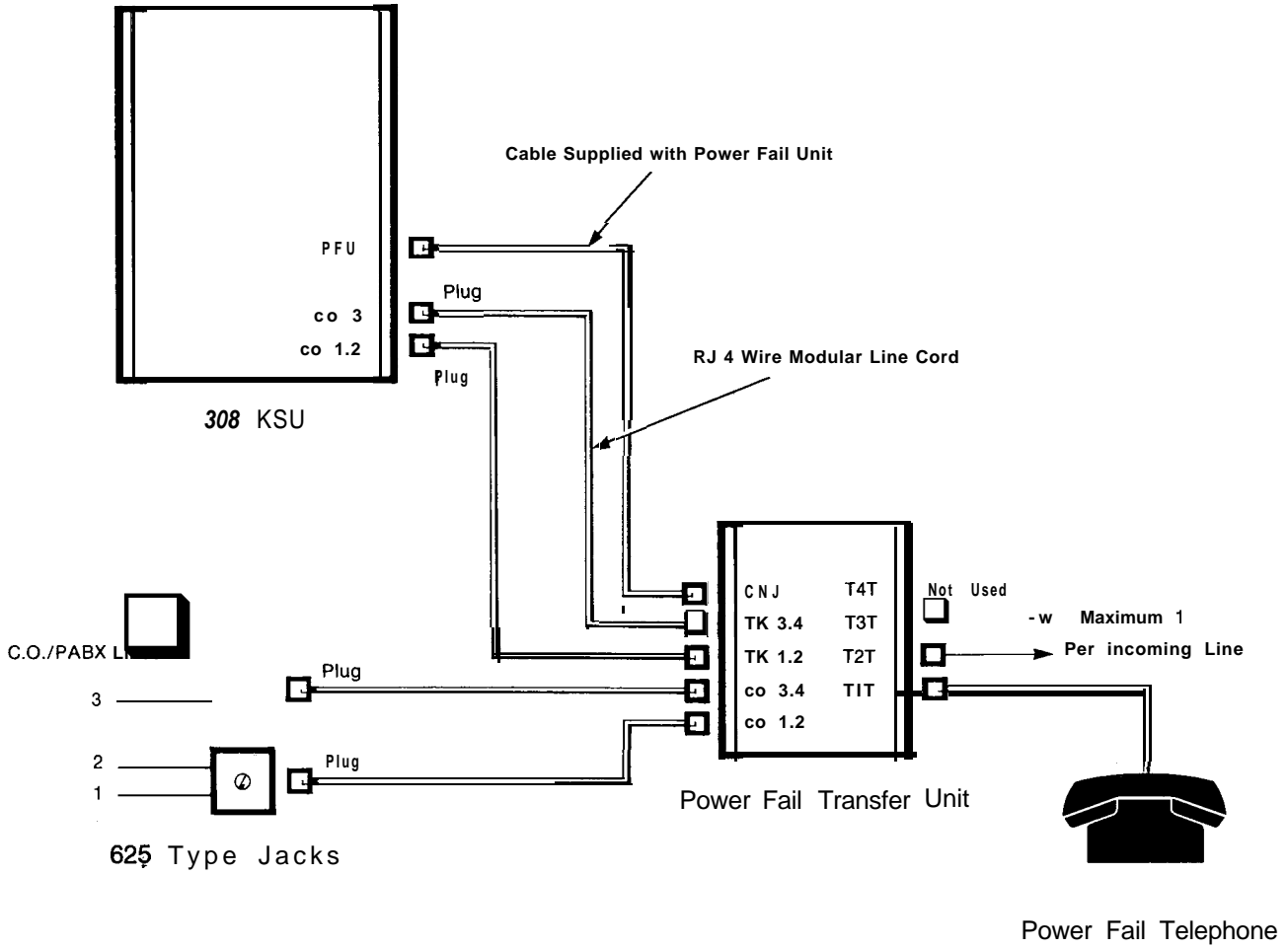
The system is now ready for programming.



*The Power Fail Transfer Unit should be wall mounted adjacent to the KSU.*



**Power Fail Transfer Unit – Dimensions**



Power Fail Transfer Option Connections

**System Programming**

Before programming the system, check that the customer has completed a Features **Selection** form. A copy of the form and instructions for feature selection is included in this section.

It is recommended that the system is programmed immediately following installation. Programming makes use of station 10 dial pad, keys and indicator lamps when entering selected feature parameters.

**System Requirements for Programming**

For the system to be programmed to meet your requirements, it is necessary to decide what features are needed, and what parameters are required for those features selected. The following notes are intended to aid you in choosing the correct features and parameters. For reference purposes, please complete the accompanying programming form.

**(1) Hold Recall Time:** Determines the time period between putting a caller on hold and receiving a tone reminder that the caller is still on hold. Periods are 1 minute, 2 minutes, 3 minutes or no hold recall.

**(2) Tone Duration:** This sets the time duration for each dialed DTMF tone. Can be 55ms or 75ms.

**(3) Flash/Cancel:** Which function is the flash/cancel key to have? There are four calibrated periods — 250ms, 500ms, 1 sec., or 3 secs. to choose from.

**(4) Pause on Number:** Allows an automatic pause to be inserted into speed called numbers. Used when the system is behind a PABX, and it is necessary to wait a short period of time for C.O. dial tone to be returned, Pause can be inserted after the digit 7, 8, 9 or 0.

**(5) C.O./PABX Line:** Used to tell the system whether the lines are CO. or PABX types.

**(6) Incoming Call Only By Line:** Allows individual C.O./PABX lines to be restricted to incoming calls only. Restriction is system wide.

**(7) Outgoing Call Restriction By Station:** Allows individual stations to be restricted for toll and outgoing calls. There are three classes of service: A, B or C.

- **Class A:** No restriction.
- **Class B — C.O. Line:** Dialing 0 + a number, 1 + a number or dialing more than 8 digits, is restricted.
- **Class B — PABX Line:** Dialing C.O. line access code + 0 + a number, CO. line access code + 1 + a number, or CO. line access code + more than 8 digits, is restricted.
- **Class C:** Calling is restricted to other stations connected to the system. No outside access at all.

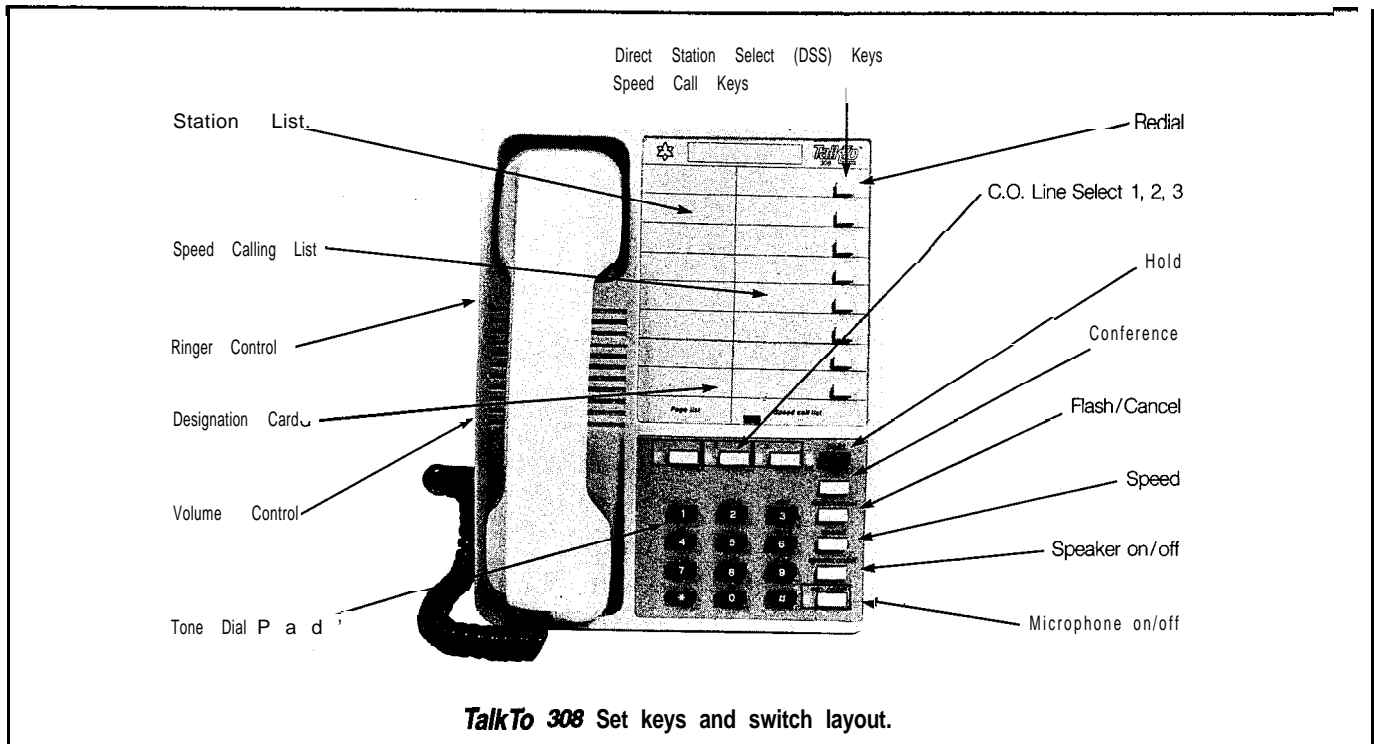
If class B is selected private speed call numbers are restricted, common speed call numbers are not.

**(8) Night Transfer:** Allows ringing to be assigned to selected stations when the system is put into a night transfer mode. At least one station must be selected, if night transfer is to be used.

**(9) Private Line:** Allows line 1 to be assigned to a designated station as a private line. Other stations do not have access to the assigned C.O./PABX line.

**(10) Flexible Ringing Assignment:** Allows ringing to be assigned by C.O. line at selected stations. Note that if CO. line 1 is assigned as a private line to a designated station, ringing will be heard, at that station irrespective of whether ringing is assigned or not.

**(11) Door Answering:** If the door option is equipped, CO. line 3 is always associated with door answering, and cannot be used as a C.O./PABX line.



**TalkTo 308 Set keys and switch layout.**



**Customer Feature Selection**

<b>Hold Recall (1)*</b>	*Select ONE item per Line 1 min <input checked="" type="checkbox"/> 2 min <input type="checkbox"/> 3 min <input type="checkbox"/> No Recall CI										
<b>Tone Duration (2)*</b>	55ms <input type="checkbox"/> 75ms <input type="checkbox"/>										
<b>Flash/Cancel (3) *</b>	Flash <input type="checkbox"/> Cancel <input checked="" type="checkbox"/>	250 ms <input type="checkbox"/> 500ms <input type="checkbox"/> 1 sec <input type="checkbox"/> 3 sec <input type="checkbox"/> 500ms is recommended for calibrated flash									
<b>Pause on Number (4)</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>7 0 8 0 9 0 0 0</b>									
<b>C.O./PABX LINE (5)</b>	C.O. <input checked="" type="checkbox"/> PABX <input type="checkbox"/>	1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 1 0 2 0 3 0									
<b>Incoming Call Only By Line (6)</b>											
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Line 1 <input type="checkbox"/> Line 2 <input type="checkbox"/> Line 3 CI									
<b>Outgoing Call Restriction By Station (7)</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Stn/Class <table border="1"> <tr> <td>1 0</td> <td>1 1</td> <td>1 2</td> <td>1 3</td> </tr> <tr> <td>1 4</td> <td>1 5</td> <td>1 6</td> <td>1 7</td> </tr> </table>	1 0	1 1	1 2	1 3	1 4	1 5	1 6	1 7	
1 0	1 1	1 2	1 3								
1 4	1 5	1 6	1 7								
<b>Night Transfer (8)</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Stn # <table border="1"> <tr> <td>□</td> <td>□</td> <td>□</td> <td>□</td> </tr> <tr> <td>□</td> <td colspan="3">mmmm</td> </tr> </table>	□	□	□	□	□	mmmm			
□	□	□	□								
□	mmmm										
<b>Private Lines (9)</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Stn/Line <table border="1"> <tr> <td>□</td> <td>□</td> <td>□</td> </tr> </table>	□	□	□						
□	□	□									
<b>Flexible Ringing (10)</b>	Yes <input type="checkbox"/>	Stn/Line <table border="1"> <tr> <td>1 0</td> <td>1 1</td> <td>1 2</td> </tr> <tr> <td>1 3</td> <td>1 4</td> <td>1 5</td> </tr> <tr> <td>1 6</td> <td>1 7</td> <td></td> </tr> </table>	1 0	1 1	1 2	1 3	1 4	1 5	1 6	1 7	
1 0	1 1	1 2									
1 3	1 4	1 5									
1 6	1 7										



Should you require service, please **call** the following number:

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## Preparation

Before attempting to program the system, check

- Station 10 is connected.
- The switches, **Program 1** and **2**, are set of **Off**.
- The KSU is connected to a 110V ac power supply.
- The **status indicator** on the KSU is **flashing**.
- The switch, **Battery**, is set to **On**.
- A Features Selection form, completed by the customer, is available.

**Note:** Default data is automatically loaded as feature programming if the switches, **Program 1** and **Program 2**, are set to **On**, and the **Reset** button is pressed. The default states are shown in the Feature Programming Tables.

## Programming Mode

**Caution:** *If the system is a/ready in use and is to be reprogrammed, the following operations should be carried out at a low traffic period. The system cannot be used during programming.*

## Initial Programming

To put the system into programming mode; at the KSU:

- Ensure that the switch, **Battery**, is set to **On**.
- Set the switches, **Program 1** and **Program 2** to **On**.

- Press the **Reset** key.
- Status Indicator lamp stops flashing.
- Set the switch, **Program 1** to **Off**.
- Press the Reset key.
- Press \* key on station 10.
- **int.** indicator comes on.
- System now ready to be programmed.

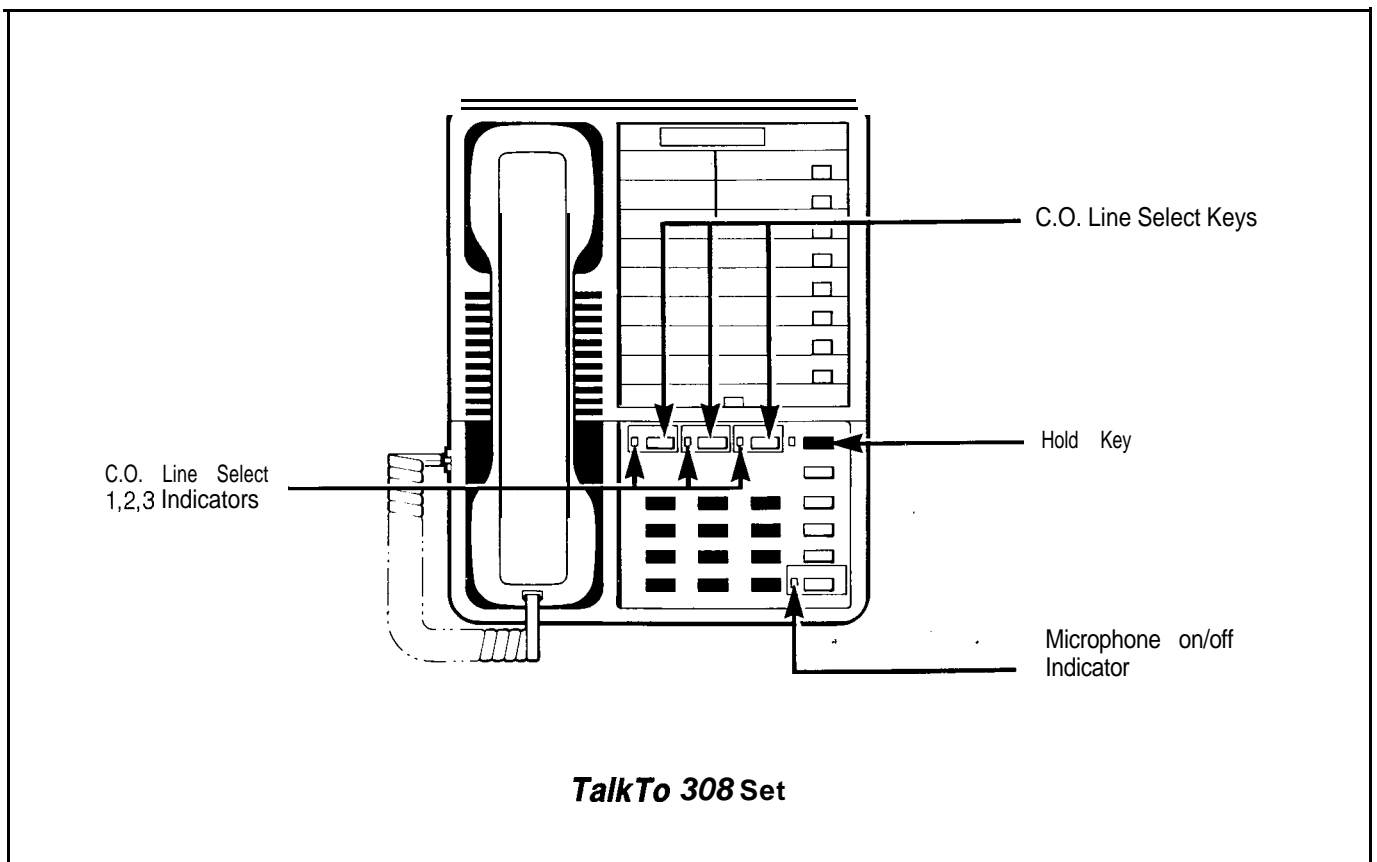
## Reprogramming

To put the system into a reprogramming mode; at the KSU:

- Ensure that the switch, **Battery**, is set to **On**.
- Set the switch, **Program 2**, to **On**
- Press the **Reset** key.
- Status indicator lamps stop flashing.
- Press \* key on station 10.
- **int.** indicator comes on.
- System now ready to be reprogrammed.

## Feature Programming

Feature programming is entered using station 10. Each feature is accessed using a 3-digit code entered from the dial pad. The status of the feature is then displayed on the **C.O. Line 1, 2, 3**, and **mic. on/off** indicator lamps. The status can be changed by pressing the key associated with appropriate indicator lamp. In the case of the **mic. on/off** indicator, the key used is **hold**. Each access key functions as a press on/off switch; press once, the lamp turns on, press again, the lamp turns off



## INDIVIDUAL FEATURE PROGRAMMING

Features need not necessarily be programmed in a specific order. Each is accessed simply by entering the specific 3-digit access code. The following charts show the Feature, the Access Code the Access Keys and their functions.

### Hold Recall – Pulse Duration

#### – Flash/Cancel

Access Code 010

Default is — No recall

— 75ms

— Flash

Feature Data	C.O. 1	C.O. 2	C.O. 3	hold mic. on/off
No Recall	off	off		
1 Minute	on	off		
2 Minutes	off	on		
3 Minutes	on	on		
55ms Tones			on	
75ms Tones (Recommended)			off	
Flash				off
Cancel				on
Examples				
1 minute Recall	on	off	on	off
55ms Tones				
Flash				
1 minute Recall	on	off	off	on
75ms Tones				
Cancel				

### C. O./PA BX Line

Access Code 060

Default is — CO.

Feature Data	C.O. 1	C.O. 2	C.O. 3	hold mic. on/off
C.O. Line 1 PABX Line 1	off on			
C.O. Line 2 PABX Line 2		off on		Not applicable
C.O. Line 3 PABX Line 3			off on	
Examples				
Line 1 • C.O.				
Line 2 • PABX	off	on	on	
Line 3 • PABX				
Line 1 • C.O.	off	off	on	Not applicable
Line 2 • C.O.				
Line 3 • PABX				

### Calibrated Flash/Cancel

Access Code 030

Default is — 250ms

Feature Data	C.O. 1	C.O. 2	C.O. 3	hold mic. on/off
250ms	Not applicable	Not applicable	off	off
500ms			on	off
1 second			off	on
3 seconds			on	on

Note: 500ms is recommended for calibrated flash.

### Pause on Number

Access Code 040

Default is — no pause

Feature Data	C.O. 1	C.O. 2	C.O. 3	hold mic. on/off
7	on	off	off	off
8	off	on	off	off
9	off	off	on	off
0	off	off	off	on
No pause	off	off	off	off
Examples				
Pause on 7,				
8, only	on	on	off	off
Pause on				
9 only	off	off	on	off

### Incoming Call Only – By Line

Access Code 070

Default is — No Restriction

Feature Data	C.O. 1	C.O. 2	C.O. 3	hold mic. on/off
Line 1 Unrestricted	off			
Line 1 Restricted	on			
Line 2 Unrestricted		off		Not applicable
Line 2 Restricted		on		applicable
Line 3 Unrestricted			off	
Line 3 Restricted			on	
Examples				
Line 1 Unrestricted				Not applicable
Line 2 Restricted				applicable
Line 3 Unrestricted	off	on	off	

**Outgoing Call Restriction, Night Transfer and Private Lines — By Station**

**Access Code 1XX**

(where XX is station number 10-17)

Default is No Restriction, No Ringing, No Private Line

Feature Data	C.O. 1	C.O. 2	C.O. 3	hold mic. on/off
C.O./PABX Line Restrictions				
Class A No Restriction	off	off		
Class B Dialing 0 + number Dialing 1 + number Dialing more than 8 digits	on	off		
Class C Dialing an outside line	off	on		
Night Transfer No ringing Ringing			off on	
Private Line (only applies to Line 1) C.O. Line 1 No C.O. Line 1 Yes-				off on
Examples Station 13 Class B Restrictions, Night Transfer Ringing C.O. 1 Private Line Access Code 113	on	off	on	on

**Notes:**

Class B Restrictions — If the line is a PABX line, the CO. line access code is included in the restriction.

Class C Restrictions — If the line is a PABX line dialing the C.O. line access code only, is restricted.

**Flexible Ringing - By Station and C.O. Line**

**Access Code 2XX**

(where XX is station number 10-17)

Default is — No Ring

Feature Data	C.O. 1	C.O. 2	C.O. 3	hold mic. on/off
C.O. 1 No ringing C.O. 2 No ringing C.O. 3 No ringing	off			Not applicable
C.O. 1 ringing C.O. 2 ringing C.O. 3 ringing	on	on	on	
Examples Station 10 rings for C.O. 1 and 2, but not C.O. 3 Access Code 210 Station 17 rings for C.O. 3 only Access Code 217	on  off	on  off	off  on	Not applicable

**Operating Mode**

Once programming has been satisfactorily completed, the system should be switched to its operating mode as follows.

At the set

- Press # key.
- All indicator lamps at station 10 turned off.

At the KSU

- Set the switch, **Program 2**, to **Off**.
- Press Reset key.
- Indicator lamp at KSU starts to flash

The system is now ready for use.

**Speed Calling — ~~Common Numbers~~, Programming**

A maximum of forty numbers can be programmed. Numbers are stored against two digit access codes in the range 20 to 59 inclusive. These numbers must be programmed from station 10.

Before programming check that the **int.** indicator is off.

- Press the **speed** key.
- **int.** indicator winks slowly (My-Line).
- Internal dial tone is heard at the Set's speaker.
- Dial the two digit access code (20 to 59).
- **int.** indicator flashes very quickly, and dial tone is turned off.
- Dial the speed call number to be programmed (Maximum number of digits is 16).

**INDIVIDUAL FEATURE PROGRAMMING**

- For each subsequent number to be programmed, press the **speed** key, dial the two digit access code, followed by the speed call number to be programmed.

At the completion of programming:

- Press the **speaker on/off** key.
- **int.** indicator stops flashing.

New numbers can be entered at anytime. Simply press the **speed** key, dial the two digit access code, enter the speed call number, and then press the **speaker on/off** key.

Speed call numbers can be access codes for PABX, Centrex, and C.O. Calling Features. Numbers greater than 16 digits can be linked together by programming two access codes.

**Common Speed Calling List**

Access	Telephone Number	Name/Company
20		
21		
22		
23		
24		
25		
26		
27		
28		
<b>29</b>		
30		
31		
32		
33		
<b>34</b>		
35		
36		
<b>37</b>		
<b>38</b>		
<b>39</b>		
<b>40</b>		
<b>41</b>		
<b>42</b>		
<b>43</b>		
44		
4 5		
46		
47		
48		
<b>49</b>		
50		
51		
52		
53		
54		
<b>55</b>		
56		
57		
58		
59		

### Troubleshooting

The purpose of this section is to assist maintenance personnel in locating and clearing faults in the *TalkTo 308* System.

The system is composed of the following major components:

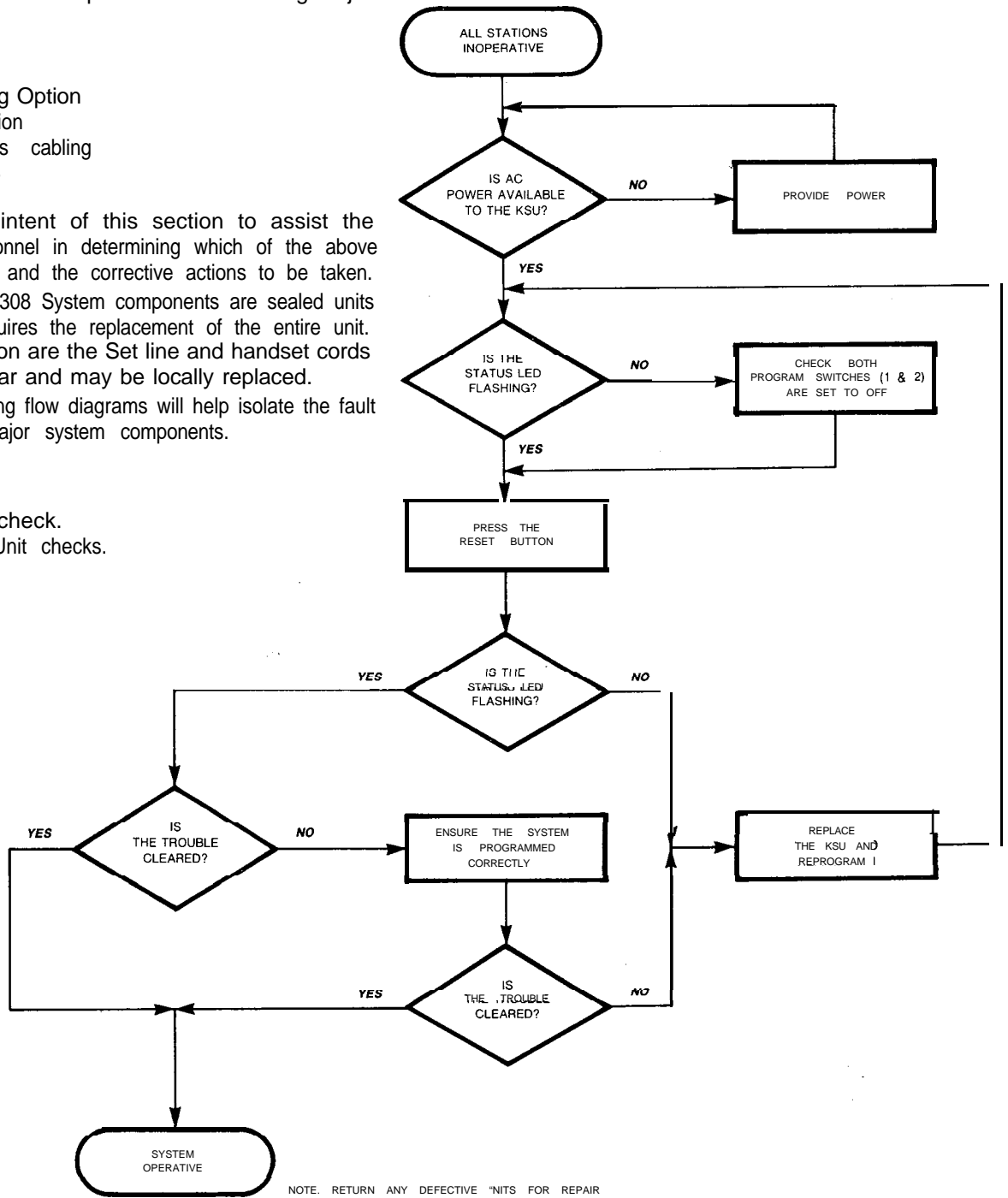
- KSU
- *TalkTo 308* Sets
- Door Answering Option
- Power Fail Option
- Communications cabling
- C.O./PABX lines

It is the intent of this section to assist the maintenance personnel in determining which of the above items are at fault and the corrective actions to be taken.

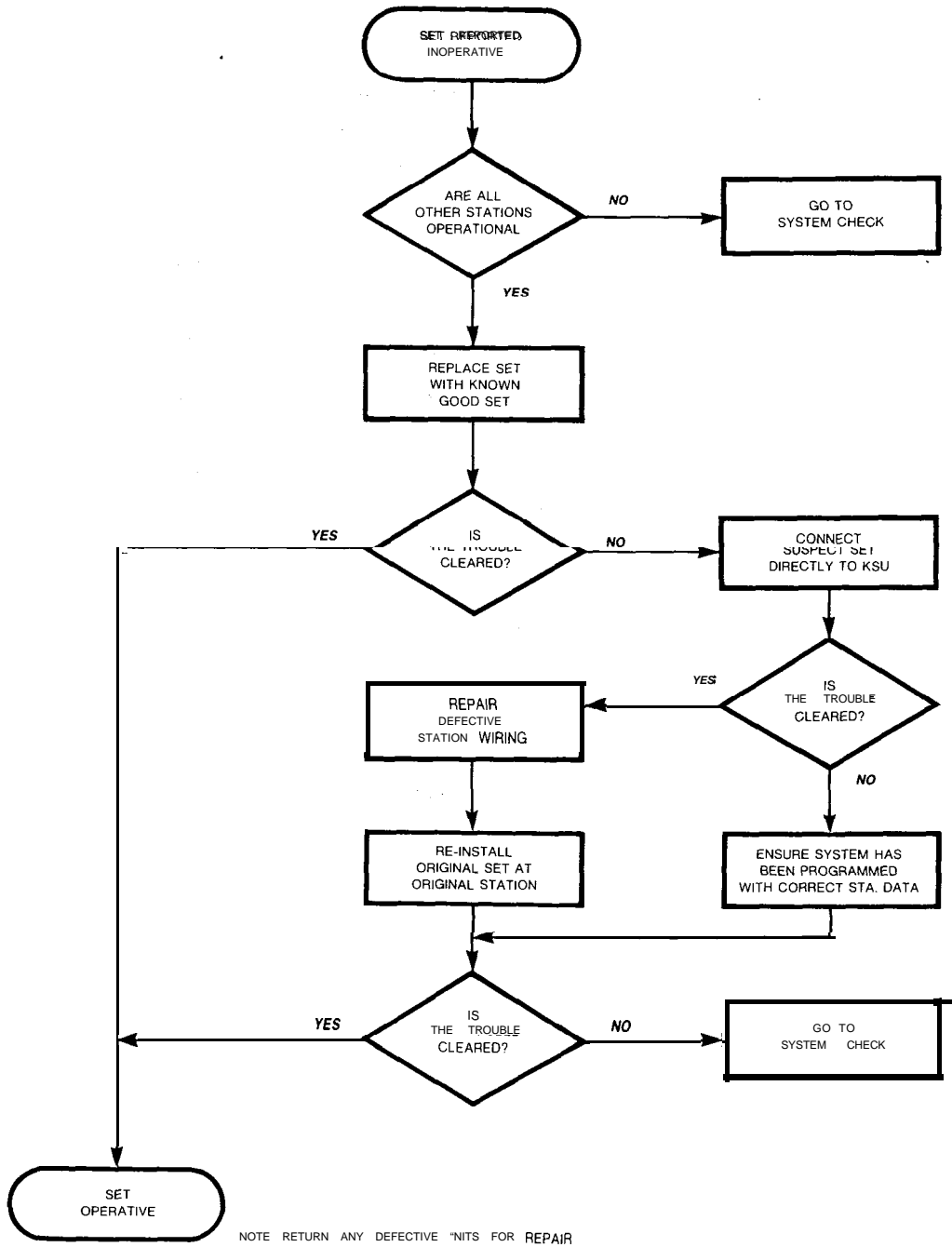
All *TalkTo 308* System components are sealed units and any fault requires the replacement of the entire unit. The only exception are the Set line and handset cords which are modular and may be locally replaced.

The following flow diagrams will help isolate the fault to one of the major system components.

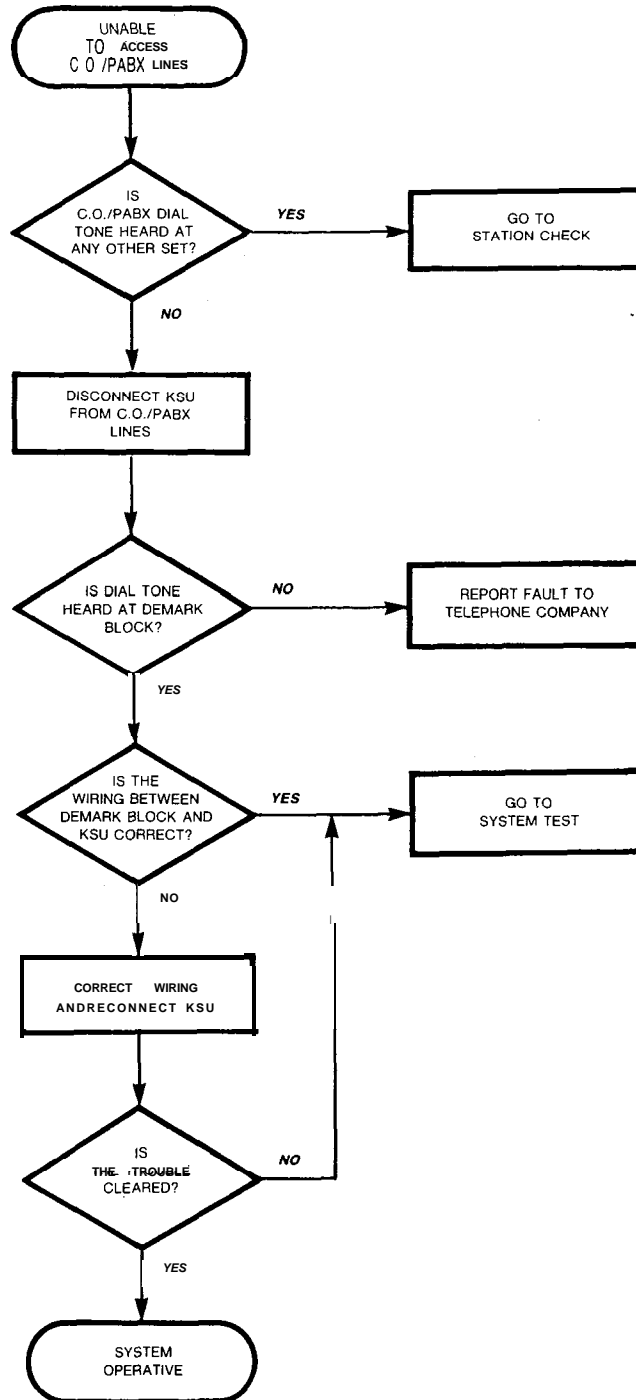
- System check.
- Station check.
- C.O./PABX line check.
- Door Answer Unit checks.



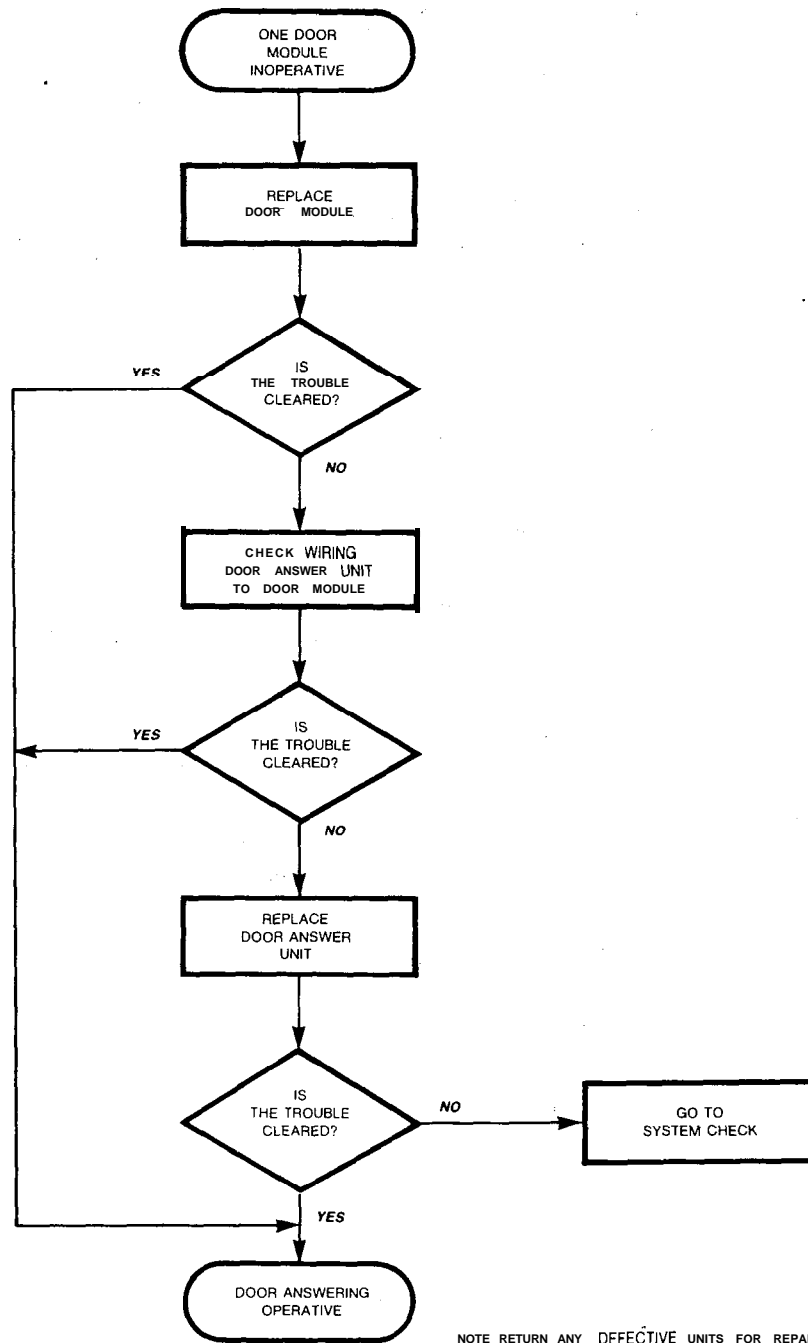
### System Check



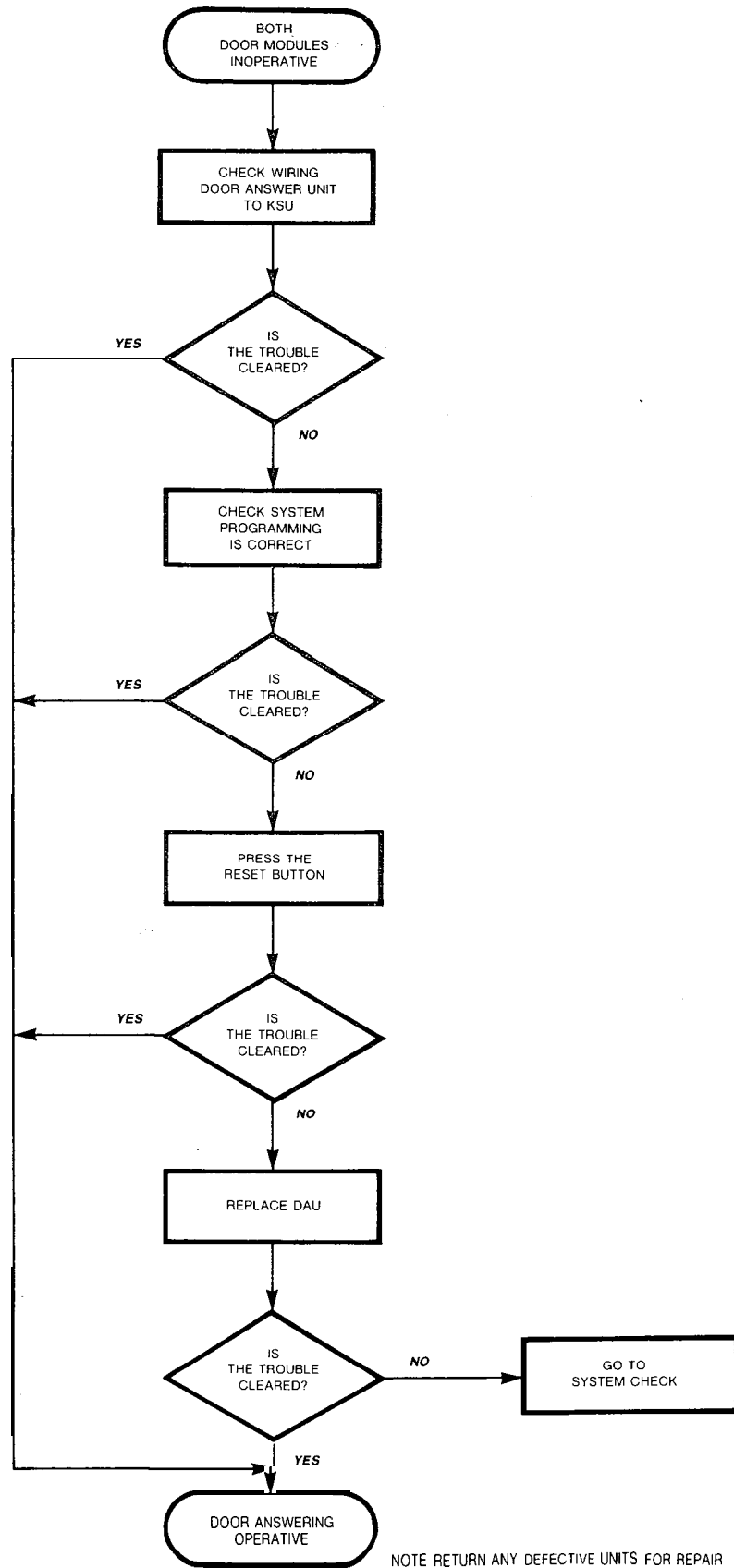
Station Check

**C.O./PABX Line Access Check**





Door Answering - One Door Module



Door Answering - Two Door Modules

**Notes**

**System Requirements for Programming**

For the system to be programmed to meet your requirements, it is necessary to decide what features are needed, and what parameters are required for those features selected. The following notes are intended to aid you in choosing the correct features and parameters, For reference purposes, please complete the accompanying programming form.

**(1) Hold Recall Time:** Determines the time period between putting a caller on hold and receiving a tone reminder that the caller is still on hold. Periods are 1 minute, 2 minutes, 3 minutes or no hold recall.

**(2) Tone Duration:** This sets the time duration for each dialed DTMF tone. Can be 55ms or 75ms.

**(3) Flash/Cancel:** Which function is the flash/cancel key to have? There are four calibrated periods — 250ms, 500ms, 1 sec., or 3 secs. to choose from.

**(4) Pause on Number:** Allows an automatic pause to be inserted into speed called numbers. Used when the system is behind a PABX, and it is necessary to wait a short period of time for C.O. dial tone to be returned, Pause can be inserted after the digit 7, 8, 9 or 0.

**(5) C.O./PABX Line:** Used to tell the system whether the lines are CO. or PABX types.

**(6) Incoming Call Only By Line:** Allows individual C.O./PABX lines to be restricted to incoming calls only. Restriction is system wide.

**(7) Outgoing Call Restriction By Station:** Allows individual stations to be restricted for toll and outgoing calls. There are three classes of service: A, B or C.

- **Class A:** No restriction.
- **Class B — C.O. Line:** Dialing 0 + a number, 1 + a number or dialing more than 8 digits, is restricted.
- **Class B — PABX Line:** Dialing C.O. line access code + 0 + a number, C.O. line access code + 1 + a number, or CO. line access code + more than 8 digits, is restricted.
- **Class C:** Calling is restricted to other stations connected to the system. No outside access at all.

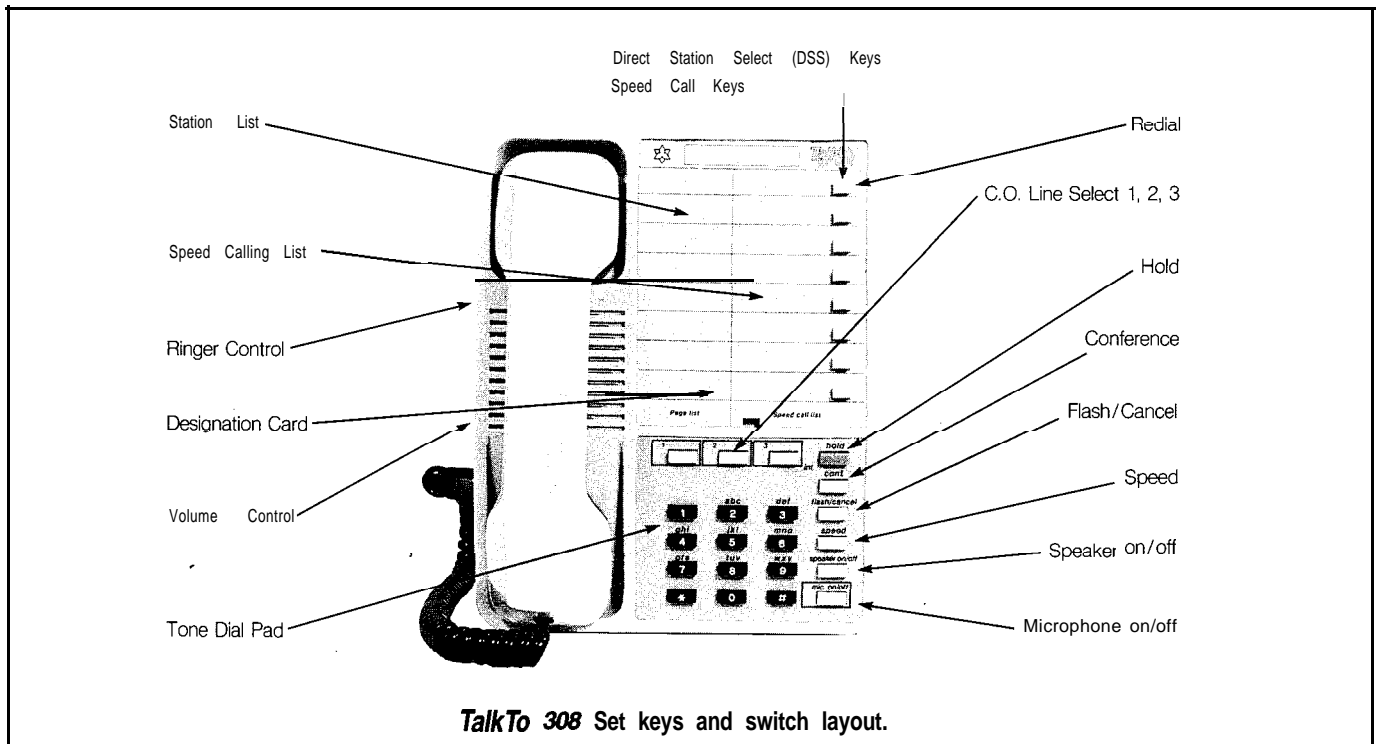
If class B is selected private speed call numbers are restricted, common speed call numbers are not.

**(8) Night Transfer:** Allows ringing to be assigned to selected stations when the system is put into a night transfer mode. At least one station must be selected, if night transfer is to be used.

**(9) Private Line:** Allows line 1 to be assigned to a designated station as a private line. Other stations do not have access to the assigned C.O./PABX line.

**(10) Flexible Ringing Assignment:** Allows ringing to be assigned by CO. line at selected stations. Note that if CO. line 1 is assigned as a private line to a designated station, ringing will be heard, at that station irrespective of whether ringing is assigned or not.

**(11) Door Answering:** If the door option is equipped, C.O. line 3 is always associated with door answering, and cannot be used as a C.O./PABX line.



**Customer Feature Selection**

<b>Hold Recall (1)*</b>	'Select one item per Line 1 min <input type="checkbox"/> 2 min <input type="checkbox"/> 3 min <input type="checkbox"/> No Recall <input type="checkbox"/>										
<b>Tone Duration (2)*</b>	55ms <input type="checkbox"/> 75ms <input type="checkbox"/>										
<b>Flash/Cancel (3) *</b>	Flash <input type="checkbox"/> Cancel <input type="checkbox"/>	250 ms <input type="checkbox"/> 500ms <input type="checkbox"/> 1 sec <input type="checkbox"/> 3 sec Cl 500ms is recommended for calibrated flash									
<b>Pause on Number (4)</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>	7 0 8 0 9 0 0 0									
<b>C.O./PABX LINE (5)</b>	C.O. <input type="checkbox"/> PABX <input type="checkbox"/>	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>									
<b>Incoming Call Only By Line (6)</b>											
	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Line 1 <input type="checkbox"/> Line 2 <input type="checkbox"/> Line 3 <input type="checkbox"/>									
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1 0	1 1	1 2									
1 3	1 4	1 5									
1 6	1 7										



Should you require service, please **call** the following number:

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