

AIPHONE[®]

INSTALLATION MANUAL-Y24/B

YKX INTERCOM SYSTEM

For systems with up to 24 stations

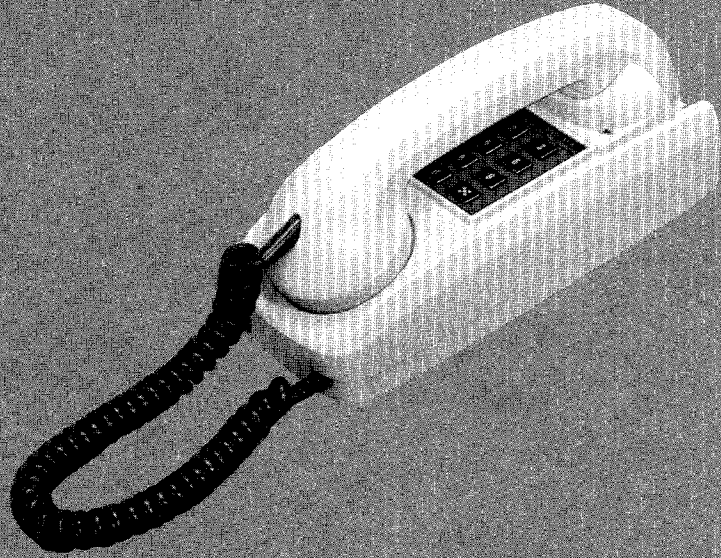
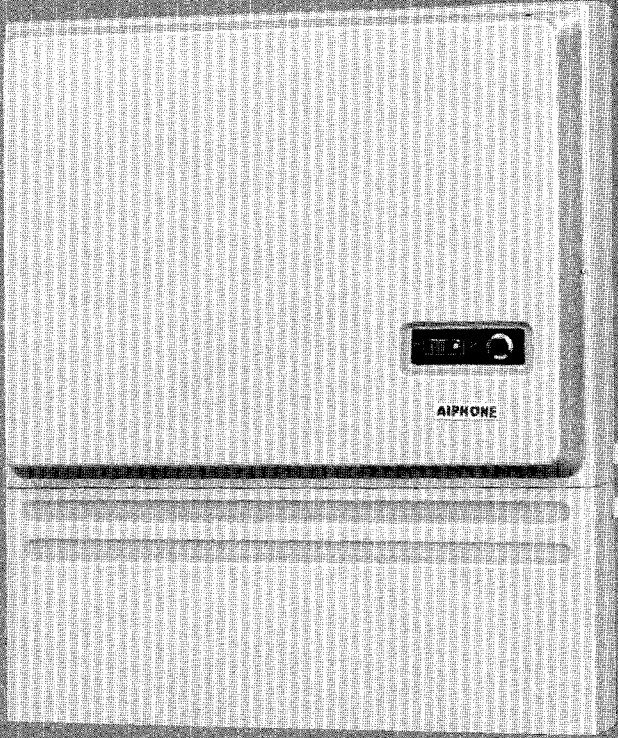


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I. Introduction

This manual presents information for installing the Aiphone YKX intercom system.
(The Central Exchange Unit is Type B version).

Included in this manual is information regarding;

- system features
- system design
- equipment requirements
- installation procedures
- specifications
- system testing

A careful study of this manual prior to YKX system installation is strongly recommended. A thorough reading and understanding can save time and money.

II. YKX System Features and Functions

System Features

- * Fully electronic, microprocessor based system.
- * Complete communication privacy.
- * Full trunkage provides simultaneous conversation between all pairs of stations in the system.
- * Master-to-master system with each providing full range of communication functions.
- * Wide range of STANDARD communication functions - no add-on options required.
- * Simple, 2-digit dialing.
- * Telephone type station and telephone/open voice station.
- * Electret Condenser Microphone - superior voice fidelity.
- * Page up to 4 individual zones with or without talkback through ceiling or horn speakers.
- * All page.
- * Wall-mounted compact, space-saving Central Exchange Unit complete with central terminal board and power supply.
- * Remote control for operation of external devices i.e. Background music, internal/external lights, etc.
- * Accepts background music with automatic cutout during paging.
- * Quick, simple home run wiring from each station to Central Exchange Unit.
- * One twisted pair per telephone type station. Two twisted pair per telephone/open voice station.
- * Emergency battery backup using the PZ-5E adaptor.

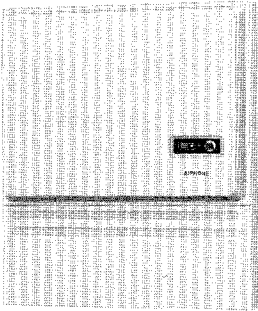
System Communication Functions

1. **Station Call** User can call and receive from any station to any other station in system.
2. **Secretary Transfer** Incoming calls can be routed to secretary or other designated station.
3. **Call Transfer** User can transfer call from the station to another.
4. **Call Holding** User can place calling station on hold during his conversation with other station.
5. **Conference call** User can initiate conference call to up to 3 stations.
6. **All Page** User can page all zones simultaneously.
7. **Zone Page** User can page up to 4 zones individually.
8. **Talkback Paging** User can page through speakers.
Person paged can respond directly from speakers (Zone Page only).
9. **Paging with Call Back** User can page individual through speakers.
Person paged can respond from nearest station and will be automatically connected to paging party.
10. **Remote Control Operation** User can operate BGM turn on/off, turn lights on/off, etc. by dialing from his station.

III. YKX System Design and Components

SYSTEM COMPONENTS

CENTRAL EXCHANGE UNIT



Models: YKX-CEU Central Exchange Unit without XC-055.

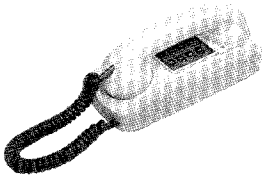
YKX-16 — do — for system of up to 16 stations.

YKX-24 — do — for system of up to 24 stations.

Each includes a central terminal board and power supply unit.

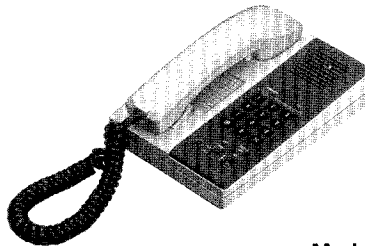
STATION EQUIPMENT

Telephone type station



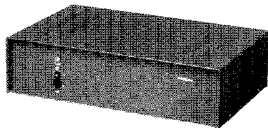
Model: YT-A
Desk/wall use.

Telephone/open voice station

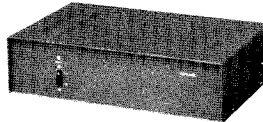


Models: KT-A, Desk use.
KT-AN, Wall use.

PAGING ACCESSORY EQUIPMENT



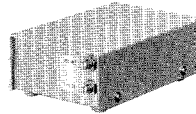
Models:
PG-10B (10 watts),
PG-30B (30 watts),
PG-60B (60 watts)
Standard Paging Amplifier
with 100 volts or 8 ohms
output.



Models:
PG-10A (10 watts),
PG-30A (30 watts),
PG-60A (60 watts)
UL/CSA Approved Paging Amplifier
with 25 volt and 70 volt output
(available only in North America)



Model: MC-A
Paging Adaptor.



Model: PB-YKX
Talkback adaptor.



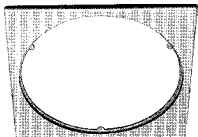
Model: RC-A
Zone paging adaptor



Model: RC-B
Remote control adaptor
for operating external devices.

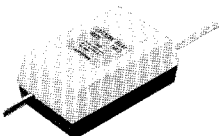


Model: SP-3NA
Standard 3 watt ceiling
speaker w/built in line
transformer.



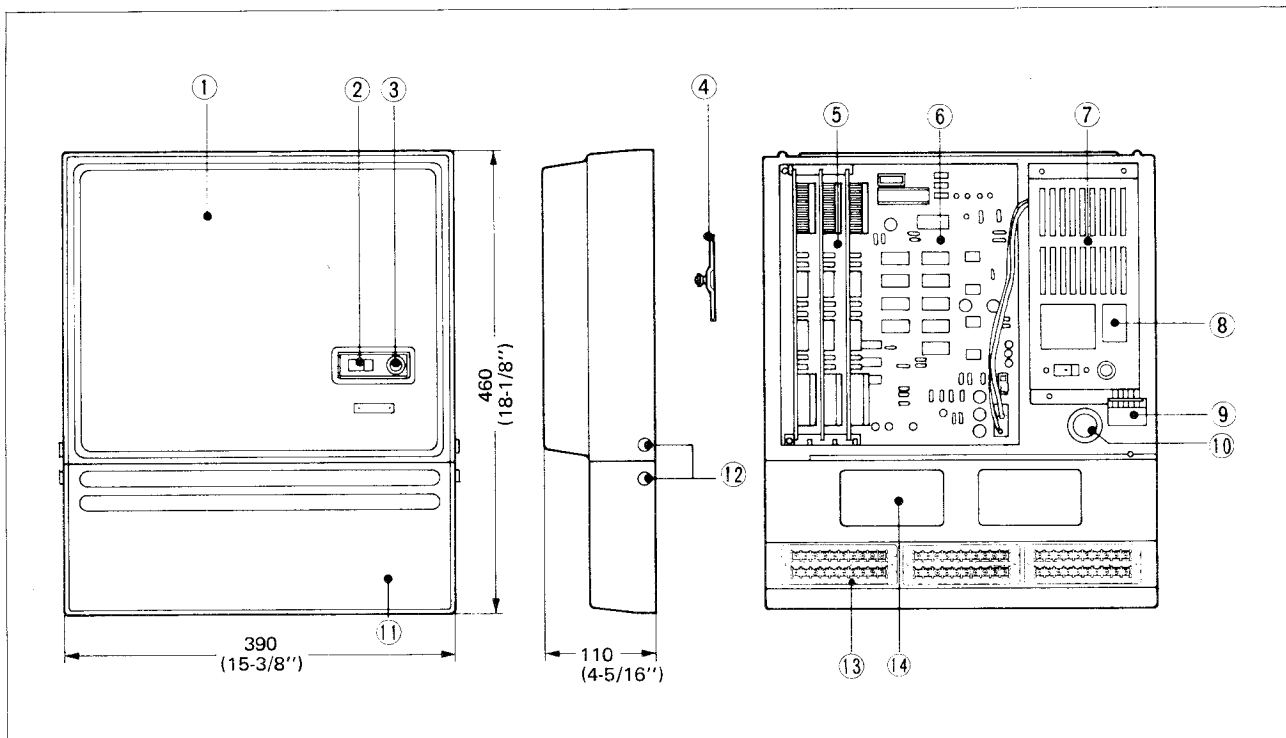
Model: NBZ-M
Square frame for
flush-mounting of
SP-3NA to ceiling.

OTHER ACCESSORY



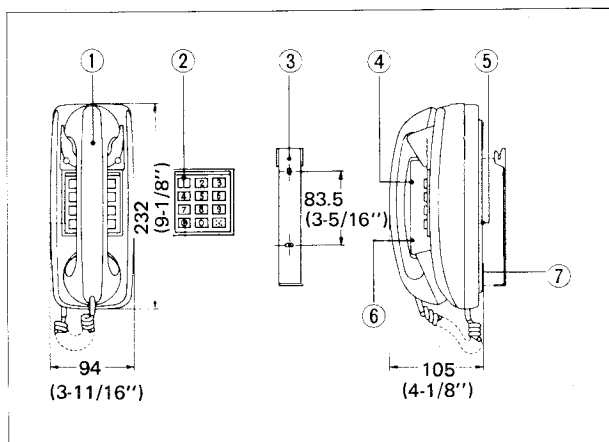
Model: TAR-3
Call extension relay for YT-A
station to be used in conjunction
with PS-6D (SKK-620 in
N. America) power supply and
separate signalling device.

DIMENSIONS AND PARTS IDENTIFICATION



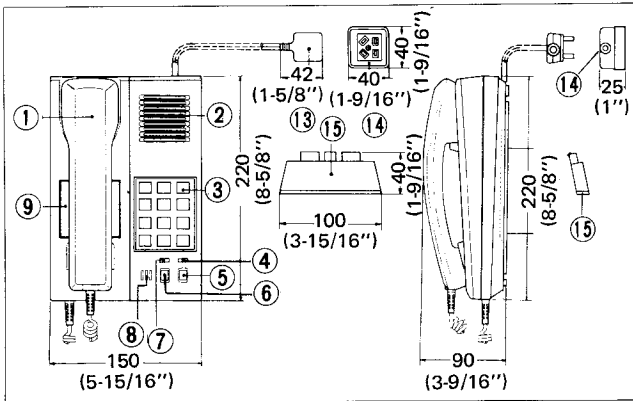
Models: YKX-CEU, YKX-16, YKX-24

- | | |
|--|--|
| 1. Front cover for YKX exchange unit | 9. AC power terminals & ground terminal |
| 2. Power switch | 10. Inlet for AC power line |
| 3. Power lamp | 11. Cover for terminal section |
| 4. Wall mounting bracket | 12. Screw for covers (x 4)
(Truss-head screw for North America) |
| 5. Subscriber card (XC-055)
(not included in YKX-CEU) | 13. Terminal block |
| 6. Main PC board (XC-054) | 14. Opening for cable from stations |
| 7. Power supply unit | |
| 8. Automatic cutoff switch
(when cover is removed) | |

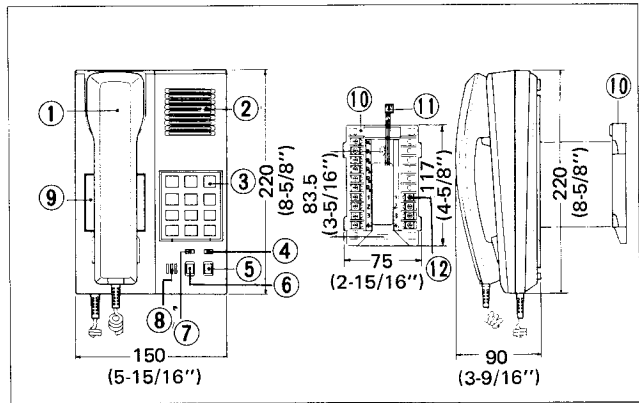


Model: YT-A

1. Handset
2. Dial key pad
3. Wall mounting bracket
4. Paging button
5. Terminal block
6. Directory card (inside handset)
7. Call tone volume control

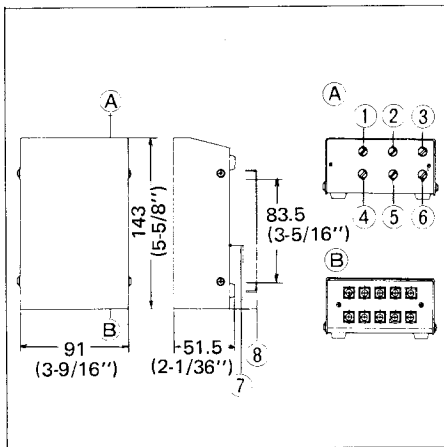


Model: KT-A, Desk use.



Model: KT-AN, Wall use.

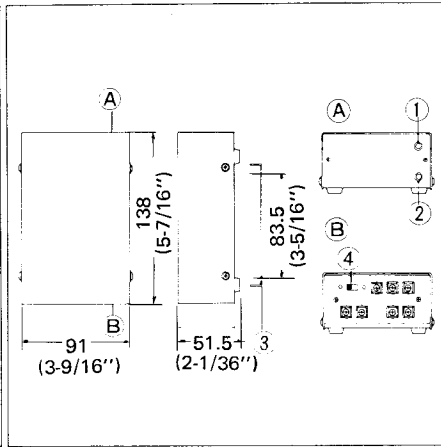
- | | |
|---------------------------|-------------------------------|
| 1. Handset | 11. Connector |
| 2. Speaker | 12. Terminals |
| 3. Dial key pad | 13. 4-pin plug w/2m (6') cord |
| 4. Red in-use light | 14. Receptacle |
| 5. Speaker volume control | 15. Stand |
| 6. Privacy button | |
| 7. Green privacy light | |
| 8. Microphone | |
| 9. Directory card | |
| 10. Terminal board | |



Model: MC-A

(Paging Adaptor)

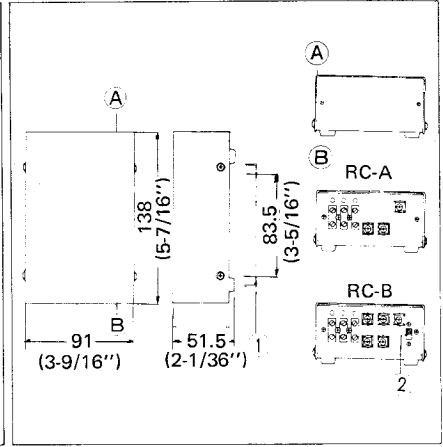
1. Music volume control
2. Music bass control
3. Music treble control
4. Paging volume control
5. Paging bass control
6. Paging treble control
7. Page pre-tone volume control
8. Wall mounting bracket



Model: PB-YKX

(Talkback Adaptor)

1. Receiving volume control
2. Noise control
3. Wall mounting bracket
4. System selector switch



Model: RC-A, RC-B

(Remote control adaptors)

1. Wall mounting bracket
2. Transfer switch for momentary or alternate operation (RC-B only)

IV. YKX System Equipment Requirements

The YKX System Design Table below is designed to assist in determining the mix and quantity of YKX system components.

YKX SYSTEM DESIGN TABLE				
SYSTEM COMPONENTS		QUANTITY OF COMPONENT		
		YKX-CEU	YKX-16	YKX-24
YKX-CEU	Central Exchange Unit without XC-055	1(*)		
YKX-16	Central Exchange Unit for up to 16 stations (with two XC-055)		1	
YKX-24	Central Exchange Unit for up to 24 stations (with three XC-055)			1
STATION MODEL YT-A KT-A KT-AN	Telephone type intercom station Telephone/open voice station, Desk use. – do –, Wall use.	0	max. 16	max. 24

(*) Note: XC-055 card must be added for connecting stations required.

OPTIONAL ACCESSORIES

PG-B PG-10B (10 watt) PG-30B (30 watt) PG-60B (60 watt) PG-A PG-10A (10 watt) PG-30A (30 watt) PG-60A (60 watt)	Standard amplifier (available except in N. America) UL/CSA approved amplifier (available only in N. America)	Up to 4 separate paging zones Each zone requires 1 PG-A or PG-B amplifier, 1 MC-A adaptor and a required number of speakers. (Does not reduce station capacity) OR 1 each PG-A or PG-B amplifier, MC-A adaptor, PB-YKX talk back adaptor and a required number of speakers, if one RC-A is installed for each zone. (Does not reduce station capacity)
MC-A	Paging adaptor	1 for each paging zone where talkback is required
SP-3NA	Standard 3 watt ceiling speaker	
PB-YKX	Talkback adaptor	1 for each paging zone
RC-A	Zone paging adaptor	1 for each zone where external device is located (up to 4 zones available)
RC-B	Remote control adaptor to be used in conjunction with external devices such as lights, electric door release, etc.	1 for each YKX station. (can not be used for KT-A/KT-AN)
TAR-3	Call extension relay to be used in conjunction with PS-6D (SKK-620 in N. America) power supply and separate signalling device.	

Note: System can be equipped with total of four MC-A and RC-B.

V. Installation Guidelines

BE SURE TO TURN OFF YKX POWER SUPPLY BEFORE YOU OPEN THE UNIT.

1. Central Exchange Unit (CEU)

- * Select location for CEU that will facilitate ease of access to the unit itself.
- * Plug the power supply into a clear line. Some interference on the power line may cause poor communication fidelity.
- * Select a location that:
 - has low humidity.
 - is free of dust.
 - is vibration free.
 - is free of static electricity.
 - is not near flammable or chemical products.
 - is not close to high voltage equipment.
 - is not within a strong magnetic field.
 - is not near heating or air conditioning equipment.
 - does not have direct sunlight.
 - does not have temperature extremes: below 0°C (+32°F) or above +42°C (+104°F).

2. Station (Telephone Type and Telephone/Open Voice Type)

- * Two stations cannot be wired to the same station number. Each station must be home run wired to the C.E.U.
- * Follow location guidelines for the Central Exchange Unit when selecting station location.
- * Avoid locations where temperature dips below –10°C (+14°F) or exceeds +60°C (+140°F).
- * Select a most suitable type of station according to your communication requirements and environmental conditions. Telephone type stations are recommended for noisy areas.

3. Wiring

- * Use single twisted pair for YT-A, 2 twisted pairs for KT-A/KT-AN.
- * Keep twisted pair cable well apart (over 50 cm or 20") from other cables such as heavy duty power lines and/or paging amplifier output line (speaker line).

4. Installation

- * In new construction, install either single gang boxes or plaster board rings where YT-A or KT-AN stations are to be wall mounted. The station will cover the hole, when installed.

VI. Wiring

There are two basic wiring methods of wiring for YKX system. In either case, you must use single twisted pair (2 conductors) per YT-A station and 2 twisted pairs (4 conductors) per KT-A/KT-AN station.

Method 1: Single or 2 twisted pair in home run manner from each station to YKX Central Exchange Unit. See wiring example diagram on page 9.

Method 2: More than one station can be run in multiple twisted pair cable.
DO NOT RUN SPEAKER LINE IN MULTIPLE PAIR CABLE FOR STATIONS.

A combination of the above methods may also be used.

Refer to the chart below and select wire gauge required for your installation;

Wire size	0.5 mm	0.65 mm	0.8 mm	24AWG	22AWG	20AWG
Max. wiring distance from station to YKX CEU	350 m	600 m	900 m	1,200'	2,000'	3,000'

PAGING/REMOTE CONTROL

The YKX system has the capacity of paging four separate paging zones and All Page.

Each zone requires one paging adaptor model: MC-A, one amplifier and proper number of speakers for the amplifier output (and one PB-YKX talkback paging adaptor is required for talkback). All Page is a system function and does not require special equipment or wiring.

NOTE: If the system includes a remote control device, one paging terminal must be dedicated to the RC-B remote control adaptor. This will reduce the number of separate paging zones to three.

NOTE: Adding zones of paging and/or remote control does not reduce the station capacity of the system (i.e. a 24-station system may have 24 stations plus 4 zones of paging and/or remote control).
 If an RC-A adaptor is installed for each zone, only one MC-A paging adaptor and one amplifier is required for zone page/All Page. Talkback will require one PB-YKX talkback adaptor.

WIRING REQUIRED:

- * Single or 2 twisted pair cable or multiple twisted conductor cable may be used for station to YKX terminal board connection. Wiring is non-polarized in each twisted pair. These cables must be twisted pair.
- * Connection to MC-A adaptor requires two common plus one individual conductors from YKX terminal board.
- * Power supply unit in YKX C.E.U. must be earth grounded.
- * Do not run speaker line in the same cable with station wires.

VII. YKX System Installation

(A) Mounting Central Exchange Equipment

* Be sure switch off YKX power supply unit before you open the unit or make wiring connection.

** The location of Central Exchange Equipment must meet the following criteria:

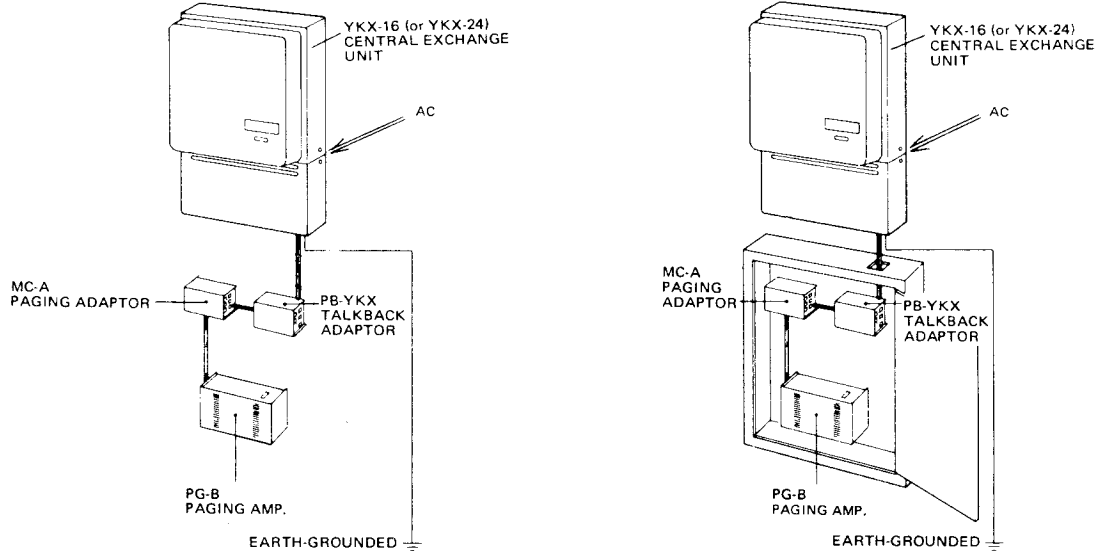
1. Ambient temperature range 0°C to +40°C (+32°F to +104°F).
2. Area must be as dust free as possible, and not too dry or humid.
3. Units must be wall mounted.
4. Avoid static electricity.

There are two basic methods (shown below) of mounting equipment.

If the adaptor(s) and amplifier(s) must be located in an area exposed to people, use of a cabinet is recommended to reduce the possibility of someone changing level controls.

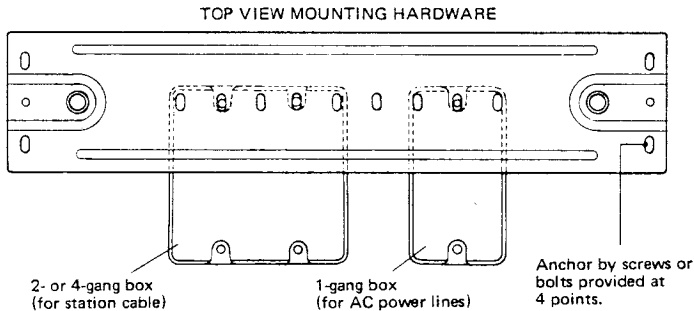
It is recommended that the Central Exchange Unit not be installed inside of the cabinet, which could restrict ventilation.

If the equipment is to be installed in an electrical room or cabinet, it is recommended that a piece of 1.2 cm (1/2") plywood of adequate size be secured to the wall first and equipment then mounted to the plywood. This will insure adequate backing for mounting screws, incoming cable distribution, and tie down.

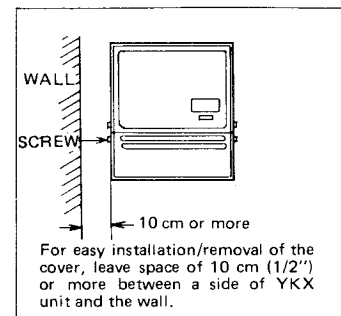
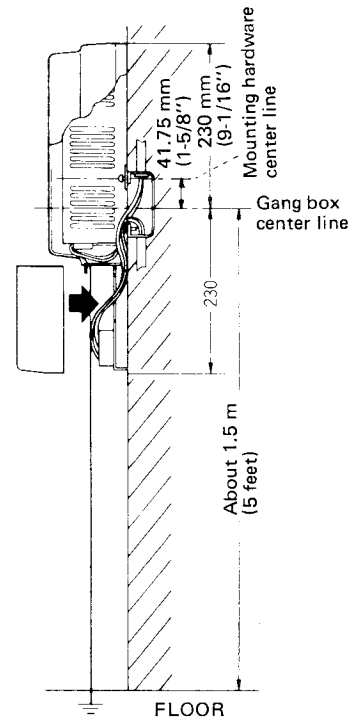
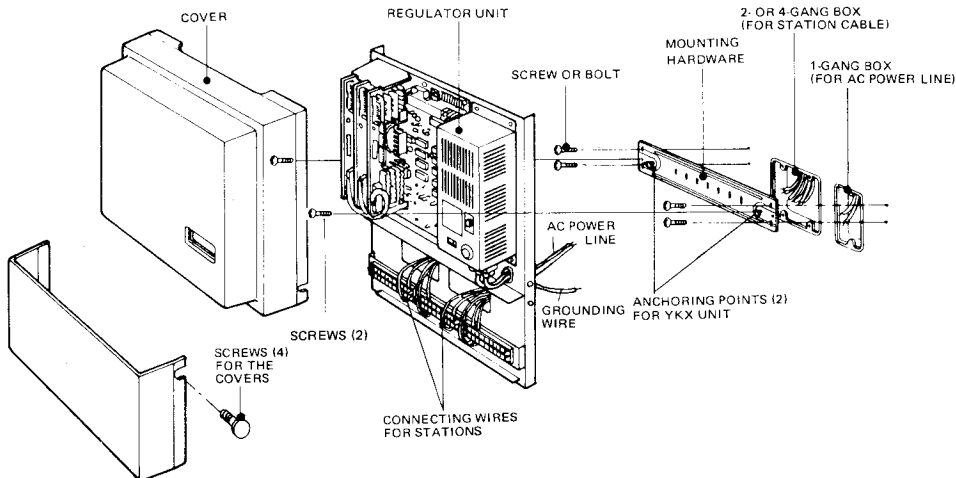


(B) Mounting Instructions

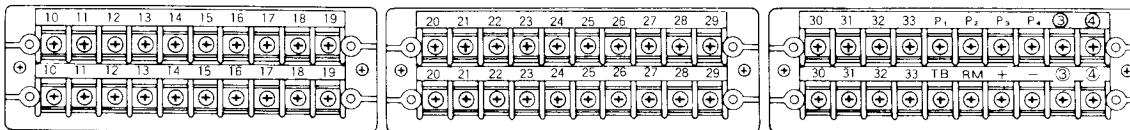
1. Central Exchange Unit shall be wall mounted approximately 1.5 m (5 feet) high from the floor.
2. Install the mounting hardware to the gang boxes with the provided screws. Never fail to anchor the hardware with the provided screws or bolts at 4 points.



3. Mount the YKX Central Exchange Unit onto the hardware, and connect wires for both stations and AC power line.
4. Replace the covers.



YKX-16/24 TERMINAL LOCATIONS



10 ~ 33

Connect to stations

TB, RM

Remote control output terminals

P₁, P₂, P₃, P₄

Paging/remote control terminals

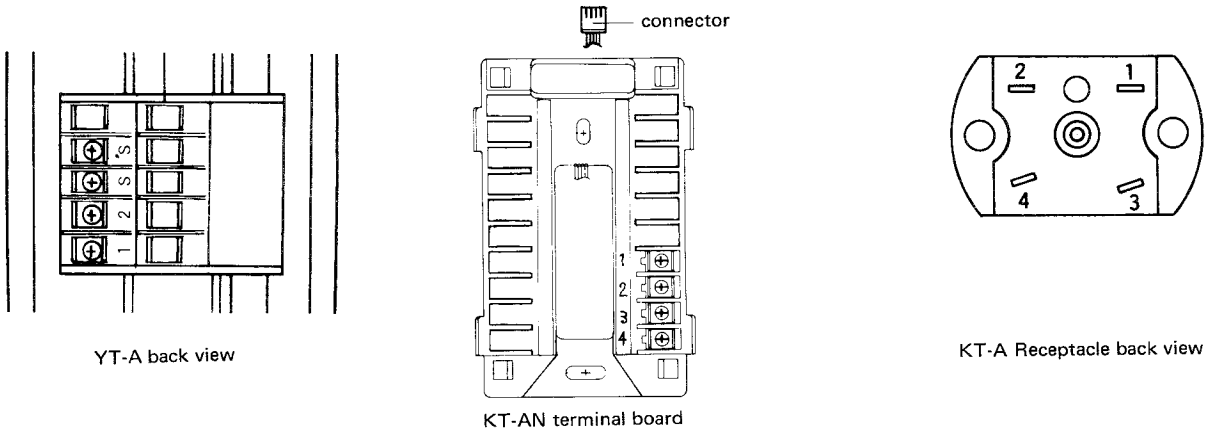
+, -

Power terminals for adaptors

3, 4

Connect to telephone/open voice stations

(C) Connecting Station Unit



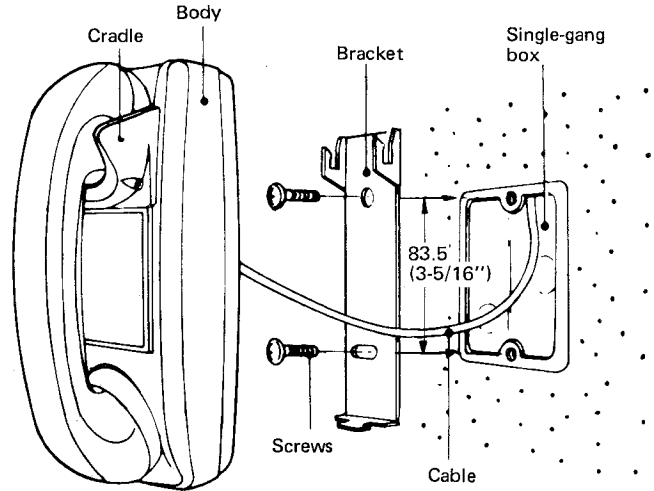
- 1, 2** Connect to terminals on central exchange unit (10 ~ 33).
- S, S** Connect to relay unit for external signalling device (YT-A only)

- 3, 4** Connect to terminals on central exchange unit (3, 4 power supply)

(D) YT-A Wall Mounting Installation

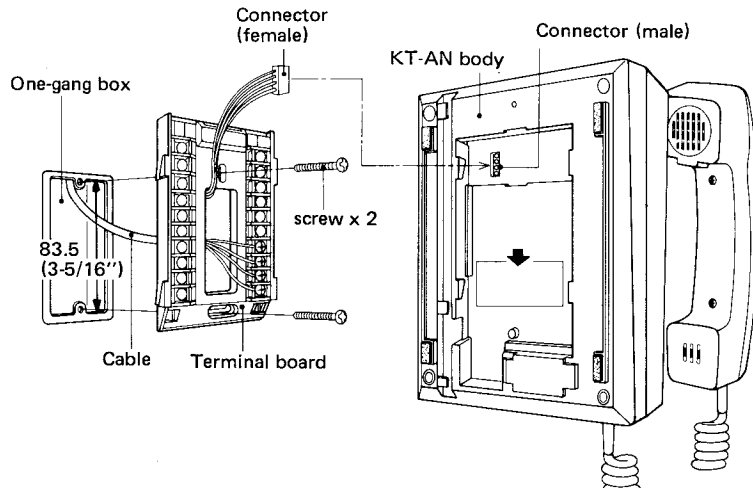
Remove two screws from body and install hang-up cradle for handset with two screws. Remove wall hanging bracket from back of unit. Attach mounting bracket to wall or box. Connect wires and fit the unit onto the mounting bracket by sliding the unit down until it locks on the bracket.

NOTE: For YT-A to be on desk or counter, remove wall mounting bracket, as unit will not sit properly and may scratch surface.



(E) KT-AN Wall Mounting Installation

Attach the terminal board to the box with two screws. Connect wires and attach connector. Fit the unit onto the terminal board.

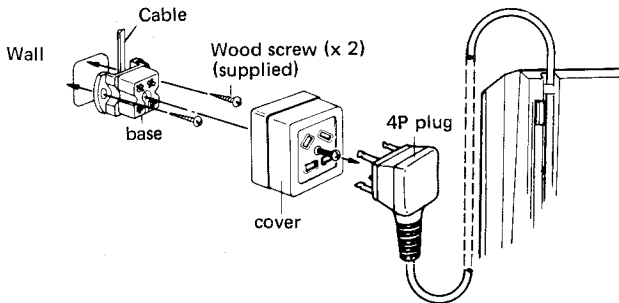


(F) KT-A Mounting Installation

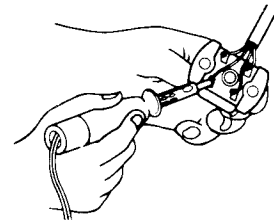
KT-A has terminal cord of 2m long (6-1/2"), male plug and shipped complete with female receptacle. When desk mounting where cable must be run surface on the wall, fix the female receptacle to proper location and just plug in the male plug.

■ Receptacle installation

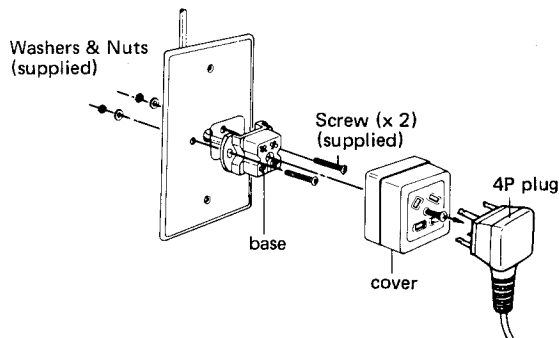
1. Mounting receptacle to wall;



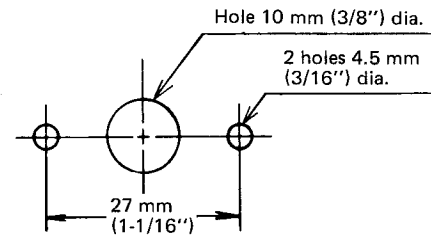
■ Connecting wires on receptacle base



2. Mounting receptacle to flush plate;
As shown, cut three holes on the flush plate and attach the receptacle with the screws provided.

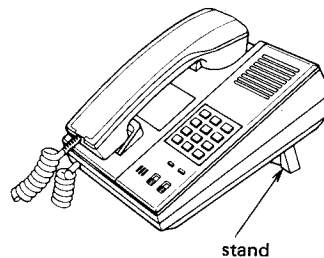
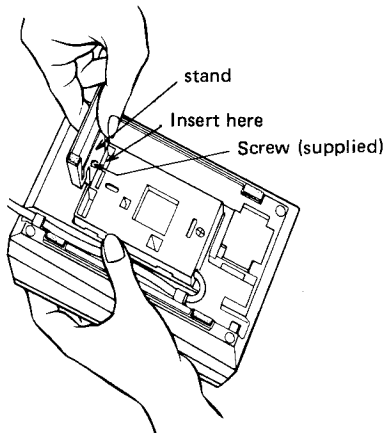


■ Cutting holes on flush plate



*Be careful not to install receptacle base upside down.

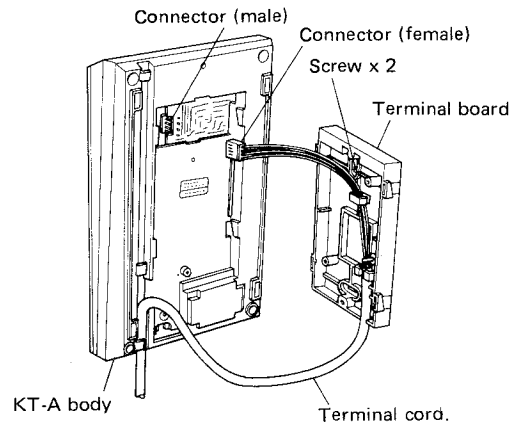
3. Attaching stand to KT-A unit;
As shown, just insert the stand and fix with a screw provided.



4. KT-A Wall Mounting Installation

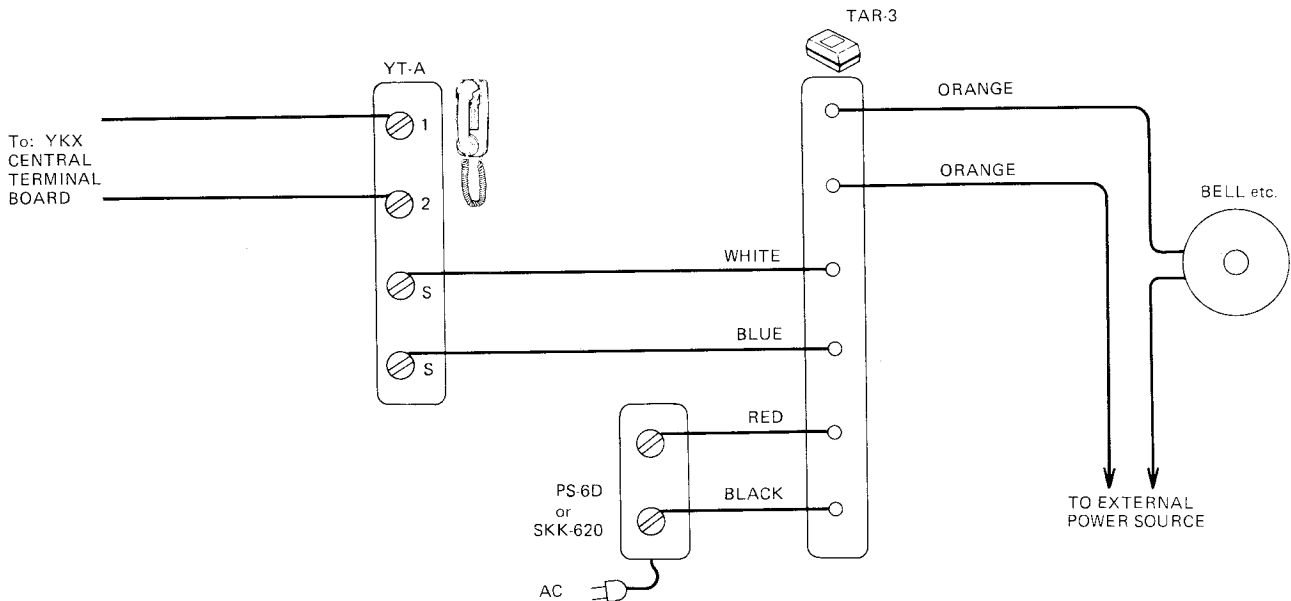
KT-A is primarily designed for desk top use, but may practically be used for wall mount (surface mount). Remove a screw fixing terminal board. Slide down terminal board, pull off 4P connector and separate terminal cord from the chassis.

Attach terminal board to the wall with two screws. As shown, pull out terminal cord either from top or bottom of the unit. Attach connector and fit the unit onto the terminal board.

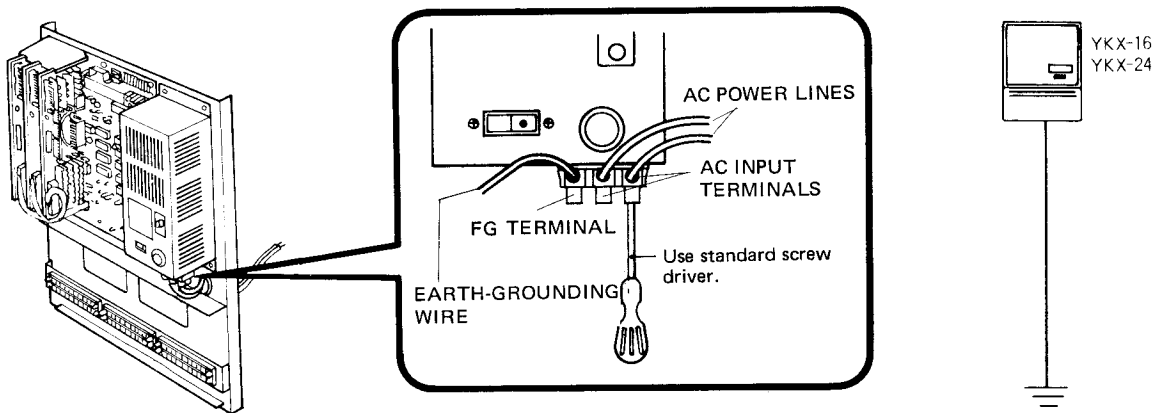


(G) Call Extension Relay Installation (YT-A only)

When a YT-A station is located in a noisy or large area, incoming calls may be announced by an additional signalling device such as bell or buzzer. One TAR-3 relay, one PS-6D (or SKK-620 in N. America) power supply and a signalling device (not supplied by AIPHONE) are required.



(H) Connecting AC Power Line and Grounding Wire



As shown using standard screw driver, connect AC power line to **AC INPUT** terminals, and earth-ground wire to **FG** terminal.

(I) Connecting Paging Equipment – ZONE PAGE APPLICATION WITHOUT TALKBACK

Below are three examples of connecting paging equipment. All Page is also available with these wiring configurations.

DIAGRAM # 1 PAGING TO ONE ZONE (WITH BACKGROUND MUSIC)

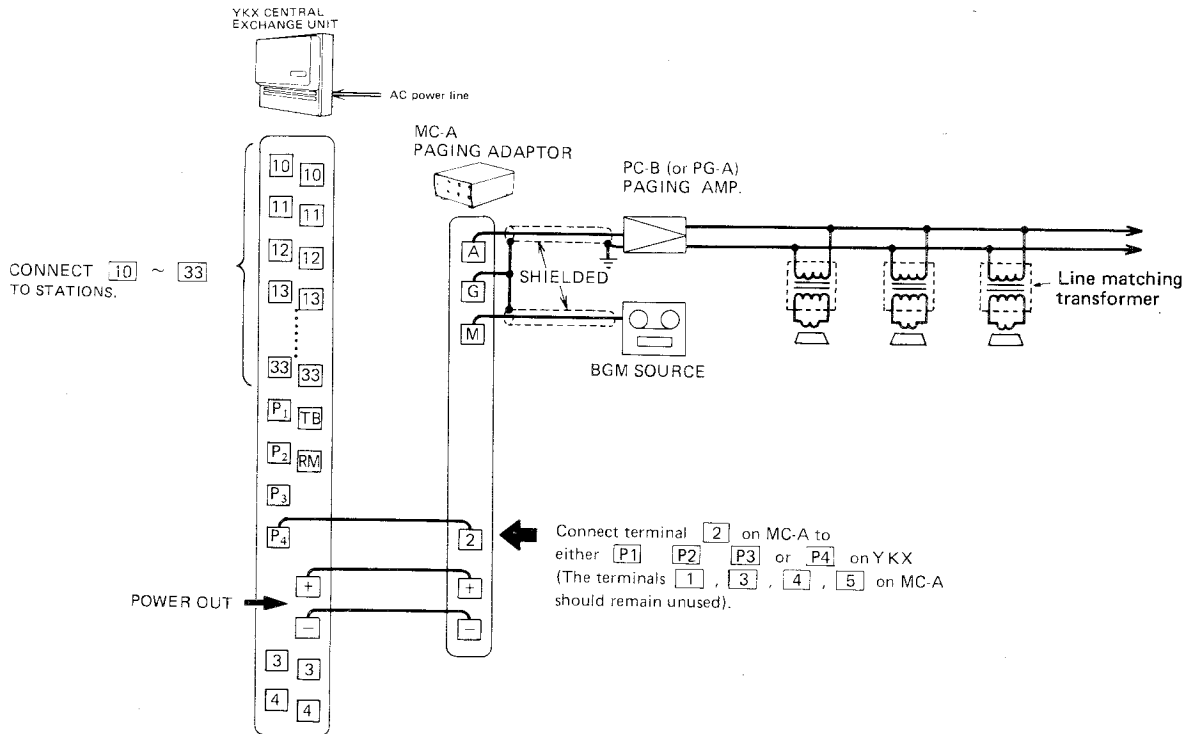


DIAGRAM # 2 PAGING TO 4 ZONES (WITH BACKGROUND MUSIC)

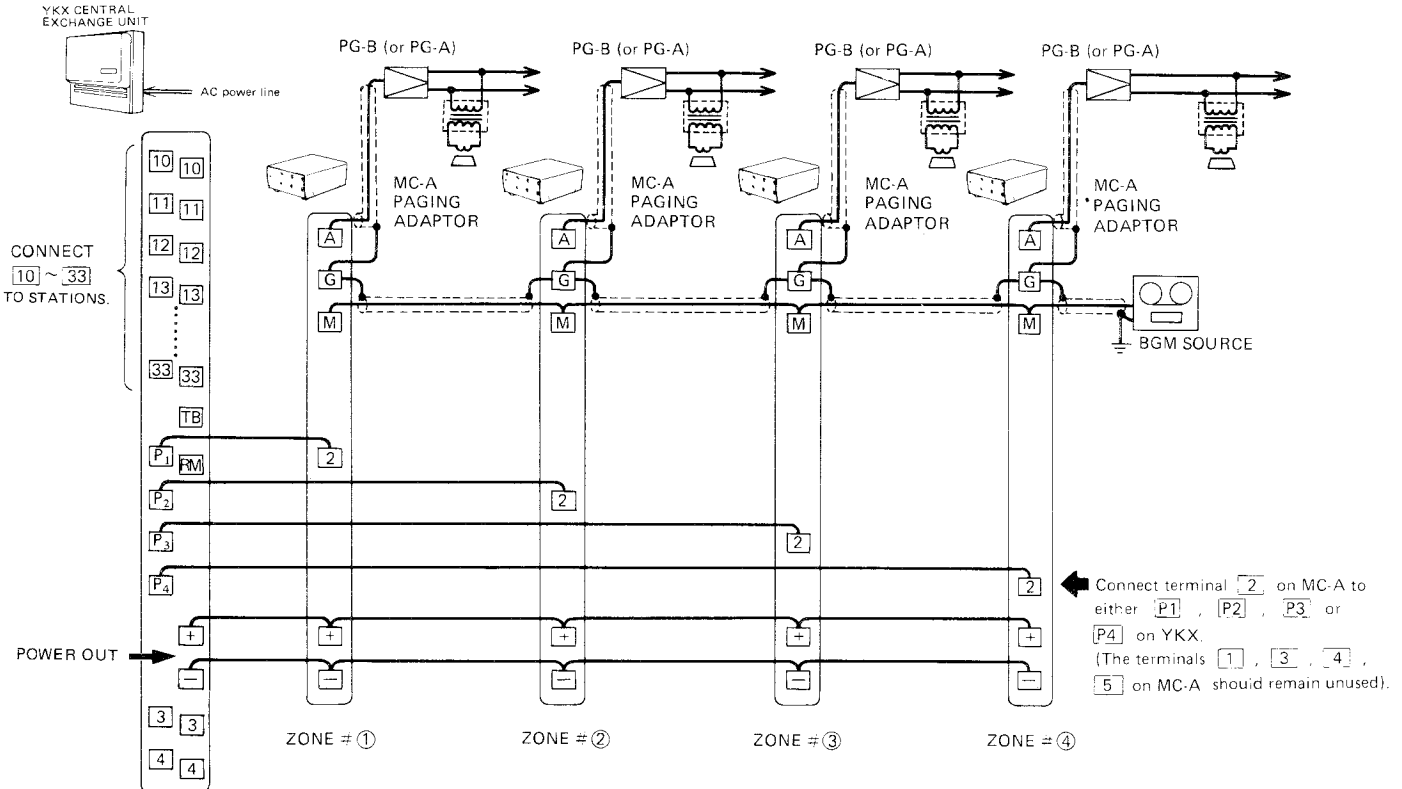
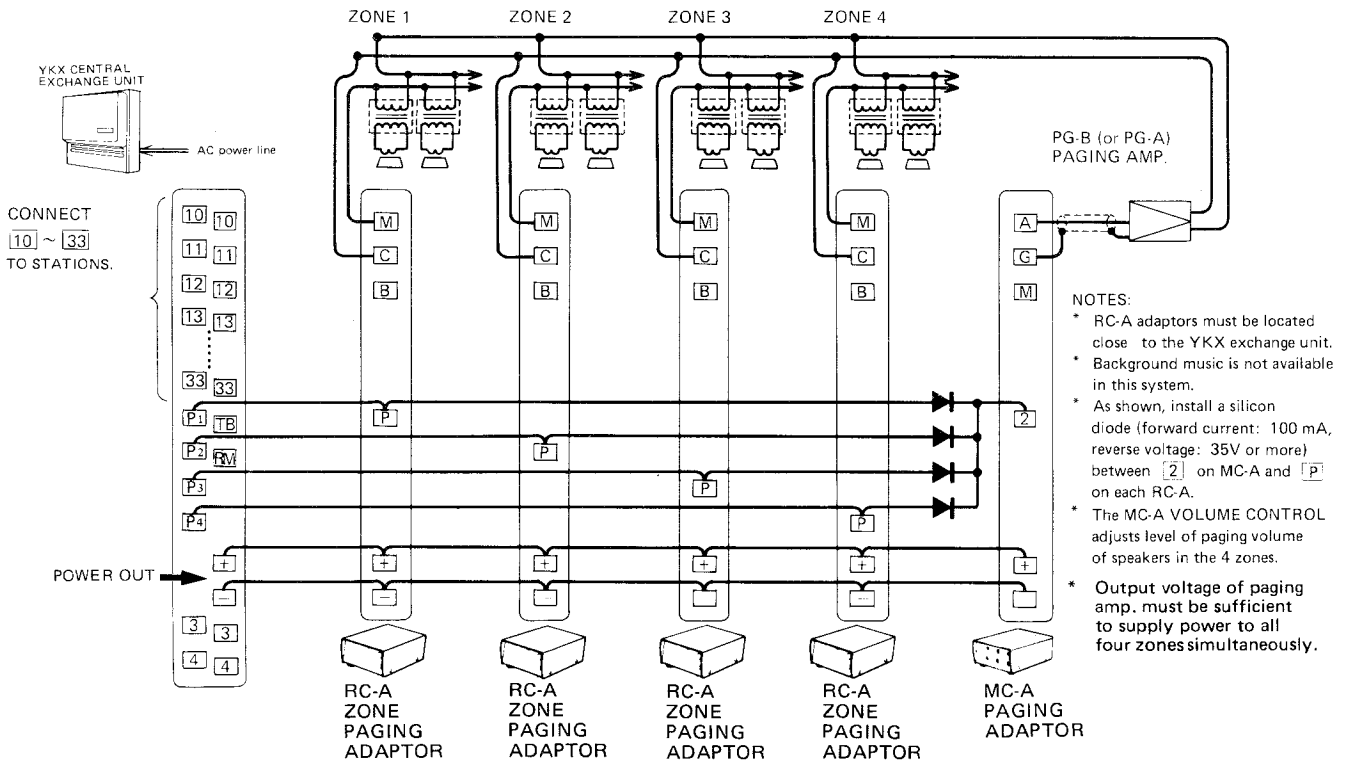


DIAGRAM # 3 PAGING TO 4 ZONES, OR ALL PAGE USING THE RC-A ZONE PAGING ADAPTOR (WITHOUT BACKGROUND MUSIC) AND ONE PAGING AMPLIFIER

The diagram below shows connection of YKX system with paging to 4 zones, wherein Zone Page as well as All Page are possible, using the RC-A adaptor. Talkback is not possible in this application.



(J) Connecting Talkback Paging Equipment

Below are three examples of connecting talkback paging equipment in a Zone Page application. All Page is also available with these wiring configurations (No talkback in All Page).

DIAGRAM # 1 PAGING TO ONE ZONE WITH TALKBACK (WITH BACKGROUND MUSIC)

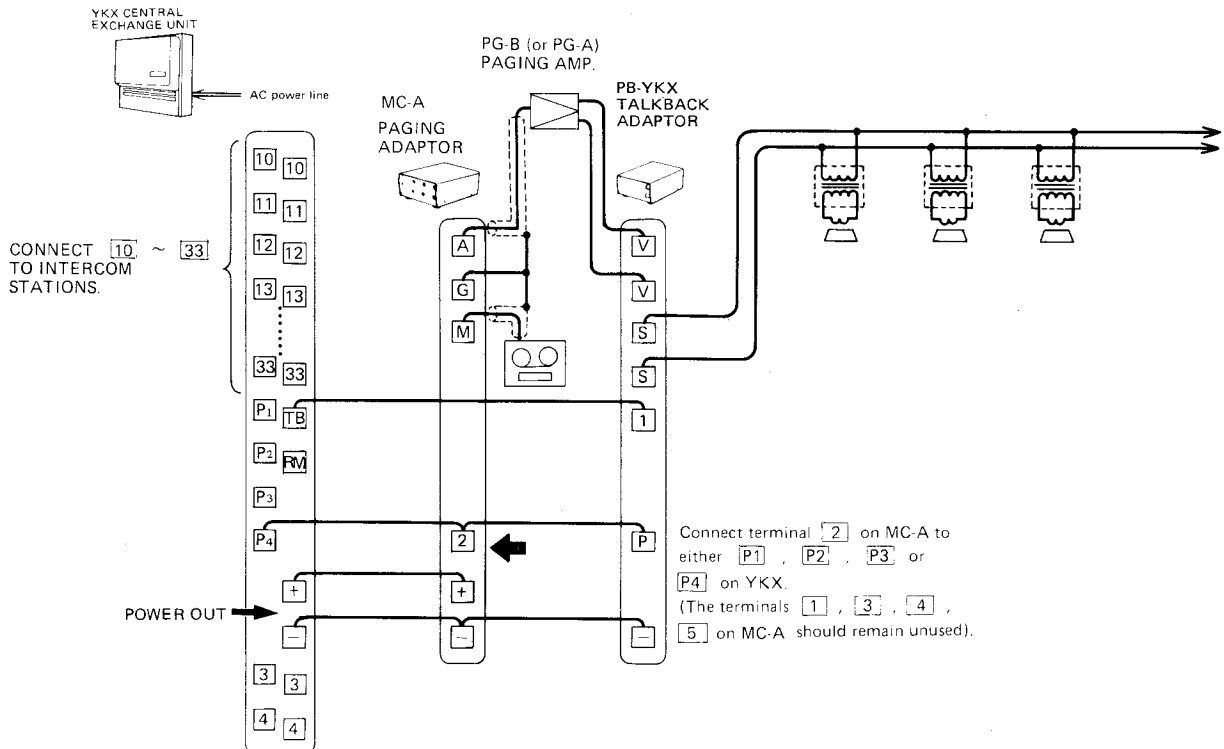


DIAGRAM #2 STANDARD PAGING TO 4 ZONES WITH TALKBACK (WITH BACKGROUND-MUSIC)

Talkback is not available in All Page mode.

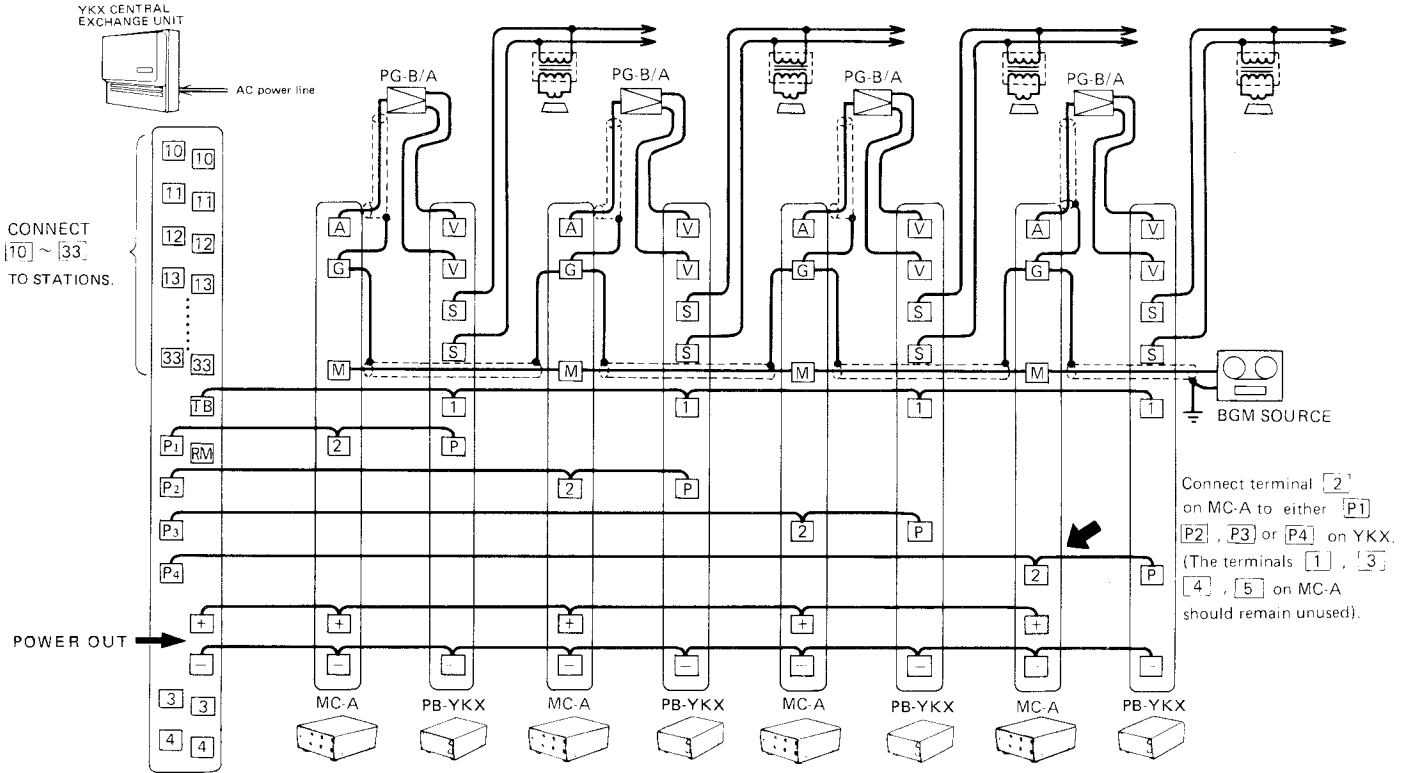
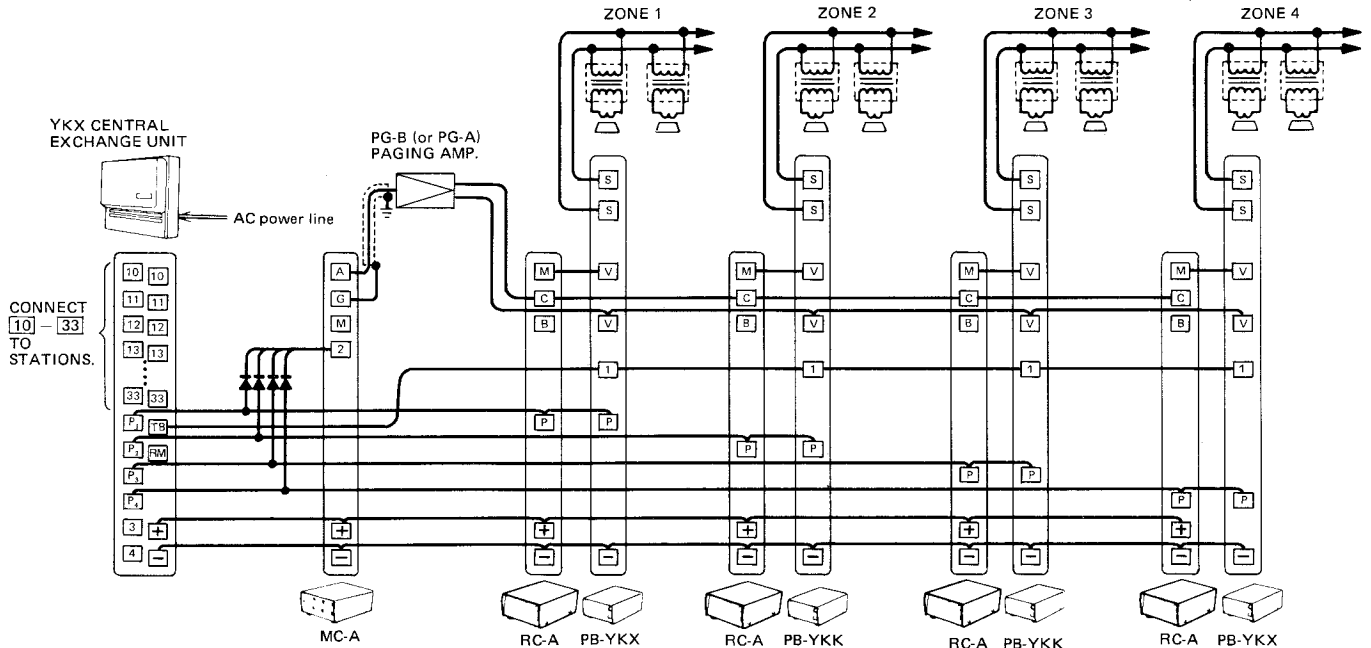


DIAGRAM #3 PAGING TO 4 ZONES WITH TALKBACK, USING THE RC-A ZONE PAGING ADAPTOR AND ONE PAGING AMPLIFIER

The diagram below shows connection of YKX system with paging with talkback to 4-zones, wherein zone page with talkback is possible, using the RC-A adaptor (Talkback is not available in All Page). Note: Output voltage of paging amp. must be sufficient to supply power for all four zones simultaneously.



(*1) Install a silicon diode (forward current: 100 mA, reverse voltage: 35V or more) between [2] on MC-A and [P1~4] on YKX CEU.

(*2) Set the system selector switch to the left position on PB-YKX.

(K) REMOTE CONTROL EQUIPMENT – USING THE RC-B ADAPTOR

1. Operation:

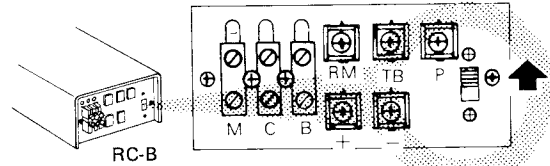
The YKX system features remote operation of external devices such as electric door release, lights, etc. from any station.

METHOD #①: ALTERNATE OPERATION

Example: Turning lights ON and OFF.

Operation: 1. Pick up handset.

2. Press (PAGE) button and zone number button (, , or).
3. Momentarily depress Press-to-Talk button. If you hear continuous tone, it means lights are in OFF position. If you hear intermittent tone, the lights are ON.
4. Momentarily depress button, to reverse ON/OFF mode.
5. Hang up handset.
Remote control continues to be working, if handset is hung up when remote control is in operating mode.



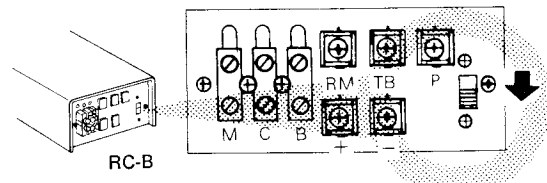
SET SELECTOR SWITCH TO UPPER POSITION.

METHOD #②: MOMENTARY OPERATION

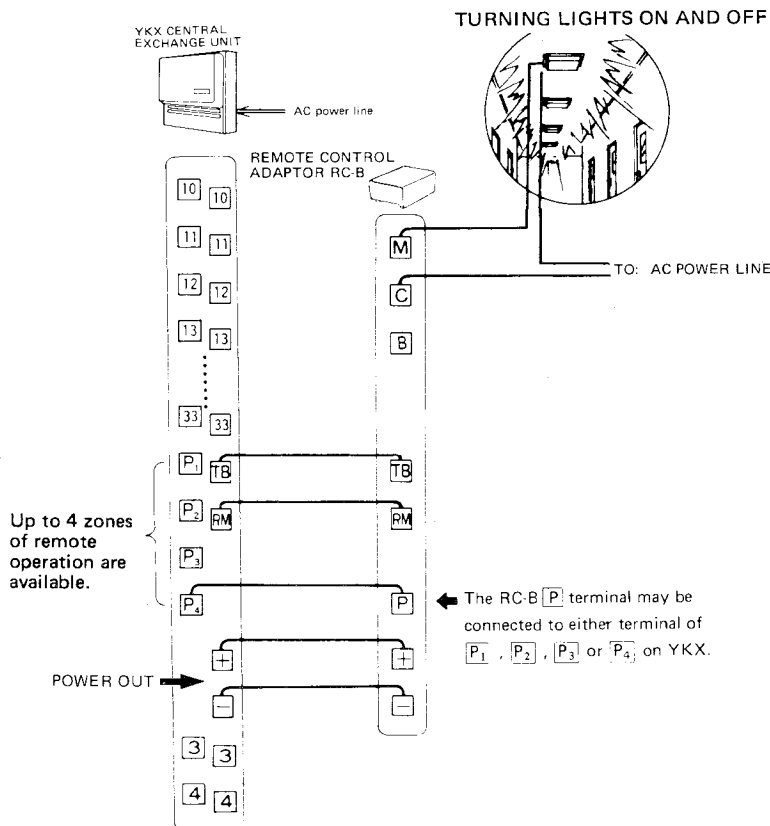
Example: Opening electric door release.

Operation: 1. Pick up handset.

2. Press (PAGE) button and zone number button (, , or).
3. Momentarily depress Press-to-Talk button. You will hear a continuous tone through handset (door release is in OFF position).
4. Press and hold button down, and electric door release is activated. Door will open.
5. Hang up handset.



SET SELECTOR SWITCH TO LOWER POSITION.



NOTES: (1) Wiring method is the same for either momentary or alternate operation, except for setting the selector switch as above.

(2) When the YKK power supply is turned off, the entire system becomes inoperative, including remote operations.

(3) One remote control reduces one paging zone.

VIII. YKX System Specifications

1. Central Exchange Unit: YKX-CEU YKX-16, YKX-24

Power source	AC 110 – 125V, AC 220 – 240V, 50/60 Hz,
Power consumption	Maximum 50W. 19W in standby mode (YKX-24). Maximum 38W. 17W in standby mode (YKX-16).
Station capacity	0 in YKX-CEU, 16 in YKX-16, 24 in YKX-24
Trunkage capacity	8 talk channels with paging in 16-station system. 12 talk channels with paging in 24-station system.
Expansion	In 8-line steps
Dialing	Mono frequency-duty modulation
Paging	All page (no talkback) Zone page – 4 zones (with talkback)
Line scanning	Voltage level detection by time sharing
Internal network	PAM time sharing multi-network
Line impedance	400 ohms
Permitted line resistance	64 ohms Loop
Wiring	Home run 1 or 2 twisted pair (non-polarized) per station
Ambient temperature	0°C (+32°F) ~ 40°C (+104°F)
Mounting	Wall mount (includes central terminal board & power supply unit)
Dimensions	460 mm (H) x 390 mm (W) x 110 mm (D) (18-1/8" x 15-5/16" x 4-5/16")
Weight	5.5 kg (34 lbs.)

2. Telephone Type Station: YT-A

Power source	DC 24V supplied by Central Exchange Unit
Current consumption	DC 15mA (max.)
Communication	Simultaneous with handset
Calling	2-frequency-synthesized intermittent tone
Key pad	12 touch key buttons
Station selection	2-digit dial (<input type="text" value="10"/> ~ <input type="text" value="33"/>)
Mounting	Desk/wall mount
Dimensions	232 mm (H) x 94 mm (W) x 105 mm (D) (9-1/8" x 3-11/16" x 4-1/8")
Weight	800 g (1 lb. 12 oz.)

3. Telephone/Open voice station: KT-A/KT-AN

Power source	DC 24V supplied by Central Exchange Unit
Current consumption	DC 15mA (max.) . . . talk line
Communication	Simultaneous with hands free speaker & microphone (receiving station) or with handset
Calling	Pre-tone and red in-use light
Key pad	12 touch key buttons
Station selection	2-digit dial (<input type="text" value="10"/> ~ <input type="text" value="33"/>)
Mounting	KT-A . . . Desk use. KT-AN . . . Wall use.
Dimensions	220 mm (H) x 150 mm (W) x 90 mm (D) (8-5/8" x 5-15/16" x 3-9/16")
Weight	KT-A 860 g (1 lb. 14 oz.) KT-AN 800 g (1 lb. 12 oz.)

4. Paging Adaptor: MC-A

Power source DC 24V, supplied by Central Exchange Unit
Current consumption Less than 20mA in standby position
Less than 50mA (max.) in paging mode

5. Talkback Adaptor: PB-YKX

Power source DC 24V, supplied by Central Exchange Unit
Current consumption Less than 2mA in standby position
Less than 40mA (max.) in talkback paging mode

6. Zone Paging Adaptor: RC-A

Power source DC 24V, supplied by Central Exchange Unit
Current consumption Less than 40mA (max.)
Permitted contact capacity AC 120V, 3A. DC 24V, 3A.

7. Remote Control Adaptor: RC-B

Power source DC 24V, supplied by Central Exchange Unit
Current consumption Less than 40mA (max.)
Permitted contact capacity AC 120V, 3A. DC 24V, 3A.

PERMITTED LINE DISTANCE:

	0.5 mm	0.65 mm	0.8 mm	24 AWG	22 AWG	20 AWG
Central Exchange Unit – YT-A	350 m	600 m	900 m	1,200'	2,000'	3,000'
Central Exchange Unit – KT-A KT-AN	350 m	600 m	900 m	1,200'	2,000'	3,000'
Central Exchange Unit – MC-A	90 m	150 m	230 m	300'	500'	800'
Central Exchange Unit – RC-A RC-B	90 m	150 m	230 m	300'	500'	800'
Central Exchange Unit – PB-YKX	530 m	890 m	1,350 m	1,800'	3,000'	4,500'

IX. Post Installation System Testing

Once installation is finished, testing is recommended prior to indoctrination of user personnel regarding operation of the system.

Proper installation of the YKK system, and its full range of communication functions, can be tested with three simple steps.

Step1: Checking Station-to-Station Communication




- Select one station as the key station. Label it "S-1". Label remaining stations "S-2" through "S-n".
- Call S-2 from S-1 and confirm communication.
- Call S-1 from S-2 and confirm communication.
- Repeat process from S-1 to S-n until each station in the system has been tested.

Step 2: Checking Busy Tone signal

Using three stations (S-1, S-2 and S-3)

- Call S-1 from S-2.
- While S-2 is calling S-1, call S-2 from S-3 to confirm that Busy tone signal is heard.

Step 3: Checking Paging Function (If applicable)

Using S-1, page each zone (touch  and 1, 2, 3 or 4), then depress Press-to-Talk button in handset to confirm paging is transmitted to a selected zone (If talkback function is included, release Press-to-Talk button to confirm talkback). To check remote control operation, touch  and zone number button connected to the external devices, and momentarily depress Press-to-Talk button in handset. Depress  button to confirm either continuous or intermittent tone.

Upon completion of the above tests, if any of the remaining communication functions are not found to work as prescribed in the Operations Manual, the cause is not due to improper installation. Rather, the Central Exchange Unit must be checked. If this is the case, an Aiphone Specialist must be consulted.

X. Operations

1. Calling:

Pick up handset, press two digit buttons of desired station (i.e. for station #10), and communicate.

Note: Station numbers available: from to for YKX-16 system, from to for YKX-24 system.

2. Receiving a call:

At a YT-A station, an incoming call is annunciated by an electronic tone. Simply pick up handset and communicate.

At a KT-A/KT-AN station, an incoming call is annunciated by a pre-tone and red in-use light.

Reply handsfree (after releasing PRIVACY button) or by picking up handset.

3. Privacy (KT-A/KT-AN only):

Turn on PRIVACY button. Green light comes on indicating your station is in Privacy Mode. To release from Privacy Mode, release PRIVACY button.

4. Call transfer:

When transferring a call to another station, place the call on hold by pressing the button and press two digit buttons of the station to which the call is to be transferred. The transferred station may enter into communication after pressing button.

5. Call holding:

To place another station on HOLD, touch button.

Touch button again to restore connection to station on HOLD and resume conversation.

6. Secretary transfer:

When you wish any of incoming calls to be received by your secretary or other designated station, pick up handset, press button and the two digit buttons of the station to which your calls are to be transferred. To release you station from secretary transfer mode, pick up handset, press button and then button.

7. Conference call among 3 stations:

To initiate a conference call, call first station and press button. Call second station and press button. Push page button once and talk. Listening parties should not push page button (if pushed, the talking party's voice is cut off). The station who pushed the page button last becomes the transmitting station.

8. Zone page:

Pick up handset, press button and zone number , , or desired.

Make announcement while depressing and holding down Press-to-Talk button in handset.

When talkback is included, release Press-to-Talk button in handset to listen.

When talkback is not included, the called person may reply from the nearest station after pressing button.

9. All page:

Pick up handset, press button and button. Make announcement while depressing and holding press-to-Talk button in handset (Talkback is not available in All Page).

The called person may reply from the nearest station after pressing button.

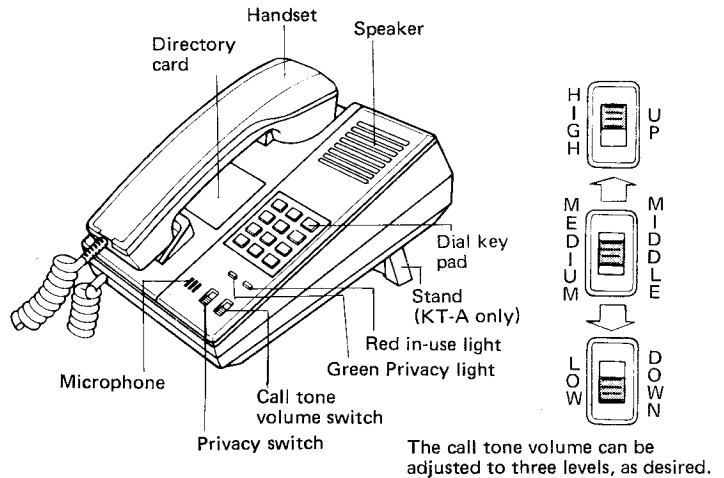
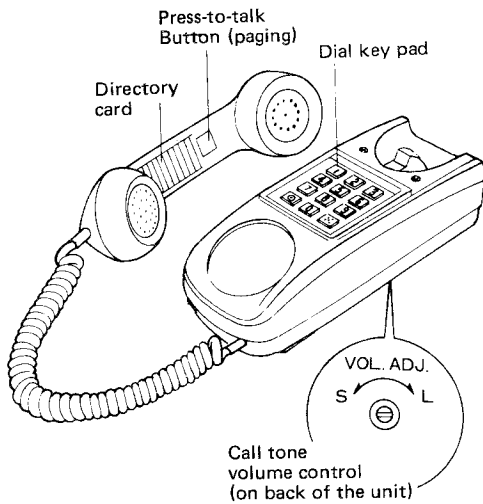
10. Operating remote control:

Please refer to Page 18 of this Manual.

11. Names and Functions

Telephone type station: YT-A

Telephone/Open voice type station: KT-A/KT-AN



XI. User Indoctrination

Upon completion of post installation testing and confirmation of the system being fully operable, user personnel should be indoctrinated as to how to use the system.

The Operation Manual clearly describes all of the communication features of the system. A complete understanding of the operation of the system by those who will be using it will avoid post installation call backs and related service.

XII. Servicing

1. Be sure to switch off power supply before you remove the cover of Central Exchange Unit.
2. Removing the cover of Central Exchange Unit will cut off the power supply automatically. When you wish to power the power supply while servicing the system, depress and hold down the automatic cutoff switch.
3. As the printed circuit boards on Central Exchange Unit employ MOS-ICs, do not touch the printed circuit boards. Doing so may damage the printed circuit boards with static electricity.
4. Before removing the printed circuit board: XC-055 (subscriber card), wait until all three (3) LEDs go out on the main printed circuit board (XC-054) after the power is off.
5. Before replacing any station, be sure to switch off the power supply.
6. When your YKX system includes paging amplifier(s) or remote control devices, switching the power supply on and off will cause noise through paging speakers and switchover of the remote control ON/OFF mode of the remote control devices. This is not due to equipment failure but rather what occurs when the power supply is switched on or off.

* Special Instructions:

Do not make temporary operation of turning ON and OFF power switch again and again. At least 3 seconds have to elapse between ON and OFF operations.

7. When locating or replacing the subscriber card (XC-055), please note that the first card from the left is assigned for the stations Nos. 10 to 17, the second card for the stations Nos. 18 to 25, and the third card for the stations Nos. 26 to 33.

