

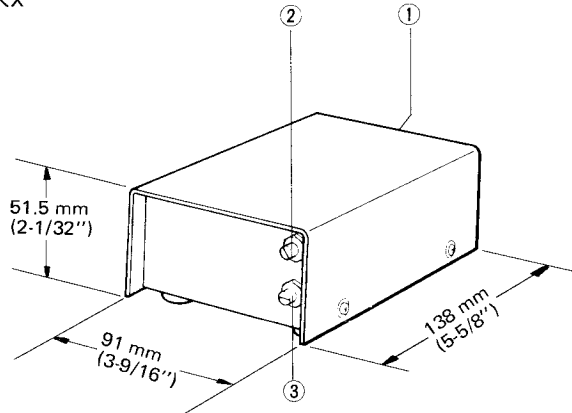
## TALKBACK PAGING ADAPTOR

MODEL: **PB-YKX**

FOR USE WITH YKX AND EX MICROPROCESSOR SYSTEMS

### — INSTRUCTIONS —

PB-YKX



#### NAMES AND FUNCTIONS

- ① Terminals and YKX/EX system selector switch
- ② Volume control for talkback
- ③ Noise control for talkback  
(For tuning out or reducing interference during talkback)

- \* Up to 4 paging zones available in either system.
- \* Talkback paging can take place in only one zone at a time.
- \* YKX system: Station capacity is not reduced by the talkback paging function.
- \* EX system. Station capacity is reduced by one station for each talkback paging zone.

#### SPECIFICATIONS

- \* Power source: DC-24V supplied by the YKX power supply unit (YKX system).
- \* Current consumption: Less than 2mA in standby position.  
Less than 40mA maximum in talkback mode.
- \* Talkback gain: 38dB, 1KHz. at maximum volume.
- \* Environmental noise: Less than 80dB (phon) at 1 m distance.
- \* Wiring distance:

DIAMETER OF WIRES	0.5 mm	0.65 mm	0.8 mm	AWG24	AWG22	AWG20
DISTANCE BETWEEN CEU & PB-YKX	530 m	890 m	1,350 m	1,740'	2,920'	4,430'

#### AMPLIFIER REQUIREMENTS

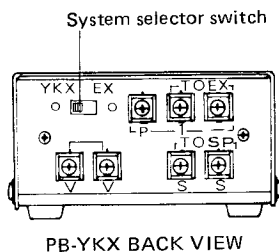
Use AIPHONE standard paging amplifier PG-10B, PG-30B, PG60B  
(or PG-10A, PG30A, PG60A, UL & CSA APPROVED in North America).

- \* Input: AUX. or PHONO (100K ohm ~ 500K ohm, 0.12 ~ 0.5V).
- \* Output: Less than 100 watt either with 70.7V or 100V balanced line.

#### INSTALLATION

Do not attempt to install your PB-YKX adaptor until you have read and thoroughly understand the installation procedure. Requirements listed in Page 1 **MUST BE MET**. Aiphone's warranty for the adaptor and the system is void if adaptor is installed in a manner other than described in this manual.

## ACTUAL PB-YKX TERMINAL LOCATIONS



[1] , [ ] : (YKX) Connect [1] to [TB] of YKX, and [ ] to [ ] of YKX (MC-A) (for paging and control signal).

(EX) Connect to number terminal ( [10] , [11] , [12] or [13] for up to [64] station system; [100] , [101] , [102] or [103] for system of more than 65 stations).

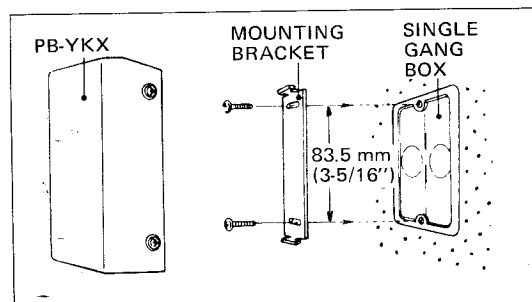
[P] : (YKX) Connect to [2] on MC-A (for paging and control signal output).

[V] , [V] : Connect to the amplifier output.

[S] , [S] : Connect to paging speakers.

## WALL MOUNTING INSTALLATION

- 1) Attach the mounting bracket to wall or single gang box with the supplied screws.
  - 2) Connect wires.
  - 3) Insert the prongs of the bracket to the holes of the PB-YKX chassis and pull the body downward, until properly locked.
- \* Select a location where the unit is not exposed to avoid the possibility of damage to the PB-YKX.



## ADJUSTING CONTROLS

- 1) Set PB-YKX VOLUME and NOISE controls AT MIDPOINT.
- 2) Turn on power for the YKX (or PT-2/2C) power supply, Paging Amplifier and BGM source, if included.
- 3) Adjust VOLUME control on MC-A paging adaptor to desired level. Fine tune paging TREBLE and BASS control on MC-A.
- 4) Adjust MC-A background music volume control to achieve desired background music level. Fine tune background music TREBLE and BASS by adjusting controls on MC-A.
- 5) Initiate paging on YT-A (ET-A/ET-B) station and, while in the receiving mode, adjust PB-YKX VOLUME and NOISE LEVEL controls to desired level.

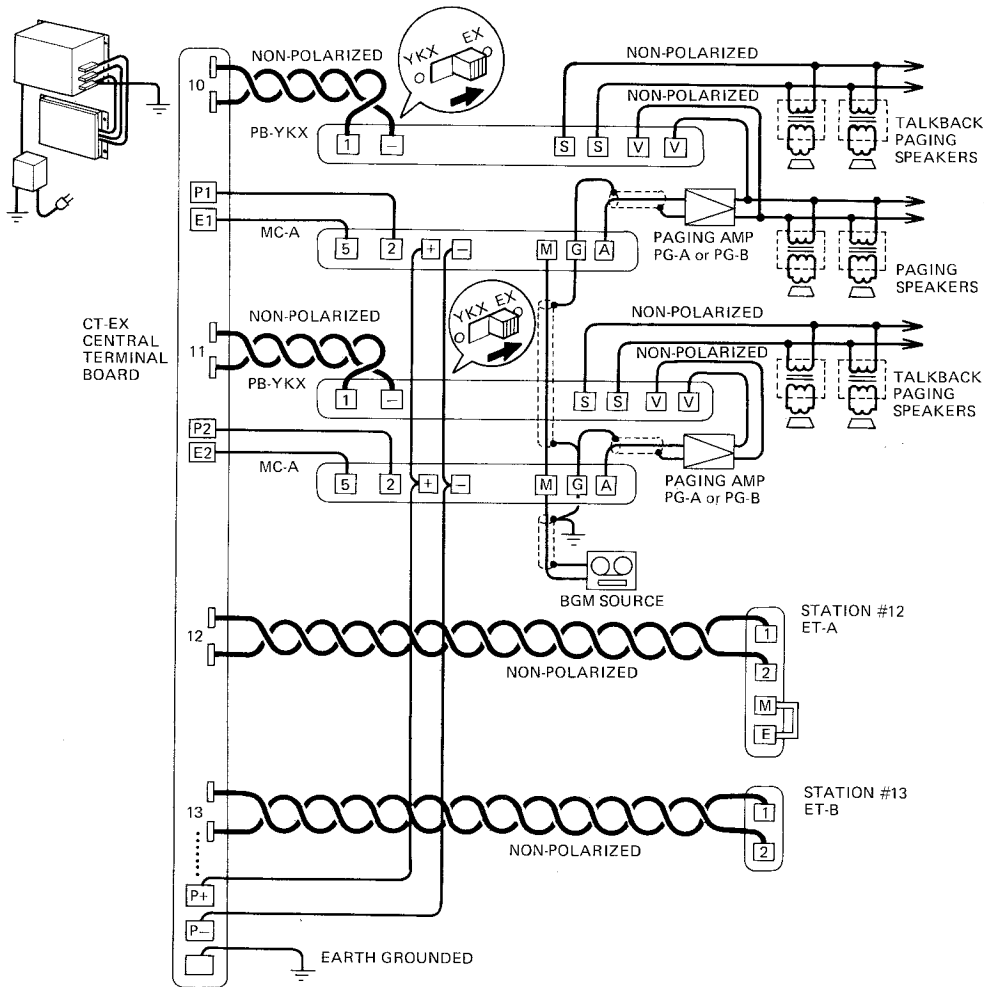
NOTE: When adjusting talkback level we recommend having a radio playing or an assistant available in the talkback paging zone during talkback paging operation.

## INSTALLATION NOTES

- \* Paging amplifier output line should be extended from 70.7V (or 100V) constant voltage terminals, and paging speakers should be connected to parallel output line.
- \* Avoid running speaker lines close to paging amplifier input and BGM output lines. Also avoid running speaker lines in parallel with communication lines (Keep more than 50 cm (20") away from the speaker lines).
- \* The paging adaptor and amplifier should be located as close as possible to each other and shielded cable should be always used to connect them.
- \* It is recommended that AUX terminal be used for the paging amplifier input. When PHONO terminal is used, quality of both paging and background music will be affected.
- \* For connecting PB-YKX output lines [V] , [V] and [S] , [S] , use shielded cable or keep both lines well separated.
- \* Locate MC-A and PB-YKX adaptors, along with YKX (or EX) Central Exchange Unit, in the center of the system. However, keep the adaptors more than 20 cm (8") away from the YKX power supply (or PT-2/PT-2C), to avoid induction interference.
- \* Talkback paging speaker load must be less than 50W for either 70.7V or 100V line.
- \* It is suggested that only the speaker to be used for talkback should be connected to the PB-YKX's [S] , [S] terminals. Otherwise, ambient noise will make talkback difficult to hear and feedback could occur.

# INSTALLATION DIAGRAM

## EX SYSTEM WITH 2 TALKBACK PAGING ZONES



**ZONE No. 1:**  
 Connect conductors from terminals **V**, **V** on PB-YKX to amplifier output and terminals **I**, **-** on PB-YKX to station terminals No. 10 on CT-EX. Extend talkback speaker line from terminals **S**, **S** on PB-YKX.

**ZONE No. 2:** are connected in same manner except terminals **I**, **-** on PB-YKX must be connected to station terminals No. 11.

The terminals for connecting the PB-YKX are programmed on Central Exchange Unit and the following directions must be strictly observed.

TALKBACK PAGING ZONE	STATION TERMINALS PROGRAMMED ON CENTRAL EXCHANGE UNIT		TERMINALS ON CT-EX TERMINAL BOARD FOR CONNECTING MC-A
	CT-32EX OR CT-64EX	CT-88EX OR CT-128EX	
1	#10	#100	P1, E1
2	#11	#101	P2, E2
3	#12	#102	P3, E3
4	#13	#103	P4, E4

ET-A or ET-B cannot be wired to the station terminals connected to PB-YKX (Station #10, 11 in the above diagram).

If talkback paging is not required, terminals #10 to #13 may be used for connecting station ET-A or ET-B (Station #12, 13 in the above diagram).

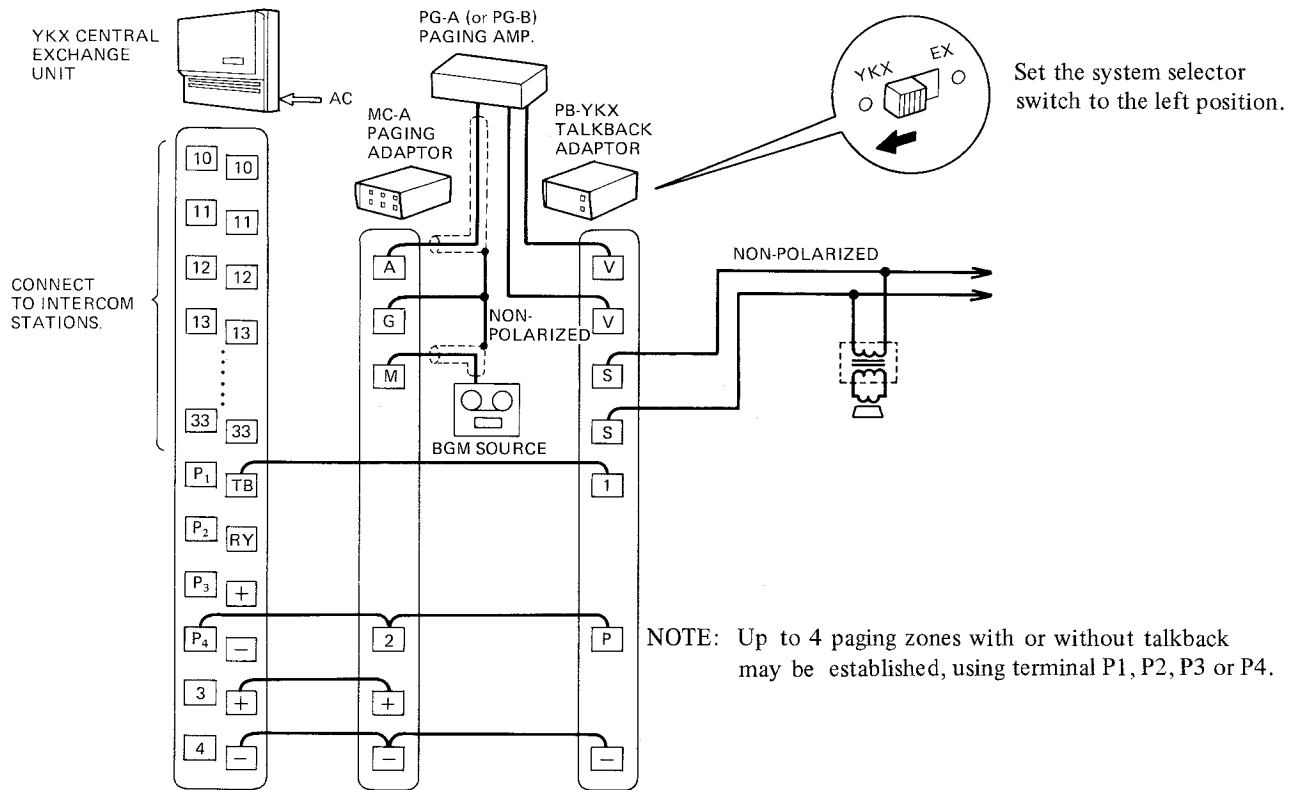
In this case, all station units connected to terminals #10 to #13 must have handset hung up before the power is switched on. Otherwise these stations can not operate. Please hang up handset, switch off the power supply and switch on after 10 seconds to restore to normal operating mode.

PB-YKX will not operate if connected after power supply is switched on.

To assure the best possible talkback paging, please connect only talkback speakers to PB-YKX and straight paging speakers to amplifier output (See Zone No. 1 in the above example).

## INSTALLATION DIAGRAM

## YKX SYSTEM WITH ONE TALKBACK PAGING ZONE



## TALKBACK PAGING OPERATION

- \* Pick up handset, touch (PAGE) button and zone number (1, 2, 3 or 4), then depress and hold down Press-to-Talk button in handset to page. Release Press-to-Talk button in handset for reply. The person being paged can then reply directly through speakers.
- \* Background music will be cut out automatically when Press-to-Talk button in the handset is depressed. Background music is resumed after handset is hung up.

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We at AIPHONE are proud of our products. Our designers and engineers strive to bring you the finest in communication equipment. Each item has been carefully tested and inspected before leaving our factory. Properly installed and used, your Aiphone intercom system should give years of trouble-free service.

We are pleased to offer the following warranty:

### WARRANTY

Aiphone warrants its products to be free from defects of material and workmanship under normal use and service for a period of one year after delivery to the ultimate user and will repair free of charge or replace at no charge, should it become defective upon which examination shall disclose to be defective and under warranty. Aiphone reserves unto itself the sole right to make the final decision whether there is a defect in materials and/or workmanship; and whether or not the product is within the warranty.

This warranty shall not apply to any Aiphone product which has been subject to misuse, neglect, accident, or to use in violation of instructions furnished, nor extended to units which have been repaired or altered outside of the factory.

This warranty does not cover batteries or damage caused by batteries used in connection with the product.

This warranty covers bench repairs only, and any repairs must be made at the shop or place designated in writing by Aiphone. Aiphone will not be responsible for any costs incurred involving on site service calls.