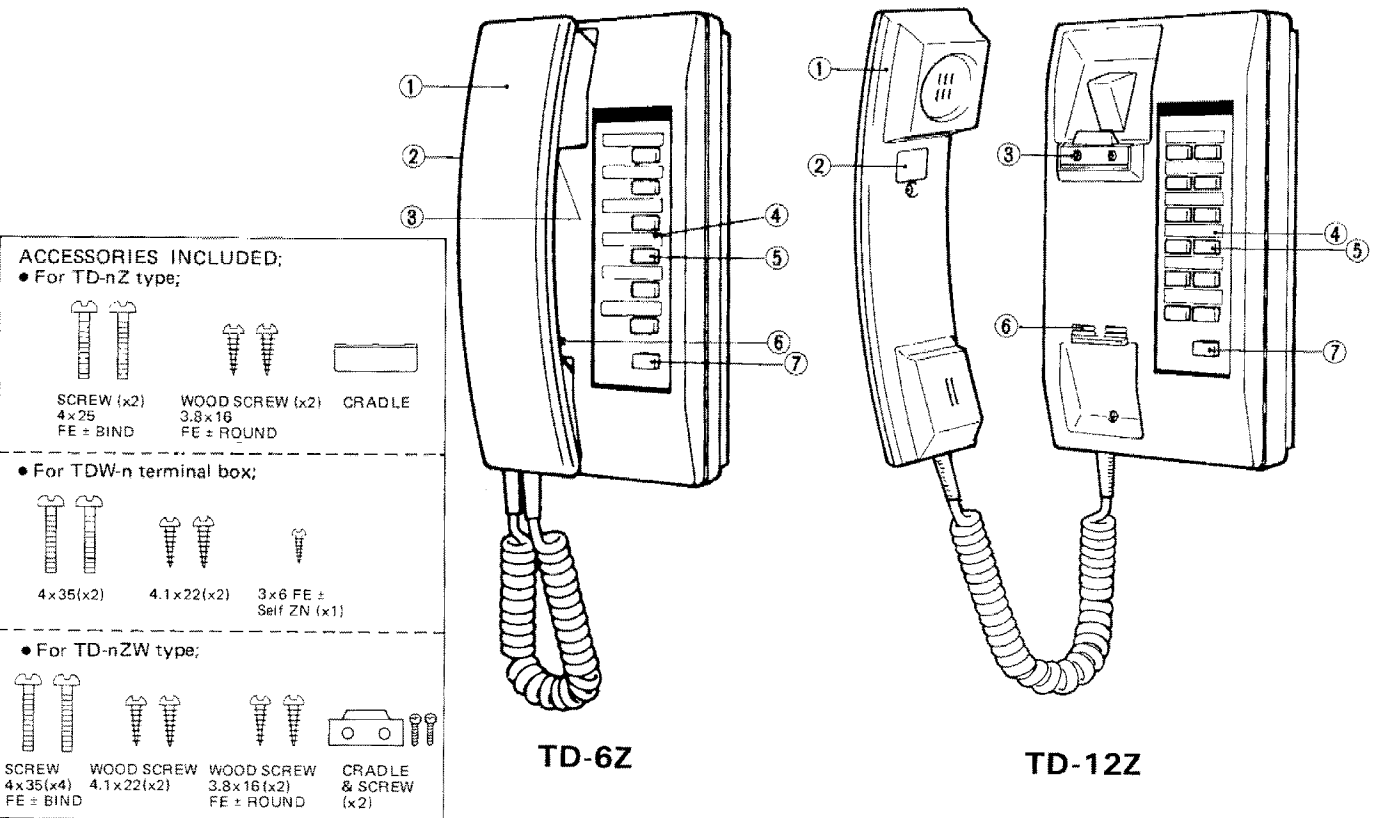


TD-Z series SELECTIVE CALL INTERCOM SYSTEM

MODELS:
TD-6Z *TD-6ZW
TD-12Z *TD-12ZW
**6-call master,
*with terminal box**
**12-call master,
*with terminal box**

INSTRUCTIONS



1 NAMES AND FUNCTIONS

- | | |
|---|-------------------------------|
| ① Handset | ⑤ Station selector button |
| ② Page button | ⑥ Piezo speaker for call tone |
| ③ Handset cradle
(can be reversely attached for desk-top installation) | ⑦ CALL button |
| ④ Directory card | |

2 FEATURES

- The present communication can not be broken in by any other station. Communication privacy if CT-Z central terminal board is used.
- Full communication capacity. A complete TD-12Z system can handle a maximum of 6 conversations simultaneously.
- Home run wiring. Each station connects to central terminal board, using non-twisted communication cable.
- Accepts up to 2 door stations. Adaptor may also handle door release.
- Multiple paging zone installation. Accepts background music.
- Page button conveniently located in handset. Works also as door release button.

3

BEFORE YOU INSTALL AND OPERATE THE EQUIPMENT

— Prohibitions and precautions —

*Installation;

1. Layout your system in advance. Determine exact location of each station. We recommend a full complement of wire be installed, even though you may not initially be installing the maximum number of stations available to your system. This way, should you decide to add a station later, you can avoid running additional cables to existing stations.

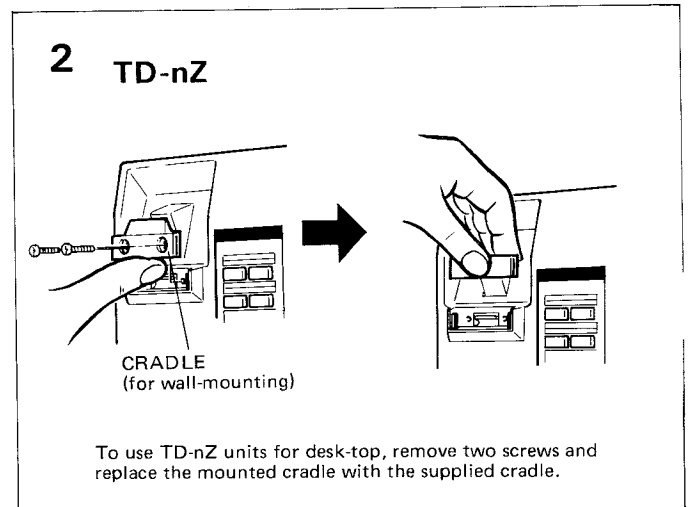
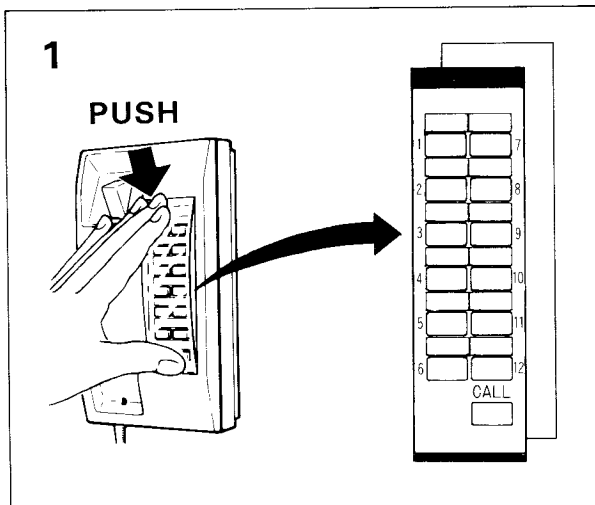
A maximum of 16 wires for TD-12Z.

A maximum of 10 wires for TD-6Z.

2. DO NOT CONNECT ANY TERMINAL ON ANY UNIT TO AC POWER LINES.
3. Select the installation locations that would not be exposed to temperature/humidity extremes, water, oil, dust, iron dust, inflammable & chemical products, etc.
4. Be sure not to plug power supply into AC receptacle until you complete wiring connections, and unplug before opening the unit.

*Operation;

1. Fill in your directory by pencil, etc.
2. Handset cradle must be properly placed.



3. Calling; When you hear no call-acknowledged tone, it means that the station is busy. Please call later.

*Unit selection;

1. For communication privacy, CT-Z central terminal board is required; CT-63Z for a TD-6Z system, CT-195Z for a TD-12Z system.

It may be possible that crosstalk (low murmuring voice of other conversation) will take place in parallel-wired TD-Z system without CT-Z central terminal board.

2. Station unit; TD-6Z & TD-12Z includes terminals on inside the chassis, and can be mounted to single-gang box. In case you mount the intercom station to wall directly or on the desk, use TD-6ZW and TD-12ZW, complete with Terminal box.
3. TD-Z/ZW models are not compatible with the existing TB-Y models.
4. For zone page, use PD-1 paging adaptor for each zone. If talkback is required, select a PD-2 paging/talkback adaptor in lieu of PD-1.
5. To install a door station, use a DE-UR door station adaptor which includes also control relay output for EL-9S door release.
6. Door station can not be installed in a TD-Z system wired with CT-Z central terminal board.
7. The following TB-Y paging accessories can not be used with TD-Z system; PG-U/A, paging adaptor, PA-B, block/talkback adaptor, RY-P/RYS-SP local speaker cutout relay, & NCH-3, Noise-cancelling handset.
8. When system includes door station and/or paging, power supply must be PS-12A (or PS-12C) and not PS-12S.
9. TD-Z system can not be combinedly used with MY video system.

*Maintenance;

1. Clean your equipment by a soft cloth dampened with neutral household cleanser. Never use thinner nor benzene.

4

SYSTEM COMPONENTS

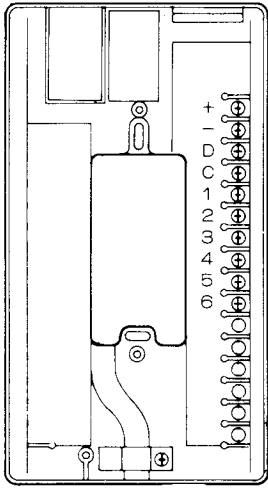
MODELS	DESCRIPTION	QTY	REMARKS
TD-6Z	6-call master, for wall mount (to single-gang box).	Max. 7 pcs in a full system.	* Terminal section included inside the chassis.
TD-6ZW (*)	– do –, for desk-top or direct wall mount.		* Available with terminal box and cord of approx. 1.5 m (5') long.
CT-63Z	Central terminal board for TD-6Z system.	1 per system	
TD-12Z	12-call master, for wall mount (to single-gang box).	Max. 13 pcs in a full system.	* Terminal section included inside the chassis.
TD-12ZW (*)	– do –, for desk-top or direct wall mount.		* Available with terminal box and cord of approx. 1.5 m (5') long.
CT-195Z	Central terminal board for TD-12Z system.	1 per system	
TDW-6 TDW-12	Terminal box for TD-6Z – do – for TD-12Z.	1 for each TD-Z unit	Field installation only. When customer requests for desk-top use of TD-Z unit so far wall-mounted.
PS-12A PS-12C	System power supply. – do –, UL/CSA APPROVED (for North America only).	1 per system	* Locate near center of entire system.

For optional functions:

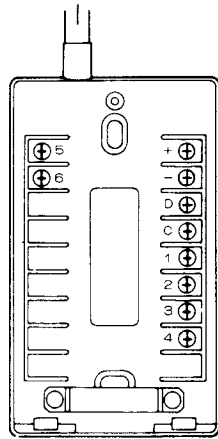
MODELS	DESCRIPTION	QTY	REMARKS
DE-UR	Door station adaptor with door release control relay output.	1 for each door station.	* Call tone change-over switch provided (for a system w/2 door stations).
DE-UR can not be used in a system wired with CT-Z.			
* Door stations; IE-DA IE-DAW IE-NC IE-DC (*) IE-JA IE-FY (*)	With brown plastic cover (surface) – do – with white cover. – do – (semi-flush mt.) With plastic cover (surface) With stainless steel cover (flush mt.) With aluminum cover (flush mt.)	Max. 2 per system	* Select the best-suited face-plate to match the entrance.
* Deluxe type; IE-D1, IE-DL1 IE-D2, IE-DL2 IE-D3, IE-DL3	With anodized aluminum cover 1-call (surface) 2-call 3-call	IE-D/DL door station can be powered by TD-Z system's power supply PS-12A. IE-DL1 ~ 3: with illumination lamp. On Page 9, IE-D2/DL2 wiring diagram is shown. DE-UR adaptor must be used for each call button.	
PD-1 PD-2	Paging adaptor. Talkback/paging adaptor.	1 for each zone. 1 for a zone with talkback.	* No need to be used with PD-1.
PG-10B (*)	Paging amplifier, 10 W.	1 for each zone.	* Multiple unit installation, if required.
PG-10A	Paging amplifier, 10 W. UL/CSA APPROVED.		
SP-3NA (*) NBZ-M N-EA	Paging speaker. Square frame for SP-3NA. Round frame for SP-3NA.	as specified	
EL-9S	Door release. AC 12V, 0.35 A.	as specified	* Requires a separate bell transformer.
RY-AC	Relay for External Signaling device.	as specified	
PG-3	3-watt paging amplifier	as specified	* Used for paging thru 8-ohm paging horn.

(*) NOT available in U.S.A.

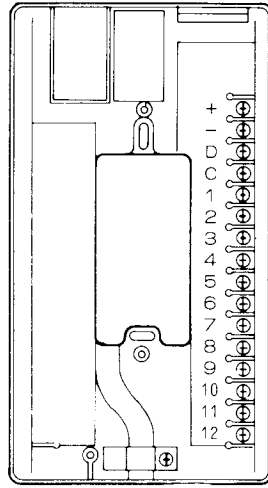
(1) ACTUAL TERMINAL LOCATION



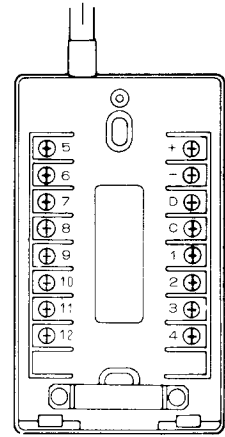
TD-6Z
(inside chassis)



TD-6ZW
terminal box
TDW-6

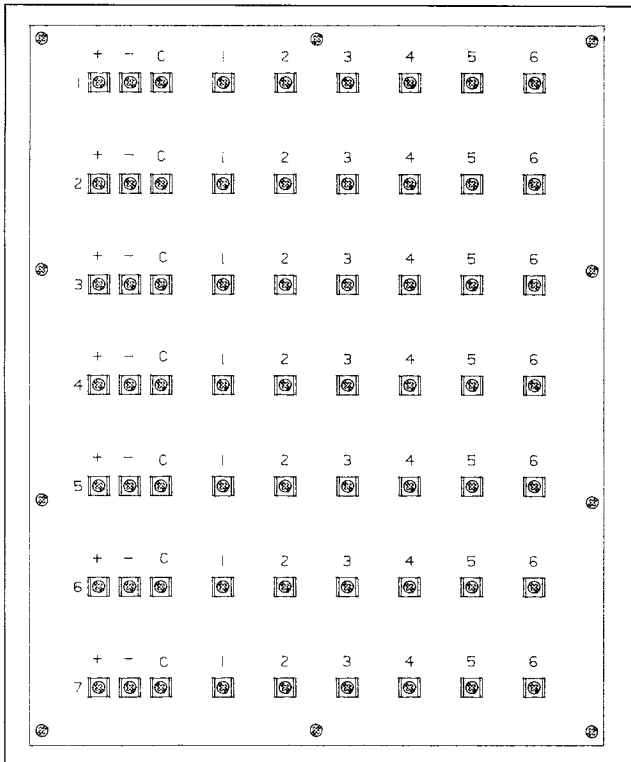


TD-12Z
(inside chassis)

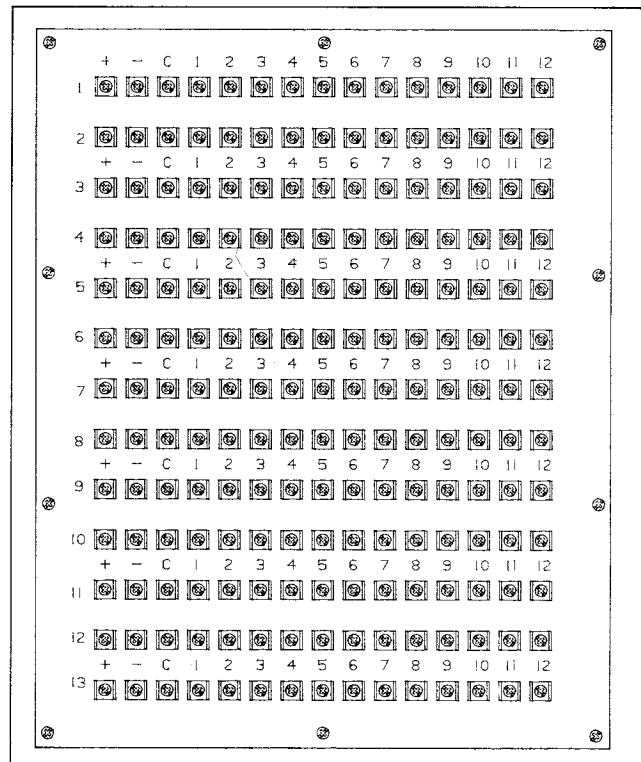


TD-12ZW
terminal box
TDW-12

- +** , **-** : for power supply.
- D** : for receiving door station call signal.
- C** : for receiving a call and talking.
- 1** ~ **12** : for connecting each numbered station.



CT-63Z



CT-195Z

INSTALLATION (continued)

The following steps and illustrations are for TD-12Z and TD-12ZW. Follow the same steps for TD-6Z as well.

(2) TD-nZ wall-mount installation (to single-gang box);

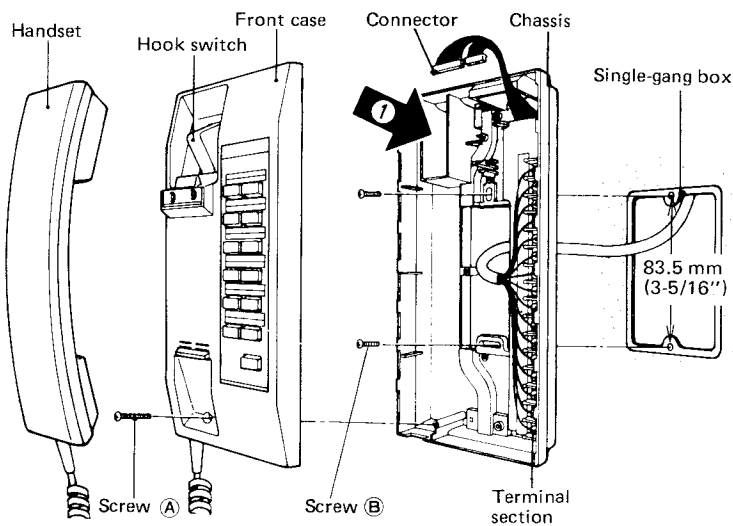
1. Remove screw (A) and take the front case apart from chassis, as shown in Figure A and B.
2. Disconnect the connector(s) from the circuit board in front case as shown in Figure C (the chassis becomes free to be mounted and for wiring).
3. Mount the chassis to single gang box with the supplied screws (B), as shown in Figure D.
4. Install wires to each terminal on the chassis.
5. Plug the connector(s) back to circuit board in front case.
6. Attach the front case to chassis with screw (A).

(3) TD-nZW installation (on desk-top or directly to wall);

When the cable is run and exposed on wall, pass terminal box cord from either top or bottom of chassis before mounting chassis to wall (Figure E).

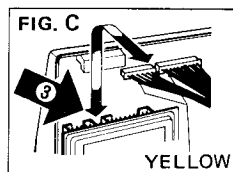
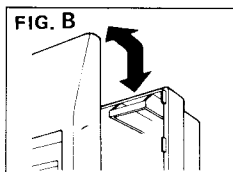
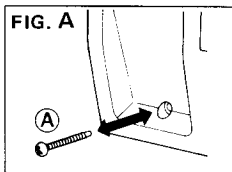
Mount the terminal box to single-gang box or to wall with supplied screws (Figure F & G).

TD-6Z, TD-12Z (illustration)



Be careful not to pinch connector wires by hook knob, when attaching front case.

FIG. D



TD-6ZW, TD-6Z with TDW-6 TD-12ZW, TD-12Z with TDW-12

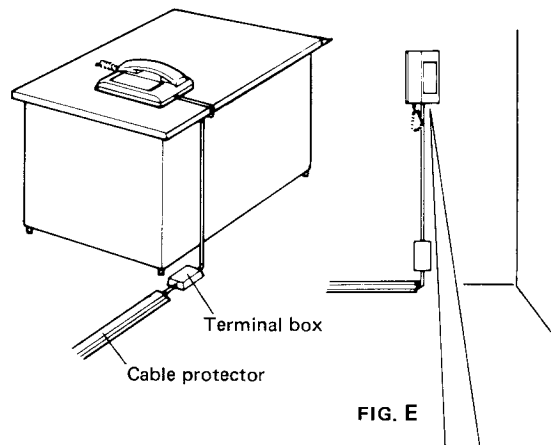
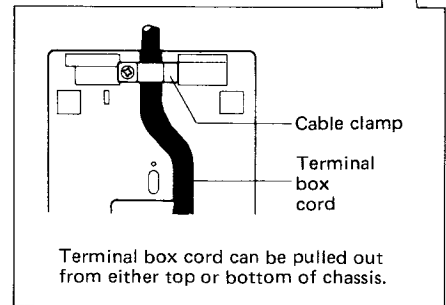


FIG. E



Terminal box cord can be pulled out from either top or bottom of chassis.

TD-6ZW terminal box or TDW-6 TD-12ZW terminal box or TDW-12

FIG. F

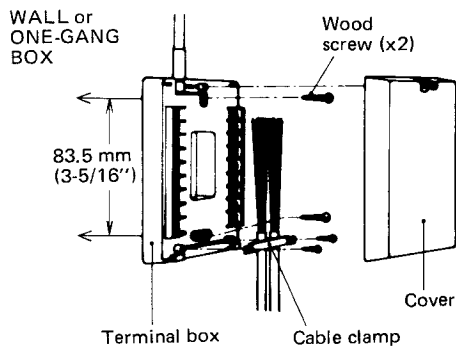
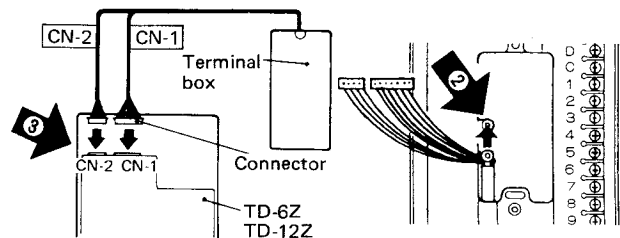


FIG. G

Cord of approx. 1.5 m (5') long



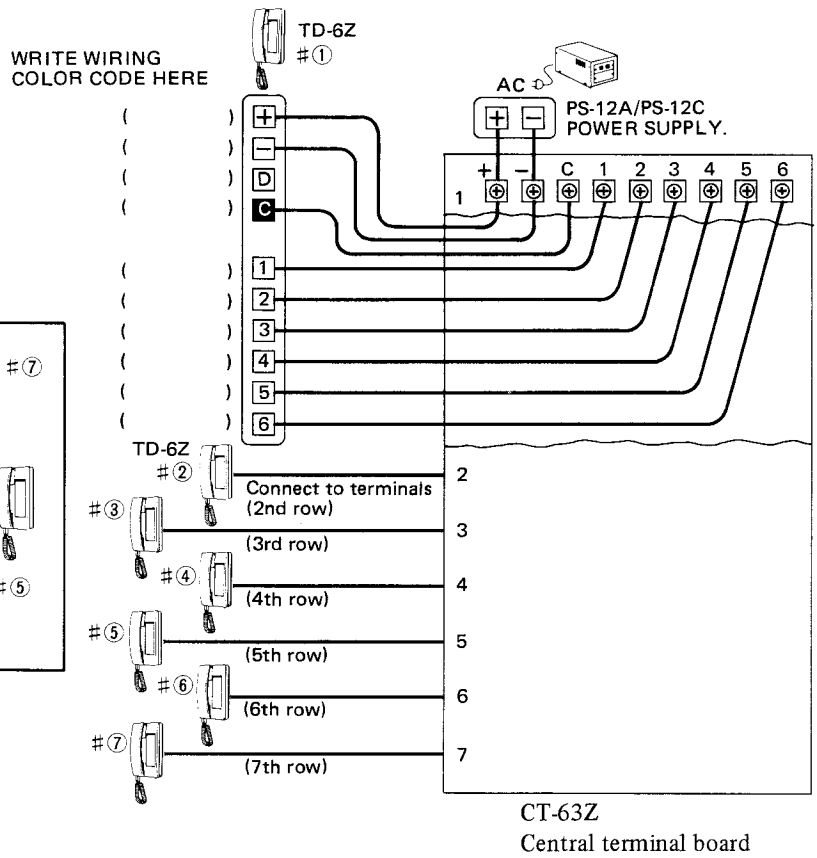
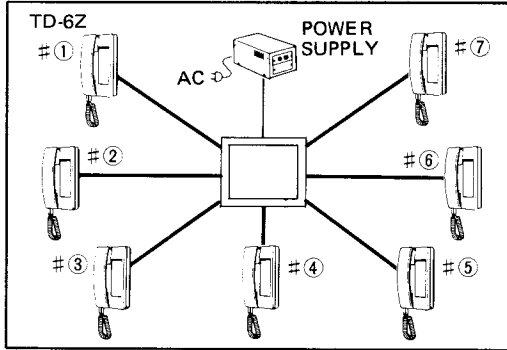
When using TD-6Z/TD-12Z for desk use or mounting TD-6Z/TD-12Z directly to wall, anchor here TDW-6/TDW-12 Terminal Box connector by a screw (3 x 6 self) supplied.

When attaching connectors to each receptacle, carefully observe each CN connector (female) is attached to right receptacle. (See Illustrated Instructions on back of front case.)

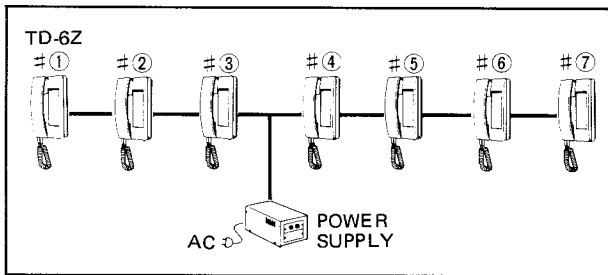
6

LAYOUT EXAMPLE AND WIRING DIAGRAM (1) TD-6Z ALL-MASTER SYSTEM

a. Home run wiring with central terminal board;

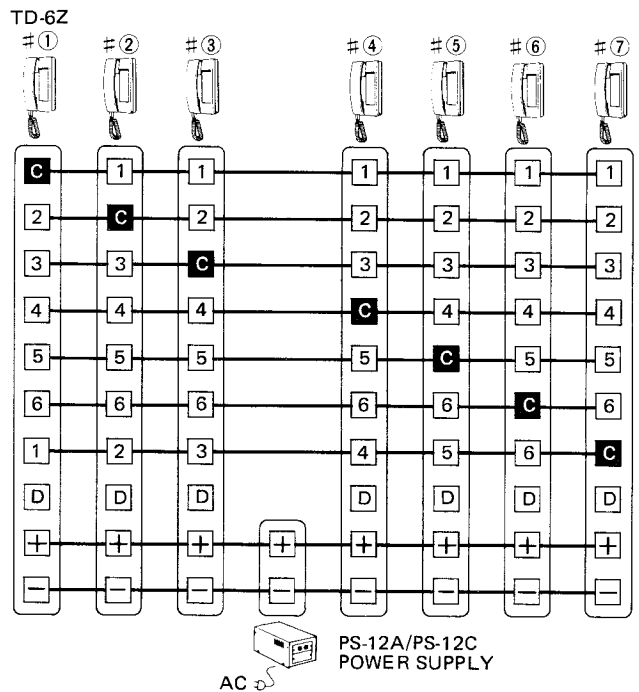


b. Parallel wiring (without central terminal board);



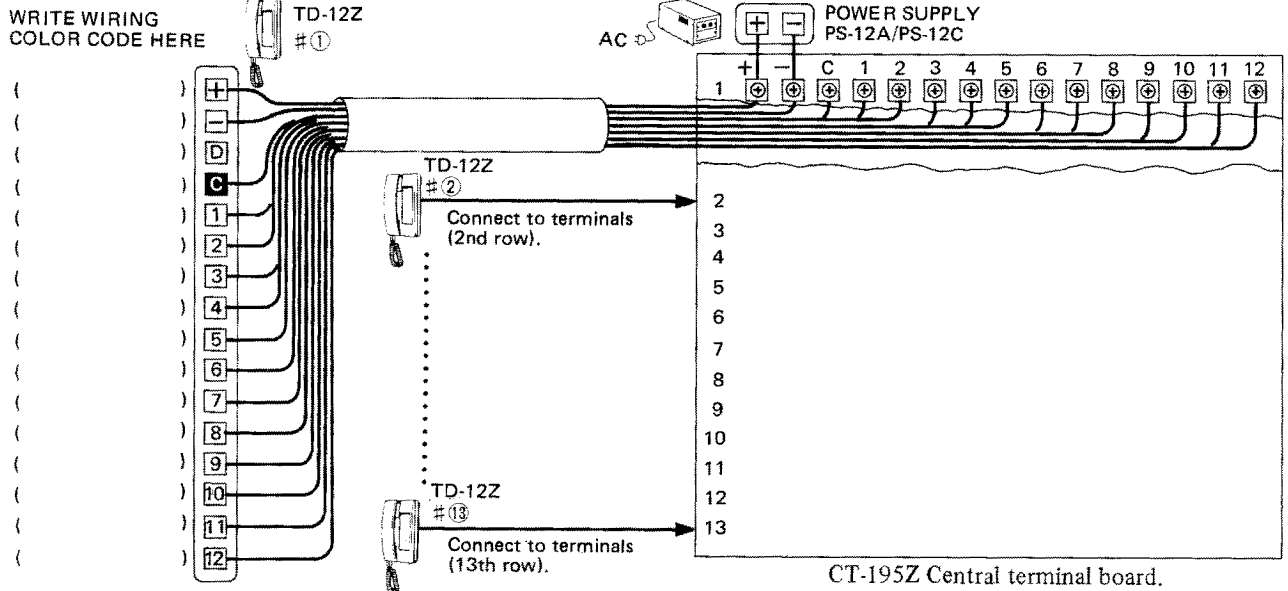
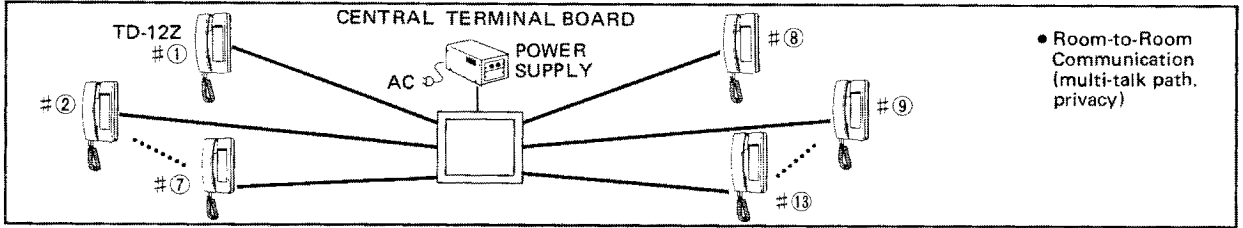
NOTES;

- (1) Each own station No. button connects to the last station No.7.
- (2) Locate the power supply near center of the system.

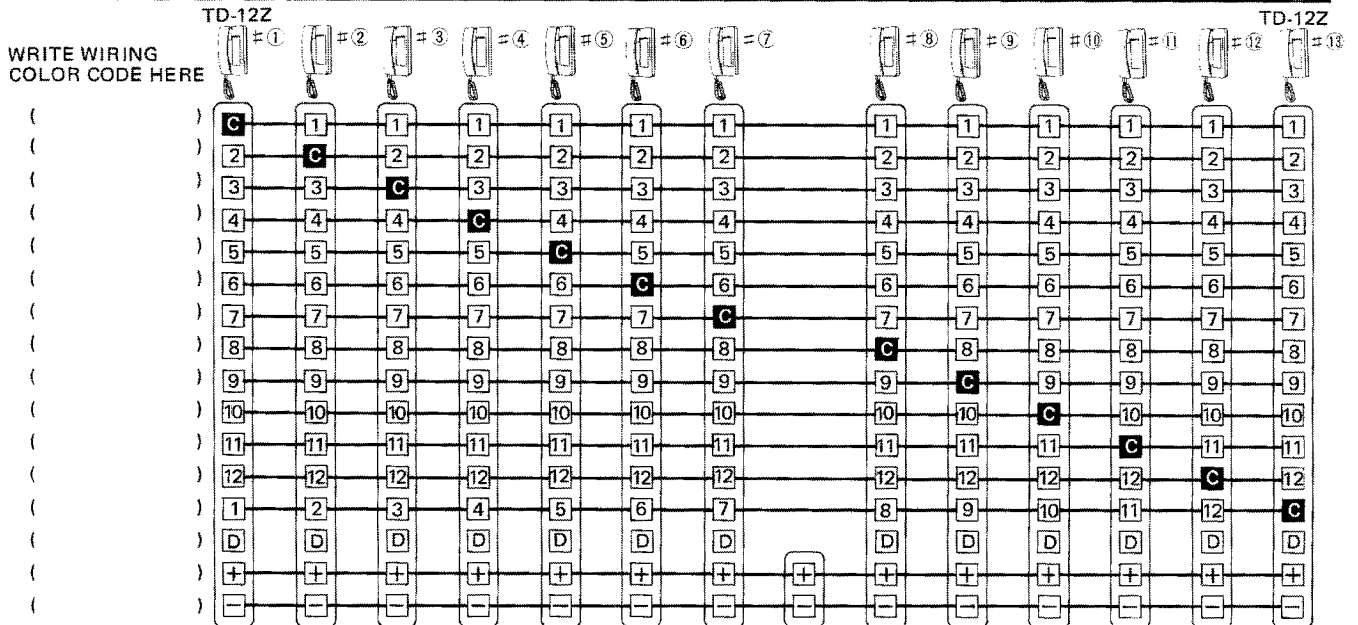
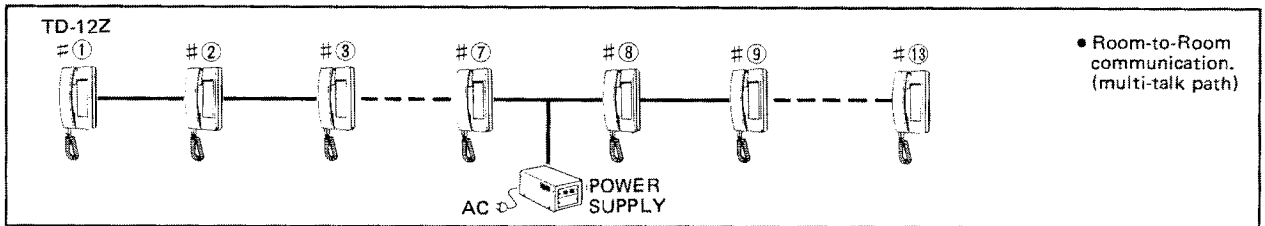


(2) TD-12Z ALL-MASTER SYSTEM

a. Home run wiring with central terminal board;



b. Parallel wiring (without central terminal board);



- NOTES: (1) Each own station No. button connects to the last station No. 13.
 (2) Locate the power supply near center of the system.

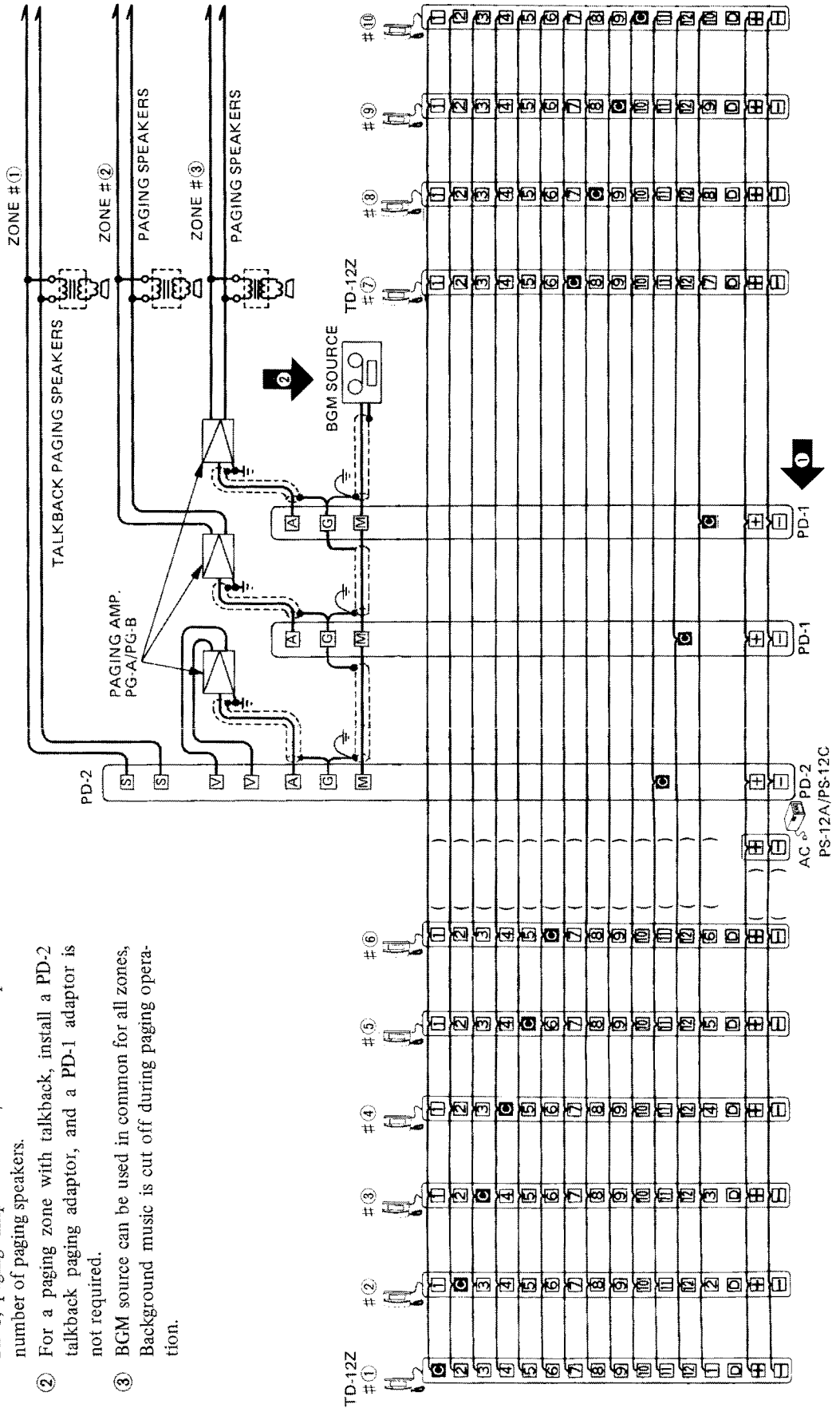
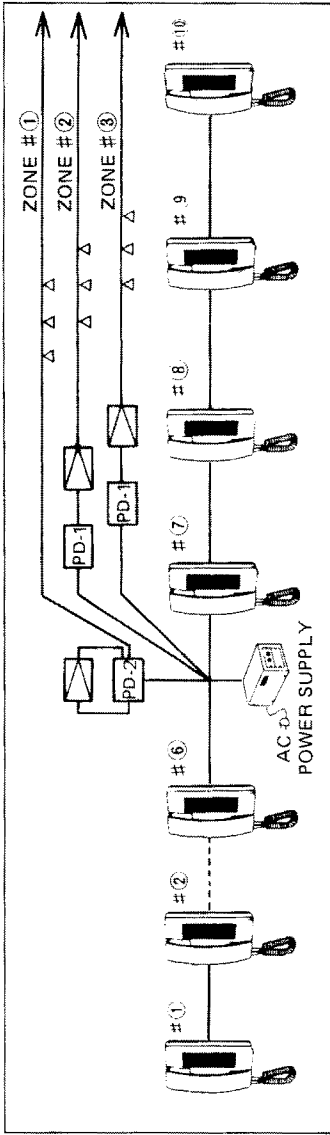
(3) TD-12Z ALL-MASTER SYSTEM WITH 3 PAGING ZONES

(3) TD-12Z ALL-MASTER SYSTEM WITH 3 PAGING ZONES.

This diagram shows TD-12Z all-master system with 3 paging zones (in parallel wiring without CT-195Z central terminal board).

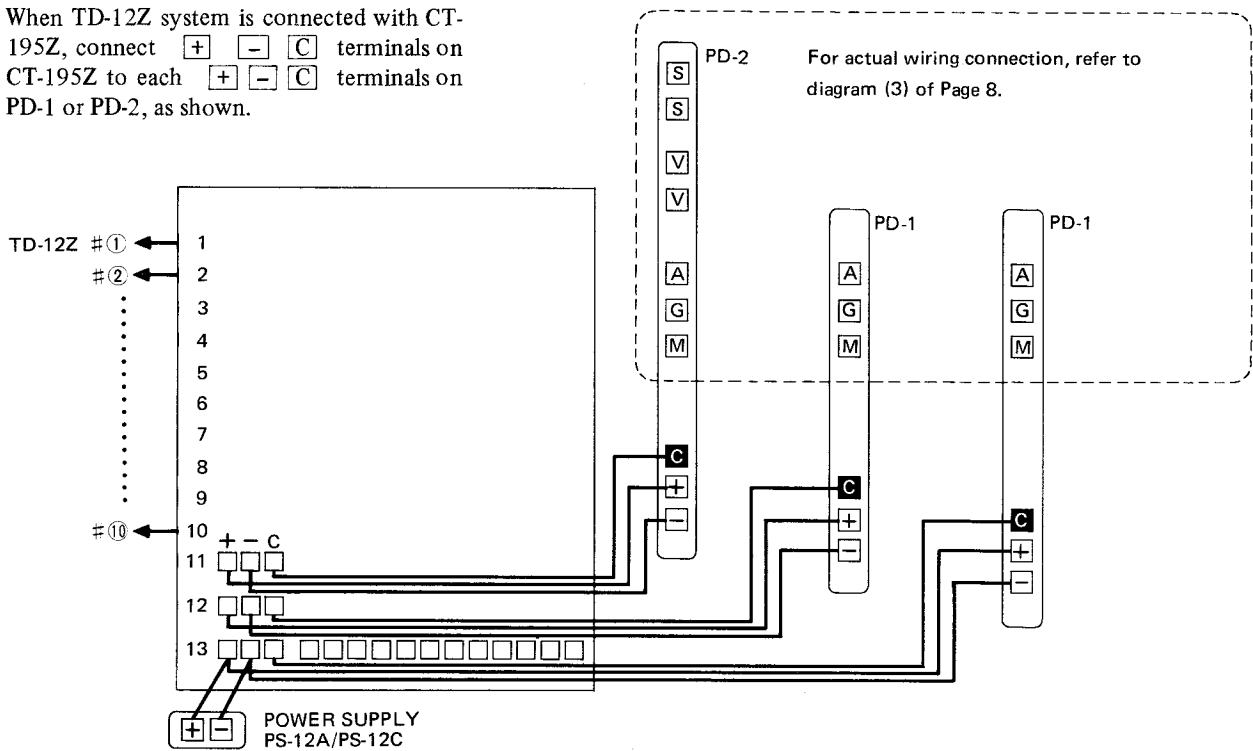
Any station can page by selecting a number button [1] for zone #① (with talkback), [2] for zone #② and [each own No.] for zone #③.

- ① Each straight paging zone requires a paging adaptor PD-1, paging amplifier PG-A/PG-B & a required number of paging speakers.
- ② For a paging zone with talkback, install a PD-2 talkback paging adaptor, and a PD-1 adaptor is not required.
- ③ BGM source can be used in common for all zones. Background music is cut off during paging operation.

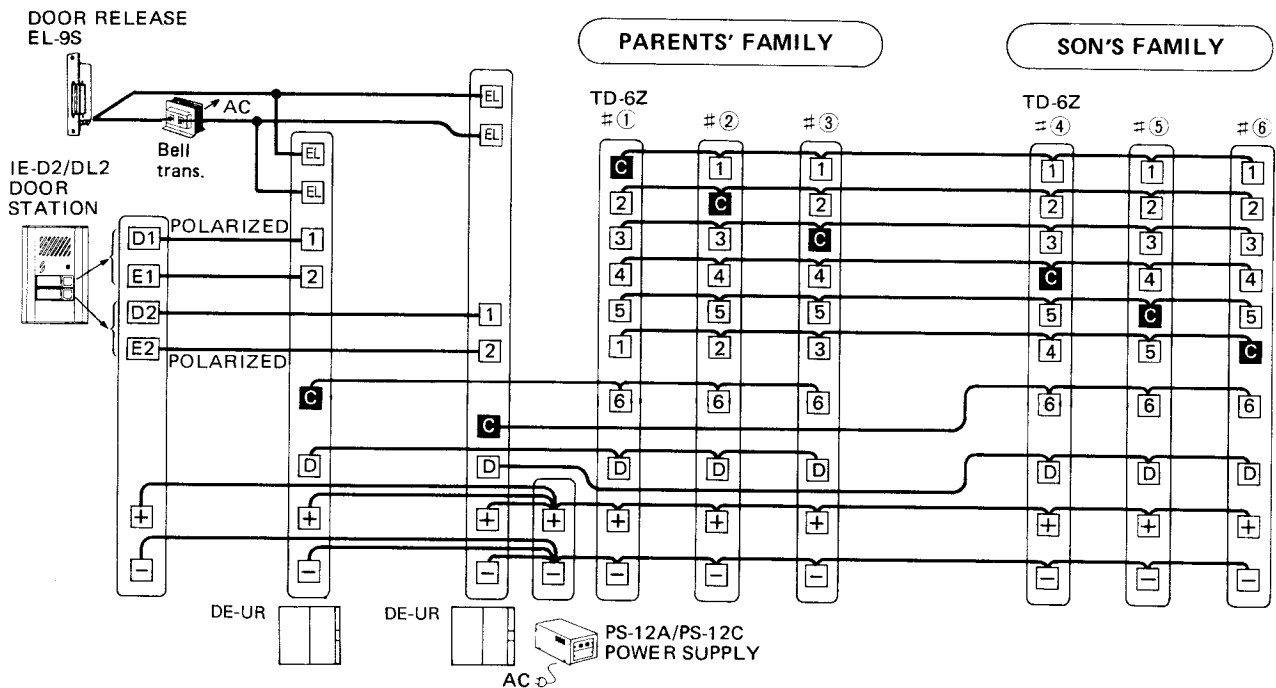


(4) TD-12Z ALL-MASTER SYSTEM WITH 3 PAGING ZONES, USING CT-195Z CENTRAL TERMINAL BOARD

When TD-12Z system is connected with CT-195Z, connect \oplus \ominus C terminals on CT-195Z to each \oplus \ominus C terminals on PD-1 or PD-2, as shown.



(5) TD-6Z SYSTEM W/IE-D2, -DL2, 2-CALL DOOR STATION

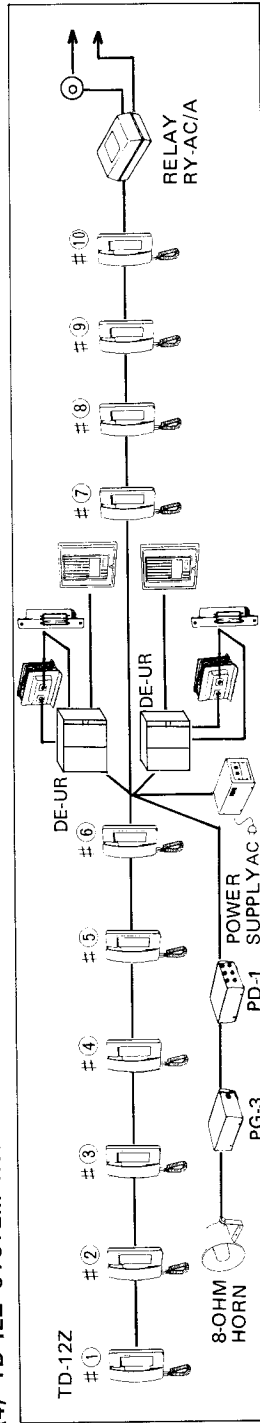


- (1) The upper CALL button signals TD-6Z stations Nos, 1 ~ 3. The lower CALL button signals TD-6Z stations Nos, 4 ~ 6.
- (2) Calling and communication are available between any pair of TD-6Z stations.

- (3) IE-D2/DL2 power supply line can be extended from TD-6Z system's power supply PS-12A/PS-12C.
- (4) Locate DE-UR within 10 m (30') from PS-12A (PS-12C) power supply.
- (5) To reply, select each own No. button at any master station.

(6) TD-12Z SYSTEM WITH 2 EACH, DOOR STATIONS & DOOR RELEASES, EXTERNAL SIGNALING 8 STRAIGHT PAGING THRU 8-OHM HORN

(4) TD-12Z SYSTEM WITH 2 EACH DOOR STATIONS & DOOR RELEASES, EXTERNAL SIGNALING & STRAIGHT PAGING THRU 8-OHM HORN

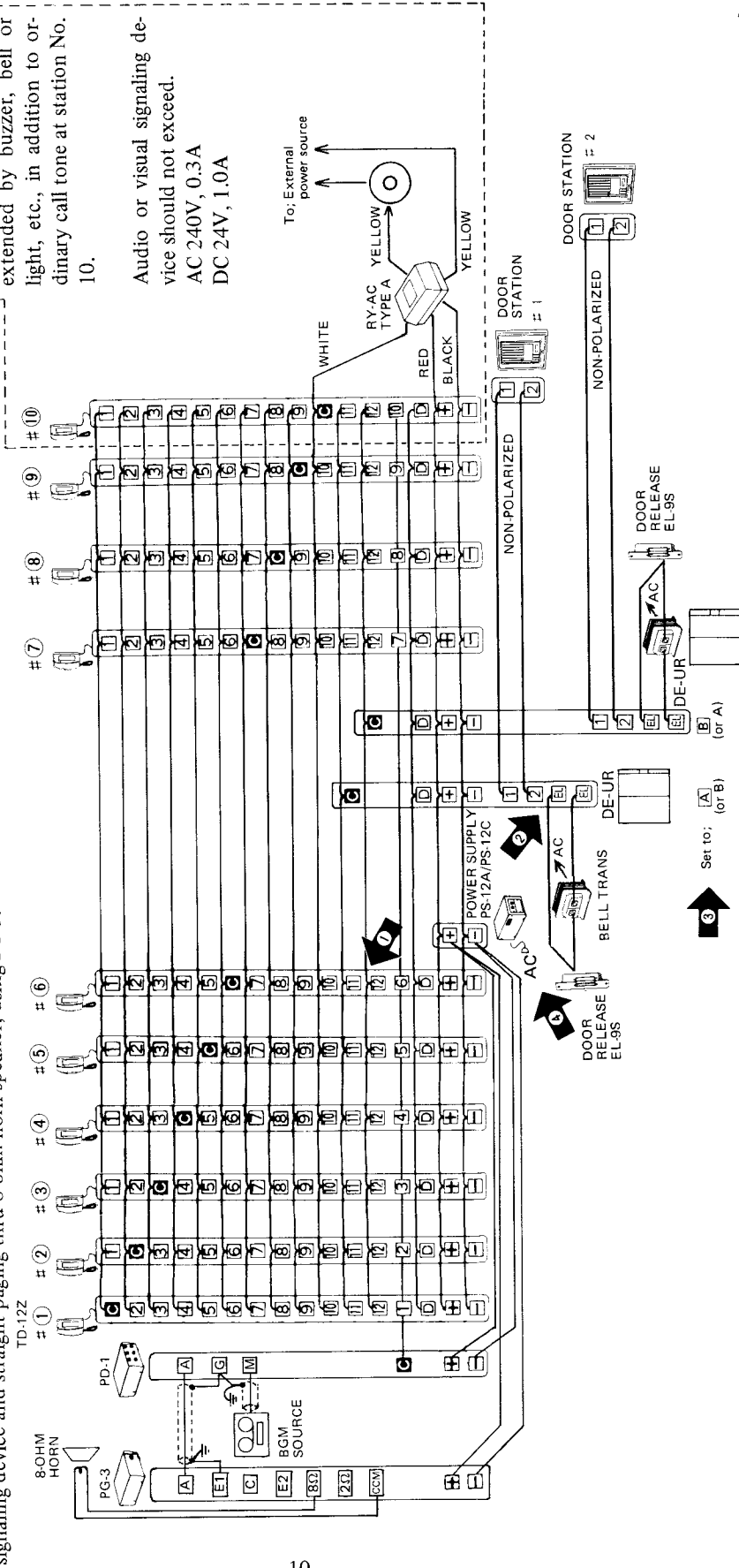


This diagram shows connection of 2 each door stations & door releases, external signaling device and straight paging thru 8-ohm horn speaker, using PG-3.

⑥ Using an RY-AC relay, external audio or visual signaling may be added to any master station located in a noisy area (station No. ⑩)

Any incoming call can be extended by buzzer, bell or light, etc., in addition to ordinary call tone at station No. ⑩.

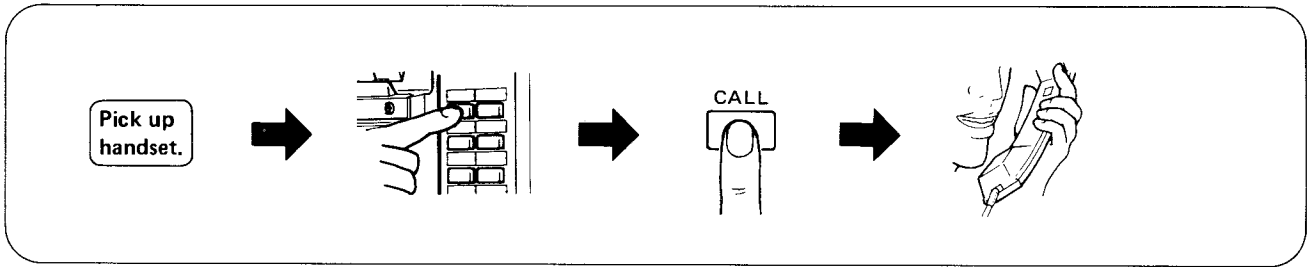
Audio or visual signaling device should not exceed:
AC 240V, 0.3A
DC 24V, 1.0A



- ① Assign a number button for each door station. Connect to **C** terminal on DE-UR adaptor. **11** button connects to door station # **1**, **12** button to door station # **2**
- ② DE-UR has **EL** terminals, which EL-9S door release can be connected to, as shown.
- ③ Set call tone change-over switch to A (slow intermittent) or B (fast intermittent) position to distinguish a call from which.
- ④ Install a power supply near center of the system. Door station adaptor must be powered by power supply as shown.
- ⑤ Each own number button on TD-12Z operates a 8-ohm horn speaker.

7 OPERATIONS

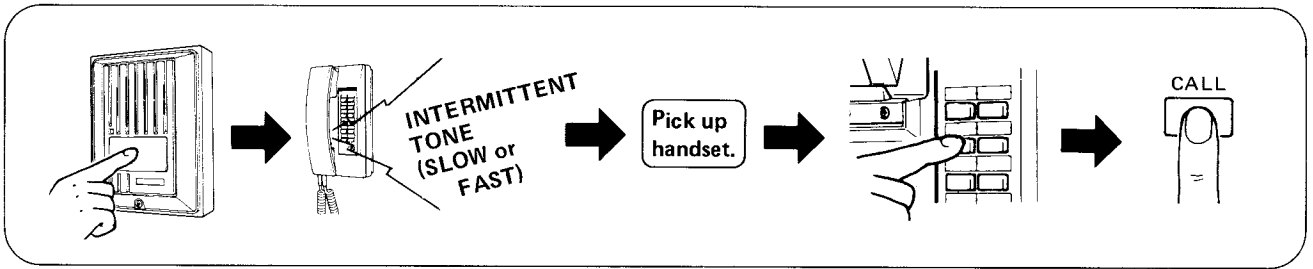
1. Calling and receiving a call;



Pick up handset, select a number button, push **CALL** button to call and communicate when another party replies. When the station you called is in standby mode, you can hear call-acknowledged tone thru handset. If no tone is heard, the called station is busy. Please call later.

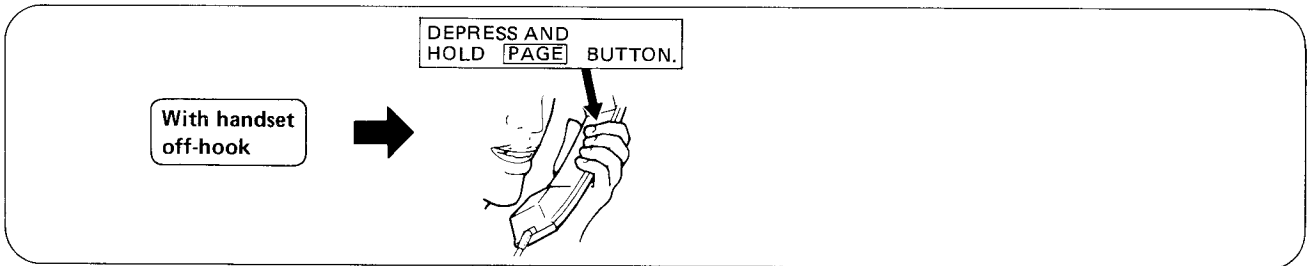
Receiving a call; When an electronic tone sounds, just pick up handset to reply.

2. Receiving a door station call;



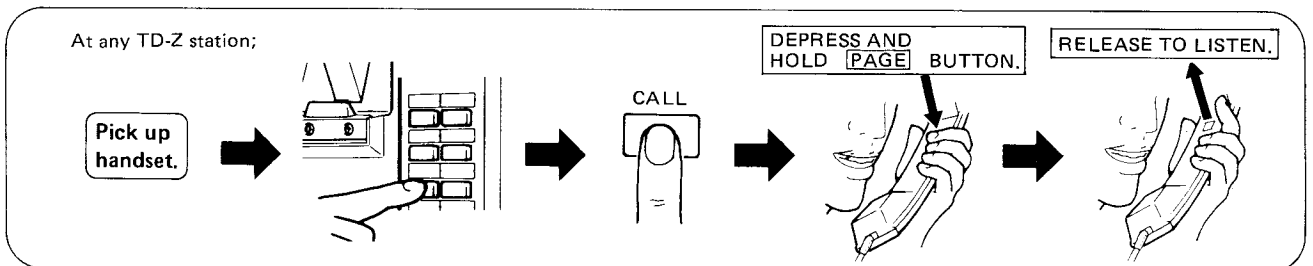
When slow or fast intermittent tone sounds, pick up handset, depress a corresponding number button and then momentarily **CALL** button to reply. (Call signal from door stations continues for approximately 5 seconds)

3. Operating door release (while communicating with door station);



While holding handset, depress and hold **PAGE** button in handset.

4. Paging or zone page with talkback;



Pick up handset, select a corresponding number button, and momentarily depress **CALL** button. Push **PAGE** button in handset to make announcement and release to listen, when talkback is installed.

8

SPECIFICATIONS

- *Power source: DC12V. Use PS-12A (or PS-12C in North America) power supply.
- *Current consumption: 90 mA maximum per channel.
- *Calling: Push-button station selection and CALL button.
 - Electronic tone sounds when called by master station.
 - Slow or fast intermittent electronic tone sounds when called by door station.
 NOTE; Door station call tone signals for a few seconds.
- *Communication channel: Multiple channel for communication and paging.
- *Door station: Max. 2 per system. Each requires an adaptor DE-UR (with call tone switch A or B provided).
- *Paging: Multiple paging zones can be installed. Use an adaptor, PG-nB amplifier (not available in N. America) & ceiling speakers for each zone.
- *Wiring distance: Distance between two farthest master stations (parallel wiring);

Diameter	0.5 mm	0.65 mm	0.8 mm
Distance	400 m	650 m	1,000 m

AWG	24AWG	22AWG	20AWG
Distance	1,200'	2,000'	3,000'

Distance between CT-Z and master station (home-run wiring);

Diameter	0.5 mm	0.65 mm	0.8 mm
Distance	180 m	300 m	460 m

AWG	24AWG	22AWG	20AWG
Distance	600'	1,000'	1,500'

*Total length of all communication cable installed per system should not exceed 2 km (6,500').

Distance between door station and adaptor;

Diameter	0.5 mm	0.65 mm	0.8 mm
Distance	90 m	150 m	230 m

AWG	24AWG	22AWG	20AWG
Distance	300'	500'	700'

*Dimensions: H : 210 mm x W : 100 mm x D : 73 mm.
(8-1/4" x 3-15/16" x 2-7/8")

*Weight: TD-6Z : Approx. 460 g (1.01 lbs.)
TD-12Z: Approx. 480 g (1.06 lbs.)

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.