



NH908A Amplifier and Power Supply Installation and Use Instructions Used with the HT2006 Series Inside Handset Intercom Stations

APPLICATION

The NH908A series intercom system allows any HT2006 series inside (master) handset station to selectively signal (buzz) and communicate with any another HT2006 series inside (master) or HT2003 inside (remote) handset station. Communications is common-talk (non-private) type, and allows for conference calls for up to four (4) total handsets at a time. A number of optional accessories are available to provide a complete intercom signaling and communications system, with or without optional zone paging.

PROCEDURE

1. Read installation instructions for each unit to determine equipment location and installation method.
2. Install equipment and wiring.
3. Check wiring and connect. Observe all local and national electrical codes.
4. Apply power and check operation.

HOUSING INSTALLATION AND EQUIPMENT LOCATION

INSIDE HANDSET STATIONS

Locate handsets where needed at convenient speaking height, about 4.5 feet (137cm) from the finished floor. Handset(s) can be secured directly to the finished wall surface or can be mounted over a single gang electrical 'gem' box or single gang electrical plaster ring.

NH908A AMPLIFIER/POWER SUPPLY

The NH908A is usually located in a separate equipment location. You can mount the NH908A by peeling and sticking using the self-stick mounting tabs or by screwing it to the mounting surface using the holes provided. It must be located away from any source of direct heat or extreme cold and in an accessible location. Keep at least 3 feet (1 meter) away from transformers, light dimmers or other electrical devices or wiring or sources of electrical interference.

TRANSFORMER

The SS106 pigtail type transformer may be installed on

the fuse panel or other accessible source of 117 VAC, preferably within 50' (15 meters) of the amplifier, but no closer than 3 feet (1 meter) from the NH908A amplifier.

WIRING

INSIDE HANDSET STATIONS

Between HT2006 master handsets, run 4 conductor (common) plus 1-conductor (selective) #22AWG cable from handset to handset. Run a 4 conductor #22AWG cable from any of the HT2006 master handsets to the NH908A at the central equipment location. Additional cables may be used to serve other stations on other risers (lines). Cables may be straight or twisted pair type and may be solid or stranded conductors.

Route cable away from AC power wiring, transformers, fluorescent lights, light dimmers or other electrical devices. Protect cable from damage. Shielded cable should be used if AC interference is a concern, or if cables cannot be run adequately spaced away from any source of electrical interference.

DOOR ENTRY STATION

The NH908A amplifier is not designed to be used with any door remote intercom stations. If this feature is desired, you need to change the NH908A to the NH208TVU amplifier and you must add R2006 AlphaTone™ chime modules into some or all of the HT2006 handsets. You will also need to add the door station(s) and door release(s) (if required).

Please see the NH208TVU wiring diagram (AWD057) for complete wiring details for this type of system.

DOOR RELEASE

Same as above note concerning DOOR ENTRY STATION.

CONNECTIONS

Before connecting, make certain wires are free from shorts or grounds. Make connections as shown on following pages and as detailed in the following instructions.

INSIDE MASTER HANDSET STATIONS

1. Connect terminals 'T', 'O' and 'M' on HT2006 handset stations to terminals 'T', 'O' and 'M' on other HT2006 handset stations and to terminals 'T', 'O' and 'M' on the NH908A amplifier.
2. Connect terminals 'S' on HT2006 handset stations to terminals 'S' on other HT2006 handset stations and to terminal '8V' on the NH908A amplifier.
3. When using all HT2006 MASTER Handsets, place a jumper wire between terminal 'E' and 'O' on each HT2006 handset.
4. Terminals 1 thru 5 (on HT2006/5) and 1-10 on (HT2006/10) handsets are the calling-out 'selective' terminals to call other master handsets.
5. Terminal 'Z' is the calling-in 'selective' terminal on each master handset that identifies the handset number (#) being called from the other handsets.
6. Terminal 'B' on the NH908A is not used.

TRANSFORMER

1. Connect transformer 16VAC terminals to the 16VAC input terminals on the NH908A amplifier/power supply. Do not use this transformer to power any other device, not included on this system.
2. Do not plug SS146 (plug-in) transformer into electrical outlet or connect SS106 transformer primary to 117 VAC until entire installation is complete and checked.

FINISH INSTALLATION

1. Install stations on housings. Do not overtighten screws.
2. Install amplifier and accessory devices as needed.
3. Plug SS146 transformer into outlet. If SS106 transformer is used, connect primary to 117 VAC. Observe all local and national electrical codes.

TEST AND CHECKOUT

1. At all inside handset stations, make sure the handsets are hung-up and seated properly on the cradle switch, and that no wires were 'pinched' when handset covers were affixed.
2. Check each unit in the system for operation in accordance with the operating instructions.
3. If feedback occurs between stations, check wiring and check for any loose speaker and/or microphone connections inside the handset(s).

NOTE: The Alpha Communications® warranty is void if this system is installed or used in any manner other than described in this manual.

OPERATING INSTRUCTIONS

CALLING ANOTHER HANDSET STATION

Lift the calling handset off of its cradle and depress the button corresponding to the handset you wish to call, for a few seconds. The electric buzzer (or optional AlphaTone) inside the handset being called will sound as long as the button is depressed. Wait for the other party to lift his/her handset to reply. Speak in a normal voice. Conversation is full duplex type (simultaneous talk and listen). When conversation is completed, hang-up both handsets on their cradles.

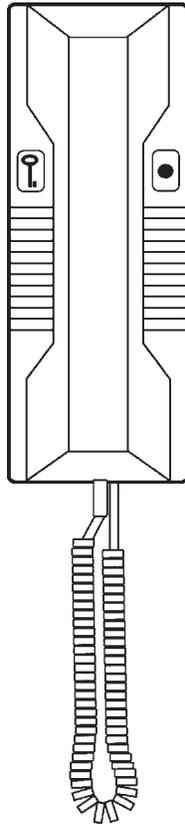
TROUBLESHOOTING

If the system fails to operate as required, review operating instructions again. If the equipment fails to operate as indicated in the instructions, check the following points:

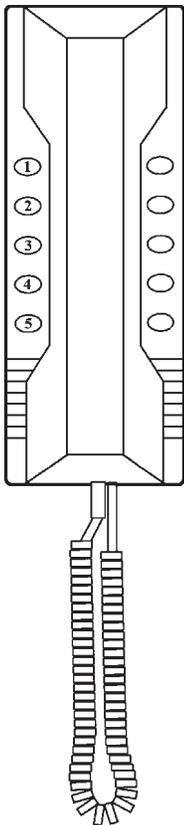
1. **ENTIRE SYSTEM DEAD:** Check 16VAC at transformer secondary; wiring between transformer and NH908A amplifier; connections at amplifier terminals and for 117 VAC at transformer primary.
2. **NO CALL BUZZER AT HANDSET:** Check for approx. 16VAC at terminals 'Z' and 'S' (on HT2006 handset) or terminals 'O' and 'S' (on HT2003 handset), when called from another handset. Temporarily switch handset with one from a functioning location. Check wiring connections at remote handset. Check that wiring inside handset base is not restricting movement of buzzer clapper; temporarily switch handset to another location that is functioning, and try again. Check that the calling handset pushbutton is making contact, by shorting out the two (2) contacts on the pushbutton manually.
3. **NO VOICE ON SYSTEM:** Check terminals 'T', 'O', and 'M' to handsets. Disconnect terminals 'T', 'O' and 'M' on NH908A system amplifier, and connect a single handset to those terminals. If voice is working, amplifier is O.K., so check system wiring. If not, amplifier could be faulty. Check by replacement.
4. **HUM OR BUZZ:** Check system wiring installed too close to power wiring or electrical devices or transformers; check transformer(s) installed too close to control equipment (should be at least three (3) feet away). Wiring is being run next to wiring for other systems and/or devices.
5. **SQUEALING OR HOWLING:** Check wiring for pinching, crimping, crushing, shorting, or being too close to another source of audio interference. Make sure correct voltage transformer is being used to power the NH908A amplifier.

If these checkpoints fail to indicate the problem, there may be an equipment fault. Contact the factory or qualified service representative.

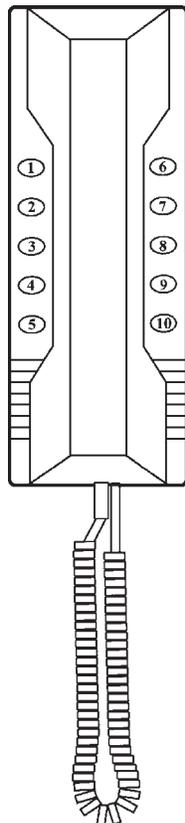
**Model
HT2003
Remote
Handset**



**Model
HT2006/5
Master
Handset**

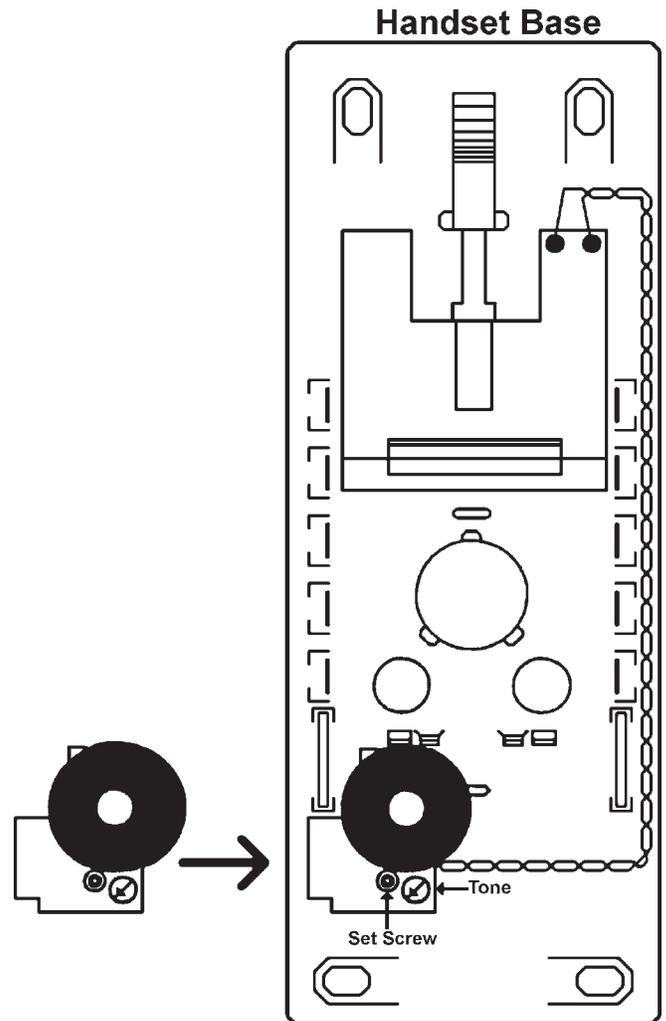


**Model
HT2006/10
Master
Handset**

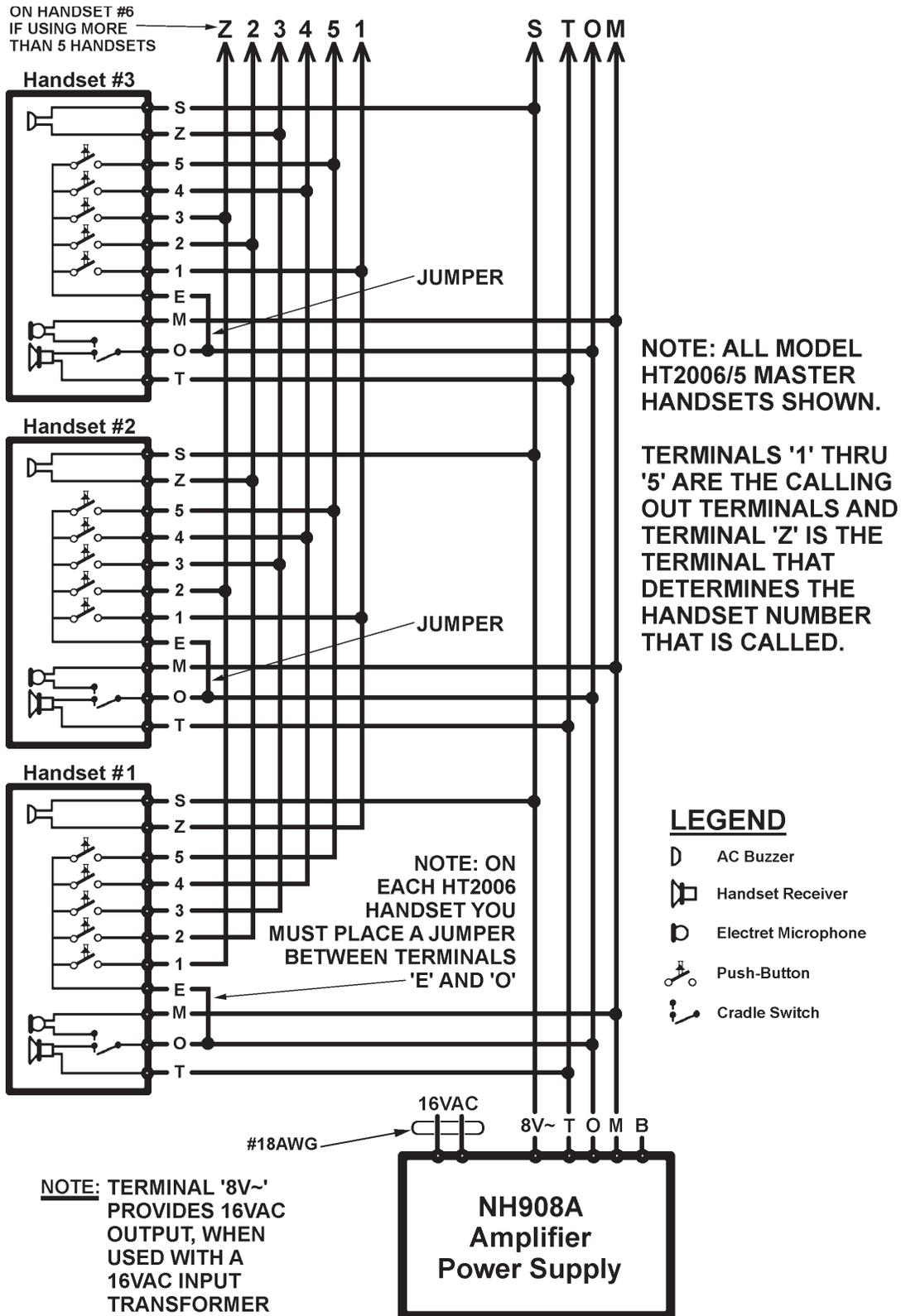


INSTALLING THE R2007 AlphaTone™: When you wish to replace the standard AC buzzer in the HT2003 or HT2006 series handsets with the optional model R2007 AlphaTone™ unit, please follow these instructions:

1. Locate the silver AC buzzer in the lower right hand corner of the handset base. Remove the set screw (and keep it for re-use).
2. Gently pull up the two (2) wires from the buzzer that are attached to the internal p.c. board. Carefully slide the wires off of the connecting posts.
3. Install the R2007 AlphaTone™ in place of the buzzer, using the buzzer set-screw.
4. Install the two (2) wires onto the p.c. board, using the same connecting posts that the buzzer used. Polarity does not matter.
5. Position the wires inside the handset base, so they will not get 'pinched' when the cover is placed over the base.
6. Using a small screwdriver, you can change the AlphaTone's sound, by adjusting the built-in potentiometer found on the p.c. board of the R2007.



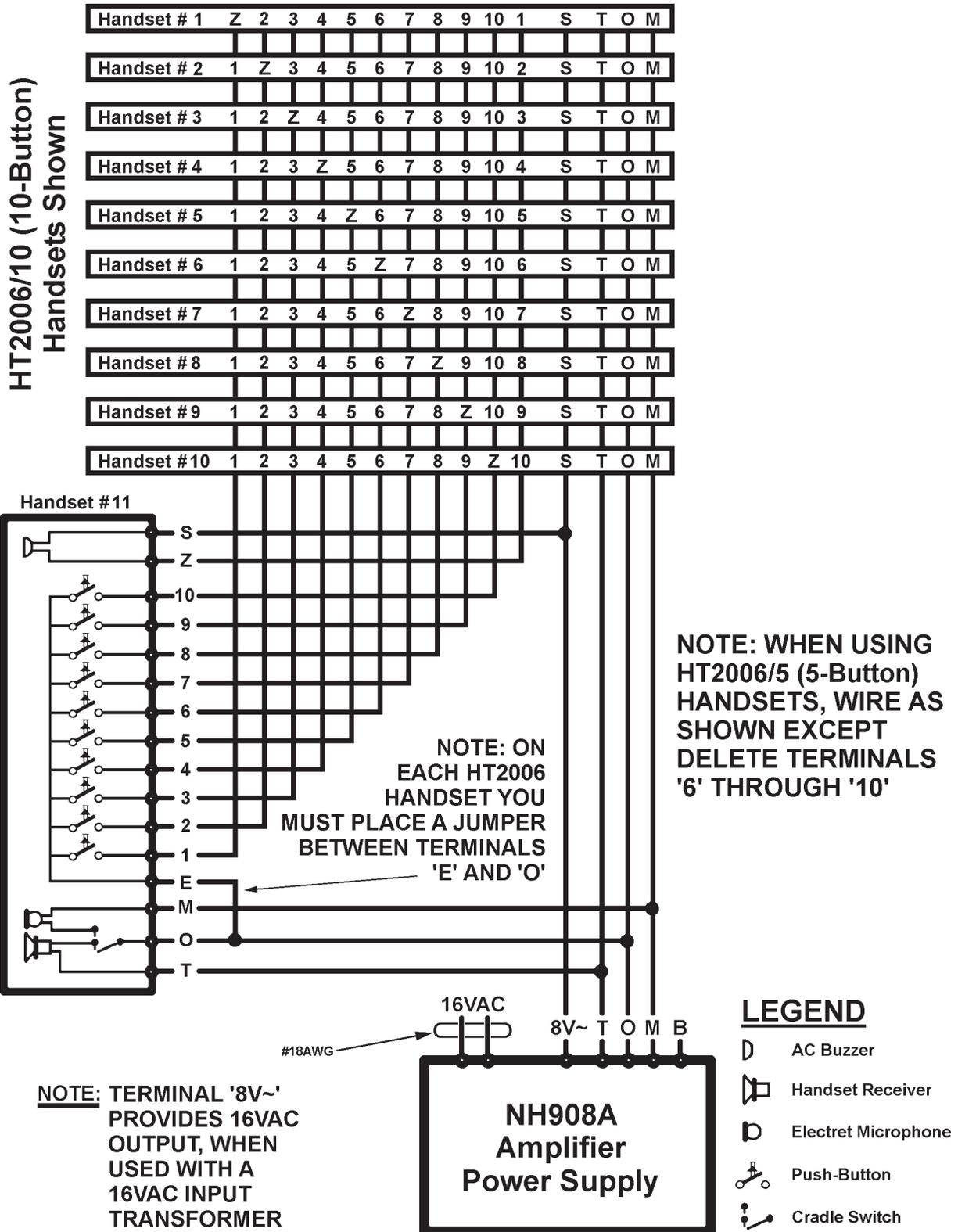
TYPICAL WIRING LAYOUT DIAGRAM FOR UP TO SIX (6) HT2006/5 MASTER HANDSET STATIONS



Notes:

1. All other wiring can be #22AWG unless shown otherwise. If any wire run exceeds 750 feet use #18AWG in place of the #22AWG.
2. Observe all local and national electrical codes.
3. All terminals connections shown may not be in the order that they appear on the equipment.

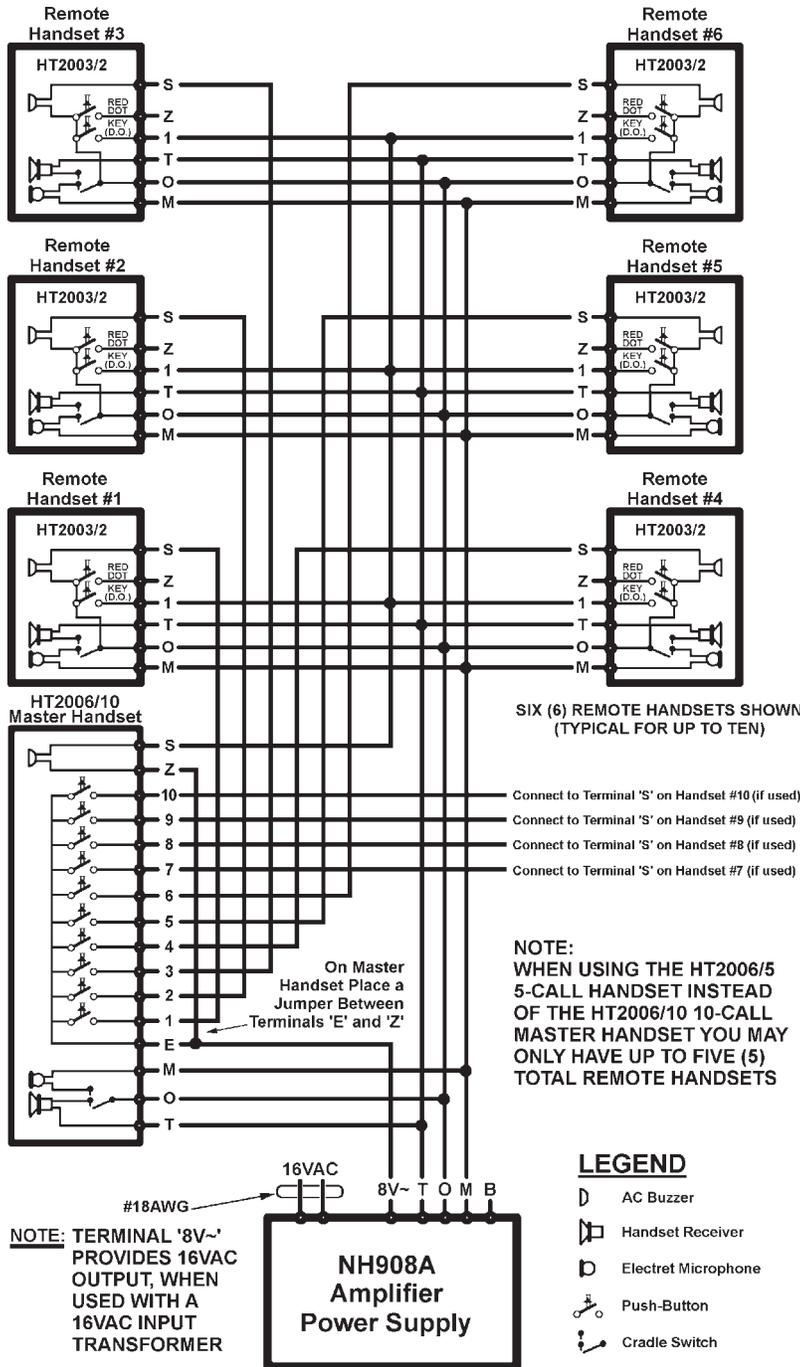
**TYPICAL WIRING LAYOUT DIAGRAM FOR
UP TO ELEVEN (11) HT2006/10 MASTER HANDSET STATIONS**



Notes:

1. All other wiring can be #22AWG unless shown otherwise. If any wire run exceeds 750 feet use #18AWG in place of the #22AWG.
2. Observe all local and national electrical codes.
3. All terminals connections shown may not be in the order that they appear on the equipment.

TYPICAL WIRING LAYOUT DIAGRAM FOR A SINGLE MASTER HANDSET TO UP TO 10 REMOTE HANDSETS



Notes:

1. All other wiring can be #22AWG unless shown otherwise. If any wire run exceeds 750 feet use #18AWG in place of the #22AWG.
2. Signalling from the HT2003/2 remote handsets to the master handset is done by pressing the 'KEY' symbol pushbutton on the remote handset. If you wish to use the 'RED DOT' button instead, you may carefully pop out the two pushbuttons (from inside the upper handset cover) and swap them.
3. Observe all local and national electrical codes.
4. All terminals connections shown may not be in the order that they appear on the equipment.

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