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INSTALLATION INSTRUCTIONS

MVA-1000 Talking Siren Driver

with special electronic speaker and wiring
supervision feature

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Pat. Pending

WI541D 11/94

DESCRIPTION

The Magnum Voice Alert™ 1000 is a high quality multilingual talking siren driver with separate messages for fire and burglary, with fire having priority. Synthesized voice messages are available in English, Spanish and French, in addition to a dual-tone siren (sweep or steady). The message/siren combination is selectable. Similarly, fire and burglary trip logic levels are selectable to suit the control panel.

This module is compatible with all major control panels, including those equipped with internal siren drivers. The output circuit is provided with both overload and thermal protection. A special electronic tamper supervision feature is provided to monitor the speaker and associated wiring so that attempts to remove the speaker will signal an alarm to the central station.

SPECIFICATIONS

Input Voltage: 12Vdc

Recommended Speakers: 8Ω, 15W or 16Ω 10W, minimum. See page 3 for multiple-speaker arrangements.

Current Drain: 2.3A with 4Ω load; 1.3A with 8Ω load; 0.97A with 16Ω load.

Speaker Wire Size: 50 ft or less, #22AWG; up to 150 ft, #18AWG; over 150 ft, #16AWG

Sound Output Level: 127dB*

*To increase sound level, use a larger, more efficient speaker.

INSTALLATION

The module mounts inside the enclosure by means of two double-sided adhesive strips (supplied). Select an area within the enclosure that allows easy access to the speaker terminal strip, selector resistors, and jumpers. (Note that in panels where space is restricted, it may be preferable to make selections and complete wiring to the module prior to final mounting.)

Remove the backing from one surface of one of the adhesive strips. Taking care not to touch the adhesive, apply the strip to the solder side of the module along one of the short sides about 1/2" in from the edge. Press firmly to ensure a secure bond. Similarly, mount the second strip about 1/2" in from the opposite edge. Then remove the remaining backing and affix the module to the selected area inside the enclosure.

VOICE MESSAGES

Following are each of the synthesized voice messages. Each verbal message is preceded by a 5-second siren and followed by a 15-second siren. See *Message Selection* and Table 1 to select the desired message and/or siren combination.

- **ENGLISH FIRE:**
"FIRE, FIRE, FIRE; LEAVE IMMEDIATELY!"
 - **ENGLISH BURGLARY (See Note below):**
"BURGLARY, BURGLARY, BURGLARY; YOU HAVE VIOLATED AN AREA PROTECTED BY A SECURITY SYSTEM. LEAVE IMMEDIATELY!"
 - **SPANISH FIRE:**
"FUEGO, FUEGO, FUEGO; SALIR DE INMEDIATO!"
 - **SPANISH BURGLARY:**
"ROBO, ROBO, ROBO; ESTA VIOLANDO UNA ZONA PROTEGIDA. SALIR DE INMEDIATO!"
 - **FRENCH FIRE:**
"AU FEU, AU FEU, AU FEU; PARTEZ IMMEDIATEMENT!"
 - **FRENCH BURGLARY:**
"AU VOLEUR, AU VOLEUR, AU VOLEUR; ZONE INTERDIT. PARTEZ IMMEDIATEMENT!"
- Note:** The following customized Napco burglary message can replace any English-language burglary message for use in Napco systems. See *Message Selection*.
- **NAPCO BURGLARY MESSAGE:**
"BURGLARY, BURGLARY, BURGLARY; YOU HAVE VIOLATED AN AREA PROTECTED BY A NAPCO SECURITY SYSTEM. LEAVE IMMEDIATELY!"

SETUP

The operation of the module with respect to message selection and control-panel interface is determined by four resistors at the top edge and two jumpers at the left edge of the board. See *Wiring Diagram*.

Message Selection (Resistors A through D).

The desired voice message (refer to *Voice Messages*) and/or siren arrangement is chosen by cutting one or more Resistors A through D (each 1000 ohms; color code: brown, black, red, gold) as indicated in Table 1. Note that Resistor D is used only to select the custom Napco burglary message for use in Napco systems; it is applicable only to English-language burglary messages.

Resistors				Language(s)	
A	B	C	D	Fire Message	Burglary Message
-	-	-	-*	English	English
-	-	X	-*	Spanish, English	Spanish, English
-	X	-	-*	French, English	French, English
-	X	X	-*	English, Spanish, French	English, Spanish, French
X	-	-	-	Siren Only	Siren Only
X	-	X	-	Spanish, English	Siren Only
X	X	-	-	French, English	Siren Only
X	X	X	-	English	Siren Only

*Cut for "Napco" English burglary message (see previous text).

Table 1. Message/siren resistors. "X" denotes resistor cut.

Trip Levels

Burglary Trip Level (Jumper E). The burglary message may be tripped by either a *steady* logic high or a *steady* logic low, as provided by the panel (see panel instructions or *Trip Level Unknown*, which follows). With Jumper E intact, activation is by a logic high (12V). Cut Jumper E for activation by a logic low (0V). Note that a *pulsing* high or low (pulse width .25 to 1.75 seconds, as provided by many control panels) at the BURG/FIRE input E1 will be interpreted as a fire and will produce the fire message.

Fire Trip Level (Jumper F). Similarly, the fire message may be tripped by either a logic high or a logic low. With Jumper F intact, activation is by a logic high (12V); cut for activation by a logic low (0V). Do not pulse this input.

Trip Level Unknown. If the panel is not listed in Table 2 and the instructions are not available, in most cases the module may be wired to the panel with the aid of a voltmeter capable of measuring 12Vdc. Proceed as follows.

1. Connect the positive (+) meter lead to the terminal designated for *Alarm Output* and the negative (-) lead to panel ground. If, *before* initiating a burglary alarm, the Alarm Output terminal measures 0V, do *not* cut Jumper E.

CONTROL PANEL MFR. & MODEL ⁽¹⁾	MVA-1000				
	BLUE WIRE	GREEN WIRE	BLACK WIRE	RED WIRE	JUMPER F
NAPCO MA800	29	NOT USED	30	BATTERY (+)	DO NOT CUT
NAPCO MA825/HS	32		28		
NAPCO MA850	33		30		
NAPCO MA854	26		25		
NAPCO MA900	42		37		
NAPCO MA1008 ⁽²⁾	23		LUG E9		
NAPCO MA1008e, Ver. 1 ⁽³⁾	4	NOT USED	5		DO NOT CUT
NAPCO MA1008e, Ver. 2 ⁽³⁾	3	NOT USED	6		DO NOT CUT
NAPCO MA1010 ⁽⁴⁾	39	LUG E9	37		CUT
NAPCO MA1016	39	NOT USED	37		DO NOT CUT
NAPCO MA2600	48	8	43	BATTERY (+)	DO NOT CUT
NAPCO MA3000	5		16		
ALARM LOCK EGL4700/4700DL	21		22		
ALARM LOCK EGL6000	8	7			
ALARM LOCK EGL8000	23	24			

Table 2. MVA-1000 connections to various control panels.

NOTES: (1) If installing module into a panel with a built-in siren driver, cut the jumper that disables the siren and enables the bell output. (2) Program audible burglary zones for **BURGLARY/FIRE OUTPUT**; do **not** program **PULSING FIRE OUTPUT**; program times for **B/F OUT TIME-OUT** and **FIRE TIME-OUT**. (3) Version 2 has **SPEAKER (+)** on Terminal 3 and **AUX (-)** on Terminal 6. (4) Cut Jumper E on control panel. Program audible burglary zone for **BURGLARY OUTPUT**; do **not** program **PULSING FIRE OUTPUT**; program times for **BURG. TIME-OUT** and **FIRE TIME-OUT**.

- For help in connecting this module to any panel, call Technical Service (Toll Free): 1 (800) 645-9440.
- For a chart showing connections to other panels, call Customer Service (Toll Free): 1 (800) 645-9445 and request a copy of Specification Sheet A304.

If the Alarm Output terminal measures 12V, cut Jumper E.

2. *Only for panels with a separate Fire Output:* Connect the voltmeter positive (+) lead to the terminal designated for *Fire Alarm Output* and the negative lead to panel ground. If, *before* initiating a fire alarm, the Fire Alarm Output terminal measures 0V, do *not* cut Jumper F. If the Fire Alarm Output terminal measures 12V, cut Jumper F.

WIRING

Referring to the *Wiring Diagram* in Fig. 1, complete wire and terminal connections to the control panel as follows:

BLUE (BURG/FIRE) – Connect to the panel Burglary (steady) Output. This wire may also be used to trip the fire message if the panel provides a pulsing fire output (reprogramming may be required). In this case, do not connect the following green wire.

GREEN (FIRE) – Connect to the panel output designated as the Fire (steady) Output (unless blue wire is used).

VIOLET (SPEAKER/WIRING SUPERVISION) – Connect to a 24-hour zone activated by a short for supervision of speaker and associated wiring. Removing the speaker or shorting either speaker terminal to ground will appear as a short on the zone. Note that in series-strung multiple-speaker systems, cutting any speaker will trip the panel's supervision zone. In parallel-strung systems, each branch must be cut before the panel's supervision zone will trip.

Caution: If using an MA1008e or MA1016e control panel in a system utilizing the R1000 wireless receiver, speaker/wiring supervision may not be used on Zone 5 (in the MA1008e) or Zone 13 (in the MA1016e). Connect the violet wire to any other available zone.

RED (+12V) – Connect to the backup battery (+).

BLACK (GROUND) – Connect to panel ground.

SPEAKER TERMINALS – Connect an 8-ohm or 16-ohm speaker. See Fig. 2 for multiple-speaker configurations.

WIRING DIAGRAM

RESISTORS A - D
CUT TO SELECT MESSAGE/SIREN
COMBINATION (SEE TEXT).

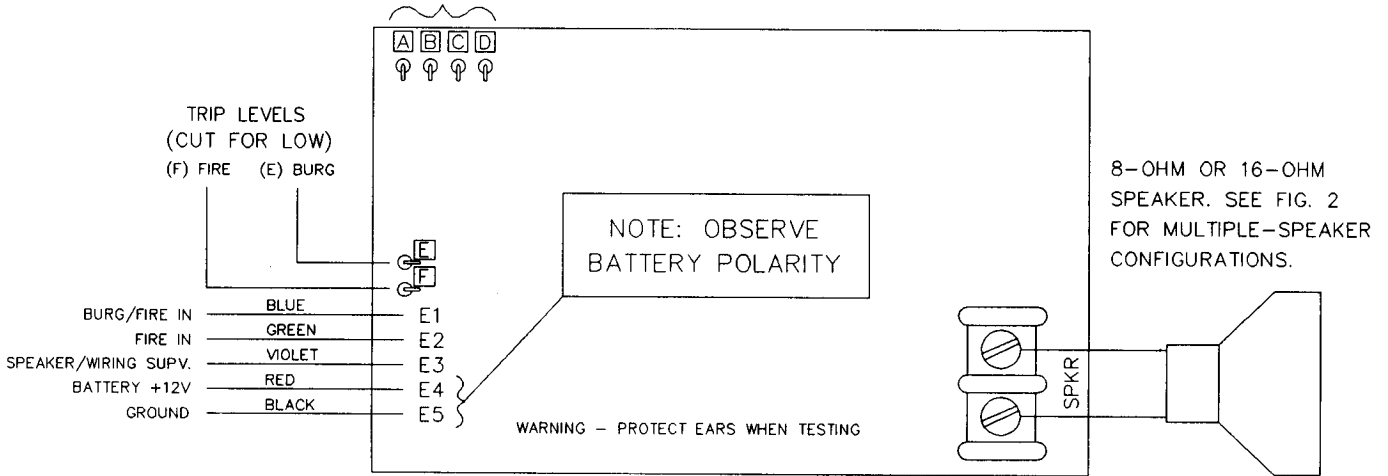


Fig. 1. MVA-1000 Wiring Diagram.

Note: When wiring to a control panel with a built-in siren driver, cut or move the jumper that disables the built-in siren driver and enables the bell output.

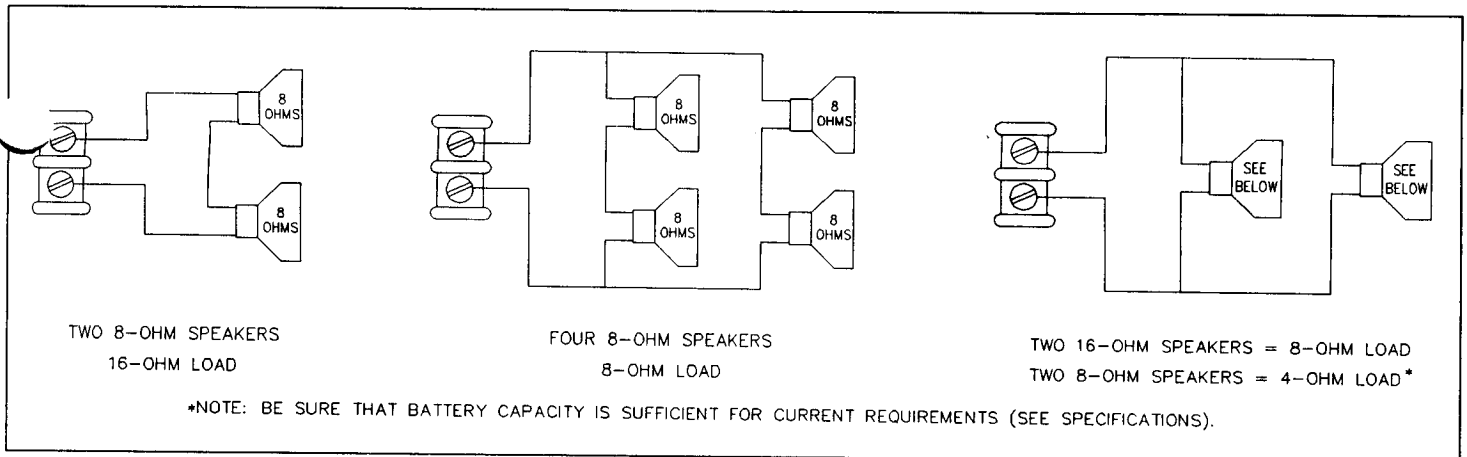


Fig. 2. Multiple-speaker wiring configurations.

Refer to Table 2 for terminal wiring to a variety of control panels. For the panels listed, do *not* cut Jumper E. The module may be connected to most other panels not listed.

For high-security applications, outdoor speakers that are vulnerable may be wired with a 1.5A fuse (optional) as shown in Fig. 3. If the exterior speaker is shorted, the fuse will blow, allowing interior speakers to continue to function.

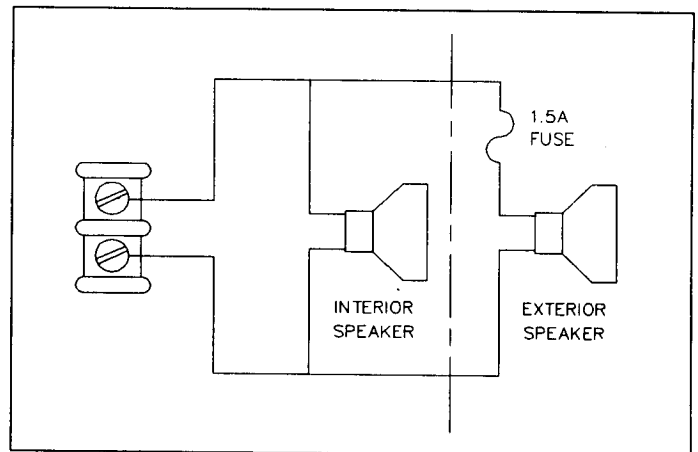
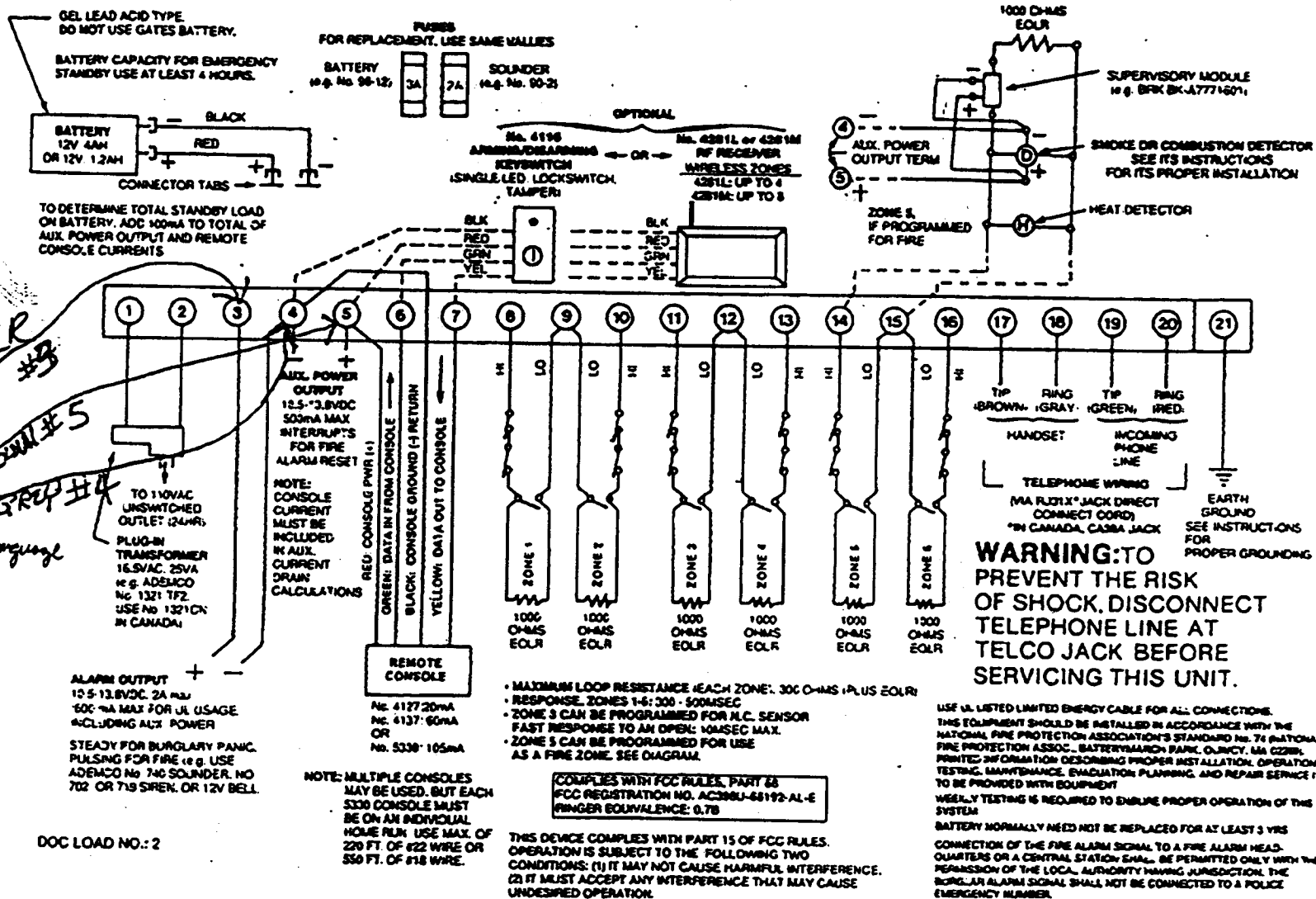


Fig. 3. Fusing an exterior speaker for high-security applications.

Attention Pete Bernard



NAPCO
 4VA 1000
 BICE DRIVER #3
 BLUE
 BROWN #5
 GREEN #4
 longnose

etc B

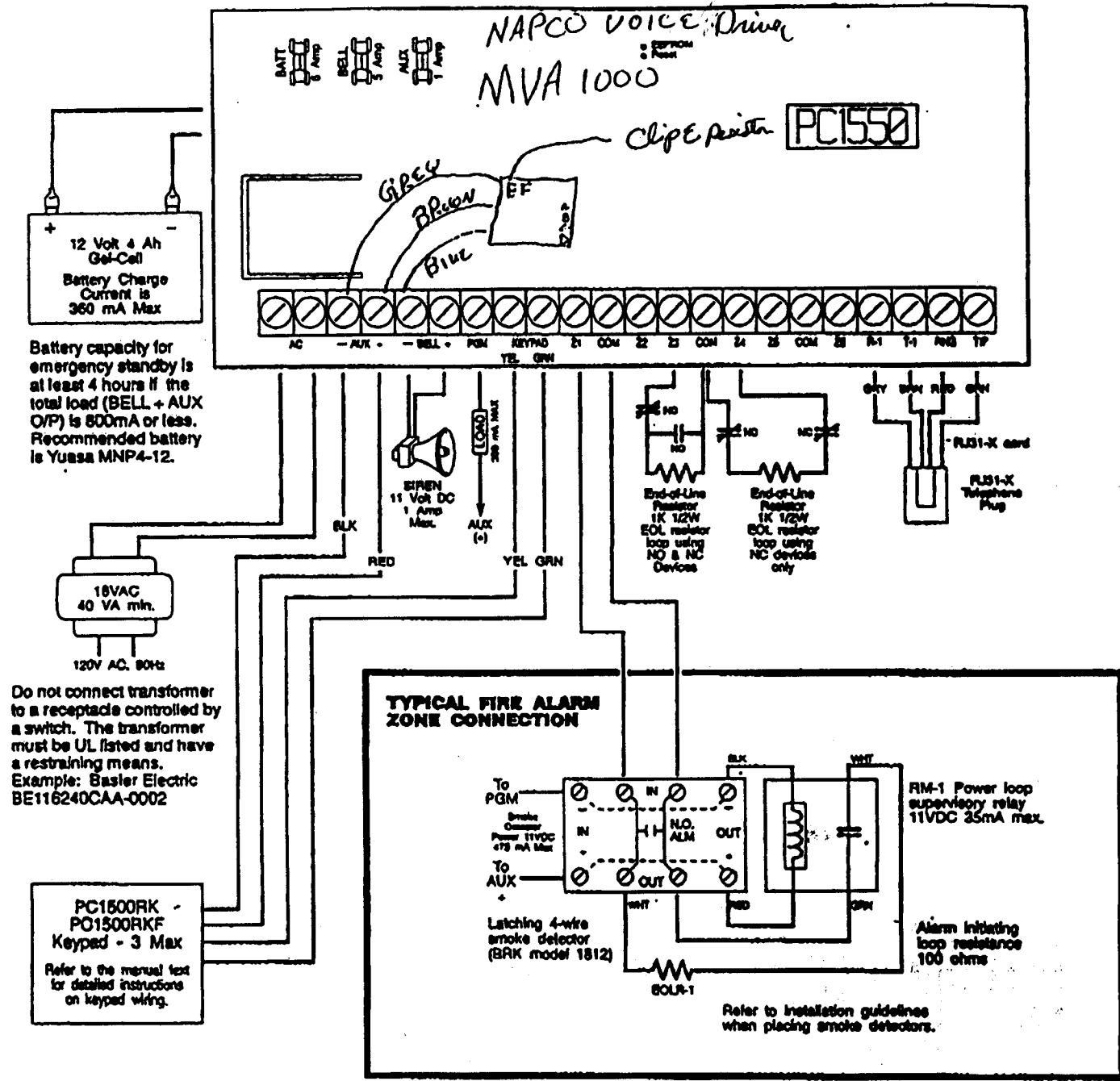
DOC LOAD NO.: 2

**No. 4110XM
 SUMMARY OF CONNECTIONS**

Attention Pete & Bernadette

Pete B

HOOKUP DIAGRAM



For fire alarm applications, it is mandatory to use one UL listed indoor signalling appliance with a minimum 85dB rating and current rating of 1 Amp or less. (WHEELOCK model 34T-12-R rated 85dB(A) minimum for indoor residential applications).

Temperature Range: 0°C-47°C (32°F-120°F)

Maximum Humidity: 85% R.H.

This equipment is UL listed for limited energy installations per NEC article 760. Recognized limited energy cable should be used. Observe NEC wiring requirements and local codes as defined by the authority having jurisdiction.

Do not replace fuses with higher values than noted in this drawing.

Security detection devices that require power from control panel must be UL listed for the intended application and operate over the voltage range of 10.0 to 14.0 VDC. The DSC BRAVO series is a recommended UL listed motion detector.