

INSTALLER'S MANUAL

PROGRAMMABLE ALARM SYSTEM

**With
COMMUNICATOR**

MODEL PAS - 1 /WC



SYSTEM DESCRIPTION

The Acron Model PAS-1/WC is a combination control panel/digital communicator that can be custom-tailored for each installation. Refer to the DD-1PC Programming Addendum for detailed programming information for the following functions:

Programmable Control Panel Functions

Memory Location	Function
27B	Normally Closed Zones
20B	Audible Panic Zones
21B	Audible Burglary Zones
22B	Delay Burglary Zones
26B	Fire Zones
23B	Exit Delay Time
24B	Entrance Delay Time
25B	Bell Shut-Off and Automatic Panel Reset Time
32B	False Alarm Shutdown (Swinger Rejection)

NOTE: *Unprogrammed Zones are Silent Zones*

Programmable Communicator Functions

Memory Location	Function
1A-13A*	First Phone Number*
1B-13B*	Second Phone Number*
14A-16A,28B	Account Number †
17A	**Abort Zones
18A,19A	Reporting Delay Zones and Time
20A,21A	Test Cancel Zones and Code
22A,23A	Restore Zones and Code
24A-31A	Zone Codes
32A,18B,19B	Reporting Format
14B	Zones to Dial Second Number Only
17B	Zones to Dial Both Numbers
15B,16B	Listen-In Zones and Time
31B	Opening
31B	Closing
31B	24-Hour Self-Test
30B	Forced Arming
30B	Low Battery/Trouble
19B	Non-Emergency Alarm Reports Dial Second Phone Number Only
19B	Non-Emergency Alarm Reports Dial Both Phone Numbers
32B	Dial If No Dial Tone

Non-Emergency
Alarm Reports

*"©1982" microprocessors only dial 12 digits.

**"©1983" microprocessors will dial 13 digits.

**Do not use Abort if 24-Hour Self-Test or False Alarm Shutdown are used.

† Not all receivers can accept a four-digit account number.

In addition to the ability to select control panel and digital communicator characteristics, the system can be expanded through the use of one or more of the following optional modules:

AS-1 Arming Station—2 LED station provides remote READY/FORCED ARMING MEMORY and ARMED/ALARM MEMORY indicators and a standard 3/4" "D" hole for a keyswitch. Also available with round type keyswitch.

SAM Selective Arming Module—a five switch module plugs on-to the main circuit board and allows the user to individually by-pass zones 2-5. An INSTANT/DELAY switch allows for the operation of any Exit/Entrance Delays.

LZA Local Zone Annunciator—an eight LED display plugs onto the main circuit board and indicates ZONE STATUS and ALARM MEMORY for each zone even if the user has By-passed or Forcibly Armed any Zone.

RZA-R Remote Zone Annunciator Receiver—a 10 LED remote station with audible warning device and INSTANT/DELAY switch. Full display of system status: 8 LED's display ZONE STATUS and ALARM MEMORY for each zone; 2 LED's display READY (general loop status)/FORCED ARMING MEMORY and ARMED/ALARM MEMORY. Four wires are needed for the 10 LED's and audible warning device; add a fifth wire for the INSTANT/DELAY switch, if used. One Model RZA-T Transmitter must be plugged onto the main circuit board, and is capable of driving up to four Models RZA-R or RZA-RK (Receiver with provision for a keyswitch—requires an additional wire).

EOL-8 Supervised End of Line Resistor Module—converts the eight input zones to fully supervised zones. Each zone has a link to select Burglary or Fire operation. In the Fire position, an open will trigger a Trouble signal.

Courtesy Output—a +5 Vdc voltage is available during Exit/Entrance times, and can be used to operate a line carrier lamp driver, etc. A BSR BA-284 Burglar Alarm Interface, Radio Shack 49-526 Burglar Alarm Interface or equivalent product can be used.

CAUTION:

1. Don't short terminals 11 and 12 to 10 or ground or 1/2 Amp fuse will blow.
2. Don't connect battery until installation is complete.
3. Zones which aren't programmed become Silent Zones.

INSTALLATION

NOTE: Power for auxiliary devices is available at Terminal 10 and Terminals 11 and 12. Terminal 10 is the common terminal and Terminals 11 and 12 are the +12Vdc Terminals. The amount of available current is 320 mA (including any Remote Zone Annunciators—even though they are not connected to Terminals 10 and 11 or 12). To determine the total current requirement for an installation, total the current requirements for all items to be connected to the Auxiliary Output as well as the RZA's. Current requirements for all applicable Acron items are:

Model	Current
RZA-R	80mA
AS-1	20mA
EOL-8	30mA

Do not exceed 320 mA total.

1. Determine the characteristics required for the installation. Program a PROM according to the DD-1PC Programming Addendum. The PROM may be programmed by the factory, distribution outlets, or on your own PROM programmer.

NOTE: Refer to Fig. 1 for the following steps:

2. Install the PROM, making sure that the identification notch is located as shown in Fig. 1.

3. If the DAY/NIGHT feature or LZA/SAM modules are not being used, go to Step 9. If the FDAY/NIGHT feature is desired, or if a Local Zone Annunciator (LZA) or Selective Arming Module (SAM) is being used, remove the bezel from the main circuit board by pulling it straight out.

4. Cut the DAY jumper if zones 2 and 3 are to be supervised when the system is Disarmed.

5. Install the SAM, if used, by plugging it onto edge connector P4 on the main circuit board. Refer to Fig. 2. If a remote INSTANT/DELAY switch is to be installed, cut diode CR1 on the

SAM to disable the SAM INSTANT/DELAY switch. Only one INSTANT/DELAY switch may be used in a system.

6. Install the LZA, if used, by plugging it onto edge connector P2 on the main circuit board. Refer to Fig. 2.

7. If the SAM and/or LZA are being used, remove the appropriate sticker on the bezel to uncover switch or indicator holes. When the SAM is used, remove the sticker from the right side of the bezel. When the LZA is used, remove the sticker from the left side of the bezel.

8. Install the bezel onto the main circuit board by pushing it straight on. Be sure that all LED's and switches are properly aligned as you push the bezel into position.

9. If open collector RF receivers or an End of Line Module are to be used, move link J28 to the left position.

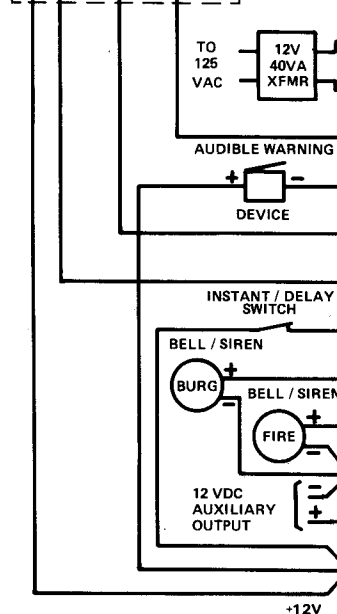
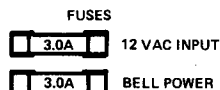
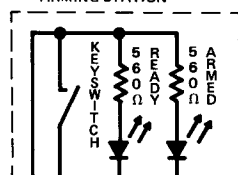
10. If TOUCH-TONE® dialing is desired, move link J26 to the right position. Leave the link in the left position for rotary dialing.

WIRING DIAGRAM FOR MODEL PAS - 1/WC

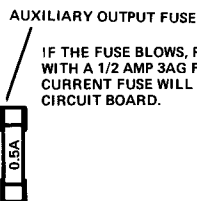
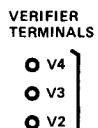
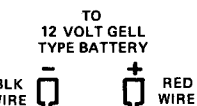
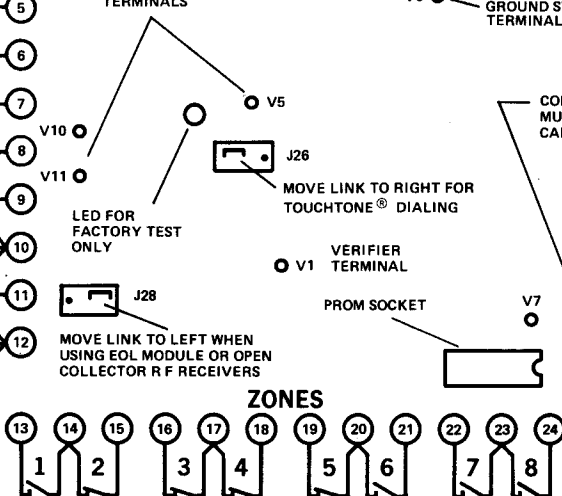
V12 ○ COURTESY
OUTPUT
TERMINAL

IF DIGITAL COMMUNICATOR IS NOT USED,
CUT JUMPER J6 TO DISABLE THE FAULT
INDICATOR.

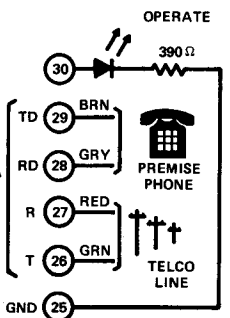
MODEL AS-1
ARMING STATION



EOL - 8 MODULE
TERMINALS



CONNECTIONS TO PHONE LINES
MUST BE MADE USING TC - 3
CABLE AND RJ31 - X JACK



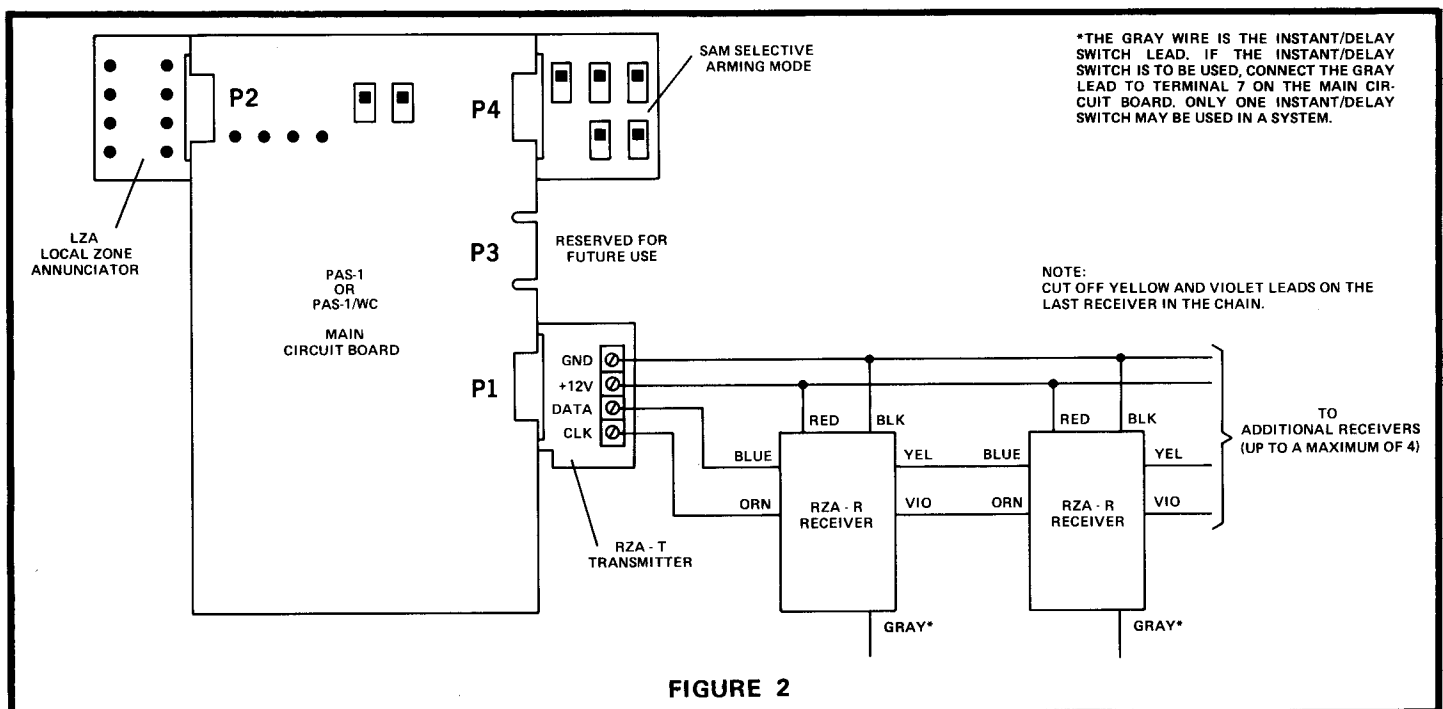
DO NOT USE VIBRATING FIRE HORN DEVICE
UNLESS A 1000mf CAPACITOR IS PLACED
ACROSS THE DEVICE AND A DIODE IS WIRED
IN SERIES WITH ONE POWER LEAD.

ZONES ARE PROGRAMMABLE FOR N.O. OR N.C. OPERATION.
IN THIS EXAMPLE, ZONES 2 - 5 ARE N.C. AND ZONES 1, 6 - 8 ARE N.O.

FIGURE 1

11. Install the Cabinet Lock if desired. Use the knockout on the right side of the cabinet door (viewed from the front).
12. Mount a momentary Keyswitch, if desired, using the knockout on the left side of the cabinet door (viewed from the front).
13. If Remote Zone Annunciators (RZA) are to be used, plug the Remote Zone Annunciator Transmitter onto edge connector P1 on the main circuit board as shown in Fig. 2. The RZA-R and RZA-RK (with provision for a Keyswitch) Receivers will be connected to the RZA-T as shown in Fig. 2. A maximum of 4 Receivers may be connected to the RZA-T Transmitter. Cut off the yellow and violet leads on the last receiver in the chain.
14. If a Remote Arming Station is to be used, connect it to terminals 3, 5, 6 and 12 as shown in Fig. 1.
15. An AUDIBLE WARNING DEVICE may be connected between terminals 4 and 12. The device may be located in the cabinet or it may be remoted. The sounding device should operate at 12 Vdc, and must not require more than 40 mA. The device will produce a steady sound during Entrance Delay time, and when a DAY ZONE is violated while Disarmed. The device will pulsate when the system has been Forcibly Armed, and when it is in the Test mode. When Kiss-Off is received, it will sound momentarily, and if a receiver is not reached after 8 attempts, it will sound.
16. An INSTANT/DELAY Switch may be remoted using terminals 7 and 12. If a Selective Arming Module has been installed, be sure that diode CR1 on the SAM has been cut to disable the SAM INSTANT/DELAY Switch. Refer to Step 4.
17. Connect a 12 Vdc Burglary Bell or Siren to terminals 8 and 10. Observe polarity.
18. Connect a 12 Vdc Fire Bell or Siren to terminals 9 and 10. Observe polarity.
19. 12 Vdc is available at terminals 10 and 11 for auxiliary devices. Refer to the NOTE preceding Step 1 regarding the available current.

20. If the COURTESY OUTPUT is to be used to turn on a light during Exit and Entrance delay times, install a BSR BA-284 Burglar Alarm interface (or equivalent). Connect the positive [+] terminal of the interface unit to the COURTESY OUTPUT TERMINAL and the negative [-] lead to terminal V4 or 10.
21. Connect the eight (8) input zones to terminals 13-24 as shown. The loops must be N.C. or N.O. according to the PROM program.
22. If a V300D Listen-In Module is to be used, connect it to terminals V1, V2, V3 and V4. Refer to the instructions supplied with the Listen-In Module.
23. If an OPERATE LED is desired (ON when unit is in reporting cycle), connect the anode to terminal 30 and the cathode to one end of a 390 ohm resistor. Connect the other end of the resistor to terminal 25.
24. Connect the TC-3 cable to terminals 26, 27, 28 and 29 as shown. Insulate all unused TC-3 leads. The TC-3 cable must be physically separated from power and signal lines.
25. Check all connections, verifying polarity.
26. Connect the transformer to terminals 1 and 2. Polarity is not important.
27. Plug the transformer into a 125 Vac receptacle. The AC ON and ARMED indicators should light. (The system arms itself on Power-Up.)
28. Connect the BLACK FLYING LEAD to the negative [-] terminal of a 12 volt, rechargeable gell type battery. Connect the RED FLYING LEAD to the positive [+] terminal of the battery. If the battery is not fully charged, allow 36 hours for battery to reach full charge.
29. Plug the TC-3 cable into the RJ31-X jack.
30. Refer to the User's Manual and the DD-1PC Programming Addendum for operating instructions.
31. Fill in the appropriate information in the User's Manual, and give it to your customer when you explain how the system operates. Provision is made on the back page for your business card.



TROUBLESHOOTING

Symptom	Check
No indicators light	1. Make sure system is connected to either a good battery or AC. 2. If the system is in the TEST mode, the battery supplies all power except for the AC ON light. Check the battery.
AC ON doesn't light	1. Fuse F1 2. Transformer and connections.
Bells won't ring	1. Fuse F2
Fault Light ON	1. System failed to communicate with a receiver after 8 attempts. If an Audible Warning Device is connected to Terminal 4, it will sound.*
Can't disarm system	1. Fuse F3

*After 8 unsuccessful attempts, the system will wait for one hour before additional attempts. To silence the Audible Warning Device and clear the Alarm Memory to prevent further attempts to report the initial alarm, place the TEST switch in the TEST position and disconnect one of the battery leads for 15 seconds. This will clear the Alarm Memory and reset the system.

You may wish to advise your customer over the phone to use this method to clear the Alarm Memory until you can cure the problem.

To aid in troubleshooting zone loop problems, use the LZA. (If the installed system doesn't use an LZA, plug one in for troubleshooting purposes only.) The LZA indicators follow the status of each zone loop.

SPECIFICATIONS

Power Requirements: 125 Vac, 0.5A; 40 VA, 12V transformer supplied. 12 volt battery, rechargeable gell type, not supplied.*

Bell Outputs: Burglary and Fire Outputs, 12 Vdc, total current not to exceed 3.0 Amps

Auxiliary Power Output: 12 Vdc, regulated, 320 mA. See NOTE preceding Step 1.

Transient and Lightning Protection: Lightning and surge protection provided on all inputs, power line, and telephone line

Zone Response Time: 300 mSec. During reporting cycle, response time increases to 1 sec.

Maximum Loop Resistance: Do not exceed 300 ohms on any zone loop (does not apply when Supervised End of Line Module is used)

Dimensions: 12"H x 10"W x 2½"D

Shipping Weight: 10 lbs.

FCC Registration Number: AB798Z-67793-AL-E

Ringer Equivalence: 0.1B

*NOTE: The following batteries have sufficient capacity and will fit inside the PAS-1/WC cabinet:

Eagle Pitcher	CF12V1.5	1.5AH
Globe	GC1215	1.5AH
Panasonic	LCR-3012VBP	3.0AH
Powersonic	PS1215	1.5AH
Yuasa	NP1.9-12	1.9AH

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