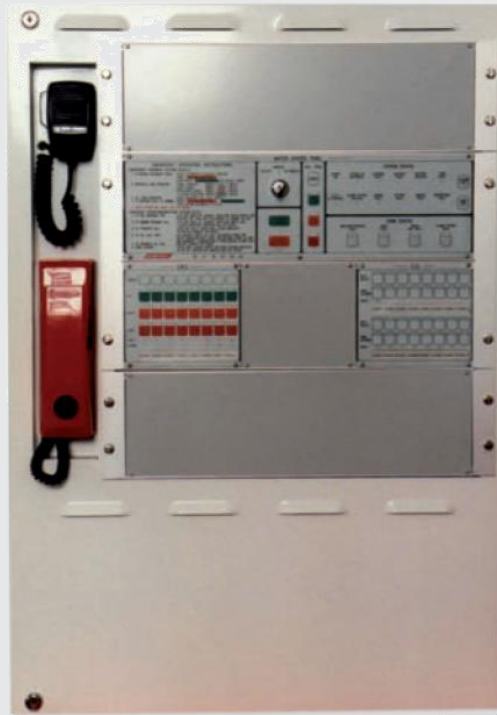




ADVANCED WARNING

SYSTEMS

EV3000



**Occupant Warning &
Intercommunications System**

Commissioning Log Book

MAN1528-9

**WORLD LEADER OF INNOVATIVE SOLUTIONS
IN FIRE DETECTION AND ALARM SYSTEMS**

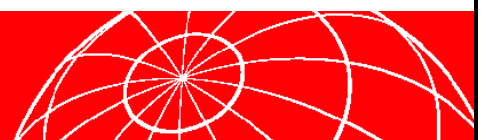


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1 Damage Report Form

PLEASE COMPLETE THIS FORM AND RETURN ORIGINAL BY MAIL TO:
AMPAC TECHNOLOGIES PTY LTD

7 Ledger Rd

Balcatta

WA 6021

Western Australia

WITHIN 14 DAYS OF RECEIVING THE GOODS.

THIS FORM ACKNOWLEDGES THE RECEIPT OF THE GOODS BY YOU AND REPORTS ON THE CONDITION OF THE GOODS WHEN RECEIVED.

WERE THE GOODS RECEIVED ON TIME? YES/NO

COMMENT:

WERE THE GOODS RECEIVED IN GOOD CONDITION? YES/NO

COMMENT:

.....
.....

PROJECT NAME:SERIAL NO:

RECEIVING PERSON:PHONE NO:

WE INVITE YOU TO MAKE ANY OTHER RELEVANT COMMENTS TO HELP IMPROVE OUR PRODUCT AND SERVICE TO YOU

NOTE: WARRANTY AS PER AMPAC TERMS OF SALE.

2 Purpose

The purpose of this manual is to assist in the installation and operation of the EV3000 Occupant Warning and Intercommunication System (OWIS).

2.1 **Scope**

The information within this manual is only available to and for the use of personnel engaged in the installation and operation of the EV3000 OWIS.

2.2 **References**

2.2.1 **EV3000 System Manuals:**

Document No. M0010WT1 EV3000 OWIS Technical Manual.

Document No. MAN1813

EV3000 OWIS Installation, Programming and Commissioning Manual (2 Wire).

Document No. MAN2789

EV3000 OWIS Installation, Programming and Commissioning Manual (3 Wire).

2.2.2 **Australian Standards**

AS2220.1-1989 Emergency Warning and Intercommunication systems in buildings Part 1: Equipment Design and Manufacture.

AS2220.1-1989 Emergency Warning and Intercommunication systems in buildings Part 2: System Design, Installation and Commissioning.

AS1851 Part 10 Maintenance of Fire Protection Equipment, Part 10: Emergency Warning and Intercommunication systems.

AS1670.4-2004 Fire Detection, Warning, Control and Intercom Systems – System Design, Installation and Commissioning. Part 4: Sound Systems and Intercom Systems for Emergency Purposes

2.3 **System Overview**

The Ampac EV3000 **O**ccupant **W**arning and **I**ntercommunication **S**ystem is a microprocessor based OWIS system that complies with Australian Standards AS2220.1 and produces Alert and Evacuation signals compliant with AS1670.4

The OWIS comprises of two sub-systems,

1. Occupant Warning System (OWS)

The prime function of an OWS is to transmit via speakers in evacuation zones, alert signals, evacuation signals and public address clearly and reliably.

The OWS can automatically initiate evacuation procedures or be manually operated as well being used for non-emergency functions, e.g. background music and general PA facilities.

2. Occupant Intercommunication System (OIS).

The OIS is a totally independent intercommunication system provided to communicate on a one to one basis from the Master Emergency Control Panel (MECP) to the individual Warden Intercommunication Points (WIP's) within the evacuation zones.

The OWS and OIS are collectively referred to as the Occupant Warning and Intercommunication System (OWIS).

3 Wiring

Check that the installation requirements of AS 2220.2 – Section 5 are complied with

NOTE: Complete the following tests with all power turned off / disconnected.

3.1 **Mains Connection**

Check that the AC Mains Power supply is installed in accordance with AS2220.2 - 1989 Section 4.

3.2 **Speaker Connection**

Test the speaker wiring at the MECP to ensure that the circuit is correct.

Method: with the power turned off place an ohmmeter across the first speaker circuit for approximately five seconds. The end of line resistance of 47k Ω should be present.

Record the result on the Commissioning Record by ticking the appropriate box.

Repeat for each circuit.

3.3 **Warden Intercom Point Connection**

Test the WIP wiring at the MECP with the line disconnected from the 302-6270 to ensure that the circuit is correct.

Method:

2 WIRE WIP: With the power turned off and the WIP handset hung up, place an ohmmeter across the lines denoted 'W' and 'C'. A resistance of 22K should be present.

3 WIRE WIP: With the power turned off and the WIP handset hung up, place an ohmmeter across the lines denoted 'W' and 'C'. A resistance of between 90k Ω and 110k Ω should be present.

Record the result on the Commissioning Record by ticking the appropriate box.

Repeat for each circuit.

3.4 **Warden Intercom Point with EAID connected**

Test the WIP wiring as in section 3.3.

Method:

2 WIRE WIP: With the power turned off and the WIP handset hung up, place an ohmmeter across the lines denoted 'W' and 'C'. A resistance of 6.8K should be present.

3 WIRE WIP: Measure the resistance from the third wire 'E' to either of the WIP lines. The resistance should be between 1M Ω and 3M Ω dependent on the type of meter used.

Record the result on the Commissioning Record by ticking the appropriate box.

Repeat for each circuit.

3.5 **Visual Alarm Connected**

Test the visual alarm wiring at the MECP to ensure that the circuit is correct.

Method: with the power turned off place an ohmmeter across the first circuit for approximately five seconds. A resistance between 100k Ω and 4M Ω should be present (actual value will vary with visual type and meter type).

Record the result on Commissioning Record by ticking the appropriate box.

Repeat for each circuit.

3.6 **Fire Alarm Inputs**

Test the FIP input wiring at the MECP to ensure that the circuit is correct.

Method: with the power off place an ohmmeter across the common and each input. An end of line resistance of 10k Ω should be present.

EV3000 COMMISSIONING LOG BOOK



Record the result on the Commissioning Record by ticking the appropriate box.

Repeat for each circuit.

NOTE: THIS WILL NOT APPLY TO HIGH LEVEL COMMUNICATION FIRE ALARM INPUTS.

4 Commissioning Record

WHEN CARRYING OUT THE TEST OUTLINED IN SECTION 3

TICK BOX IF THE LINE RESISTANCE IS CORRECT

CIRCUIT TYPE	CCT 1	CCT 2	CCT 3	CCT 4	CCT 5	CCT 6	CCT 7	CCT 8	CCT 9	CCT 10	CCT 11	CCT 12
SPEAKER												
W.I.P.												
E.A.I.D												
VISUAL ALARM												
F.I.P.												
CIRCUIT TYPE	CCT 13	CCT 14	CCT 15	CCT 16	CCT 17	CCT 18	CCT 19	CCT 20	CCT 21	CCT 22	CCT 23	CCT 24
SPEAKER												
W.I.P.												
E.A.I.D												
VISUAL ALARM												
F.I.P.												
CIRCUIT TYPE	CCT 25	CCT 26	CCT 27	CCT 28	CCT 29	CCT 30	CCT 31	CCT 32	CCT 33	CCT 34	CCT 35	CCT 36
SPEAKER												
W.I.P.												
E.A.I.D												
VISUAL ALARM												
F.I.P.												
CIRCUIT TYPE	CCT 37	CCT 38	CCT 39	CCT 40	CCT 41	CCT 42	CCT 43	CCT 44	CCT 45	CCT 46	CCT 47	CCT 48
SPEAKER												
W.I.P.												
E.A.I.D												
VISUAL ALARM												
F.I.P.												

5 Completing the Commissioning Report

To complete the commissioning report, Appendix A, follow the procedure below and use the sample (Appendix B) as a guide.

1. List the EWS zone number.
2. List the amplifier wattage and confirm with the quotation request that it is correct.
3. Calculate the speaker load for each EWS zone.

Formula:	No. of Ceiling Speakers x tapping	= _____	W
	And No. of Horn Speakers x tapping	= _____	W
	TOTAL SPEAKER LOAD	= _____	W
Example:	9 Ceiling speakers x 2 watt tapping	= <u>18</u>	W
	And 2 Horn speakers x 2.5 watt tapping	= <u>5</u>	W
	TOTAL SPEAKER LOAD	= <u>23</u>	W
4. Confirm the speaker quantity and load with the quotation request.
5. Ensure that the amplifier wattage is sufficient to drive the speakers.
6. Ensure that all loud speakers are of the required specification and are approved by the EWIS Manufacturer.
7. Ensure that all loud speakers are suitable for their environment.
8. Open circuit the wiring at one loud speaker in each zone to ensure a fault is displayed on the EWS zone control panel at the MECP.
9. Repeat test with short circuit.
10. Check that the back ground music is correct, if zoned; confirm that the installation is as per the quotation.
11. Measure the sound level for public address, alert and evacuation tones. Ref AS 2220-2 Clause 2.2.3.
12. Ensure tones are of correct type, i.e. either AS2220 or ISO 7731 / 8201.
13. At the Fire Indicator panel list the zone numbers that correspond to the EWS zones.
14. Open circuit each FIP circuit and ensure a fault is displayed on the EWS zone control panel at the MECP.
15. Simulate an alarm at the FIP and ensure that the correct evacuation zone responds. Repeat for all Fire Alarm inputs.
16. Open circuit the wiring at each WIP to ensure a fault is displayed on the EIS zone control and the EWS zone control panel at the MECP.
17. Short circuit the wiring at each WIP to ensure fault is displayed on the EIS zone control and an alarm is initiated on the EWS zone control panel at the MECP.
18. Check the operation of each WIP as per the instructions in the EV3000 Operators Manual. Ref AS 2220-1 Section 3.
19. Note the EIS zone numbers of WIP's in each EWS zone.
20. Check each EAID has a 10K ohm EOL resistor installed, Open circuit the wiring and ensure a fault is displayed on the EWS zone control panel at the MECP.
21. Short circuit the wiring at each EAID and ensure that it initiates the correct evacuation sequence.
22. Note the number of EAID's per EWS zone.
23. Open circuit the wiring at one pair of visual alarms in each zone to ensure a fault is displayed on the EWS zone control panel at the MECP. Repeat test with short circuit
24. Operate both alert and evacuate visual alarms, note the results. Ref AS 2220-2 Clause 2.2.4.

25. Describe any ancillary equipment provided, e.g. SECP, Remote Paging Consoles. And refer to their individual manuals for commissioning requirements.

6 Battery Requirements

To calculate the battery requirements fill out the following

6.1 **Calculating System Quiescent Current**

Number of EWS zones †	_____ x 0.002	= _____ (1)
† Total zones including those un-configured.		
Number of EIS zones †	_____ x 0.002	= _____ (2)
Main CPU current		0.8 (3)
E.C.P. current = Total of 1+2+3		= _____ Amps
E.C.P. current x No of ECP's		= _____ (4)
Number of 40 W amplifiers	_____ x 0.06	= _____ (5)
Number of 120W amplifiers	_____ x 0.17	= _____ (6)
Number of WIP's	_____ x 0.06	= _____ (7)
I_q (Quiescent current) = (4) + (5) + (6) + (7)		= _____ Amps

6.2 **Calculating System Full Load Current**

Total speaker loading;		
On the number of 40W amplifiers	_____ x 0.08	= _____ (8)
On the number of 120W amplifiers	_____ x 0.065	= _____ (9)
Visuals		
Total number of VISUALS (pairs)	_____ x 0.25	= _____ (10)
I_{fl} (Full load current) = I_q + (8) + (9) + (10)		= _____ Amps

6.3 **Battery Size Calculation**

$$\text{Battery size (minimum)} = (I_q \times 24) + (I_{fl} \times 0.5) = \text{_____ AH}$$

6.4 **Battery Discharge Current**

Use the values obtained previously in the formula below to calculate the discharge current.

$$\frac{I_q * 24}{0.5} + I_{fl} = I_{dis} \quad \text{Battery discharge current } I_{dis} = \text{_____ Amps}$$

6.5 **Battery Information**

Obtain the following information from the battery manufacturer direct:

Recommended Replacement Date / /

Recommended Float Charge Voltage _____ VOLTS

Maximum Discharge Capability At 1.5 Hour Rate (I Dis) _____ Amps

Recommended Terminal Voltage When Discharged At (I Dis) _____ VOLTS

As a final check ensure that the battery charger output is set at its recommended voltage.

7 Documentation

Check that operator's manual is provided.

Check that as-built drawings are provided.

Check that termination schedules are provided.

COMMENTS

8 Appendix A Pre-commissioning Checklist

EV3000 PRE-COMMISSIONING CHECK LIST

EWIS SERIAL NO DATE / /

1. Unpack system and check for any damage (see Operators Manual)
2. Check all boards and connectors are firmly installed.
3. Install amplifiers into amplifier frames. At this point do not remove termination resistors or install field wiring.
4. Connect the system to a 250 VAC mains supply and turn on.
5. Check "Power On" light is on and "System on Batteries", "Charger Fault" and "Battery Fault" are off.
6. After 1-3 minutes, system should have completed its start up sequence and only the "Automatic" and "Power On" LEDS should be lit.

If faults are showing, refer to the Operators Manual for possible faults.

7. Press lamp test to ensure all keyboard modules are working.

NOTE: Only lamps for active zones need to operate.

8. Turn system power off, system is ready for cabling.



11 Appendix D Commissioning Acceptance Report

COMMISSIONING ACCEPTANCE REPORT EV3000 EMERGENCY WARNING AND INTERCOMMUNICATION SYSTEM

PLEASE COMPLETE THIS FORM AND RETURN ORIGINAL BY MAIL TO:

AMPAC TECHNOLOGIES PTY LTD
7 Ledger Rd
Balcatta
WA 6021
Western Australia



(HEAD OFFICE)

WITHIN 14 DAYS OF DATE OF ACCEPTANCE OF INSTALLATION.

YEAR OF MANUFACTURE:.....

SERIAL NUMBER:.....

WHERE INSTALLED:.....

CLIENT'S NAME:.....

SYSTEM TYPE: (Cross out those not applicable)

- * NEW
- * MODIFICATION TO SYSTEM
- * ADDITION TO

DATE DESPATCHED FROM MANUFACTURER:.....

DATE OF COMMISSIONING TEST:.....

DATE OF ACCEPTANCE INSTALLATION:.....

CLIENT'S SIGNATURE:.....

COMMISSIONING PERSON'S SIGNATURE:.....

<p>WE INVITE YOU TO MAKE ANY OTHER RELEVANT COMMENTS TO HELP IMPROVE OUR PRODUCT AND SERVICE TO YOU</p>

NOTE: WARRANTY IS AS PER AMPAC TERMS OF SALE.

12 Appendix E Maintenance Logs

12.1 E1 Monthly Test Log Book

To complete the Monthly Test Log follow the procedure below.

1. Visually inspect the installation for damage, eg. all speakers, warden intercom points, visual alarms, control panels etc.
2. Make an announcement to all occupants that the Emergency Warning System is to be tested. This is done by selecting the 'Auto, Manual, Isolate' keyswitch to 'Manual', selecting the 'All Call' All PA button, pressing the PTT button on the microphone and then speaking into the microphone. At the end of the announcement select 'All Call' All Off and return the keyswitch to the 'Auto' position
3. Isolate the Brigade calling interface at the Fire Indication Panel, then simulate an alarm at the Fire Indicator Panel. An alert tone will sound; check that the alert indicator is illuminated for that zone at each ECP and the buzzer is on.
4. To reset the system, reset the FIP then turn the ECP Auto, Manual, Isolate keyswitch to Manual press the buzzer mute switch, followed by the Master Reset switch.
5. With the keyswitch in the Manual position select P.A. for the first zone and make an announcement, then select Alert, then Evac and finally cancel, (Ref Fig 2 Page 8 EWS Control Panel) verify that the announcement and tones were audible and correct. Repeat this procedure for each zone and for each Emergency Control Panel. Make sure that when each Emergency Control Panel is tested its keyswitch is returned to 'Auto'.
6. Test the operation of the Emergency Intercommunication System at each Emergency Control Panel using the following guidelines.

Warden Intercom Point Calling Emergency Control Panel

The following is the procedure when initiating a call from a WIP to the ECP:

1. Remove the handset from the cradle at the WIP. This will cause the appropriate WIP call indicator to flash at all ECP's and the WIP call buzzer to sound at all ECP's
2. A confidence tone can be heard at the WIP
3. The ECP which responds to the call is referred to as the controlling ECP. The call is answered at the ECP by removing the handset from the cradle and pressing the WIP call switch which corresponds to that WIP.

Completing The Call By The Warden Intercom Point

If the WIP handset is placed back onto its cradle after the call is connected, the handset at the controlling ECP will go silent and WIP call indicator will switch off, completing the call.

Emergency Control Panel Calling Warden Intercom Point

The following is the procedure when initiating a call from the ECP to a WIP:

1. The confidence tone can be heard in the handset at the controlling ECP
2. The WIP call switch corresponding to the WIP to be called is pressed, this causes the WIP call indicator at the ECP's to flash, and the buzzer to sound at the WIP. Up to 5 WIP's can be called using this procedure
3. When the handset is picked up at the WIP the connection is established and the WIP select indicator becomes steady
4. If the ECP is calling more than one WIP, the status of the calls, ie. WIP answering is reflected in the WIP select indicators

Completing The Call By The Emergency Control Panel

The call can be completed at the ECP in two ways. By placing the handset on the cradle, which will cause the earpiece at the WIP to go silent, i.e. no confidence tone, OR by pressing the WIP call switch which will also cause the earpiece at the WIP to go silent, i.e. no confidence tone. In both cases the handset at the WIP must be replaced on the cradle and then removed to reinstate the confidence tone in the WIP earpiece.

Final Checks

1. Press the Lamp Test switch at each Emergency Control Panel (Ref Fig 1 Page 7 Master Control Panel Layout). For a period of 6 seconds the buzzer will sound intermittently and all indicators will illuminate and flash, except system on batteries, charger fault, battery fault, battery isolate and power on.
2. Check each Emergency Control Panel that the keyswitch is in 'Auto' and all other switches are off.
3. Check the electrolyte level of the batteries if applicable.
4. Check the batteries for any damage.
5. Record all faults and relevant comments in the space provided.
6. Date and sign the report.
7. Contact the service agents if any faults need to be attended to.
8. Record date when outstanding faults are rectified.

12.2 E2 Completing the Half Yearly Log

12.2.1 Introduction

The Half Yearly Log includes all the requirements of the Monthly Test log with the following additional tests. A battery capacity test should be done in conjunction with the Half Yearly tests a minimum of once a year.

12.2.2 Test Equipment Requirement for a Half Yearly Test

Multimeter.

Audio Level Meter.

12.2.3 Test Equipment Required for a Battery Capacity Test

A set of batteries of equal or greater capacity.

Variable DC Dummy load capable of dissipating 1dis

Battery charger (suitable for 24V dc batteries).

12.2.4 Procedure

1. Compare the original system records with the present system.
2. When completing section 1.2 of the monthly maintenance schedule allow the system to run through the entire evacuation sequence.
3. Check that the battery charger voltage and current are within the specified tolerances (Ref Section 4, Page 3.1 & 3.2).
4. Turn off the A.C. MAINS and select the auto, manual, isolate keyswitch to manual, select 'All Call' All Evac. Measure the battery voltage. This should be more than 95% of its nominal voltage. If less than 95% then conduct a battery test as specified below regardless of battery test scheduling.
5. Reconnect the A.C. mains and measure the current from the charger. Ensure that this level is within specified tolerances.
6. Measure the ambient and signal audio levels in each zone and compare them with the records of previous checks. If changes have occurred in the ambient noise level consult the owner. Adjust the audio level or speakers as necessary to obtain audio levels in accordance to AS 2220-2 Section 2.2.3.
7. Observe the visual alarms for correct operation. Ensure the flashing frequency is between 60 and 120 flashes per minute.
8. With system still in manual press "Buzzer Mute/Ack" and "Master Reset" to restore system to normal. Return all key switches on Emergency Control Panels to Automatic.
9. Make any relevant comments.
10. Date and sign the report.
11. Request that the owner sign the report.

Note 1: Any part of the system that is disconnected, bridged or removed, why, and who authorised it.

Note 2: Any outstanding faults that need repairing.

12.3 E3 Battery Capacity Test

This test may be performed away from the system.

Disconnect the system batteries and replace with substitute batteries.

Discharge the system batteries at current of I_{dis} , the formulae for the calculation of I_{dis} can be found in section 6 (record the value in section 6).

Measure the voltage across the battery terminals. Discharge the batteries until the voltage across them reaches the discharged terminal voltage obtained from the battery manufacturer (this should also be recorded in Section 6) Record the time taken to reach this voltage in the log book. If the time taken is less than 30 mins take any necessary corrective action.

Recharge the system batteries to a capacity greater than 95% of maximum using a battery charger, the system should not be used to achieve this.

Remove substitute batteries from the system and replace with the system batteries.



12.4 E4 Monthly Test Report Forms

MONTHLY TEST

		Yes	No
1.	Is the installation damage free?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Does the alarm system activate an alert at each ECP?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Does each zone at each ECP activate when the keyswitch is in 'Manual'.	<input type="checkbox"/>	<input type="checkbox"/>
4.	Is the EIS operational at each ECP?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Do all the audible and visual indicators work at each ECP?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are all the Control Switches returned to normal?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Is the battery electrolyte level O.K.?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Is the battery damage free?	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS:

DATE:.....

SYSTEM INSPECTED BY:..... INSPECTION WITNESSED BY:

POSITION:POSITION

MONTHLY TEST

		Yes	No
1.	Is the installation damage free?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Does the alarm system activate an alert at each ECP?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Does each zone at each ECP activate when the keyswitch in 'Manual'.	<input type="checkbox"/>	<input type="checkbox"/>
4.	Is the EIS operational at each ECP?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Do all the audible and visual indicators work at each ECP?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are all the Control Switches returned to normal?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Is the battery electrolyte level O.K.?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Is the battery damage free?	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS:

DATE:.....

SYSTEM INSPECTED BY:..... INSPECTION WITNESSED BY:

POSITION: POSITION



12.5 E5 Half Yearly Report Form

- | | Yes | No |
|--|--------------------------|--------------------------|
| 1. Is the installation damage free? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Does the installation match the original records? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Does the alarm system activate an alert at each ECP? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Does the automatic evacuation sequence fully function? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Does each zone at each ECP activate when the keyswitch is in 'manual'? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Is the EIS operational at each ECP? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Do all the audible and visual indicators work at each ECP? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Is the battery float charge voltage and current within the specified tolerances? | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Is the battery electrolyte level O.K.? | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Is the battery damage free? | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. When full load tested do batteries meet 95% nominal voltage? | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Is battery charger current within limits? | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Are the audio levels sufficient/correct? | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Do the visual operate correctly, with frequency between 60 and 120 flashes per minute? | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Battery capacity test performed? | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Battery discharge current |Amps | |
| 17. Battery discharge period |Minutes | |
| 18. Battery capacity test passed? | <input type="checkbox"/> | <input type="checkbox"/> |

REMARKS:.....

SYSTEM INSPECTED BY:
(Company)

DATE :

WITNESS:

(Representative)

(Owner)

IS ANY PART OF THE SYSTEM DISCONNECTED, BRIDGED OR REMOVED?

WHY :.....AUTHORISED BY :

WHAT FAULTS NEED REPAIRING

REPAIRED BY:.....DATE:

(Company)

(Representative)

13 Illustrations

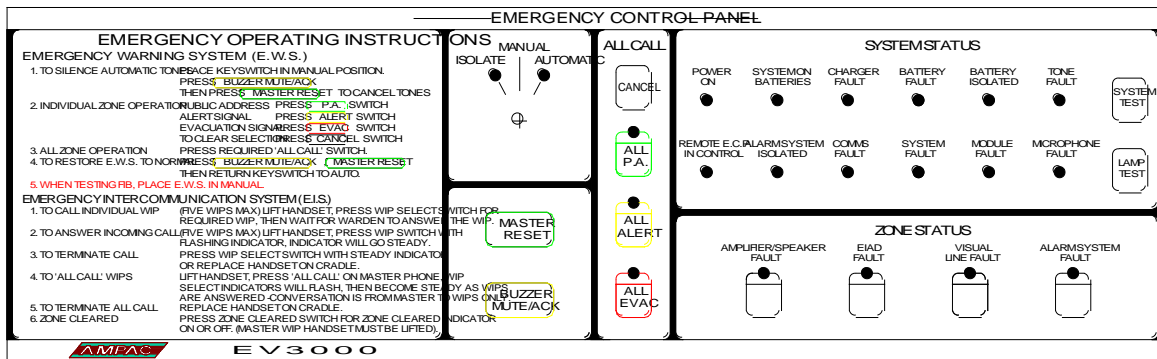


Figure 1: Master Control Panel

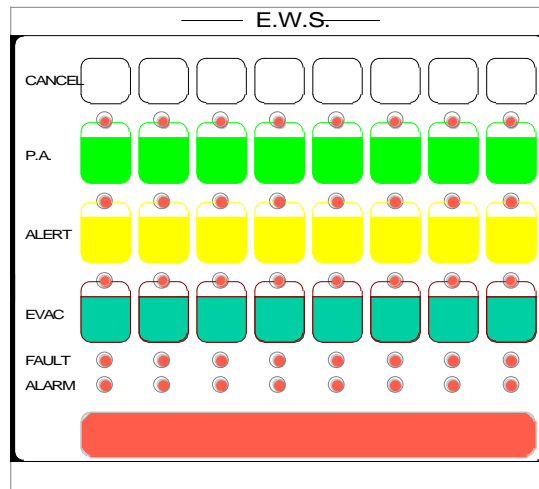


Figure 2: Occupant Warning System Control Panel

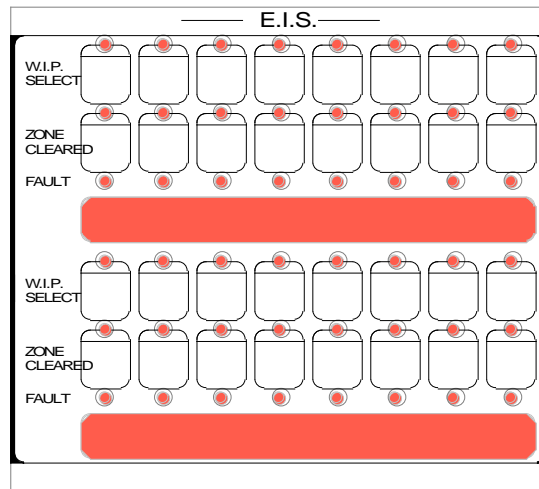


Figure 3: Occupant Intercommunication System Control Panel

14 Glossary Of Terms

ALM	:	ALARM
AMP	:	AMPLIFIER
BGM	:	BACKGROUND MUSIC
C	:	RELAY COMMON CONTACT (WIPER)
CPU	:	COMMON PROCESSOR UNIT
EAID	:	EMERGENCY ALARM INITIATING DEVICE
EARTH:		BUILDING EARTH
ECP	:	EMERGENCY CONTROL PANEL
OIS	:	OCCUPANT INTERCOMMUNICATION SYSTEM
EOL	:	END OF LINE
OWIS	:	OCCUPANT WARNING AND INTERCOMMUNICATION SYSTEM
OWS	:	OCCUPANT WARNING SYSTEM
FACP	:	FIRE ALARM CONTROL PANEL
FLT	:	FAULT
GND	:	GROUND (0 VOLTS) NOT EARTH
GPO	:	GENERAL PURPOSE OUTLET
I/O	:	INPUT/OUTPUT
ISOL	:	ISOLATED
MAF	:	MASTER ALARM FACILITY
MCB	:	MASTER CONTROL BOARD
MCP	:	MANUAL CALL POINT
MECP	:	MASTER EMERGENCY CONTROL PANEL
MIC	:	MICROPHONE
N/C	:	NORMALLY CLOSED RELAY CONTACTS
N/O	:	NORMALLY OPENED RELAY CONTACTS
PA	:	PUBLIC ADDRESS
PCB	:	PRINTED CIRCUIT BOARDS
P/S	:	POWER SUPPLY
PSM	:	POWER SUPPLY MODULE
PTT	:	PUSH TO TALK
REM	:	REMOTE
RPC	:	REMOTE PAGING CONSOLE
SECP	:	SECONDARY EMERGENCY CONTROL PANEL
TB	:	TERMINAL BLOCK
SGM	:	SIGNAL GENERATOR MODULE
SPK	:	SPEAKER
VDU	:	VIDEO DISPLAY UNIT
VA	:	VISUAL ALARM
WIP	:	WARDEN INTERCOM POINT

15 Definitions

Activating device - a device capable of being operated automatically or manually to initiate an alarm signal, e.g. a detector, a manual call point, or a pressure switch.

Alarm system - facility provided in a building to give an alarm in the event of fire, civil commotion, bomb threat, leakage of toxic or noxious fumes, structural damage, or other emergency.

Alarm signal - a signal given by fire alarm, or other alarm system, at the fire indicator panel (FACP) or other panel to alert wardens and other nominated personnel as necessary to commence prescribed actions.

Alarm zone - the specific portion of a building or complex identified by a particular alarm zone facility.

Alert signal - an audible signal, or combination of audible and visible signals, from the Occupant warning system to alert wardens and other nominated personnel as necessary to commence prescribed actions.

Approved and approval - approved by, or the approval of, the Regulatory Authority concerned.

Control and indicating equipment (CIE) - a combination of control equipment and indicating equipment.

Control equipment - equipment which controls the receipts and transmission of signals within the fire detection and alarm system or initiates other action.

Emergency alarm initiating device - a manually operated device by which an alarm is given to indicate an emergency.

Emergency condition - is a condition which requires the evacuation of the building or zone.

Emergency control panel (ECP) - a panel by means of which the occupant warning system and the occupant intercommunication system (if any) in the building may be operated [NOTE: see also definition of master emergency control panel (MECP)].

Occupant intercommunication system (OIS) - a two-way system which provides voice communication between the controlling emergency control panel (ECP) and the warden intercommunication points (WIPS).

Occupant warning and intercommunication system (OWIS) - a combined occupant warning and intercommunication system.

Occupant warning system (OWS) - a system to provide a distinctive audible signal, verbal address, and visible signals as required, during an emergency condition.

Evacuation sequence - a pre-programmed sequence initiating alert and evacuation signals to evacuation zones as required by the Regulations Authority.

Evacuation signal - an audible signal, or combination of audible signals, from the occupant warning system to indicate to wardens and building occupants generally that an evacuation or other prescribed actions are necessary.

Evacuation zone - a specific portion of a building or complex, in which the evacuation procedures are managed by one zone warden. [NOTE: this term should not be confused with the concept of 'fire alarm zone'. Fire alarm zone may or may not cover the same area as an evacuation zone.]

Factory connections - are connections made during manufacture and should not require any field alterations.

Field connections - are connections made to FACP or ancillary equipment at the project during installation.

Firmware - the basic operating program which is not intended to be field changeable.

House warden - a person who, during an emergency, assumes control over the building and its occupants and is the prime contact with the appropriate emergency services(s).

Interface - The interconnection between equipment which permits the transfer of data.

Main equipment - equipment essential to the operation of the system including, control equipment, amplification equipment and power supply modules.

Master alarm facility (MAF) - that part of the control and indicating equipment which receives alarm and fault signals from any alarm zone facility and initiates the common signal (alarm and/or fault) for transmission to the fire control station where appropriate. Bells and other ancillary functions may be initiated from this facility.

Master emergency control panel (MECP) - a specially designated emergency control panel (ECP) that on manual operation of its key switch, takes full control of the occupant warning system and the occupant intercommunication system, and overrides all other ECP's in the building.

Power Supply - that portion of the control and indicating equipment (CIE) which supplies all voltages necessary for operation of the CIE.

Regulatory Authority - an authority administering Acts of Parliament or Regulations under such Acts.

Remote auxiliary supply - power supply DC24VDC max from a remote source.

Verbal address - the mode of operation whereby verbal instruction is given from the controlling emergency control panel (ECP) to the building occupants via the loud speaker systems.

Warden intercommunication point (WIP) - the location on a floor or evacuation zone, where equipment is provided through which instructions can be received from the controlling emergency control panel (ECP) via the occupant intercommunication system.

Zone (floor) warden - a person who, during an emergency, assumes control over a particular floor or evacuation zone under the direction of the house warden.

UNCONTROLLED DOCUMENT

NOTE: Due to Ampac's commitment to continuous improvement specifications may change without notice.