Operation Manual

A-LA800
Line Amplifier Box

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tyco / Fire & Security

ADT

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THE INFORMATION IN THIS PUBLICATION IS BELIEVED TO BE ACCURATE IN ALL RESPECTS.
HOWEVER, WE CANNOT ASSUME RESPONSIBILITY FOR ANY CONSEQUENCES RESULTING FROM THE USE THEREOF. THE INFORMATION CONTAINED HEREIN IS SUBJECT TO CHANGE WITHOUT NOTICE. REVISIONS OR NEW EDITIONS TO THIS PUBLICATION MAY BE ISSUED TO INCORPORATE SUCH CHANGES.

FCC COMPLIANCE STATEMENT

FCC INFORMATION : THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

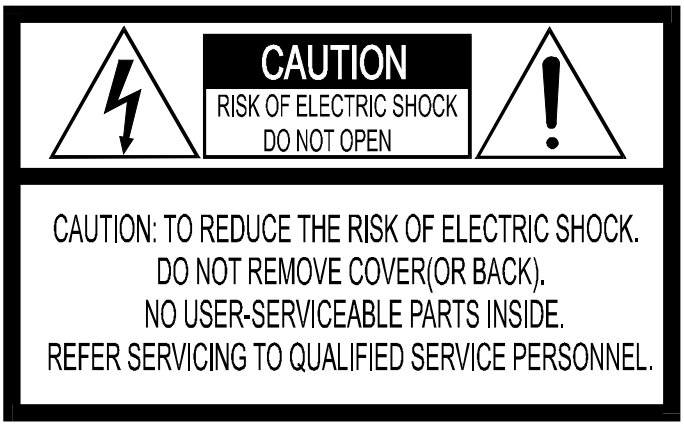
CAUTION : CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A RESPECTE TOUTES LES EXIGENCES DU RÈGLEMENT SUR LE MATÉRIEL BROUILLER DU CANADA.

WARNINGS AND CAUTIONS

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.



EXPLANATION OF GRAPHICAL SYMBOLS

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying the product.

IMPORTANT SAFEGUARDS

1. **READ AND RETAIN INSTRUCTIONS**
   Read the instruction manual before operating the equipment. Retain the manual for future reference.

2. **CLEANING**
   Turn the unit off and unplug from the power outlet before cleaning. Use a damp cloth for cleaning. Do not use harsh cleansers or aerosol cleaners.

3. **ATTACHMENTS**
   Do not use attachments unless recommended by manufactured as they may affect the functionality of the unit and result in the risk of fire, electric shock or injury.

4. **MOISTURE**
   Do not use equipment near water or other liquids.

5. **ACCESSORIES**
   Equipment should be installed in a safe, stable location. Any wall or shelf mounting accessory equipment should be installed using the manufacture's instructions. Care should be used when moving heavy equipment. Quick stops, excessive force, and uneven surfaces may cause the equipment to fall causing serious injury to persons and objects.

6. **VENTILATION**
   Openings in the equipment, if any, are provided for ventilation to ensure reliable operation of the unit and to protect if from overheating. These openings must not be blocked or covered

7. **POWER SOURCES**
   The equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied at the installation location, contact your dealer. For equipment designed to operate from battery power, refer to the operating instructions.

8. **GROUNDING OR POLARIZATION**
   Equipment that is powered through a polarized plug (a plug with one blade wider than the other) will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. Do not defeat the safety purpose of the polarized plug.

   Alternate Warning: If the equipment is powered through a three-way grounding-type plug, a plug having a third (grounding) pin, the plug will only fit into a grounding-type power outlet. This is a safety feature. Do not defeat the safety purpose of the grounding-type plug. If your outlet does not have the grounding plug receptacle, contact your local electrician.

9. **CORD AND CABLE PROTECTION**
   Route power cords and cables in a manner to protect them from damage by being walked on or pinched by items places upon or against them.

10. **LIGHTNING**
    For protection of the equipment during a lightning storm or when it is left unattended and unused for long periods of time, unplug the unit from the wall outlet. Disconnect any antennas or cable systems that may be connected to the equipment. This will prevent damage to the equipment due to lightning or power-line surges.

11. **OVERLOADING**
    Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

12. **SERVICING**
    Do not attempt to service the video monitor or equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

13. **DAMAGE REQUIRING SERVICE**
    Unplug the equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    A. When the power supply cord or the plug has been damaged.
    B. If liquid has spilled or objects have fallen into the unit.
    C. If the equipment has been exposed to water or other liquids.
    D. If the equipment does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage to the unit.
    E. If the equipment has been dropped or the casing damaged.
    F. When the equipment exhibits a distinct change in performance.

14. **REPLACEMENT PARTS**
    When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

15. **SAFETY CHECK**
    Upon completion of any service or repairs to the equipment, ask the service technician to perform safety checks to verify that the equipment is in proper operating condition.

16. **FIELD INSTALLATION**
    The installation of equipment should be made by a qualified service person and should conform to all local codes.

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1. INTRODUCTION

The A-LA800 Line Amplifier is used to extend the camera cable distance to the observation monitor. The recommended maximum cable distance without the use of the Line Amplifier is 300 feet (90m). The Line Amplifier may be used to extend the maximum distance to 600 feet. The Line Amplifier may be connected into the system configuration either inline at the halfway point between the camera and the observation monitor location, or it can be located near the monitor. The Figures below illustrate the two installation options using the basic configuration of one camera installed at a distance greater than 300 ft.

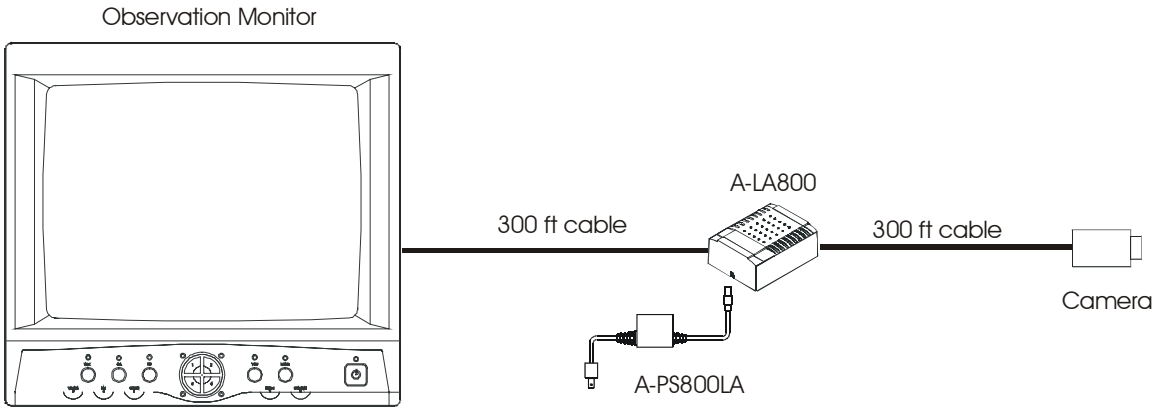

FIGURE 1: Basic Installation, Line Amp In-line

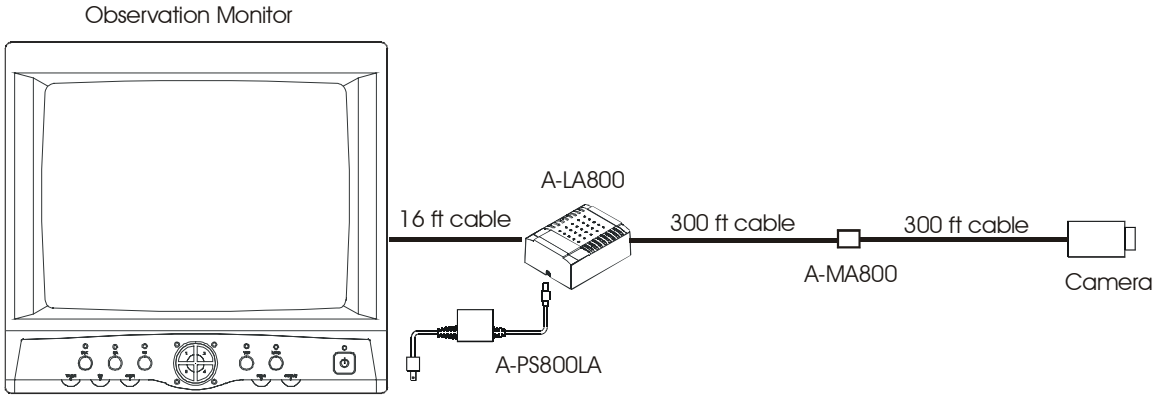

FIGURE 2: Basic Installation, Line Amp located at Observation Monitor

Items Included with A-LA800:

- 16 foot cable
- A-PS800LA 15Vdc Power Adapter

2. INSTALLATION

The installation must be in accordance with all local and national electrical and mechanical codes. Perform the following steps to install the observation system.

A. Unpack the line amplifier box from the packing material.

B. Loosen the screw holding the cover and remove the cover.

C. Remove the circuit board.

D. Place the line amplifier box in a convenient location.

E. Fasten the bottom plate of the box with screws.

F. Reinstall the circuit board.

G. Reattach the cover and secure the screws holding it.

H. Make the connections. See Section 5: “Configurations” for the correct connections.

Caution:

Care should be taken when routing the cable. Try not to put unnecessary strain on the cable or connectors. Damage may result to cable if it is pulled by the connectors. Do not place the cable next to fluorescent lights; interference may result. Do not use staples to support the cable, as you may damage the cable. If the provided camera cable is not long enough, do not substitute a telephone cable. Using a telephone cable could damage the system

I. Turn on the MAIN POWER switch on the rear of the monitor and the POWER switch on the front of the monitor.

Caution:

The MAIN POWER on the rear of the monitor must be turned off before camera cables are plugged into the camera ports, which are also on the rear of the monitor. Plugging a camera cable into the monitor with the power on could damage the system.

J. Adjust the compensation switches to obtain the clearest picture quality. Refer to Section 4 for control setting information.

3. LOCATION OF CONTROLS AND CONNECTORS

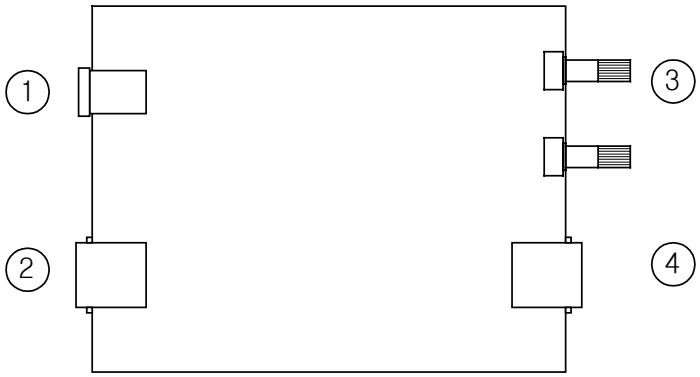

FIGURE 3. CONTROLS AND CONNECTORS

1: DC jack for the external power adapter (15Vdc)
2: System cable input (input from system camera or action box)
3: Cable length compensation controls (GAIN, HF GAIN)
4: System cable out (output to monitor or door controller)

4. CABLE LENGTH COMPENSATIONS CONTROLS

The compensation controls are used to optimize the picture quality when the camera-to-monitor distance exceeds 300 feet. The controls allow the user to adjust the video signal amplitude and the high frequency color signal of the camera. The controls (Figure 3) may be adjusted in the following order.

GAIN: Gain Compensation
Adjust while viewing the monitor to obtain the best overall picture quality (amplitude from white objects to black objects).

HF GAIN: High Frequency Gain Compensation
Adjust while viewing the monitor to fine tune the color saturation signal of the camera. In Black and White systems, this control may be used to adjust the sharpness of the camera image.

5. CONFIGURATIONS

The installation configurations may be either in-line at the mid-point of the camera and observation monitor or the A-LA800 may be located at the observation monitor location. A 16 foot cable is included to allow connection from the observation monitor to the Line Amplifier when the Line Amplifier is located near the observation monitor. The A-PS800LA is used to boost the 15Vdc power to the cameras.

Figure 4 illustrates the interconnection for the basic installation when a 300 ft additional cable is required. Connect the modular cable from the CAMERA IN of the Line Amplifier box to the system camera. Route the modular cable from the MONITOR port of the Line Amplifier box to the monitor.

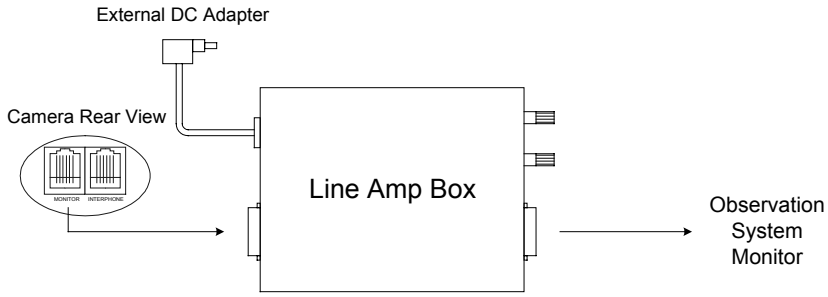

FIGURE 4: LINE AMPLIFIER CONNECTIONS

Figure 5 illustrates the interconnection for the Line Amplifier when used with the A-AB800 Action Box and A-DC800 Door Controller. Route the modular camera from the CAMERA IN of the Line Amplifier box to the INPUT of the Action Box. Route the modular cable from the MONITOR of the line amplifier to the CAMERA of the Door Controller.

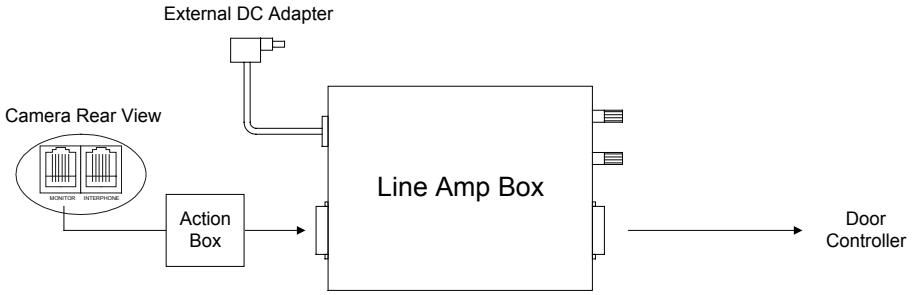

FIGURE 5: LINE AMPLIER CONNECTION
WITH ACTION BOX AND DOOR CONTROLLER

EQUIPMENT SPECIFICATIONS

Connections	Input	6-pin modular jack, RJ11, for camera
	Output	6-pin modular jack, RJ11, for monitor
	Power Input	DC Jack (+15V DC) The center pin of DC Jack is positive.
Power supply	Through the modular cable (15V DC) or Additional DC Adapter (15V DC/1.2A)	
Physical characteristics	Dimensions	110 X 87 X 43 mm
	Net Weight	155g (approx.)
Operating environment	Ambient temperature	0º - 35º C (32º - 95º F)
	Ambient humidity	10% - 90% (non-condensing)