

INSTALLATION INSTRUCTIONS



This symbol is intended to alert the user that parts inside the product are a risk of electric shock to persons.



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFED SERVICE PERSONNEL.

This symbol is intended to tell the user that important operating and servicing instructions are included with this product.





AFIN DE REDUIRE LES RISQUES DE CHOC ELECTIQUE, NE PAS RETIRER LE COUVERCLE. AUCUN ORGANE INTERNE NE PEUT ETRE REPARE PAR L'UTILISATEUR. CONFIER L'APPAREIL A UN DEPANNEUR QUALIFIE.

#### THIS INSTALLATION SHOULD BE MADE BY A QUALIFIED SERVICE PERSON AND SHOULD CONFORM TO ALL LOCAL CODES. DO NOT ATTEMPT THIS INSTALLATION WITHOUT AN ASSISTANT.

# GUIDELINES

The PDI-772HE is a specialized power supply designed to power low-voltage AC small screen televisions and is intended for use in a hospital, a nursing home, a medical-care center, or a similar health-care facility in which installation is limited to a non-hazardous area in accordance with the National Electrical code, ANSI/NFPA70.

LOCATION - The supply is mounted in a utility or electrical closet near an AC wall outlet. Due to coaxial cable length restrictions, select a location that limits the longest coaxial cable run distance between the supply and furthest room to a maximum of 150 feet.

- 1 **COOLING** – Although this supply is engineered for high efficiency, observe these guidelines.
  - Select a location with a maximum ambient room temperature of less than 100°F. a.
    - Allow clearance areas on top, bottom and both sides. This clearance is required for cooling. Do b. not cover or obstruct ventilation grills on the cabinet as this supply utilizes convection cooling. For example, the supply should NOT be mounted in a drop ceiling due to the restricted airflow that occurs in such a tight air space.
    - Do not route cables between the space in back of this wall mounted power supply. The back of the C. supply must be kept clear to allow for convection air-cooling.
    - The supply under full load will generate approximately 110 watts of waste heat. Please consider d the location's additional temperature rise caused by operation of this supply.
- ELECTRICAL This supply requires a 120 VAC circuit capable of supplying 10 amperes of current. Do NOT 2. use an extension cord with this power supply.





# **CATV WIRING**

NOTE TO CATV SYSTEM INSTALLER: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

RF SIGNAL INPUT: This a specialized power supply intended for use with multiple installation of commercial 9" or similar coax powered hospital television receivers. This unit offers the following RF specifications:

- RF CATV signal and 28VAC power supplied via a dedicated coaxial cable to each television. 1.
- This unit is RF passive and does not include any active amplification. 2.
- 3. RF insertion loss is -14dbmv.
- RF Bandpass is 10 to 1000 Mhz. 4

COAX CABLE SPECIFICATION: Due to long cable runs encountered in hospital installations, RG-6 coaxial cable employing a solid copper center conductor and copper shield is required. Cable run lengths MUST NOT exceed 150 feet.



Required RG-6 coaxial cable numbers include Alpha 9804C (non-plenum), Belden 9248 (nonplenum), West Penn 806 (non-plenum), or West Penn 25806 (plenum), which have been tested with coax line-powered televisions. USE OF ANY OTHER CABLE NUMBER IS NOT RECOMMENDED.



#### CABLING THE SUPPLY

This supply is provided with conduit knockouts on the top, left side, and bottom of the cabinet as cable entry points.

- Disconnect the AC power cord from the wall 1. outlet
- 2 Remove 4 screws from the face of the cabinet and detach the ventilation cover exposing the RF "F" connector row.
- Connect the RF input cable to the bottom-3. most "F" connector. Note: the insertion loss is typically –14 dbmv. For a +10dbmv signal to each television, an input RF level of +24dbmv is suggested.
- A dedicated home run of RG-6 coax cable to each patient TV is required – Do NOT daisy chain multiple televisions on a single cable. Observe the following requirements:
  - Limit coax run lengths to less than a. 150 feet.
  - b. Use ONLY recommended cable types as listed above under "COAX CABLE SPECIFICATION".
  - Wrench-tighten all cable C. connections.
- Use a Sharpie marker to identify each cable 5. on the "LOCATION" label next to the circuit breaker field.

### IMPORTANT OPERATING INSTRUCTIONS



TURN OFF UNIT WHEN SERVICING! The supply is turned ON and OFF by plugging or unplugging the power cord plug at the AC wall outlet.

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



DO NOT USE THIS SUPPLY WITH AN EXTENSION CORD.

DO NOT COVER VENTILATION GRILLS ON CABINET. ALWAYS install front ventilation cover when unit is in use.



# **IMPORTANT SAFETY INSTRUCTIONS**

- 1. Read Instructions - Read all of the safety and operating instructions before you operate this television.
- 2. Keep Instructions - Keep the safety and operating instructions for future reference.
- 3. Heed Warnings - Adhere to all warnings on the appliance and in the operating instructions.
- Follow Instructions Follow all operating and use instructions. 4
- Cleaning and Disinfecting Unplug this supply from the wall 5. outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. Do not immerse this supply in water.
- Attachments Do not use attachments not recommended by 6. the manufacturer. They may be hazardous.
- 7 Water and Moisture - Do not use this supply near water - for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc. Do not use this supply outdoors.
- 8 Accessories - Do not place this supply on a cart, stand, tripod, bracket, or table. The supply may fall, causing serious injury to a child or adult and serious damage to the appliance. Use this supply only with a mount recommended by the manufacturer, or sold with the supply. Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.
- Supply and Cart This supply is designed for permanent 9. mounting. DO NOT use with a cart.
- 10. Ventilation - Slots and openings in the cabinet are provided for ventilation, to ensure reliable operation of the supply, and to protect it from overheating. Do not block or cover these openings. Do not block the openings by placing the supply on a bed, sofa, rug, or other similar surface. Do not place this supply near or over a radiator or heat register. Do not place this supply in a built-in installation such as a bookcase or rack.
- 11. Power Sources Operate this supply only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your health care facility, consult your dealer, facility maintenance, or local power company.
- 12. Grounding This supply incorporates a three-wire groundingtype plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
- 13. Power Cord Protection Route power supply cords so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- 14. Outdoor Antenna Grounding If you connect an outside antenna or cable system to the supply, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. (See Figure 1).
- 15. Lightning For added protection during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the supply due to lightning and power-line surges.

- 16. Power Lines Do not locate an outside antenna system near overhead power lines or other electric light or power circuit or where it can fall into such lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.
- **Overloading** Do not overload wall outlets and extension cords as they can result in a risk of fire or electric shock. Do not use this supply with an 17 extension cord.
- Object and Liquid Entry Never push objects of any kind into this supply 18 through openings as they may touch dangerous voltage points or short out parts, resulting in a fire or electric shock. Never spill liquid of any kind on the supply.
- 19 Servicing - Do not attempt to service this supply yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- 20. Damage Requiring Service - Unplug this supply from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - When the power-supply cord or plug is damaged or cut. a. If liquid spills or objects fall into the supply.
  - b. C.
  - If the supply is exposed to rain or water. d. If the supply does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. An improper adjustment of other controls may
  - result in damage and will often require extensive work by a qualified technician to restore the supply to its normal operation.
  - If the supply is dropped or the cabinet is damaged. e.
  - When the supply exhibits a distinct change in performance, this f indicates a need for service.
- Replacement Parts When replacement parts are required, be sure the 21. service technician uses replacement parts specified by the manufacturer or which have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
- 22. Safety Check - Upon completion of any service or repairs to this supply, ask the service technician to perform safety checks to determine that the supply is in proper operating condition.
- Wall or Ceiling Mounting This supply should be mounted to a wall only as 23. recommended by the manufacturer. Do not mount this supply to or in a ceilina.
- 24 Periodic Maintenance - This supply does not require periodic maintenance other than cleaning.
- 25. Heat - This supply should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.





## TROUBLESHOOTING

SYMPTOMS	POSSIBLE SOLUTIONS
TV does not operate	<ul> <li>Make sure the power supply cord is plugged in.</li> <li>Try another AC outlet.</li> <li>Power is off, check circuit breaker.</li> <li>Wrong Coax Cable used – See WRONG COAX below.</li> </ul>
Poor reception or No picture	<ul> <li>Station or CATV experiencing problems, tune to another station.</li> <li>Check CATV connections. Check CATV signal level.</li> <li>Check for sources of possible interference.</li> </ul>
Power supply trips circuit breakers	<ul> <li>Shorted Coax. Check coax.</li> <li>Shorted connection. Check CATV connections.</li> <li>Wrong Coax Cable used – See WRONG COAX below.</li> </ul>
Picture wobbles or drifts	<ul> <li>Station or CATV experiencing problems, tune to another station.</li> <li>Ground loop caused by poor grounding. Check CATV connections ar grounds.</li> <li>Wrong Coax Cable used – See WRONG COAX below.</li> </ul>

### WRONG COAX

The NUMBER ONE installation problem involves use of the WRONG type of coax – one that employs a copperclad steel center conductor. Remember, that the coax must carry not only CATV RF signal, but also AC power hundreds of feet from the central power supply to each television location. Unfortunately, the copper-clad steel center coax offers 10 times the resistance to that of a pure solid copper center conductor style coax. In other words, a 100-foot length of copper-clad steel coax electrically looks equivalent to a 1,000-foot pure copper cable. The steel cable offers too much resistance to the low frequency AC power current. The typical problems are those associated with low voltage – the TV operates erratically or not at all.

DO NOT USE copper-clad steel center conductor style coax cable. You can easily be fooled since the steel center conductor is platted with a copper cladding – it looks like copper. As a test, touch a magnet to the center conductor. If it sticks, you have steel inside. DON'T USE IT!

The required RG-6 coaxial cable numbers include:

- Alpha 9804C (non-Plenum)
- Belden 9248 (non-plenum)
- West Penn 806 (non-plenum)
- West Penn 25806 (plenum)

These coax cables have been tested with coax line-powered televisions. USE OF ANY OTHER CABLE NUMBER IS NOT RECOMMENDED.

# **CONTACT INFORMATION**

PDI Communication Systems 40 Greenwood Lane Springboro, Ohio 45066 Phone: 937.743.6010 Fax: 937.743.5664

Engineering: custserv@pdiarm.com

Internet: http://www.pdiarm.com

Sales: sales@pdiarm.com