

NADY IR-310

Infrared Audio Transmission System for Listening Assistance Applications



Nady IR-300 H Infrared Headset

For more detailed installation specifications and additional information, please contact Nady Systems.

The Nady IR-310 System is an Infrared Transmission System designed for coverage of large areas, such as theaters, churches, lecture halls and auditoriums. The transmitting system consists of a rack mountable Nady IR-310 Control Unit/Power Supply and one or more Nady IRT-300 Infrared emitters. The emitter units can be stand mounted or wall mounted. The receiving system consists of any number of Nady IR-300 H and/or induction loop receiving headsets.

The IR-310 System operates with Pulse Width Modulated infrared light on a 95 kHz carrier and is compatible with other IR systems operating on the same frequency.

The IR-310 Control Unit/Power Supply is AC powered. It includes one 1/4" line input and one 1/4" microphone input, with adjustable audio level. This means that no separate AC outlets or cables are required at emitter locations. Output provides both 40V DC power and control signals to the emitters. Controls and indicators are as follows: Power On/Off switch with "On" LED; Audio Input Level; Audio Overload (overmodulation) LED; LINE In and MIC In connectors, which accept audio information from amplifiers and mixing boards, or from a directly connected microphone.

The IR-310 control unit can power a total of ten emitters. Its back panel provides five emitter outputs. Each emitter has two DIN jacks, allowing emitters to be daisy chained in any configuration.

The IRT-300 Infrared emitter uses 120 IR LEDs for effective coverage of emitted IR energy of approximately 5,000 square feet. In subdued ambient light conditions, a receiver may be up to 150 feet from an emitter and still have satisfactory reception.

The IR-300 H is a stethoscope style infrared receiver with an independent volume control. It comes with removable earphone tips. The IR-300 H produces about 115 dB SPL. Also available is an optional Receiver/Induction Loop for hearing aid wearers. The IR-310 H operates on a plug-in rechargeable battery. Batteries can be charged individually from any 115 V AC outlet using the supplied adapter. Two multiple battery chargers are also available.

For hearing assistance, the Nady IR-310 is the clear choice.

NADY IR-310 SPECIFICATIONS

IR-310 CONTROL UNIT

Transmitting Frequency: 95 kHz
Modulation: FM
Overload Indicator: LED Display
Pre-emphasis: 75 s
Fuse: 1 A slow
Power Consumption: Approx. 40 W with Four Emitters
Dimensions: (44cm x 9cm x 25cm)
W: 17.25" H: 3.5" D: 10",
Weight: 5 Kg (11 lbs).
LINE INPUT
Connector: 1/4" Phone Jack
Sensitivity @ 1 kHz: 310 mV. Adjust.
Input Impedance: 10k ohm
AF Freq. Response (-3dB): 20 Hz-20 kHz

Modulation and Nominal Swing: <1%

MICROPHONE INPUT

Connector: 1/4" Phone Jack
Sensitivity at 1 kHz: 200 ohm
Microphone Impedance and Nominal Swing: 30 mV to 310 mV, Adjustable
Input Impedance: 200 ohm
AF Frequency Response (-3 dB): 20 Hz to 20 kHz
Modulation and Nominal Swing: <1%

OUTPUTS

Connector: DIN
Number of Outputs: 5
Output Voltage: Approx. 5 V RMS
Supply Voltage: 40 V DC

IRT-300 POWER EMITTER

Operating Frequency: 95 kHz
Number of Radiating Diodes: 120
Average Radiated Power: 6.8 W
Effective Coverage: 5000 sq. ft.

IR-300 H RECEIVER

AF Frequency Response: 50 Hz to 11 kHz \pm 3 dB
Receiving Frequency: 95 kHz
Power Supply: Internal 2.7 V Battery
Operating Time: Approx. 5 Hours
Recharging Time: Approx. 19 Hours
Dimensions: 1.25" x .375" x 1.625"
Weight: 5 oz.



Nady IRT-300 Infrared Emitter
Nady IR-310 Control Unit/Power Supply



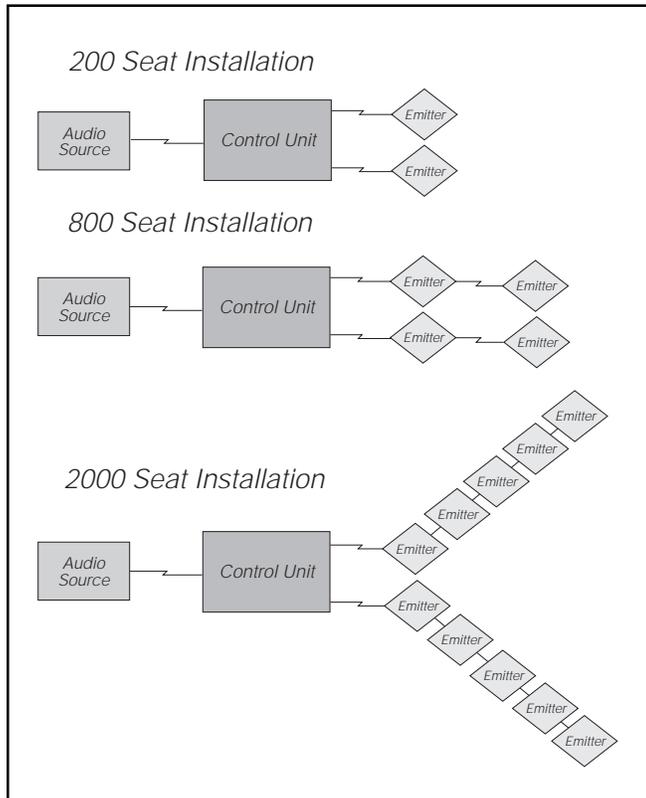
Nady IR-310 Infrared Audio Transmission System Accessories and Installation Information

EMITTER INSTALLATION INFORMATION

The Nady IRT-300 Emitter Panel receives both audio signal and power from the IR-310 Control Unit.

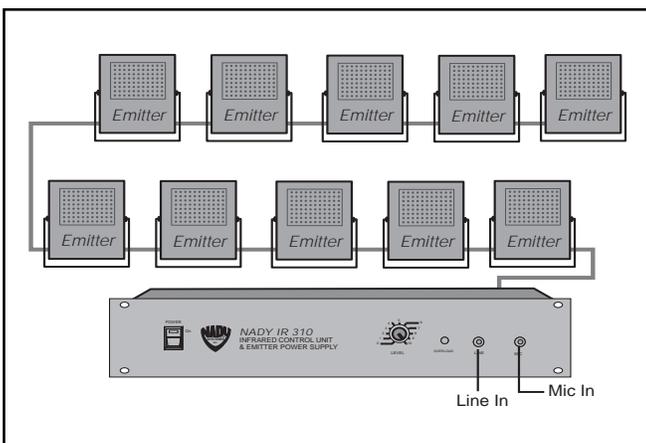
Installation is simple and cost effective—since it is not necessary to provide AC power to the emitters, the emitters can be placed virtually anywhere in the room.

EXAMPLES OF IR-310 SYSTEM INSTALLATIONS



EXAMPLE OF CONTROL UNIT WITH 10 EMITTERS DAISY CHAINED

Each emitter provides two four-pin DIN jacks. This allows connection to the control unit and another emitter.



**NADY IR-300 H
EARPHONE HEADSET**

The Nady IR-300 H Receiving Headset works like standard headphones, with an adjustable volume control for up to 115 dB SPL. Nady disposable earpads are packaged in pairs and sold separately.



**NADY RECHARGEABLE
BATTERIES**

Every Nady IR300 H headset comes with a rechargeable NiCad battery and charging adaptor. An individual battery can be recharged by using its adaptor to plug the battery into a 115V wall socket, or with an optional Nady Battery Charger. The Nady BC-25 charges up to 25 batteries; the Nady BC-50 charges up to 50 batteries.

EMITTER RADIATING PATTERN

Each Nady Emitter has an infrared radiation pattern of 60 degrees, as shown in the drawing (right). Nady Emitters are designed to offer a minimum effective range of 150 feet, even in ambient light. Range is even greater in dark and near dark room lighting.



**NADY EMITTER
CONNECTING CABLE**

Nady Emitter connecting cable is fitted with a four-conductor DIN plug on each end and is available in lengths of 25, 50 and 100 feet. Other lengths available by special order.

