

How to Sell Sony Wireless

FOCUS ON

RF

Wireless 101

◆ Definition of “FM” or Frequency Modulation

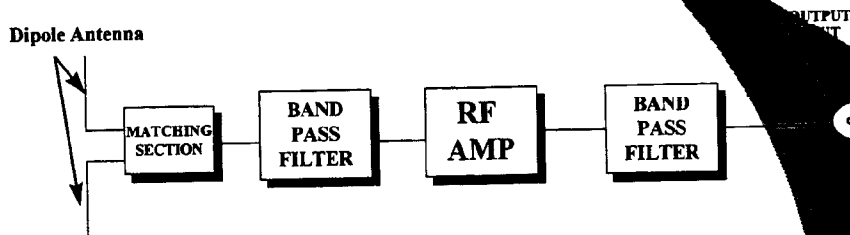
- ◆ A transmitter takes in the audio signal from the microphone (**source**) and converts it into a radio signal.
- ◆ The transmitter then transmits a basic radio signal (carrier) that is shifted up and down in frequency (**modulated**) by the audio coming in from the microphone
- ◆ The maximum amount of allowed frequency shift designed into the transmitter is called the “**Peak Deviation**”

Wireless 101

- ◆ **“Selectivity”** - The ability of a receiver to reject unwanted signals or noise present on nearby channels
- ◆ When 2 or more signals are present a phenomenon called **“intermodulation”** occurs. This is when each of the signal’s harmonics combine with each other to create an additional signal.
- ◆ **Componder**- transparent compression expander circuit allowing for a larger dynamic range

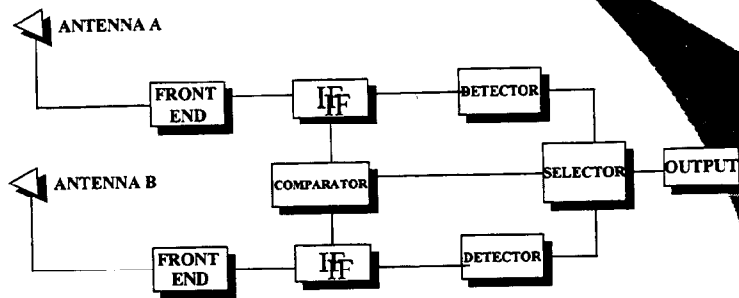
Wireless 101

AN-820A Breakdown



Wireless 101

Space Diversity Reception Overview



Why UHF Over VHF

UHF vs VHF

- ◆ VHF Has a Larger Radio Signal Wave Length: Average Length Is Around 2 Meters Vs Less Than 1 Meter for UHF
 - ◆ A larger wave length requires more power to transmit
 - ◆ Requires larger antennas for proper RF operation
 - ◆ Because of smaller wavelengths UHF loses very little energy when reflected off walls can sneak through small areas.
 - ◆ Because of their size VHF waves can more easily bend around objects that might otherwise block UHF waves
- ◆ VHF Frequency Range Is 50MHz (165-216MHz) Compared to 500MHz in UHF (450-952MHz)
 - ◆ fewer multiple channel operation

UHF vs VHF

- ◆ Very Active Bandwidth
 - ◆ more activity in VHF than in UHF in a bandwidth 1/10 the size
 - ◆ most of local TV broadcasting (ch. 7-13) is in the VHF range
- ◆ VHF Is More Susceptible to "Man-Made" Noise
 - ◆ Walkie Talkies, CBs, computers security radios etc...
 - ◆ UHF is significantly less susceptible to interference from machinery
- ◆ VHF Equipment Is Less Expensive to Manufacture
 - ◆ UHF product requires more sophisticated design with more stringent tolerance

Why Sony UHF

- ◆ Receiver Units Have Very Good Spurious RF Rejection
 - ◆ Translates to *DEPENDABLE IN THE FIELD*
- ◆ Very Flexible and User Friendly Channel Selection
 - ◆ Translates to *DEPENDABLE IN THE FIELD*
- ◆ Very Efficient RF Circuitry With Powered Antennas
 - ◆ Translates to *DEPENDABLE IN THE FIELD*

SONY

WRR-801A / 800A

WRT-805A / 800A

WRU-801A



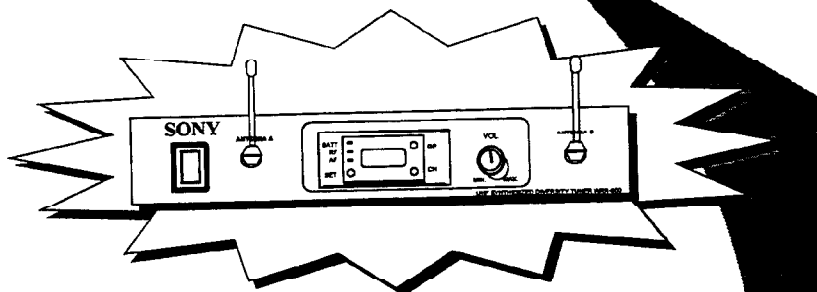
UHF WIRELESS

800 Series Wireless: Features

- ◆ New Low Cost! (Approx. \$1,100 Sug. List)
- ◆ Retains "High-End" Series Performance
- ◆ "Space Diversity" Reception
- ◆ 94 Selectable Synthesized UHF Frequencies
- ◆ Up to 11 Simultaneous Channels
- ◆ Compatible With Existing 800 Series (Ch 68)

800 Series: Receivers

WRR-800A



WRR-800A Single Channel Receiver

- ◆ Compact Half-Rack Design
- ◆ Space Diversity Receiver
- ◆ UHF Channel/Group Select Control
- ◆ Back-Lit LCD With Battery, RF, AF, and Channel Status Displayed.
- ◆ Front Panel Level Control
- ◆ Balanced TRS Output

800 Series: Receivers

WRR-801A Modular Receiver



WRR-801A Modular Receiver

- ◆ Up to 6 channel modules (WRU-801A) in *one* rack space!
- ◆ Auto channel select: automatically detects usable channels.
- ◆ LCD display of battery, RF and AF output, gain and channel #'s.

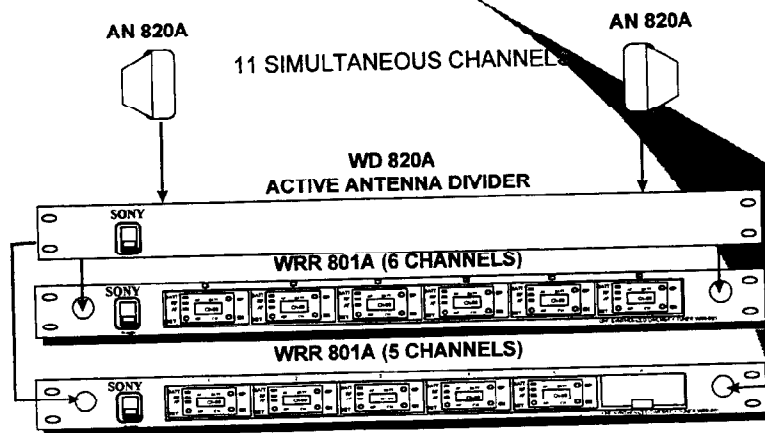
WRR-801A Modular Receiver

- ◆ 9V DC powered antenna jacks (for AN820A-active antennas), *plus* 10dB attenuate.
- ◆ Front or rear mountable antenna connector.
- ◆ TRS balanced, individual and mix outputs (w/selectable level).

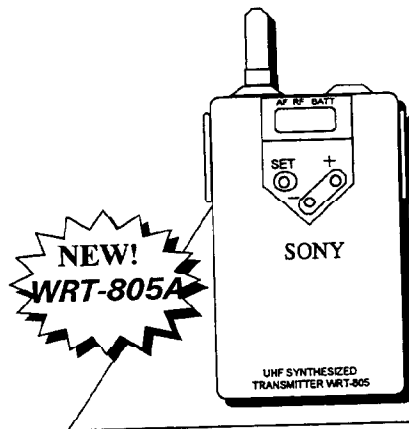
WRR-801A: Options

- ◆ **AN-820A:** Active antennas. DC powerable. Stand or wall mountable.
- ◆ **WD-820A:** Active antenna divider. Allows operation of several systems from one pair of antennas (1/4 wave or AN-820A)
- ◆ **WRU-801A:** Individual channel plug-in module. Up to 5 additional WRU-801A's can be installed.

800 Series System Configurations



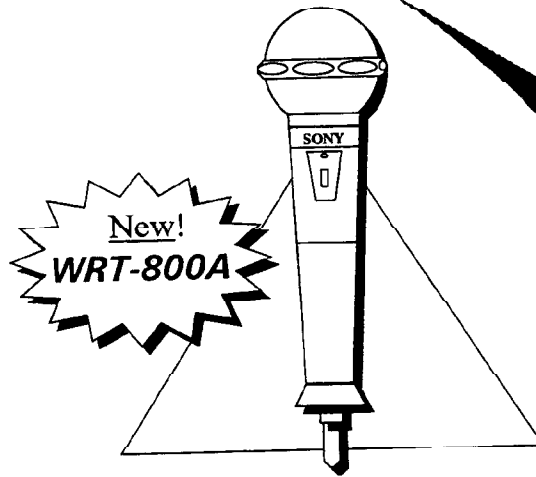
800 Series: New Transmitters



WRT-805A Bodypack

- ◆ Light-Weight Body Pack Design
- ◆ LCD Display of All Functions
- ◆ Transmits Battery Alarm
- ◆ Channel/Group Select Controls
- ◆ Accepts Several Mic Options*
- ◆ 6 Hour Battery Life W/ Single "AA" Battery.
- ◆ DC-to-DC Converter for More Consistent Battery Life.
- ◆ Tone-Key Squelch (32 kHz)

800 Series: New Transmitters



WRT-800A Handheld Transmitter

- ◆ Light -Weight, High-Performance, Cardioid Condenser Mic.
- ◆ 12 Hour Battery Life With a Single "AA" Battery.
- ◆ Anti-Slip, Anti-Roll Design
- ◆ Accessible Silent on/off Switch W/Indicator
- ◆ Channel/Group Selectable
- ◆ Transmits Battery Alarm
- ◆ DC-to-DC Converter
- ◆ Tone Key Squelch

Wireless Packs

- ◆ **Guitar** Pack (w/GC0.7MP cable)
- ◆ **Lavalier** Pack with ECM-122BM mini, condenser lav mic
- ◆ **Handheld** system (w/ WRT-800A condenser mic)

Positioning

- ◆ Well Suited for Contracting and PA Rentals
- ◆ Supplements Existing 800 Series
- ◆ Reliable UHF Performance at Low Cost
- ◆ The *Only* 1 Space Modular System Currently Available

Effective Application Configurations

◆ Worship Centers

◆ Transmitters

◆ Receivers

Effective Application Configurations

◆ Sound Reinforcement

◆ Transmitters

◆ Receivers

Effective Application Configurations

- ◆ **Corporate**

- ◆ Transmitters

- ◆ Receivers

Effective Application Configurations

- ◆ **Broadcasting**

- ◆ Transmitters

- ◆ Receivers