



AVIATION BAND TRANSCEIVERS & BASESTATIONS

Solutions for Advancing Communications

M2115-M & M2115-B

Efficient, Effective, Reliable Communications

Mentor Radio introduces a family of radios loaded with features that help improve safety.

VERSATILE – The same M2115 unit is used for both a transceiver (M2115M) and a base station (M2115B).

MOBILE REPEATER CAPABILITY – When used with a Bluetooth wireless headset.

INTERFACES WITH TODAY'S TECHNOLOGY – USB connector interfaces with your PDA, laptop, and/or Bluetooth to reduce the lag time when relaying important information for "real-time" communications.

PROGRAMABLE FRONT PANEL – Program up to 255 channels

ADJUSTABLE TRANSMIT POWER - Match the power to your licensing authorization - 10, 25 & 50 Amp availability.

TRANSMITTER TIME-OUT PREVENTS A PERPETUAL "STUCK MIC" - Eliminates channel hogging.



- **Secure, Synthesized Radio with Password Protected Configuration** - No crystals to change frequencies, programs up to 255 channels with up to 64 authorized users.
- **Supports 25kHz (US) or 8.33 kHz (EU) Channel Spacing**
- **GPS Tracking allows for Asset Allocation/Scheduling** - With optional second UHF LMR Radio, you can transmit voice and data between vehicles and the base unit as well as track vehicle locations from your base station in "real-time;" ideal in low visibility applications, operator training, and restricted areas helping to improve safety. .GPS tracking is built-in the receiver of the radio and is used with either single or dual radios. VHF only. Allows you to download data to USB flash memory.
- **Built-in 4 Watt Speaker**
- **VSWR – Reverse Power Detector** - Detects high VSWR, shuts down transmitter preventing damage.
- **Uninterrupted Communications in High Noise Environments** – When used with our Bluetooth wireless headset it allows hands free operation and reduces environmental noise and extends use range because it converts the unit into a high power mobile repeater allowing for out of vehicle operation.
- **Upgrades Mentor Radio Products** – Interfaces with all older models of Mentor Radio products. Increases output power of MB-R from 10W to 25W adding transmitter power control.



www.mentorradio.com

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ACCESSORIES/OPTIONS:

Antennas – Broadband or narrowband base antennas. Magnetic mount and thru-hole (3/8”) style mobile antennas.

Microphones – Handheld, noise cancelling with mount bracket and pedestal style microphones. Also connect headsets for use on mowers and other high noise or hands free environments.

LMR (Land Mobile Radio UHF/FM Transmit/Receive) – LMR Radio (UHF) adds not only voice but low speed data for Resource Tracking (RT) and User Data (UD). (Future Option)

Radio Status Signal – Informs base station when power is turned on and off, with LMR option.

GPS – Single Radio (VHF) data accumulates. Download into USB flash memory (not provided). Dual radio (VHF/UHF) data sent via LMR link for “real-time” tracking of vehicle.

Bluetooth Wireless headsets - Mobile radio becomes high power repeater.

M2115-B – Base station radio operates from AC line power with internal speaker; includes remote interface with up to 16 frequency remote channel selections.

M2115-B SPECIFICATIONS

Same specifications as the M2115 except those listed below:

- **Power In:** 88 – 264 VAC fan cooled switching power supply
- **Dimensions:** 10” x 8” x 6”
- **Weight:** 9 lbs.
- **Remote Output:** Discrete signals connect to remote controllers. Remote frequency selection up to 16 channels.

OTHER

- **USB Interface Connector:**
 - Type A Female - 1
 - Type B Female - 1
- **USB Standard:** 2.0
- **Bluetooth:** A2DP
- **GPS Module (Option 002):** Antenna SMA
- **Antenna (Option 003):** 1” x 1” vehicle mounted patch



SPECIFICATIONS

TRANSMITTER

- **Output Power:** 1 W, 5W and 10W
- **Modulation Level:** 70% to 95% nominal 85%
- **Audio Distortion:** Less than 10%
- **Hum and Noise Ratio:** More than 40 dB
- **Spurious Emissions:** -16 dBm maximum
- **Antenna Impedance:** 50
- **Antenna VSWR Measurement:** 2 to 10, accuracy of +/- 20%
- **External Power Amp: (OPTIONAL)** Closed loop power control (up to 50 watts)



GENERAL

- **Frequency Range:** 118.000 to 136.975 MHz (capable expansion to 108MHz)
- **Dimensions:** 7" x 7" x 3"
- **Weight:** 5 lbs.
- **Channel Spacing:** 8.33kHz or 25kHz
- **Antenna Connector:** TNC (50ohms)
- **Power Supply:** +12 VDC to +14.5 VDC, Nominal 13.75 VDC
- **Power Consumption:** (Rx) 2A, (Tx) 5A
- **Operating Temperature:** -30 C to +60C
- **Frequency Stability:** 5ppm

RECEIVER

- **Sensitivity:** Maximum 1uV for 6dB S/N, 30% Modulation Index
- **Squelch Sensitivity** < 0.5uV
- **Hum and Noise:** > 25 dB
- **Selectivity:**
 - ~ **25kHz Channels:** Greater than 6dB at offset greater than +/- 8kHz; Greater than 40dB at offset greater than +/- 17kHz; Greater than 60dB at offset greater than +/- 25kHz
 - ~ **8.33kHz Channels:** Greater than 6 dB at offset greater than +/- 2.8kHz; Greater than 60 dB at offset greater than +/- 7.4 kHz
- **Spurious rejection :** Meets FCC requirements
- **Audio Output:**
 - ~ **4ohm output:** > 4W
 - ~ **600 ohm output:** > 0.5W at 60% AM, 10% distortion
 - ~ **Sidetone:** Same as 600 ohm output
 - ~ **Internal Speaker:** Handles 4W at 8 Ohms

User I/O

- **LCD:** 64 x 128 graphics
 - ~ Backlight adjustable
 - ~ 4 soft menus
 - ~ Vehicle moving map (future)
- **Buttons:** Menu – 4, Power - 1 momentary
- **Rotary Encoder:** Data Entry, Vol and Sq adjust
- **LED:** Power On
- **Configuration:**
 - ~ 64 authorized maximum users
 - ~ 255 maximum channels
- **Power-up Interlock**
 - ~ Detect/Report power off state (second radio option)

