

# Wildlife Materials, Inc.

## OPERATING INSTRUCTIONS for TRX-1000WR RECEIVER

### ***NOW WATER RESISTANT***

Track in any weather without fear of water damage with the new sealed case that resists rain and water splashes.

### ***IMPROVED NOISE BLANKER with ON/OFF SWITCH***

New design eliminates impulse noise, makes tracking of weak transmitters EASY in noisy signal areas. Use ON/OFF Switch to turn Noise Blanker Off in areas where many strong transmitter signals overload the circuitry. This improves dynamic range, and the user gets better sensitivity.

### ***IMPROVED DIGITAL CIRCUITRY***

Allows fast, accurate tuning of transmitter signals. Sharp, noise-reducing digital Audio Filters help reduce background noise drop away for a clearer signal.

### **Important Precautions**

- DO NOT IMMERSE IN WATER. Case and front panel are water resistant, but are not designed to be immersed in water. IMMERSION IN WATER WILL VOID WARRANTY.
- DO NOT EXPOSE TO FIRE and EXCESSIVE DUST.
- Before the DC external power cord is used, TURN RECEIVER OFF. Then **ALWAYS insert the cord's plug into the receiver's External Power jack BEFORE plugging the cigarette lighter cord into a vehicle.** Failure to follow this procedure can cause the fuse in the cigarette lighter power plug to blow.
- After batteries have been used for 5 hours, they should be charged for 4 hours for each hour of operation. **Vary recharge times. Do not charge more than 24 hours.** Overcharging can result in loss of battery life.

**Description Of Controls (top left to lower right):**



**JACK FOR ¼ INCH HEADPHONE, WITH PORT COVER:** Allows use of monaural headphones or earphones with 3.5-millimeter mono plug.

**ATTENUATOR SWITCH:** Prevents swamping of the received signal at **close range**. When the transmitter-wearer's signal comes to the receiver equally from all directions, turn Attenuator switch ON. The signal will then come strongly from one direction, where the animal is located. **Turn OFF when not needed.**

**SIG/BAT TOGGLE SWITCH:** Causes the meter to indicate either the signal strength being received or a low battery in the receiver. Normally, a charged battery will register 6 or 7 on the meter. When the meter begins to fall below 6, the battery requires recharging.

**POWER ON or OFF/METER LIGHT ON TOGGLE SWITCH:** Turns RECEIVER ON when switch is pushed UP. Turns RECEIVER OFF when switch is placed at CENTER. Also allows user to SELECT METER LIGHT for NIGHT TRACKING.

**SIGNAL METER:** Registers BATTERY STRENGTH and relative SIGNAL STRENGTH. *USE previously mentioned SIG/BAT toggle switch to select information desired.*

**FREQUENCY SELECT SWITCHES (3):** Identify the frequency to be used by the transmitter. Small pushbuttons, marked with "+" or "-", will change the number in the window of each switch until the last three numbers of the transmitter frequency are selected. EXAMPLE: If a transmitter frequency label is marked 217.137, then 137 will be selected by pushing the switches. The TUNE control might require adjusting to give the most pleasant tone to the transmission. NOTE: The last digit (right hand switch) may need to be moved up or down one digit, when temperature variations or other factors intervene, to allow for easy adjustment of the TUNE near the middle of its range.

**ANTENNA JACK:** Accepts any 50-ohm coaxial cable with a BNC plug. To insert plug, push in jack and give a slight twist to the right.

**GAIN:** Varies the VOLUME of the receiver. Lowest gain is obtained by turning the control to the left; highest gain is achieved by turning the control to the right.

**TUNE:** Makes fine adjustments in the receiver frequency in order to give the most pleasant tone to the transmission being received. When the knob pointer faces up or is centered, the receiver will be tuned to the exact frequency indicated by the frequency switches (located to the right of the Signal Meter). When the knob pointer is turned to the left, it tunes in a slightly lower frequency; when turned to the right, the receiver is tuned slightly higher in frequency than frequency switches indicate.

**EXTERNAL POWER/BATTERY POWER & CHARGE TOGGLE SWITCH:** Move Switch UP to power the Receiver EXTERNALLY from a Vehicle cigarette lighter Plug-in, using a DC Power Cord. Move switch DOWN to CHARGE Receiver from wall current, using a recharger.

**EXTERNAL POWER CHARGER JACK:** Plug wall Recharger into this jack to charge receiver's internal NiCad battery from a standard wall 110-120 VAC power source. Lift Port Cover and Connect recharger with receiver FIRST, then into wall current. NOTE: *Charging should never occur for more than 24 hours.* Overcharging will shorten battery life. See #17 and #18 below for recharging instructions.

## **OPERATING INSTRUCTIONS:**

- 1) Turn the POWER SWITCH ON for INTERNAL NiCad battery usage (use toggle switch at left center). If you want to operate the receiver EXTERNALLY off a vehicle battery, see #16.
- 2) Preset GAIN control to "12:00 o'clock" position.
- 3) Preset TUNE to "12:00 o'clock" position.
- 4) Dial the desired frequency of a transmitter on the 3 FREQUENCY SWITCHES. Push the small buttons marked with "+" or "-" until the numbers represent the last 3 digits in the transmitter frequency. EXAMPLE: A transmitter marked 217.650 would require the switch numbers to register 650.
- 5) Attach antenna cable to ANTENNA JACK by pushing the cable's BNC plug down and twisting slightly to the right until it clicks into place.
- 6) Activate transmitter now. A beeping signal should be heard thru the receiver's speaker.
- 7) TUNE control can now be adjusted to give the loudest sound and peak meter reading.
- 8) Advance the GAIN/Volume Control slowly in clockwise motion only as far as necessary to receive a clear signal. Keep the GAIN as LOW as possible while locating.

- 9) If the signal sounds loud or distorted, turn the GAIN Control down until the signal is clear and acceptable in volume.
- 10) If the TUNE Control cannot bring in the signal clearly and with a pleasant pitch, the last FREQUENCY SWITCH on the right can be moved up or down 1 or 2 digits to bring the tuning within the range of the TUNE control. If the right switch is already at an extreme, for example at 0 or 9, the middle digit can be readjusted up or down one number. EXAMPLE: If a user dialed .139 on the receiver, turned the TUNE control all the way toward "+" (right), and found that the tone from the speaker was still not quite acceptable, he/she could dial .140 or .141 and readjust the TUNE control back toward 0 again. Or, if a user dialed .100 on the receiver and the TUNE control was turned all the way toward "-" (left), and the tone was still not acceptable, he/she might try dialing .098 or .099. Then readjust the TUNE control back toward 0.
- 11) To use the SIGNAL METER, place the SIG/BAT toggle switch in the SIG position. The meter needle will move to match the transmitter's beeping signal and show the signal strength. If the meter needle moves too far to the right, turn the GAIN control to the left. If no signal meter indication is seen, advance the GAIN to the right.
- 12) To determine strength of the receiver battery, place the SIG/BAT toggle switch in the BAT position. A charged battery will register 6 or more on the meter. If the meter falls below 6, the receiver battery needs recharging. See recharge directions in #17 below.
- 13) For night use, the POWER ON, OFF, and ON-ML (ML=Meter Light) Toggle Switch should be pushed DOWN to get backlighting of the meter.
- 14) To prevent swamping of the received signal at close range, turn Attenuator switch ON. If your animal's signal comes at the receiver equally from all directions, you are very close. When the Attenuator switch is ON, the signal will come strongly from one direction, where animal is located. When the attenuator is not needed (if the transmitter-wearer moves farther out), turn it OFF.
- 15) To use headphones, turn the GAIN/volume control all the way to the left, lift port cover at upper left, plug in headphones at jack, and adjust GAIN/volume for comfortable volume level.
- 16) To operate with external power, turn EXT PWR toggle switch UP, open the port cover at lower right, insert the DC power cord's plug into the receiver's DC EXT POWER jack **BEFORE** plugging the cord's fused cigarette lighter plug into a vehicle. This DC power cord/ cigarette lighter plug-in does no charging; it ONLY operates the receiver from a vehicle.
- 17) The receiver's nickel cadmium batteries give 5 to 6 hours of tracking between charges. Before charging, toggle Power switch to OFF. **To charge the receiver, move the Ext Power/Battery PWR & CHG toggle switch DOWN. Lift port cover on EXT. PWR CHARGER JACK at lower right. Insert the AC CHARGER CORD plug into the EXT. PWR CHARGER JACK. Then plug the other end of the AC CHARGER CORD**

**into a 110-120 VAC, 60-hertz power source** (house current). To FULLY charge a battery, charge for at least 16 hours. **Never charge longer than 24 hours.** **Overcharging may shorten battery life.**

After your receiver is fully charged, it should be charged 4 hours for every one hour of operation. **Again, never recharge for more than 24 hours.**

- 18) **Vary your recharge times** to avoid a "memory buildup". If you recharge 4 hours **each** time, the battery will gradually become good for **only** 4 hours of life. Avoid a recharging pattern to get the most out of a battery. For instance, if you charge for 4 hours one time, use your equipment until a charge of 8-10 hours or 12-14 hours or 16-20 hours is required the next time.
- 19) Store in a cool dry place. During storage periods, the receiver should be turned on every 3 to 4 months and allowed to run for 2 to 3 hours. Then recharge for 12-16 hours before putting the receiver back on the shelf.

When you are ready to track your animal again, if the receiver has not been used for some time, be sure to recharge the unit.

- 20) The **electronics** in the TRX-1000WR Receiver are guaranteed for **FIVE Years on parts and labor**. Acts of God and other excessive abuse are not covered. WMI offers a **15-day trial period** for returning new equipment. Water Damage due to **IMMERSION IN WATER WILL VOID THE WARRANTY.**

## **TROUBLESHOOTING the TRX-1000WR RECEIVER**

Please check the following list **before you return** the TRX-1000WR Receiver to WMI **for repairs.**

### **I. If you turn the TRX on and it doesn't work:**

- A. Turn PWR Power Switch ON to operate internal NiCad batteries.
- B. Turn SIG/BAT switch to BATTERY.
- C. If meter needle registers 6-7, the battery is OK.
- D. If meter needle registers below 6, the battery is probably discharged.
  - 1. Charge battery for 1 hour and recheck. The receiver may now be OK.
  - 2. If the battery does not charge, check the voltage output of the recharge unit on a DC voltmeter. If the recharger fails to register in the normal 12-18 v range, a new recharger is needed. **Return receiver with recharger** to WMI; include note on tests you did. During warranty period, old recharger must be returned before new recharger is shipped.
- E. If the battery won't charge and the recharger tests OK, send the receiver back to WMI. Include note on behavior and tests you did.
- F. If the battery tests OK, charge receiver 18-20 hours before use. Then try to tune in the frequency no. of a collar.

1. Turn GAIN Control fully clockwise. Do you get a sound? You may need to place your ear by the speaker. If you get no sound, send **receiver and recharger** to WMI with note on receiver behavior and tests you did.

## II. If you hear a signal, is it a) tweet/chirp OR b) a dull thump/drum beat?

- A. If you hear a) a tweet/chirp, attach your antenna cable to receiver.
  1. Check range of at least 2 transmitter collars **known to be good**. During test, place good transmitters on stump, box, or block about 6-12 inches above ground.
  2. Do you get a normal signal range for the collar type used? If not, send receiver and antenna back to WMI with a note on tests you did.
- B. If you hear b) only a dull thump or drum beat,
  1. Tune the frequency number up and down several numbers or KHz to see if the frequency has shifted. I.E., if your collar frequency number is 212, go from 213 to 214 to 215; then go down to 211, 210, 209 to see if a signal comes in. It is not unusual for the collar's frequency number to come in on the receiver at a different number, or to slip by 1 to 3 KHz up or down. However, larger frequency shifts of 5 to 10 KHz are uncommon and unacceptable.
  2. Borrow a buddy's **working** receiver to see if your transmitter collar's signal will come in at the correct frequency number on another receiver. This will insure that the collar is not the problem.

## III. If the receiver is not getting the range you expect:

- A. Is the problem the same with all your collars? If you have only one collar, try a buddy's that is on the same frequency.
- B. If all your collars are giving poor signal range, borrow an antenna and cable THAT WORK. Try picking up each collar signal with the borrowed antenna and cable.
  1. If the collar signals come in well, you probably need a new antenna cable. Or, less likely but possible, the antenna needs repairs.
  2. If all collar signals do not come in well with a borrowed antenna and cable, send the **receiver, recharger and collars** back for repair. Include note on equipment behavior and tests you ran.

## IV. If the transmitter collar signal does not come in on the frequency assigned to it:

- A. Check your other transmitter collars on your receiver. Are they off frequency also?
  1. Tune the frequency number **up** and **down** several numbers or KHz to see if the frequency has shifted. For example, if your collar frequency number is 217.**212**, go up to 213 to 214 to 215 on the frequency dial; then go down to 211, 210, 209 to see if a signal comes in. It is not unusual for the collar's frequency number to come in on the receiver at a different number, or to slip by 1 to 3 KHz up or down. However, larger frequency shifts of 5 to 10 KHz are uncommon and unacceptable.
  2. Borrow a buddy's **working** receiver to see if your collar frequency numbers come in. Insure that the collars are not the problem.

- B. If all collars are off frequency, the receiver needs to be calibrated. Return **receiver and recharger** to WMI.

V. **If you get noise from the receiver, but no signal:**

- A. Does receiver fail to work when exposed to either very hot or cold or humid conditions?
- B. Allow the receiver to return to room temperature, then check.
- C. If the receiver still doesn't work, return **receiver and recharger** to WMI with note about temperature effects, if any.

VI. **If the TUNE knob has slid or loosened on its shaft:**

- A. You will not be able to locate your dog's signal at its assigned frequency. To center the Tune knob,
  1. Turn the Tune **and** the Gain Control knobs down to low, with both their white lines in matching positions.
  2. Then tighten the screw at the side of the Tune knob.
  3. Return Gain knob to desired level.
  4. Place Tune line at O or center.

VII. **If the Signal Meter Needle stays or "hangs" at the low end of the meter:**

- A. Returns to Wildlife Materials, Inc. DO NOT REMOVE FACEPLATE. THIS WILL VOID WARRANTY.

VIII. **If your receiver has gotten wet (by dropping in pond, etc.):**

- A. The signal meter **needle** sticks at the right side of the meter. The needle stays up or "hangs" rather than coming down.
- B. DO NOT OPERATE during this time. Turn power **OFF**.
- C. **Water damage by immersion in water may void your warranty.**
- D. If your receiver has been **immersed in water**:
  1. Turn box upside down with lid open to form an inverted V.
  2. Draw moisture out with a fan or blow dryer set on **LOW**. Dry by blowing air through receiver from one end to another.
- E. **Send the receiver to us immediately!**

IX. **When an ATTENUATOR is TURNED ON and seems to give a stronger signal than you expect,**

- A. Test the transmitter at least 15 feet away from receiver. If transmitter is too close to receiver, the signal will come in strong, regardless of the position of the attenuator. This situation will be magnified if you have detached the antenna. The receiver has a 50 ohm lead that it powers off of, making the signal seem stronger. The Attenuator is not wired in "Backwards."

**IF YOU NEED A NEW BATTERY PACK, RETURN TO Wildlife Materials, Inc.  
Opening the Case will Void your Warranty.**

IF THE RECEIVER DOES NOT WORK, return to Wildlife Materials, Inc. Please include any accessories you use, such as recharger & cigarette lighter plug-in. Also include your **daytime phone number** and a **written message**, which explains any unusual behavior. This information will help the technician to go quickly to the problem, saving time and repair costs.

## **VELCRO TO HOLD RECEIVER IN CASE**

- With the receiver CASE, you'll find two strips of unattached Velcro that have plastic backing.
- Please look inside the case at the bottom and back center. You'll find two permanently attached Velcro strips.
- To protect your receiver, anchor the receiver to the case with Velcro.
  - Turn the receiver over. Peel the plastic backing off one loose strip. Place the strip at bottom center of box. Rub to seal.
  - Turn the receiver so the back faces you. Peel the plastic backing off the other loose Velcro strip. Place the strip at the back center of the receiver. Rub to seal.
- Fit the receiver in the case. The Velcro on the receiver and on the case will bond together. This will insure that your receiver does not fall out during use.

**Wildlife Materials Inc. shall not be liable for any loss or damage resulting directly or indirectly, or as a consequence of or incidental to, the use or loss of any Wildlife Materials product including, without limitation, the original purchaser's expenses associated with downtime, interrupted or lost data, or damages to persons, animals or property.**

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**36 YEARS MANUFACTURING EXPERIENCE**

**5-YEAR WARRANTY on ELECTRONICS**