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## EZPull TRP-CVR Interface for Canterbury Voice Release

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EZPull TRP-CVR is a wireless transceiver/trap switch designed to interface between a Canterbury Voice Release (CVR) system and EZPull TargetManager card reader target control system. Using the TRP-CVR, a TargetManager can be added to a trap field equipped with Canterbury Voice Release (CVR) for a "Pay and Play" target counting system.

*Note: TRP-CVR is compatible only with TargetManager Firmware version 4 or higher*

The TRP-CVR connects between the trap machine and the Canterbury relay box (a light gray plastic box typically installed inside the trap house). The TRP-CVR detects when the Canterbury relay closes to throw a target and sends a wireless "target request" message to the TargetManager card reader. If the TargetManager has targets in the "bank," it sends back a wireless "throw target" command to the TRP-CVR which releases a target from the trap machine.

### Mounting the TRP-CVR:

Use a 1-1/4" plastic pipe bracket to mount the TRP-CVR outside the trap house on the back wall. The cable should point downwards. Drill a small hole in the back or side of the house and run the cable from the TRP-CVR into the house. Protect the unit from accidental shot using nonmetallic material. For example a polycarbonate sheet 1/4" or thicker.

### Connecting the TRP-CVR:

The cable from the TRP-CVR has 6 wires installed in European terminals:

- Red and Black to female DC receptacle for connecting to a 110VAC/12VDC Adapter
- Blue and Orange wires: to trap release wires coming out of the Canterbury relay box.
- White and Green wires: for a trap with low DC voltage release connect directly to the release wires. For a trap with 110VAC release (such as a PATTRAP) the White and Green wires control a solid state relay module (SSR) isolating the TRP-CVR from the high AC voltage.

1. Disconnect the Canterbury relay box in the trap house from the wall outlet.
2. Disconnect the cable from the Canterbury relay box to the trap machine and remove the trap connector from the cable.
3. Using the supplied European terminal, connect the two wires previously connected to the trap connector to the Blue and Orange wires from the TRP-CVR.
4. Connecting to the trap switch: Disconnect the trap machine from the power!  
**Warning: working while high voltage source is connected, can be hazardous and may result in serious injury.**
  - 4.1. Prepare a two wire cable, long enough to reach the trap machine and connect the trap connector (previously connected to the Canterbury relay unit) on the trap side of the cable.
  - 4.2. For a trap with low DC voltage release, using the European terminal, connect the White and Green wires to the wires of the trap cable (4.1).
  - 4.3. For a trap with 110VAC release (such as PATTRAP), the TRP-CVR will come wired to a Solid State Relay module (SSR). Connect the trap cable (4.1) wires to the AC (~) terminals of the SSR.
5. Connect the 110VAC/12VDC adapter to the DC socket on the cable from the TRP-CVR and plug the AC/DC adapter to a wall outlet. It is recommended to use a surge protector on this outlet. You should see a Yellow LED blinking in the TRP-CVR tube.



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6. Stay clear of the trap's arm and targets and turn on the trap machine.
7. Test communications with the TargetManager: Go to the card reader, use a target card to load a round and press the #1 key on the card reader. This should throw a target. The Blue light on the TRP-CVR should turn on momentarily.
8. Test Operation with the Canterbury: Plug the power cable of the Canterbury relay box to the wall outlet and turn on the Canterbury system. With the TargetManager loaded with the round, Use the Canterbury Puller's button to throw a target. The Blue light on the TRP-CVR should turn on momentarily.

**Puller's Delay:** The entire transaction between the transceiver and TargetManager adds less than 60mS (60 thousands of a second) delay. If shooters feel this delay is too long, set the Canterbury control box to instant release. For more information, please contact your Canterbury vendor.

### Pairing the TRP-CVR with the TargetManager card reader:

1. Turn off the trap machine and Canterbury system.  
Disconnect TRP-CVR from the Trap.
2. Prepare the card reader for Pairing:
  - 2.1. Use the "Admin" tag to enter TargetManager's admin menu. Select **SETUP** and set **FLD#** to [000] and **MODE** to TRAP [004] or COMBO [005].
  - 2.2. Exit **SETUP** and select **RESET**. Scroll to **PAIR** and press [3] to select.
3. Set the TRP-CVR to pairing mode.
  - 3.1. Place a small magnet next to the magnetic switch (looks like a red bar) on the left side of the tube.
  - 3.2. The Red LED will blink for 2 seconds, then the Yellow LED will blink rapidly and then both lights will glow steady. Remove the magnet at once. The Red LED stays on and the Yellow LEDs will flash slowly indicating the TRP-CVR is waiting for a pairing signal from the TargetManager.
4. Press the #3 key on the TargetManager. The Red LED on the card reader turns on.
  - 4.1. If pairing is successful you will see the following light flashing sequence on the TRP-CVR: Blue, Red, and Yellow followed by slow flashing of the Yellow LED indicating normal operation mode.
  - 4.2. Exit pairing mode on the card reader: Press the #4 key on the TargetManager multiple times until it goes back to the main screen.
  - 4.3. Verify pairing: load targets in the card reader and press the #1 key to throw a target. The Blue light on the TRP-CVR should turn on momentarily.

