

EzOSD support for 900MHz (and similar) A/V links

Why is this procedure necessary?:

EzOSD/Antenna Tracker users who are using 900MHz A/V transmission equipment have reported compatibility issues.

This 900MHz equipment (Tx/Rx) is commonly available from FPV retailers in the US and Canada.

The incompatibility between the EzOSD/Antenna Tracker and these systems is caused by an audio link which has poor high, and low frequency response, and in addition, who's response drifts as the transmitter heats up.

The ImmersionRC team has adapted the telemetry protocol used by our equipment to support these sub-standard links.

How do I upgrade?

Both the EzOSD and the Antenna Tracker need their flash firmware updating. The EzOSD requires at least version v1.00, and the Antenna Tracker requires at least version v1.03 both of these are available from the immersionrc website.

The procedure is very similar to upgrade both of them, and requires only a standard USB cable, as used to connect to many digital cameras (Type A -> Mini-A)

The EzOSD firmware installer may be downloaded from the ImmersionRC WebSite, here:

<http://www.immersionrc.com/products.htm>

Run the upgrader, and follow the instructions presented.

The procedure for the Antenna Tracker is the same, using the same upgrader software, just ensure to use the appropriate firmware file for each product.

IMPORTANT: In both cases the configuration of the device will be restored to default during the upgrade. Be sure to make a note of all settings (especially for the antenna tracker) before upgrading.

How do I set up the link for these transmitters?

Once firmware has been updated, enter the EzOSD setup menu, and access the second page (pro-features). Keep scrolling down the page past **Exit** to access this.

Change the telemetry rate to 'High'.

The Antenna Tracker will automatically lock onto the correct telemetry rate at each startup, so cycle the power to it once the telemetry rate has been changed.

Last Step, Setting the Antenna Tracker Audio Levels.

Unfortunately there is a huge difference in audio levels emitted from the Audio output of FPV receivers.

The industry standard for 'Line Level' is approx. 0.5v Peak Amplifude.

The Airwave-standard equipment typically emits levels of approx. 3v Peak, but the Chinese 900MHz systems, including the Lawmate equipment, have been measured at approximately 8v Peak!.

If, after upgrading firmware as explained above, the percentage of 'good' packets received is still low, it can be corrected with the trimpot on the Antenna Tracker PCB.

This trimpot can be used to attenuate the input level to a point at which the decoder can correctly function.

Carefully pierce the heatshrink on the Antenna tracker above the trimpot with a small screwdriver, and while watching the packet count display, rotate the trimmer carefully anti-clockwise, until only 'good' packets are being received.

