RV760 with Wireless Backup Camera

Tips and FAQs

This document is to be used as a supplement to the installation instructions. Some of the Tips will re-iterate points made in the installation document as well as go into some additional detail.

Camera Position – The camera does not have any 'parking lines' to allow more flexibility during the installation process. Since the camera is a fish eye view, usually the higher the camera, the greater the field of view. Centering it in the structure should try to be achieved. The camera itself is fully waterproof.

TX box and connector – The transmitter box contains a high powered 2.4GHz band antenna that radiates in all directions, with the strongest fields coming from the top (Garmin logo) and the bottom.

When installing, it is good to avoid attaching or placing to anything metal as this will absorb the signal and greatly reduce the distance. This can become an issue in large distance like 35-45 feet. The same applies to avoid placing it with obstacles in the line of sight. Walls and structures are fine, but any large metal objects like AC units, fridges, etc should be avoided. Again this applies to large distances. Any distance less than 20 feet *should* work in almost any set up. For distances > 30 feet, we will recommend the extension cable just to be sure it will work well.

The TX box and the connector (to the camera) are not waterproof rated and should be kept out of direct contact of liquid. We recommend keeping inside of vehicle/camper/RV, however, they are very tight fitting with gaskets, and so if water splashes on them, they will be fine. For the TX box, if it's outside, try to avoid weather contact such as water/snow splash back. For the connector, if it is located outside the vehicle, we highly recommend coating it with silicone, heat shrink, or any other waterproof type seal.

12/24V Power Connection – We recommend connecting this to a switched power source such as a reverse light or running light. It is highly discouraged to connect this directly to the battery or always on power as it will continuously power the camera and try to transmit. If this is connected to reverse lights, the video

feed will show up on the PND shortly after shifting into reverse and will go away when shifting away. If attached to running lights or a switched connection, the video will show up when power is applied. It can then be cancelled by clicking the back button on the PND, and re-shown by clicking the video icon in the top right corner of the screen from the main menu or map page.

It is also important to ensure a secure connection that is protected from water/abrasion and is secured or taped down. The red wire connects to 12/24V and the black wire is to be connected to vehicle GND.

Receiver mount – The receiver mount is the device that is attached to the PND, is connected to the ball mount and has a Power USB connection. In order for the Receiver Mount to function, an external power source must be plugged into the mount. An included Garmin GTM or Power cable should be included with the purchase of the PND. If the PND is not connected / docked onto the mount, or if power is not applied, the wireless receiver circuitry is disabled.

50ft Extension Cable – A 50ft extension cable is the key to getting the very best signal and shortest distance that can extend the transmitter and power connections to be closer to the receiver and front of the trailer/camper. The use of this cable has the advantage of attaching to a power source near the front of the RV/towable, as well as to provide closer proximity of the transmitter and receiver. It is recommended to have an extension cable on fifth wheels and trailers that are over 30ft, or have many interferences/walls to obstruct the video signal.

As the 50ft cable is used and part of the "PRO" OEM series for RV, the connections to both the camera and TX side should be kept out of the elements or contain a waterproof seal as these are not waterproof. In addition, the cable itself should be secured / fastened. An example would be to zip tie this line to the frame underneath the trailer as it travels to the front connections/battery. Any excess should also be secured.

Pair button – The pair button is available on the receiver mount in the event part of the full BC 20 is replaced, or unable to find the video signal. All BC 20 accessories should already be paired when arriving at customers and a pairing process should not be needed. Holding the pair button down for 3 seconds will initiate the pair process. Only a successful pair / re-pair will save transmitter ID. If one already exists, it will be overwritten. If a pair process is started, then canceled (removing power from mount), the old pair ID will be used.

How to pair – (this is also in the manual) – power the receiver mount with the camera / TX box unpowered. Push and hold the pair button on the back of the receiver mount with a PND attached for about 3-4 seconds. A black screen with "Start Pairing" text should appear. At this time, apply power to the TX/camera. After a few seconds, the text on the PND should say "Pairing Done". At this time, removing and re-applying power to both the receiver and the TX/camera will reset the states and should show the video (and every time after).

<u>Troubleshooting</u>

Demo Mode Slides are playing – This means the device is in demo mode which can occur if the device did not get a GPS fix within four hours of on time. To remove it from this state, customers should be able to drive over 15mph with the device and within a minute or so, the device should leave demo mode. Another

method is to access the diagnostics pages. To enter this mode, click the volume button on the main menu. Then hold in the upper right corner of the screen on the volume page for about 8 seconds or until the diag page shows up. In this list, there should be a setting for "Demo Mode". Click this and then disable demo mode. Demo mode can also be enabled from this menu screen as well.

Random button pushes keep occurring – A customer should never see this, and may have only appeared if development unit was sent out. This can also be disabled in the diag pages by access the "Disable Hopper" menu, or by clicking "Clear all User Data" in the diag pages. See "Demo Mode Slides" section to learn how to access Diagnostic Pages.

Video does not show up or goes in and out – This may mean the connection is poor. Prior to installing, the connection should be tested with the receiver and transmitter box in the approximate places. It may also be good to test it in a slightly worse case to ensure it will always work. If there are issues, try re-positioning the transmitter, or orienting it slightly different to see if it helps. If the video cannot be improved, then an extension cable may be required. Since this is a digital signal, the video signal should either completely work or not.

Another possibility of the video possibly working or not in the same location is if other BC 20 devices are nearby. The transmission protocol is designed such that it continually changes frequency quickly. That way if there are any conflicting signals nearby (like Wi-Fi or BT), the video will not be lost immediately and maybe only 1 frame may be lost. However, if another BC 20 backup camera is nearby and in use, then the two signals can jam and only 1 will work usually. The probability of the two signals jamming exactly is very low, however if they are very close, then one can saturate the other. Internal testing only showed the video signal going away if 1 receiver mount was within 1-2 feet of a different transmitter. Real usage, customers should never experience this. However, at a road show, or demo booth, this is something to be conscious of.