## **ZEN Windows Driver Configurations**

#### **Board Configurations**

There are currently two versions of the ZEN receiver in production. BD339 is our standard Zonge High-Resolution Receiver. BD 357 is the Zonge High Resolution, High Speed Receiver.

When these boards were first released they used the same USB integrated circuit for communication and used the vendor's default PID (Product Identification) and VID (Vendor ID). Unfortunately this configuration is not stable and results in the card randomly being recognized as a Microsoft Serial Ball Mouse or some such similar serial device. When this occurs, communication with the ZEN is unreliable.

The Windows problem has been solved by obtaining unique PID codes and creating signed drivers for the two ZEN receivers.

The VID remains unchanged and is 10C4. The PID for BD339 is 899C. The PID for BD357 is 89B1.

For boards shipped prior to June 2014 the PID will be the default vendor PID, i.e. EA60.

The PID can be verified by connecting the ZEN whilst running the Windows Device Manager. Look in the Ports (COM & LPT) tab. The below two examples shows how the boards show up in the Device Manager.



### **ZEN Driver Installation**

There are two installation programs. CP210xVCPInstaller\_x64.exe CP210xVCPInstaller\_x86.exe.

Select the one that is appropriate for your computer.

This will install the drivers for both boards. Drivers supplied with ZEN systems prior to June 2014 may only recognize BD339. If BD357 is not recognized, reinstall the drivers from this disk.

NOTE: These drivers only work if the PID has been programmed on BD339 or BD357. All of these boards must be modified for the drivers to work.

#### **BD339 and BD357 PID Programming**

WARNING: If you program the wrong PID value into the USB integrated circuit, you will not be able to recover. The card will need to be returned to Zonge International for repair. The USB integrated circuit can only be programmed once.

ZENs shipped before June 2014 do not have the Zonge PIDs programmed on the USB integrated circuit.

Perform the following steps to verify and program the PID:

1. Run the Windows Device Manager to verify that the boards show up as ZENs as shown in *Figure 1*. If they have not been programmed they will appear as a "Silicon Labs CP210x USB to UART Bridge," as shown below in *Figure 2*, and you will need to program the PID.



2. Run the CP21xxCustomizationUtility.exe program in the CP21xxCustomizationUtility directory. You should see the following GUI.

CP21xx Customization Utility	-		x	
File Settings Advanced				
Device Selection		Click here to select a board.		
CP2103 - 783528678				
Device Configuration				
Device Configuration				
Set IDs				
Property	Default	Value		— Notice the PID is EA60
VID (hex)	10C4	10C4	$\langle \varphi  $	
PID (hex)	EA60	EA60	$\langle \rangle$	
Power (hex)	32	32	$\langle \rangle$	
Power Mode	00 - Bus powered	00 - Bus powered	$\langle \rangle$	
Release Version (Maj., Min.)	0100	0100	4	
Product Description	CP2103 USB to UART Bridge C	CP2103 USB to UART Bridge C	<i>\</i>	
Serial	783528678	783528678	<i>Q</i>	
Lock Device	00 - Device is unlocked	00 - Device is unlocked	$\langle \varphi  $	
Baud Rate Alias				
Port Configuration		Click have to many services the DID		
		-Click here to program the PID.		
	Program Device			
Status Logging				
			-	
Log Programming to File:				

Figure 3

#### 3. Change the PID

The PID should be 899C for BD339. The PID should be 89B1 for BD357.

# WARNING: If you program the wrong PID value into the USB integrated circuit, you will not be able to recover. The card will need to be returned to Zonge International for repair. The USB integrated circuit can only be programmed once.

Once the appropriate PID is entered into the Value column, click on Program Device. Be patient. It will take about a minute before the utility responds. Once it responds, click on the bar below Device Selection and select the next card. Select the appropriate PID and click on Program Device. Keep selecting cards until you have programmed all of the cards in the ZEN. After the PID is programmed, you will see a screen as shown in *Figure 4*. Notice that the Default PID is now 889C.

CP21xx Customization Utility	10.00						
File Settings Advanced							
Device Selection							
CP2103 - a151db55		Refresh					
Device Configuration							
Set IDs							
Property	Default	Value		— Notice the PID is now 899C			
VID (hex)	10C4	10C4					
PID (hex)	899C	899C	$\checkmark$	after programming.			
Power (hex)	32	32	$\checkmark$				
Power Mode	00 - Bus powered	00 - Bus powered	$\checkmark$				
Release Version (Maj., Min.)	0100	0100	$\checkmark$				
Product Description	Zonge Brd339 A/D	Zonge Brd339 A/D	$\swarrow$				
Serial	A151DB55	A151DB55	$\checkmark$				
Lock Device	00 - Device is unlocked	00 - Device is unlocked	$\leftrightarrow$				
Baud Rate Alias							
Port Configuration							
	Program Device						
Status Logging		~					
Log Programming to File:							

Figure 4