Carlson Software SS900 Radio and Geodimeter Setup Guide Prepared: 4-9-2007

Configure the rover (the radio on the Carlson Explorer 600+) and the base (the SS900 radio).

Here's the setup (using a null modem cable between the base and 600+):



e 2 Internet My Device Μy Carlson Radios Explorer Documents ∛soft 7 B М Recycle Bin Media Player PC Link S' 7 Inbox SurvCE Microsoft WordPad

(If you do not see Carlson Radios on the desktop, then look in My Device \rightarrow System CF \rightarrow Carlson Utilities \rightarrow Carlson Radios.)

Now, to configure the rover first:

e Carlson Rad	ios				
Radio Settings	Radio Settings Bridge Comports Radio Type				
Get Radio S	ettings Apply	Radio Settings			
Rover) Base	-1000			
Base S/N:	P	-500			
Baud Rate	• • •	-100			
Parity	▼ e r	-10			
Stop Bits	• (m)	W) 📥 -1			

Look for Carlson Radios on the desktop:

Click "Get Radio Settings":

🗐 Ca	rlson Radios 📃	X
Radio	🖅 Carlson Radios 🛛 🔀	
Ge	Trying 9600,0,1	igs
O R)00
Base)0
Baud)0
Parity)
Stop I	Bits (1100)]

Get the base serial number off of the base radio (1052 in this case). Select a power level depending on how far you will be working from instrument (100mw is good for most applications). Check to make sure that the baud rate, parity, and stop bits match the Geodimeter:

🗃 Carlson Radios 🛛 📃 🔀					
Radio Settings	Radio Settings Bridge Comports Radio Type				
Get Radio	Settings Apply Radi	o Settings			
🔘 Rover (Base	-1000			
Base S/N:	.052 P	-500			
Baud Rate	9600 🔽 👷 🛙	-100			
Parity [None 🔽 e	-10			
Stop Bits	L (mW)	-1			

🥶 Carlson Rad	ios	
Radio Settings	Bridge Comports	Radio Type
	0	gs
	3FC	000
Writing ATHP OK	2	ho
Base Writing ATDT OK	41C	
Baud OK	3	þo
Parity Writing ATNB Writing ATMB	0	
Stop Bits	• (1	mW) -1

Then click "Apply Radio Settings":

Now configure the base:

🖅 Carlson Radios 🛛 📃 🔀			
Radio Settings Bridge Comports F	Radio Type		
Get Radio Settings Apply	Radio Settings		
O Rover 💿 Base	-1000		
Base S/N: P	-500		
Baud Rate V	-100		
Parity e	-10		
Stop Bits (m	W) 📥 -1		

Click "Get Radio Settings" yet again!

🖅 Carlson Radios 📃 🔀					
Radio Settings Bridge Comports Radio Type				Туре	
Get Radio Settings Apply Radio Settings			Settings		
O Rover	🖲 Base 🛛 V	olts	:4.95		-1000
Base S/N:	1052] Р		-500
Baud Rate	9600	▼] 🖁		-100
Parity	None	▼	l e r		-10
Stop Bits	1	-] (r	m₩)	-1

Make sure the baud rate, parity, and stop bits match the rover settings.

Hit "Apply Radio Settings" again to store the information.

Now we have to setup the Geodimeter:



That is the power supply.



The cable from the power supply goes into the Geodimeter.



At this point, you should have the 9-pin serial cable plugged into the data collector.

After hitting PWR and calibrating the machine, this is the standard window:





Now, press the MNU button on the Geodimeter keypad.

Then click 4 on the keypad to take you to the Data com window:



Then click 1. Select device, which brings you to this window:



Then click 2. Serial:



Click the ENT button on the keypad.



Click ENT again if the settings are correct. If they are not correct, then change them and click ENT.





Click ENT.

Then this window will appear:



Click ENT again.

Then you will be back at the first window which looks like this:



Now hit the RPU button, with the arrow pointing straight up.

That will bring you to a window which looks like this:



Then click 3. Remote which leads you to this screen:



Then click 1. OK.

Your new window will look like this:



Click the (\leftarrow) or the No button (same button).

Then the window will look like this:



Again, click the (\leftarrow)/No button.

Then you will be prompted to press any key and remove the keyboard:



Now enter into SurvCE:

JOB:stu	ff5	•	MAP
File	Equip Surv	COGO	Road
1 Job			
2 Job S	<u>C</u> ontinue Last	Job	t ASCII
3 List P	Select New/Existi	ing Job	
4 Confi <u>c</u>			s
5 Featur	e Code List 0 E	xit	

Select whichever you need.

Now select the Geodimeter under Equip \rightarrow Instrument:

JOB:stuff5			MAP	
File	Equip	Surv	COGO	Road
Instrume	ent		<u>0</u> K	<u>C</u> ancel
Instrumen	t: <mark>Geodime</mark>	ter		
4 Comm	Setup			
5 About	SurvCE			

Then you will be taken into the Comm Setup page:

Comm Setup	<u> </u>	<u>C</u> ancel
Port Number: COM1	•	
🗌 This is a Bluetooth port	Find <u>B</u> luetod	oth Port
Bluetooth Driver:	Atinav	~
Baud Rate: 9600 💌 I	Parity: [None 🔻
Char Length: 8 💌	Stop Bits: [1 🔻
Defaults		

Make sure everything looks correct. Also, for now, use Com1. Later you will use Com2 for the radio.

Now enter into the Settings dialog:

Geodimeter Setup	<u>0</u> K	<u>C</u> ancel	
Parameters Robotic Parameters			
Connect to: Dir Roboti 💌	<u>T</u> urn Off Ins	trument	
Read Mode: 🔤	Initialize Inst	trument	
Tracklight: Off 💽	Station Adr:	1	
Channel: 1	Remote Adr	1	
Search before Read Search when Lost Lock			
🗖 DR Series Instrument 🛛 🔽 Diode Backsight			

Click on Initialize Instrument. You should hear the Geodimeter beeping, and then it will begin to spin around. Then the data collector will alert you that everything went okay.

Geodimeter Setup	<u>0</u> K	<u>C</u> ancel	
Parameters Robotic Parameters			
SurvCE			
Initializing Instrument			
<u>C</u> ancel			
□ <u>S</u> earch before Read □ Se □ <u>D</u> R Series Instrument ▽ Di	earch wher ode Backsi	n <u>L</u> ost Lock ght	

Click okay at the top right after you are done initializing.

Now, after the instrument is initialized from the serial cable, all you need to do is unplug the 9-pin cable from the data collector and plug it into the serial port on the SS900. Obviously, make sure the SS900 is on.

Comm Setup	<u>0</u> K	<u>C</u> ancel
Port Number: COM2	–	
This is a Bluetooth port	ind <u>B</u> lueto	oth Port
Bluetooth Driver:	inav	-
Baud Rate: 🛛 🥑 9600 💌 Pari	ty:	None 💌
Char Length: 🛛 💽 Stop	o Bits:	1 💌
<u>D</u> efaults		

Now go back into Comm Setup and click on Com2:

After you are done with that, click OK, and begin surveying:

JOB:stuf			MAP		
File	Equip	Surv		COGO	Road
1 Sideshot/Traverse			6 Auto by Interval		
2 Stakeout Points			7 Remote Elevation		
3 Stakeout Line/Arc			8 Resection		
4 Offset Stakeout			9 Set Collection		
5 Elevation Difference			O Set Review		