

Connecting CS20 Captivate controller to Cee HydroSystems Cee-Line

Hardware Connection

Required Hardware:

- Cee HydroSystems Cee-Line
- Cee HydroSystems Combo Cable
- Leica Captivate CS20 Controller
- USB Battery Pack
- Leica GEV 162 Cable
- RS232 Null Modem adapter

Hardware Connection

- CS20 Port 1 > GEV 162
- GEV 162 > Null Modem Adapter
- Null Modem Adapter > Combo Cable
- Combo Cable > USB Battery Pack
- Combo Cable > Cee-Line



Software Settings

From the Leica Captivate Main Menu

- 1. Select Settings
- 2. Select Connections
- 3. Select All other connections



Connection Settings

- 1. Select ASCII Input
- 2. Press F3 Edit

Q CS connections GS connections **CS** internet Device Cinterion 3.5G Port CS modem GS rover Device GS10/GS15 Port Bluetooth **GS** hidden points Device Port Export job Device -Port -Fn OK Edit Page Fn 2D @ L S ASCII Input % 0 1D -----ASCII input Annotation 1 Annotation 2 Annotation 3 Annotation 4 Store ASCII data received via an \checkmark external device to an annotation Connect using CS RS232 port \sim Device <CS RS232 port>

% ↓ 1 2D -----0 □ 1D -----

7

Connection Settings

P 16:31

ASCII Input

- 1. Check box to store ASCII Data
- 2. Connect using CS RS232 Port
- 3. Press F5 Device

Fn OK		Device	Page	Fn
5 Devices	T	∮ 2D □□ 1D	Q	17:20
Radios Modems/GSM Others				Q,
<cs port="" rs232=""></cs>				
Type <cs port="" rs232=""> Create</cs>	or			
RS232				

Devices

- 1. Select RS232
- 2. Press F1 New

Fn OK New	Edit Delete	Page Fn
Sew Device	📆 🎋	2D 1D @ 13:33
Name	CEE-LINE	
Туре	RS232	
Baud rate	9600	\checkmark
Parity	None	\vee
Data bits	8	\vee
Stop bit	1	\checkmark
Flow control	None	\checkmark

New Device

- 1. Name New Device
- 2. Select settings as shown:
 - 9600
 - None
 - 8
 - 1
 - None
- 3. Press F1 Store

Store

Select Device

- 1. Select created device
- 2. Press F1 OK

5 Devices		7 %	1	2D 1D	Q	17:21
Radios Modems/GSM	thers					Q,
<cs port="" rs232=""> Type <cs port="" rs232=""></cs></cs>	Creator					
CEE-LINE Type RS232						
RS232 Type RS232	Creator Default					
Fn OK New	Edit	Delete			Page	Fn
Fn OK New	Edit	Delete		2D 1D	Page	Fn
Fn OK New Strain Section ASCII Input Annotation	Edit	Delete	3 Ann	2D 1D otation 4	Page	Fn
Fn OK New ← ASCII Input ASCII input Annotation Store ASCII data to th	Edit Annotation 2 A is annotation	Delete	3 Ann	2D 1D otation 4	Page	Fn 17:21

ASCII Input

- 1. Press F6 Page to view Annotation 1
- 2. Check store ASCII data
- 3. Message desc title is DEPTH
- 4. Message ID select "." As shown
- 5. Press F1 OK

OK	Page	
Connection Setti	ngs 📆 🕺 🗖 20	17:22
CS connections GS connect	ctions	Q,
CS internet Device Cinterion 3.5G	Port CS modem	
GS rover Device GS10/GS15	Port Bluetooth	
ASCII input Device CEE-LINE		
GS hidden points Device	Port	
Export job Device -	Port -	
Fn OK	Edit Control Page	Fn

Connection Settings

- 1. ASCII input is now correctly using CS Port and CEE-Line device
- 2. Press F1 OK

Data from the CEE-LINE will now be stored to Annotation 1 of the recorded points.

It may be desirable to view the depth on the Measure Screen when measuring points. This is accomplished by configuring the Measure Screen to include this information.

Message ID

Prefix '@<Desc>@' when writing

Measure screen configuration – Show Annotation information

From the Leica Captivate Main Menu

- 1. Select Settings
- 2. Select Customization
- 3. Select User defined pages



User Defined Pages

- 1. Select Page 1
- 2. Press F3 Edit

User Defined Pages		P 17:22
Press 'Edit' to define the conter	its of the user defined pages	
Define	Page 1	\sim
Name	Measure	

Page Settings 1

- 1. Find an Unused line
- 2. Select Annotation 1
- 3. Press F1 OK
- 4. Press F1 OK to return to Main Menu

ОК	Edit		
Page Settings 1			P 17:23
Surince		onuscu inte	*
6th line		Separator	\vee
7th line		RTK positions	\vee
8th line		3D quality	\sim
9th line		Annotation 1	\sim
10th line		Unused line	\sim
11th line		Unused line	\sim
12th line		Unused line	\vee
Fn OK		Clear	Fn
S NOVA DEMO		₩ 2D 0 □ 1D	P 17:24
<mark>>></mark>			
GS0001		۵	0°
Antenna height			
2.0000 m	•		Q
3D quality	•		
Annotation 1			
1 3.89 4.95 128 0			
Fn Measure			Page Fn

Measure Screen

The exported string from the CEE-LINE is now displayed as per Annotation 1.

Measurement of points can be done manually but it may be more efficient to measure points every few seconds or over a defined distance. To do this requires auto point measurement to be defined.

Auto point measurement configuration

- 1. Begin Measure application
- 2. Press the Function button
- 3. Press F1 Settings



- 1. Check Automatically measure points
- 2. Select the option on when to measure:
 - Time
 - Distance
 - Distance/Height
 - Distance/time
 - Keypress
- 3. Store by press F1 OK

Auto point measurement is now available as a PAGE in the Measure application

- 1. Press F1 Start to start the measurement process
- 2. Press F1 Stop to stop the measurement process

[←] Measure Settings

@ 14:12

2D -----1D -----

Add page tabs	Automatically measure pts

Automatically measure points		
Measure new point after certain	Distance or height	\sim
When distance changed by	1.0000 m	
Or when height changed by	1.0000 m	
Store points	To DBX (pts&codes)	\vee
Logging starts when	Press 'Start' in Measure	\vee
Do not store point if 3D CQ		

	Content	a ×	2D	Page	
IESI CEE-LINE		o \Lambda	1D	w	14:14
Auto point ID GS_Auto_0001	A				©Ç,
Code (auto) <none> Q</none>	•				Q,
Code description Moving antenna height					\$
0.0500	 ← 26 m→				
Fn Start		Offset 1	Offset 2	Page	Fn