App. Note Code: 3SA-F

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TX321/TX320 Firmware Update Procedure

1. Equipment Needed

- Computer with *Device Configuration Utility* installed. The latest version of *Device Configuration Utility* can be downloaded from our website at *www.campbellsci.com/downloads/device-configuration-utility*.
- RS-232 cable or USB to RS-232 cable
- 12V power supply
- DeviceFirmwareUpdaterPC.exe and the G61_APP_Vxx.xx.hex (TX321) or G5_APP_V8.04 (TX320) firmware file. These can be downloaded from our website at *www.campbellsci.com/downloads/tx321-gps-update*.

2. Check Current Firmware Version

- 1. Apply power to the TX321/TX320.
- 2. Connect the **RS-232** port of the TX321/TX320 to the computer. (Note that the **RS-232** port is the only port that will allow the firmware update.)
- 3. Open Device Configuration Utility.
- 4. Under Device Type, select TX321/TX320/TX312.
- 5. Select the correct Communication Port.

6. Click Connect.



7. On the Settings Editor | Status tab, check the current Firmware Version.

Oevice Configuration Utility 2.16	- 0	X
File Backup Options Help		
Device Type	Settings Editor Alignment Terminal	
Q Search 🚫		Q
a batalogger (other)		- I
Network Peripheral	Configuration GPS Status	_
Peripheral	Transmit Enabled	^
Phone Modem	Disabled	
🗆 Radio	Serial Number	
AL200	17031045	
RF400	Hardware Version	
RF401	0.00	
RF401A Series	Firmware Version	
RF407 Series	11.03 2016/03/23	
RF430	Time	
RF450	2000/01/01 00:00:34	
RF451	Next Timed TX	
RF500M	N/A	
TX321/TX320/TX312	Next Random TX	
E Sampler	N/A	
H Sensor	Fail Safe Status	
T Unknown	ок	
	Supply Voltage	
wireless Sensor	12.9 V	
CWB100	Tamparahira	
CIVER	24.3 C	
		-

8. For the TX321, the firmware will report a version 10 or version 11.

If a version 10 firmware is less than 10.18, update to the latest version 10 firmware (version 10.18 or newer).

WARNING If you attempt to update from a version 10 firmware to a version 11 firmware, it will clear your calibration parameters. This will require that the unit be sent back to Campbell Scientific for recalibration.

If a version 11 firmware is less than 11.05, update to the latest version 11 firmware (version 11.05 or newer).

For the TX320, version 8 firmware needs to be updated to the latest version 8 firmware (version 8.04 or newer). Firmware prior to version 8 does not need to be updated.

9. Disconnect from the *Device Configuration Utility*.

3. Update Firmware

- 1. Connect the **RS-232** port of the TX321/TX320 to a computer.
- 2. If attached, unplug cable from datalogger CS I/O port.
- 3. **Remove power** from the TX321/TX320.
- 4. Locate the DeviceFirmwareUpdaterPC.exe file.
- 5. Click on the file to run the software.
- 6. Ensure that the **Device** is set to **GOES**. Select the appropriate **Model** (G6/TX321, G5/TX-320). Select the appropriate **COM Port**. Verify that the RS-232 cable is attached.

Device Firm	nware Updater		_		×
	Device GOES ~	Model G6 ~	COM Port COM10	~	
	.,	<u></u>	Choose Fil	e	
		Start Upload			

7. Click the **Choose File** button, browse to the appropriate firmware version, and click **Open**.

Open						×
\leftarrow \rightarrow \checkmark \Uparrow \bigcirc This	PC > temp (K:) > Gary > DeviceFirmwareUp	daterPC		~ Õ	Search DeviceFirmware	eUpdat 🔎
Organize 👻 New folder						
🕹 Downloads 🖈 ^	Name	Date modified	Туре	Size		
🗄 Documents 🖈	G61_APP_V10.18.a79	9/25/2017 9:11 AM	A79 File	332 KB		
📰 Pictures 🛛 🖈	G61_APP_V11.05.a79	9/14/2017 2:13 PM	A79 File	329 KB		
🛃 Auto Test Sui 🖈						
DeviceFirmwarel						
os 📃						
- Temp						
🛫 temp (K:)						
🐔 OneDrive 🗸						
File <u>n</u> ar	ne:			~	A79	\sim
					<u>O</u> pen	Cancel

8. Click the Start Upload button to proceed.

Device Firmware Updater		—		×
Device GOES ~	Model G6 V	COM Port COM10	~	
ry\DeviceFirmw	areUpdaterPC\G61_	APP_V10.18.a7	79	
		Choose File	•	
	Start Upload			

9. Once the upload screen appears, follow the instructions displayed in the dialog.



If no error messages are shown (dialog turns red), the green progress bar will begin to move.



When complete, the dialog will turn green.



10. Use the *Device Configuration Utility* to verify the firmware has been updated.

🖸 Device Configuration Utility 2.16 – 🗆 🗙				
File Backup Options Help				
Device Type	Settings Editor Alignment Terminal			
Q Search 🛞				
🗷 Datalogger (Other) 🔥		- ·		
Network Peripheral	Configuration GPS Status			
Peripheral	Transmit Enabled	^		
Phone Modem	Disabled			
🖻 Radio	Serial Number			
AL200	16399197			
RF400	Hardware Version			
RF401	0.00			
RF401A Series	Firmware Version			
RF407 Series	11.05 2017/09/14			
RF430	Time			
RF450	1996/01/01 00:08:37			
RF451	Next Timed TX			
RF500M	N/A			
TX321/TX320/TX312	Next Random TX			
🗄 Sampler	NA			
E Sensor	Fail Safe Status			
Unknown				
E Wireless	Supply Voltage			
and the second se	1 12.9 V			

11. If you unplugged the cable from the datalogger **CS I/O** port in step 2, plug it back in.

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