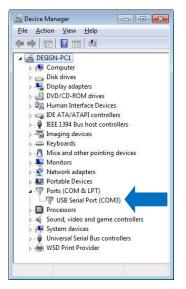
The firmware on the Mk2 and Mk3 Cygnus DIVE gauge can be updated by a software tool called "M2-DIVE Firmware Updater" which is available on request from Cygnus Instruments Ltd.

All that is required to update a DIVE gauge is;

- 1. A Windows computer
- 2. A DIVELink USB Lead (connects the DIVE Gauge to a USB port)
- 3. A DIVE Battery with >50% charge
- 4. The new Firmware file from Cygnus (this is a '.hex' file)
- 5. 'DIVE Firmware Updater' program installed on the Windows computer

## Instructions

- 1. Remove the battery from the DIVE gauge so it is completely turned off.
- 2. Check you have the new DIVE firmware HEX file emailed from Cygnus
- 3. Install the "DIVE Firmware Updater" program if not already
- 4. Connect the DIVE gauge to the computer using the USB link lead
- 5. You need to find the COM PORT number assigned to the DiveLink USB Lead. Press the Windows key, then type "Device Manager" to locate the start icon, then click it to start Device Manager, look for "Ports (COM and LPT)" and expand this section to locate the USB Serial Port, its port number is shown in brackets, in the example below its "COM3" so the port number is 3.



- 6. Start the "DIVE Firmware Updater" program
- 7. Set the COM Port number to match the USB Lead's port number and click the **Open** button, the status bar at the bottom should say "COM Port Opened" if all is ok.

Issue 3, June 2022

DIVE Config		
COM Port	Cose Cose	
Load Firmware File	filename	
	filesize	
Start Update		
Progress	-	
Status		*
		~
	Abort	
COM Port Opened		
oom on opened		

8. Click the **Load Firmware File** button and in the file select dialog locate the new DIVE firmware HEX file sent from Cygnus, then click the **Load** button. You should see a path and file size appear.

DIVE Config		
COM Port	Image: Construction of the second sec	
Load Firmware File	i:\My Projects\Dive\ARM M3 Cortex\M1-DIVE\objects\M1-DIVE hex 79408 Bytes	
Start Update		
Progress		
Status	*	
	v	
COM Port Opened	Abort	

9. On the DIVE Firmware Updater program click the **Start Update** button.

## 10. Insert the DIVE battery to turn on the DIVE Gauge and start the firmware update process.

11. You should see the green progress bar move along the screen as the data is transmitted to the DIVE Gauge. <u>DO NOT INTERRUPT THIS PROCESS</u>.

Issue 3, June 2022

DIVE Config	
COM Port	Qose
Load Firmware File	i:\My Projects\Dive\ARM M3 Cortex\M1-DIVE\objects\M1-DIVE hex 79408 Bytes
Start Update	
Progress	
Status	ACK Received for Block 22 ACK Received for Block 23 ACK Received for Block 24 ACK Received for Block 25 ACK Received for Block 25 ACK Received for Block 27 ACK Received for Block 28 ACK Received for Block 29
Ok	

12. When the transfer has completed, the Status will show "Completed".

DIVE Config	
COM Port	23 Qose
Load Firmware File	i:\My Projects\Dive\ARM M3 Cortex\M1-DIVE\objects\M1-DIVE hex 79408 Bytes
Start Update	
Progress	
Status	ACK Received for Block 71 ACK Received for Block 72 ACK Received for Block 73 ACK Received for Block 73 ACK Received for Block 75 ACK Received for Block 75 ACK Received for Block 77 Completed
Ok	

- 13. Now you can re-start the DIVE gauge. Just remove the battery, wait a moment, then re-insert the DIVE battery. The DIVE gauge should start with the new firmware version.
- 14. If any of these steps fail, you can simply re-start again.