

April, 2024

# SERVICE BULLETIN SB-2024-04-01 Rev A

## Subject: Revolution Controller Software Upgrade

This service bulletin provides customers with information on how to perform a software upgrade on the Revolution controller used on Revolution and Evolution products. Software is delivered on a USB key and is obtainable from IC Biomedical on request.

### **Upgrade Instructions**

- 1.0 Save Current Settings:
  - 1.1 Log into the controller as Admin
  - 1.2 Navigate to "Settings"



1.3 Press "Save to SD Memory"





- 2.0 Export User Credentials
  - 2.1 If user credentials have been configured, these will need to be manually exported as part of the software update process. If no user credentials have been configured and the controller is being used with factory defaults, move to section 3.0.
  - 2.2 Insert a blank USB stick into the front USB port, next to the controller display



#### 2.3 Press "User Administration"







2.3.1 If the USB stick is detected correctly, the following screen will appear:

• ICBiomedical	No Alarms - Demo Mode	GDev-01 04/ Notify 06	05/2024 :41:52
HMI - User Administration	PLC - User	Access Enhance	ements
Login/Change Password	Current User Name:	Admin	
Delete User	Access User Name:	-	
Add New User	Access User Password:	-	
Import User Security Export User Security	Manage Acces	s Enhancements	
HMI - Tech Auto Login Credentia User Name: Tech Password: pass	als		
Alarm Mute User Logout	Lid Locked Settings	Home	Light OFF

2.3.2 If USB stick is not detected correctly, the options to Import/Export User Security will not be displayed:

• ICBiomedical	No Alarms - Demo Mode	GDev-01 Notify	04/05/2024 06:40:07
HMI - User Administration	PLC - Use	r Access Enha	ancements
Login/Change Password	Current User Name:	Admir	1
Delete User	Access User Name:	-	
Add New User	Access User Password:	-	
	Manage Acce	ess Enhancements	
HMI - Tech Auto Login Credential	s		
User Name: Tech			
Password: pass			
Alarm Mute User Logout	Lid Locked Settings	Home	Light OFF





## 2.4 Export User Security

- 2.4.1 Press "Export User Security"
  - Enter a unique password
  - Re-Enter unique password
- 2.4.2 Press "OK"

• ICBiomedical	No Alarms - Demo Mode	GDev-01 04/05/2024 Notify 06:50:13
HMI - User Administratio	n PLC - User A	Access Enhancements
Login/Change Password	Current User Name:	Admin
Delete User	Password Do NOT los ethe Password	-
Add New User	The pass word is required to open or import the User information data. Complex Password Disable ?	-
Import User Security	Enter Password Confirm	Enhancements
Export User Security		
HMI - Tech Auto Login Creder	Cancel	
User Name: Tech		
Password: pass	)	
Alarm Mute User Logout	Lid Locked Settings	Home Light OFF

### 2.5 Export Compete

2.5.1 When Export is Complete, the Import/Export User Security buttons will disappear and it is safe to remove the USB stick.

ICBiomedical	No Alarms - Demo Mode	GDev-01 04/05/2024 Notify 06:52:55	
HMI - User Administration	PLC - User	Access Enhancement	5
Login/Change Password	Current User Name:	Admin	
Delete User	Access User Name:	-	]
Add New User	Access User Password:	-	]
	Manage Acce	ss Enhancements	
HMI - Tech Auto Login Credentia User Name: Tech Password: pass Alarm Mute User Logout	Lid Locked Settings	Home Light OF 1-855-750-8191 www.icbiomedical 1031 Cass White I	I.com Road, NW
	Ň	Cartersville, Geor	gia 30121



2.5.2 data.db is now saved in a UserManagement directory on the USB stick

✓	Name ^	Date modified	Туре	Size
📩 UserManagement	data.db	4/5/2024 6:52 AM	Data Base File	20 KB

#### 3.0 USB Controller Update

- 3.1 Power off the Revolution Controller by turning the battery power switch to the off position and disconnecting the power cord.
- 3.2 Insert the USB key into the USB port on the front of the Revolution/Evolution vessel, next to the controller display.



3.3 Re-insert the power cord and switch on the battery power switch.





#### 3.4 Controller will turn on and the first part of the software update will begin.









3.5 Once the controller displays HMI / PLC Mismatch as below, power off the Revolution Controller again by turning the Battery power switch to the off position and disconnecting the power cord.



3.6 Remove the USB key from the front of the Revolution/Evolution vessel and then insert the USB key into the USB port on the back of the Revolution/Evolution vessel, which is located next to the communication ports.



- 3.7 Re-insert the power cord and switch on the Battery power switch.
- 3.8 Controller will turn on and the software update will continue.





3.9 Once the screen shows as below, press option "Restore PLC Settings from SD Memory and Update HMI from USB"



3.10 Controller will then show it is downloading data from the USB.







3.11 Wait for main screen to return.

ICBiome	edical	No Alarms - Demo Mode	GDev-UI	06:28:43
LN2 Level	1.5 Inches	Fog Clear	Start Fill	Stop Fill
Sample	-161.0 °C			
>> -160.0				- 10.0 A
→ <u>-</u> -				C+ B
				C
~ _				D
-200.0	<ol> <li>a) a)</li> </ol>	100-1-01	er 10 - 10	3.0 L VIC

- 3.12 Power off the Revolution Controller by turning the battery power switch to the off position and disconnecting the power cord.
- 3.13 Remove the USB key
- 3.14 Re-insert the power cord and switch on the PLC power switch
- 3.15 Software update is now complete.
- 4.0 Import User Credentials
  - 4.1 If step 2.0 was performed to Export User Credentials, insert the USB key containing data.db file the into the USB port on the front of the Revolution/Evolution vessel, next to the controller display.







4.2 Press "User Administration"



4.2.1 If the USB stick is detected correctly, the following screen will appear:

• 🔆 ICBiomedical	No Alarms - Demo Mode	GDev-01 Notify	04/05/2024 06:41:52
HMI - User Administration	PLC - Use	r Access Enh	ancements
Login/Change Password	Current User Name:	Admir	r
Delete User	Access User Name:	-	
Add New User	Access User Password:	-	
Import User Security	Manage Acce	ss Enhancements	
Export User Security			
HMI - Tech Auto Login Credentia	ls		
User Name: Tech			
Password: pass			
	$\sim$		$\frown$

4.2.2 If USB stick is not detected correctly, the options to Import/Export User Security will not be displayed:

- CBiomedical	No Alarms - Demo Mode	GDev-01 Notify	04/05/2024 06:40:07
HMI - User Administration	PLC - Use	r Access Enha	ncements
Login/Change Password	Current User Name:	Admin	
Delete User	Access User Name:	-	
Add New User	Access User Password:	-	
	Manage Acce	ss Enhancements	
HMI - Tech Auto Login Credentia User Name: Tech Password: pass Alarm Mute User Logout (	Lid Locked Settings	Home C	Lign OFF 1-855-750-8191 www.icbiomedical.com 1031 Cass White Road, NW



### 4.3 Import User Security

- 4.3.1 Press "Import User Security"
  - Enter unique password from export step 2.4.1
  - Press "OK"

• ICBiomedical	No Alarms - Demo Mode	GDev-01 04/05/2024 Notify 06:55:36
HMI - User Administratio	n PLC - User /	Access Enhancements
Login/Change Password	Current User Name:	Admin
Delete User	Access User Name:	-
Add New User	Password	-
Import User Security Export User Security	Password Cercel	Enhancements
HMI - Tech Auto Login Creden	tials	
User Name: Tech		
Password: pass		
Alarm Mute User Logout	Lid Locked Settings	Home Light OFF

#### 4.4 Import Complete

4.4.1 When Import is complete, the Import/Export User Security buttons will disappear and it is safe to remove the USB stick.

