

XO[®] 4/ XO FLEX

REPLACEMENT OF BRIDGE PCB, AN-368

YB-046
Version 1.00

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PREPARATION:

Spare part reference:

AN-368 Bridge PCB

Tools :

Screwdriver, TORX T20

Screwdriver, TORX T10

Cautions:

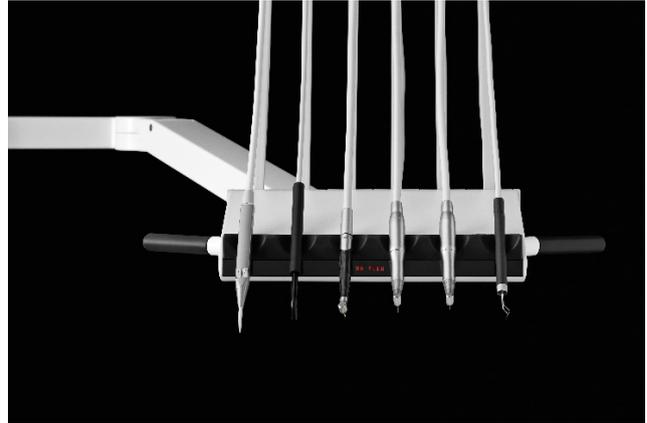
Always use an ESD wrist strap (UC-600) when handling the unit.



WARNING:
IN ORDER TO AVOID ANY RISK OF ELECTRIC SHOCK, DO NOT FORGET TO TURN OFF THE UNIT AND DISCONNECT THE POWER CABLES.

BRIDGE POWER AND SIGNAL CABLE CONNECTIONS

To access the “Bridge PCB”
Before removing the bridge top plate
Remove all the instrument from the bridge.

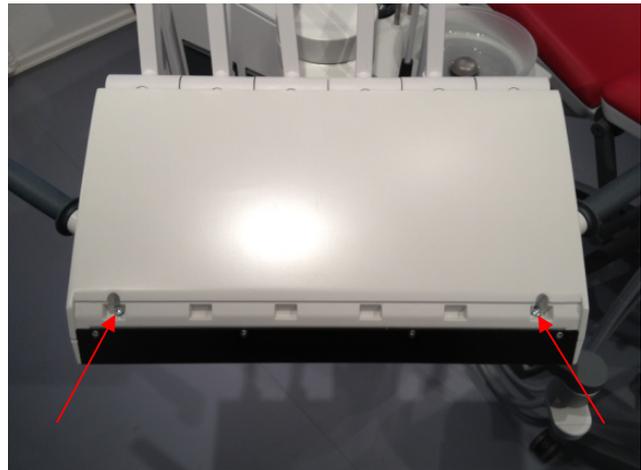


Remove the caps MG-175 from both sides
of the suspension holder on the instrument
bridge

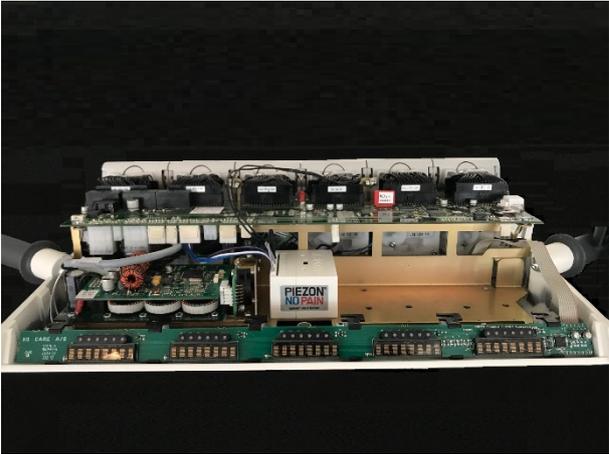


Remove the black protection pad and
instrument pad to access the screws place
on both sides. (red arrows)
Remove the top by gently lifting and sliding it
backward.

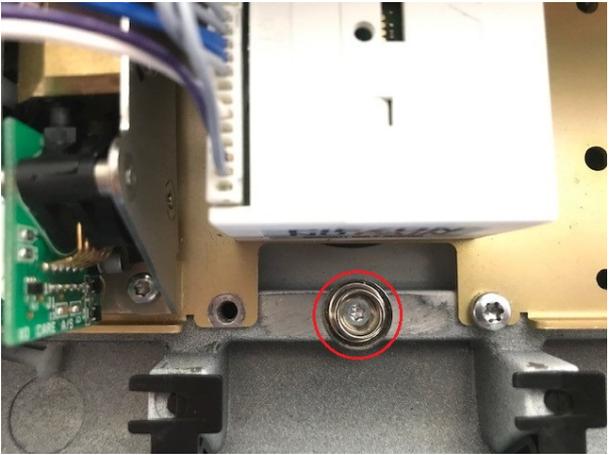
**Beware: Do not pull off the top brutally.
An Earth cable connects the top to the
base.**



The bridge once open

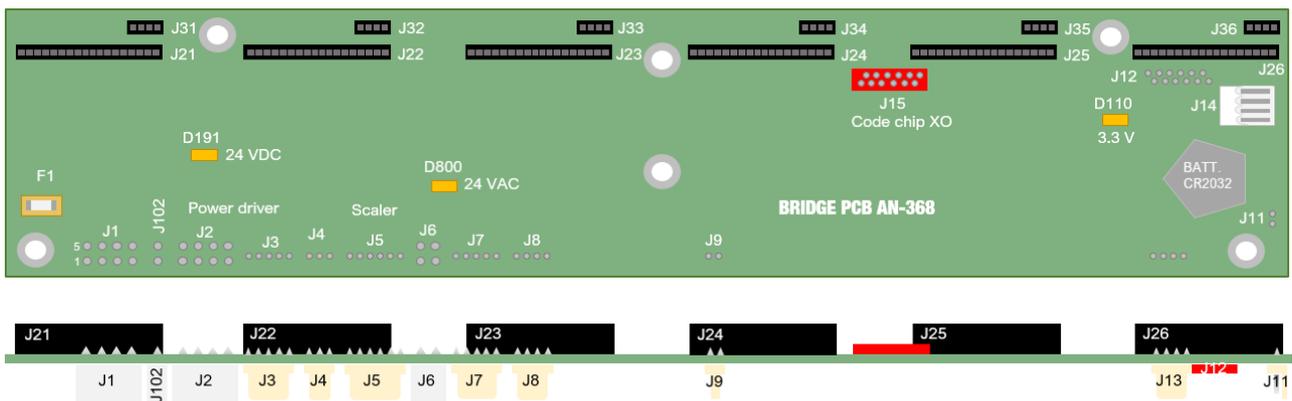


Connect the ESD wrist strap (UC-600) onto the terminal



WARNING:
ALWAYS WEAR AN ESD WRIST STRAP WHEN HANDLING SENSITIVE COMPONENTS.

BRIDGE PCB REPLACEMENT



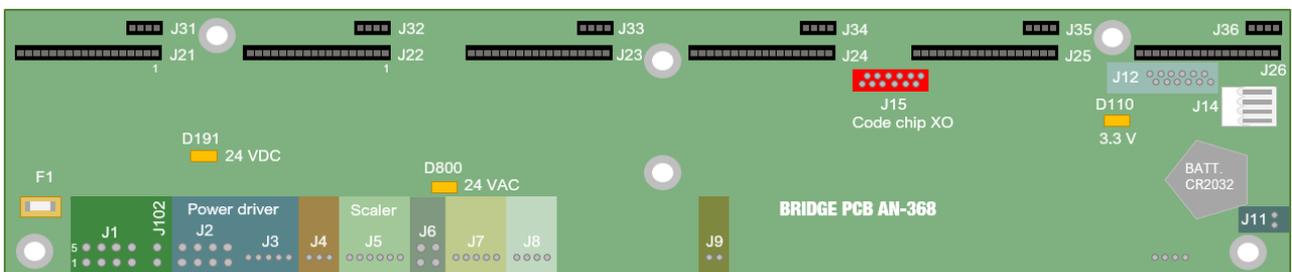
Procedure:

Before replacing the Bridge PCB please make a backup of the configuration with your XO Toolbox or XO Firmware updater. Use the SAVE DATA function to save the dentist/technician settings.

Note: If you have no access to these tools, please be aware that you must adjust cooling air, drive air and anti-retract air in technician menu.

Replacement procedure:

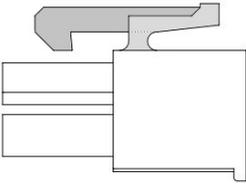
- Remove the “red code block” situated on the J15 and place it onto the new bridge PCB
- Remove carefully all the black connectors from the Jumper J31/J21, J22, J23, J24, J25 and J26
- Disconnect the signal cable from J14 - RS232 / RS485 Interface
- When done remove the 6 Torx head screws



Lift carefully the Bridge PCB to have access to the connectors underneath

Carefully remove the connectors:

- J1 - Power cable / See note
- J2 / J3 - Power Driver
- J4 - Proportional valve Spray air
- J5 - Scaler
- J7 - Flowmeter
- J9 - Loudspeaker
- J11 - P-button
- J12 - Display

<p>Note:</p>	 <p>The connector J1, J2 is equipped with a security clamp (grey). Do not pull the connector without pressing the clamp</p>
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Procedure: Placing the new BRIDGE PCB

Carefully place the following connector first (See the drawing above)

- J1 - Main connector / See note
- J2 / J3 - Power Driver
- J4 - Proportional valve Spray air
- J5 - Scaler
- J7 - Flowmeter
- J9 - loudspeaker
- J11 - Programming switch
- J12 - Display

- When done place the 6 Torx head screws back
- Reconnect the RS232 / RS485 signal cable to J14
- Reconnect carefully all the black connectors to the Jumper J31/J21, J22, J23, J24, J25 and J26
- Verify that the red code block is placed onto the new board.
- When everything is properly reconnected, execute a test
- Verify the parameter for every single instrument.
- Check and set date if necessary
- Check and set service date if necessary
- To properly set up the suspension PCB's, please see configuration list below

INSTRUCTIONS FOR SAVING/LOADING USER DATA WITH XO TOOLBOX

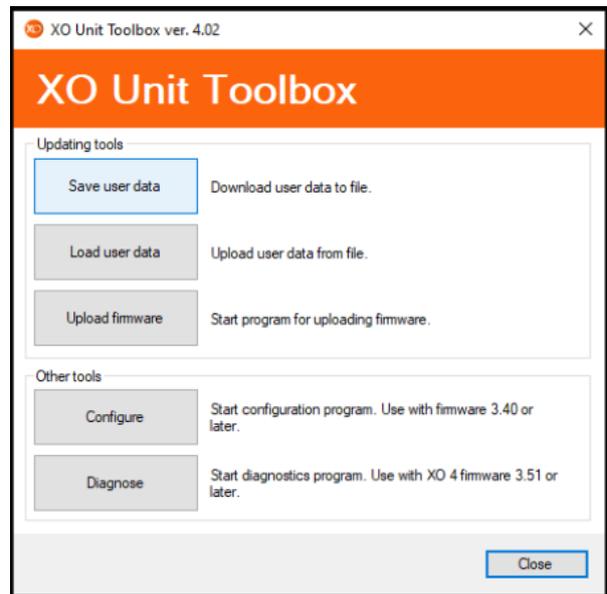
To save / load user data (configuration) with toolbox, follow these instructions:

1. Connect the unit to a PC using an **RS-232** serial cable.
Make sure that the XO Toolbox software is already installed on the PC.
2. Turn on the unit.
3. Start the XO Toolbox program:

Locating XO Toolbox

C:\Program Files (x86)\XO CARE\XO Unit Toolbox
Click on "XO4.ToolBox.exe"

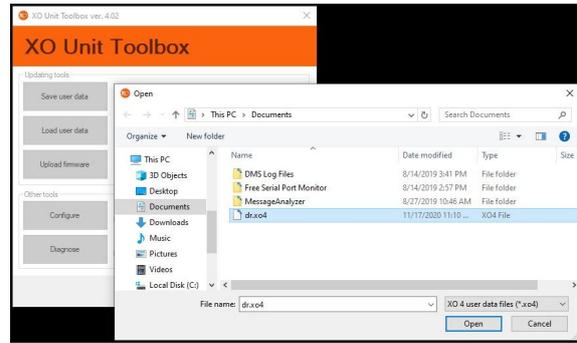
Click the button (highlight in blue)
"Save user data"



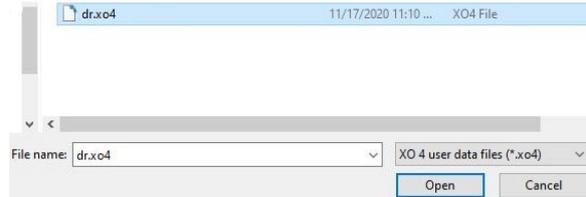
Successfully downloading the data.
Toolbox will scan all the PC's serial ports to detect the connected XO 4 unit.
When the correct port has been detected, the connection is established (automatically) and the user configuration will be downloaded.



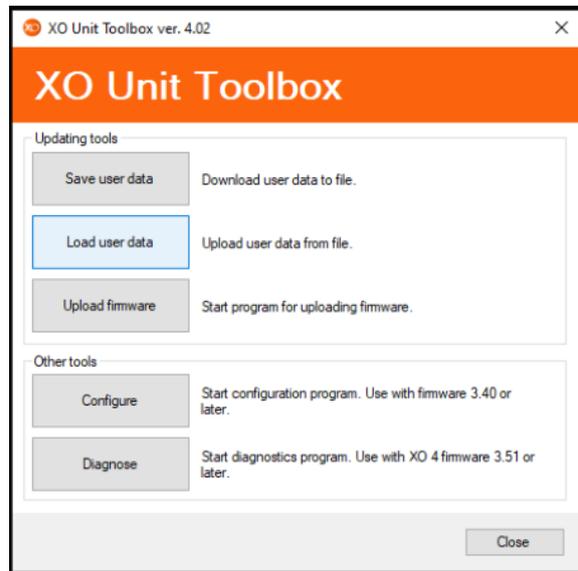
Once the data is downloaded, choose a place where to store the data.
All file extension has to be *.xo4



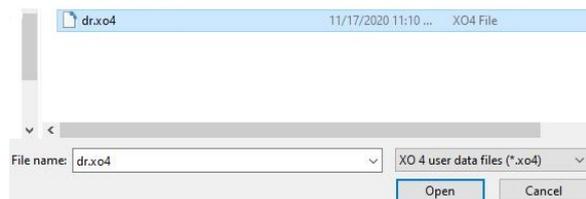
Example “dr.xo4”



When the new Bridge PCB has been installed, click the button (highlight in blue) “Load user data”



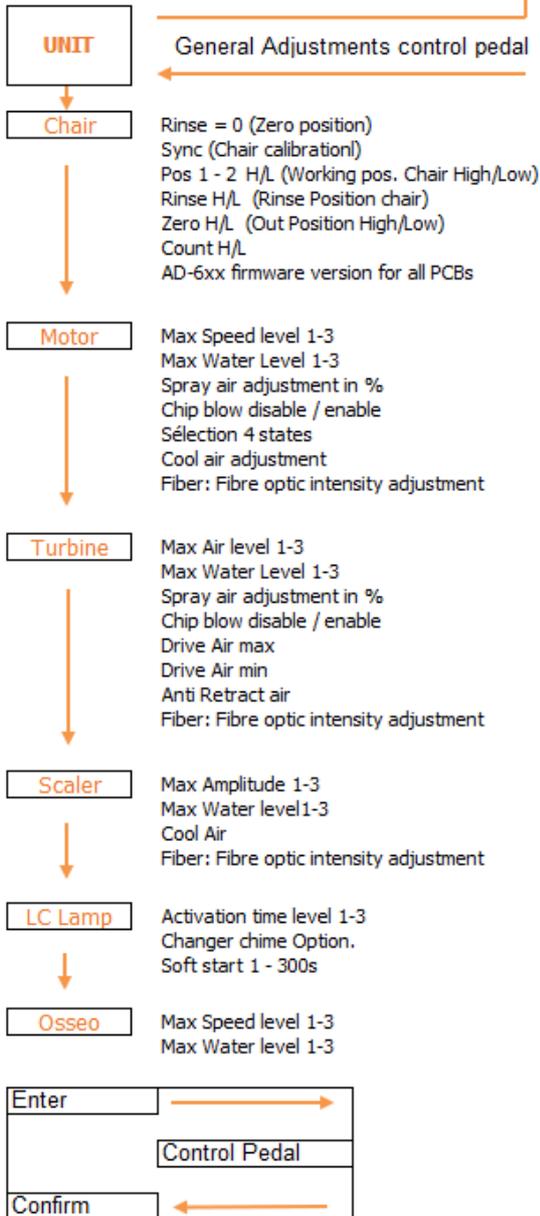
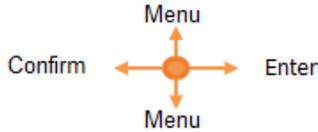
Select the file and acknowledge by clicking “Open”
Once the data has been successfully transferred, an acoustic signal is emitted.



“TECHNICIAN MENU”

Technician Adjustments X04 & X0 FLEX Ver. 3.40

All instruments in rest position /
Press 2 x C-button



- Cusp. Cl. Disable / Enable cuspidor clean
- Pump Ext. péristaltic pump (Susp. Select. (None or 2 to 6))
- Flush S Flushing cuspidor session in seconds
- Cup S Filling cup session in seconds
- Flush Ch Disable / Enable flush cuspidor (Rinse pos.)
- Flush CF Disable / Enable Flush cup
- Lamp Ch Disable / Enable light on chair (Working position 1 or 2)
- Lamp Pd Disable / Enable light on pedal
- Reset Reset dentists data to default
- Light Adjustment Display luminosity
- Sound Adjustment Sound level (Loud Speaker)
- Time Change time
- Day Change day
- Month Change month
- Year Change year
- S Day Change Service day.
- S Month Change Service month
- S Year Change Service year
- Resetal YES / NO - Reset all data
- Suc 1.01 AD-623 Vers 1.01 Disable / Enable (Always enable)
- Susp 1-6 Suspension Configuration - Pos. 1 to 6)
- SPCB 1-6 Suspension PCB Selection - Pos. 1 to 6
- Savedata Save all settings on dongle
- Loaddata Load old settings from dongle
- Flow 2.0 Always "ENABLED", New "Flow control" version
- Scaler T Scaler type Select (EMS, SATELEC, ODONTOSON)
- Water Cl. Disable / Enable Water clean (Must be installed)
- Suct Cl. Disable / Enable Suction clean (Must be installed)
- Cusp. Cl. Disable / Enable cuspidor clean
- 3. Suct Disable / Enable 3. suction (never used)
- Restart Only used by XO staff.
Never use in general

"SUSPENSION CONFIGURATION"

Configuration & Adjustments

		Instrument																	
		Motor			Scaler					Other									
Parts in configuration	To be selected in Technician menu "SPCB 1-6"	MX	MX2	MC3/MC3LED/M40LED	OSSEO	Odontoston	Satelec	Satelec w. light	EMS "No Pair" w.& wo. light	EMS Piezon w. light	EMS Piezon wo. light	Odontosurge	LC lamp Lysta	LC lamp Odontocure	Camera Vistacam HD Smart	Camera Vistacam IX HD	Camera Vistacam IX	Turbine	Syringe
		Suspension PCBs																	
AN-510	AD-605				a	x			x	x	x			a					x
AN-511	AD-605				x									x					
AO-318	AD-654	x		a	a	a	a		a	a	a			a				a	a
AO-319	AD-655											x							
AO-328	AD-654		x	x	a	a	a		a	a	a			a				x	
AO-329	AD-655																x		
AO-347	AD-655																b		
AO-348	AD-655														x	c			
AO-988	AD-605						x	x											
AP-866	AD-605													x					
Valves																			
Spray air		x	x	x						x								x	*
Spray water		x	x	x		x	x		x	x	x							x	*
Drive/cooling air		x	x	x														x	*
Suspension cables																			
CA-100																			x
CA-101		x	x	x	x	x				x	x	x	x	x	x	x	x	x	
CA-109								x	x	x									
Instruments "SUSP 1-6"																			
Syringe																			x
Motor		x	x	x	x														
Turbine																		x	
OSU/Video												x			x	x	x		
LC Lamp													x	x					
Scaler						x	x		x	x	x								
"SCALER T"																			
OSO 7						x													
EMS C51									x		x								
EMS C51L										x									
SATELEC							x	x											

x: factory mounted

a: also OK for spare part

*: start block, always configured with four valves

b: version wo. USB connector in bayonet

c: version with USB connector in bayonet