

Engineering Note: EN0096 Restore a Locked up Hydro-Control VI

 Summary:
 Restore a Locked up Hydro-Control VI

 Products affected:
 HC06

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Summary

Hydro-Control VI (HC06) units have the potential to become slow at start up if the database becomes too large. This can cause the unit to take longer to reboot or lockup (Figure 1). To recover the unit the database has to be cleaned and restored to the unit. Due to the fact the unit may not start up it is not always possible to download a copy of the database. This engineering note details two methods to recover the unit.

Note: It is recommended to upgrade the software to the latest version once the database is restored (See section 4).



Figure 1: HC06 Slow Boot up

1 Retrieve the Database using a Compact Flash Card Reader

If access to a compact flash card reader is available this method can be used.

Switch off the Hydro-Control and remove the Data Card from the top of the Hydro-Control. The card is located behind a metal panel at the top left of the unit (Figure 2). The card has a yellow label.



Figure 2: Data Card Location

Note: Do not remove the System card or delete any files on it

Using the compact flash card reader locate the database file, the file name is 'HC06Database.sdf'. Take a copy of the file and retain it, this will be used later. If there are any files with the name 'HC06Database_Archive' also retain these for future reference. Once a copy of the files has been taken delete all the files on the Compact Flash card.

Re-install the Data Card into the Hydro-Control. Switch on the Hydro-Control and it will create a blank database.



The database must now be repaired see section 3 for instructions

2 Retrieve the Database using a USB Keyboard

If access to a Compact Flash card reader is not possible the repair can also be performed using a USB Keyboard.

Connect the keyboard using one of the USB ports on the side of the Hydro-Control.

On the keyboard press Crtl/Alt/Delete and select Task Manager (Figure 3).



Figure 3: Task Manager

On the next screen select New Task (Figure 4).



Figure 4: New Task

Type Explorer and press OK (Figure 5).





Figure 5: Explorer

Expand 'My Computer' and select the 'D' drive. Locate the database HC06Database.sdf (Figure 6).



Figure 6: Database Files

Insert a USB memory stick into the Hydro-Control.

Copy the Hydro-Control database file onto the USB memory stick. Also copy any files starting with HC06Database_Archive to the USB memory stick.

Once the files are copied delete everything on the D drive.

Close all windows and restart the Hydro-Control. The Hydro-Control will create a new blank database.

The database must now be repaired see section 3 for instructions

3 Repair the Database

SAVE A COPY OF THE DATABASE IF MIX LOG DATA MUST BE RETAINED.

Download the Hydro-Control VI Database Editor HS0100 from the Hydronix web site <u>www.hydronix.com</u> or contact <u>support@hydronix.com</u>

Take copy of the saved Hydro-Control Database and keep this for future reference.

Install the Hydro-Control VI Database Editor and run the programme.

Select Delete All Mix Log Data (Figure 7).

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Figure 7: Delete all Mix Log Data

Select the saved database file, the Database editor will delete all mix log data. The system parameters and recipes will not be deleted.

Once complete put the repaired database onto the root of a USB memory stick.

Switch on the Hydro-Control.

Once the Hydro-Control has restarted insert the USB memory stick, containing the repaired database, into the unit.

Select system Parameters from the main menu (Figure 8).



Figure 8: System Parameters

Select Back/up Restore (Figure 9).



Water Setup			System Auto Control Setup	,	
Water Mode:	Metered 👻		Proportional Gain:	5	
Pulses Per Gallon:	5		Integral Gain:	0	
Water Meter Timeout:	5	s	Derivative Gain:	0	
Fine Delivery:	19.86	Gal	System Auto-track Settings		
Fine Valve Inflight	0.8	Gal	Initial Mix Deviation:	0.1	
Course value inflight.	0	Gal	Initial Mix Time:	10	- 5
Fine Valve On Time:	0.5	s	Pre-wet Mix Deviation:	0.1	_
Fine Value Off Times	0.5	-	Pre-wet Mix Time:	10	-
Fine valve Oil Time.	0.5		Dry Mix Deviation:	0.1	_
Use Fine Valve Only:	~		Dry Mix Time:	10	- 5
Averaging Time:	5	s	Wet Mix Deviation:	0.1	
Cycle Loops:	1		Wet Mix Time:	10	5

Figure 9: Restore

Select Restore. The unit will now reboot. Once complete the System Parameters and Recipe information will have been restored.

It is recommended to upgrade the Hydro-Control software to the latest version. See section 4 for details.

4 Upgrade the Software

To eliminate the chance of the Hydro-Control database getting too large again it is recommended to upgrade the software.

Download the latest software from the Hydronix web site www.hydronix.com

Unzip the downloaded software onto the root of a USB memory stick. A folder called DUA will be created.

Insert the USB memory stick into the Hydro-Control.

Select System Parameters from the main menu (Figure 10).



Figure 10: System Parameters

On page 2 select Upgrade (Figure 11).



System Parameters - Page 2 of 3							
System Time And D	ate	Edit Time and Date		General Settings Language:			
Date: 02/10/2	015			inglish	1		
Time Zone: GMT SI	andard Time			flax Mix Logs:	100		
Alarm Setup Cement In Alarm Water Meter Fault A Leaking Water Valve No Water Required Too Much Water Ca Mix Too Dry Alarm Mixer Blades Worn	larm - o Alarm - Alarm - Iculated Alarm - 	Mix To Water I Max Dr Max W Sensor Mixer E	y Mix 1 et Mix 1 Fault lades lades	Alarm xceeded Alarm Time Exceeded A Time Exceeded A Alarm Wom Alarm Wom Value	larm V Jarm 1		
Save Changes	Upgrade		N	lext	Menu		

Figure 11: Upgrade

The unit will now reboot several times.

Once complete the unit will be fully operational.

It is recommended to set the Hydro-Control to only record 100 mix logs in the database. (Figure 12). Also switch off the archiving facility by deselecting "Archive". Click "Save Changes" to save the changes.

System Parameters - Page 2 of 3							
System Time And Date Time: 1:00 PM	Edit Time	General Settings Language:	Ţ				
Date: 07/03/2019 Time Zone: GMT Standard Time	and Date	Max Mix Logs: Archiving	100				
Alarm Setup Cement In Alarm	Mix Too W	fet Alarm					
Water Meter Fault Alarm	Water Limit	Exceeded Alarm					
Leaking Water Valve Alarm No Water Required Alarm	Max Dry M	ix Time Exceeded Alarm fix Time Exceeded Alarm					
Too Much Water Calculated Alarm	Sensor Fa	ult Alarm					
Mix Too Dry Alarm Mixer Blades Worn Time 10	Mixer Blad s Mixer Blad	es Worn Alarm es Worn Value	10 US				
Save Changes Upgrad	et	Next	Menu				

Figure 12: Max Mix Logs