

HC05 Backup/Restore Utility Usage

Document reference: EN0052 Rev 1.0.0 - Updated: 22/11/2006
Products affected: HC05
Summary: Description of backup and restore utility HS0043 V7.5. Useful for transferring data to and from a Hydro-Control V.

INTRODUCTION

Hydronix have developed a PC utility which enables users to transfer data between a Hydro-Control V and a PC using the RS232 com port. This can be used for:

- Upgrading the device firmware
- Backing up recipe and/or system control parameters
- Restoring recipe and/or system control parameters
- Downloading the mix log records for analysis
- Formatting a backup or system file to a readable text file format

WHY USE THE UTILITY?

This utility will store on a PC, the important parameters used by the Hydro-Control V. This can be useful in the following circumstances:

- As a permanent backup to prevent possible data loss during upgrade of the device firmware
- Settings can be transferred back to the same controller in the event that parameters are changed in error
- Settings can be transferred to a different controller in the event that a service replacement is required
- It may be necessary to send the parameters to Hydronix for analysis of the setup for diagnostic purposes

Important: Users should note that it is no longer possible to manually transfer over recipe data used in a Hydro-Control V running firmware 4.2 or lower, to a controller running the version 5 or later. This is because some parameters need to be converted using this utility.

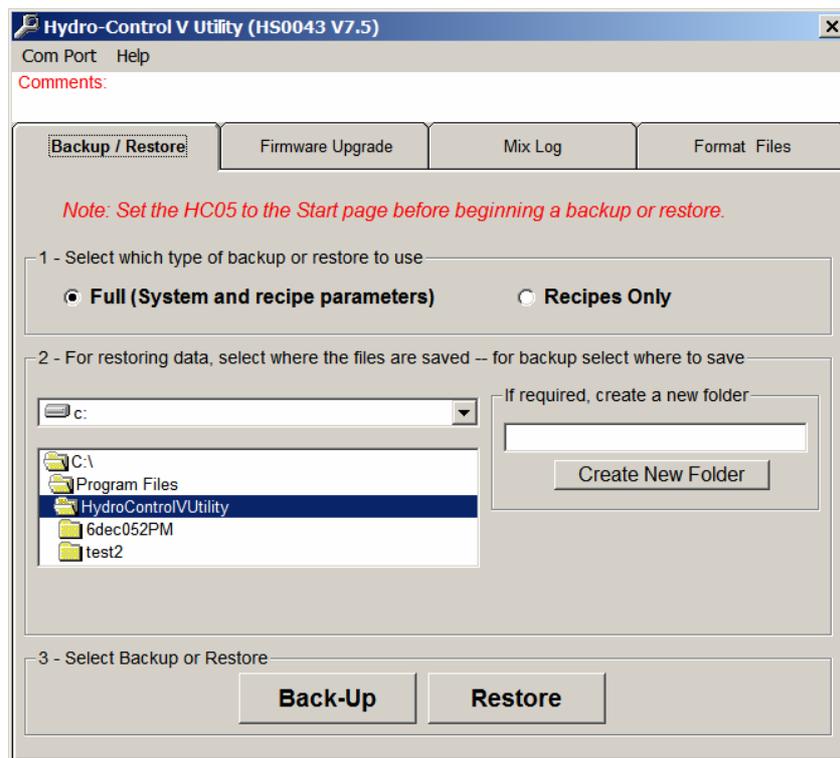
Connecting to the PC

The utility uses the Hydro-Control V RS232 serial connections (pins 21, 22, 23) on the connector block at the rear of the unit. Connection to the serial port on the PC should have the following connections:

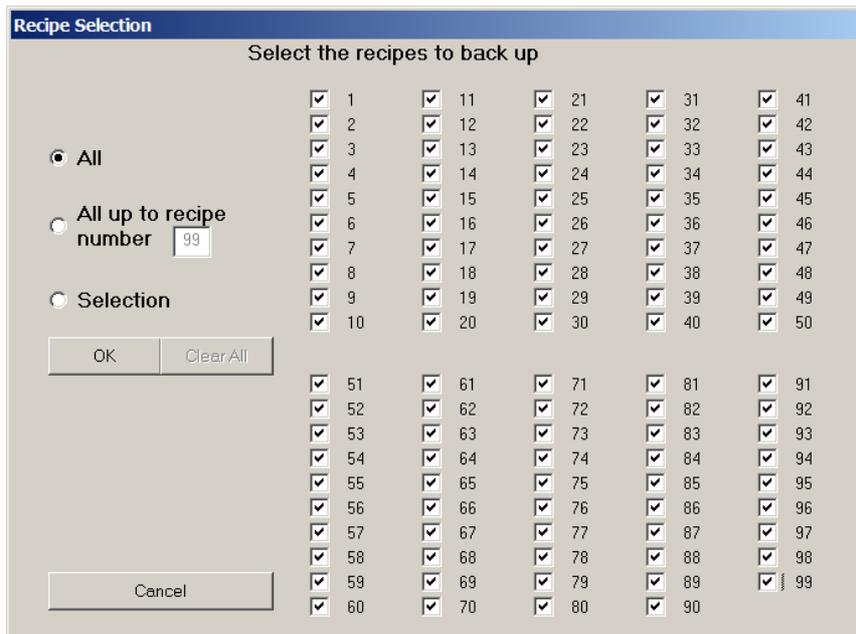
Hydro-Control V	PC/Laptop (9 pin D-type)	Signal
21	3	Rx
22	2	Tx
23	5	Gnd

Performing a backup

To backup any data, the Hydro-Control V should be switched on and set to the main start-up page.



- Select either 'Full' or 'Recipes' depending on requirements. A full backup will download both recipe and system parameters.
- Select the folder location on the computer hard disk to store the backup files. New folders can be created if required.
- Press the 'Back-Up' button.
- The next page then gives the user the option of which recipes they wish to back up. This may save time when downloading unused recipes.



The utility will start to download the settings, the status of which is shown in the white status bar. On completion the status will indicate 'Finished'.

If there is a problem with the communications link, the status will indicate 'Error – parameter xxx – Backup cancelled', where xxx denotes the parameter value at which the communications failed. If this happens check all wiring and restart the backup.

Performing a restore

To restore any data, the Hydro-Control V should be switched on and set to the main start-up page.

- Select either 'Full' or 'Recipes' depending on the type of backup that was originally made.
- Select the folder location on the computer hard disk where the backup files are saved.
- Press the 'Restore' button to start restoring the data.

The utility will start to upload the settings, the status of which is shown in the white status bar. On completion the status will indicate 'Finished'.

If there is a problem with the communications link, the status will indicate 'Comms Error – please check'. If this happens check all wiring and restart the restore.

Performing a firmware upgrade

Hydronix release firmware updates which are available for download from the website at <http://www.hydronix.com>. Updates for the Hydro-Control V may improve system performance, add functionality or fix known problems.

If any user is unsure about upgrading the firmware on the Hydro-Control V they should contact a Hydronix Engineer for further information. If problems occur during an upgrade the unit may become inoperable.

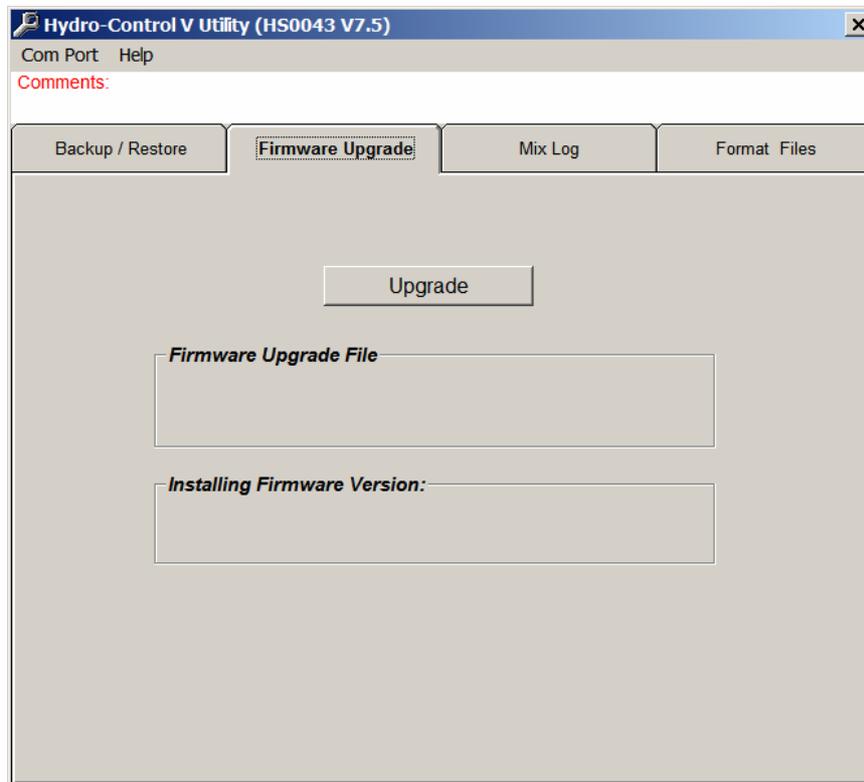
Before beginning the upgrade process, download the appropriate file. To upgrade the firmware select the firmware upgrade file by pressing the 'Upgrade' button. This file will be named hs0035_x_xx.bin where x_xx represents the firmware version. Once selected a message box will appear informing the user to place the Hydro-Control V in upgrade mode.

To place in upgrade mode the unit must be switched off, and then switched on with the tick button pressed. If the screen displays the message 'Waiting for Host...' then the unit is in upgrade mode and waiting for the firmware to be sent.

IMPORTANT: When upgrading to version 5.00 only the latest upgrade utility (v7.5) will be able to do the upgrade. An upgrade to version 5.00 WILL set the unit back to factory defaults if you wish to retain recipe and system data a backup of the old system must be made first. Once upgraded the unit can then be restored using the backup data.

The upgrade takes 10 minutes to complete. During this time ensure the power supply is stable and turn off any power saving features on the computer which may initialise during this time (for example standby mode on laptops), including screen savers.

Once in upgrade mode press OK on the message box. The firmware will start downloading to the Hydro-Control V and the download status in terms of % complete will be displayed in the status bar. When the upgrade is completed the status bar will display the message 'Completed successfully' and the Hydro-Control V will restart at the main page.

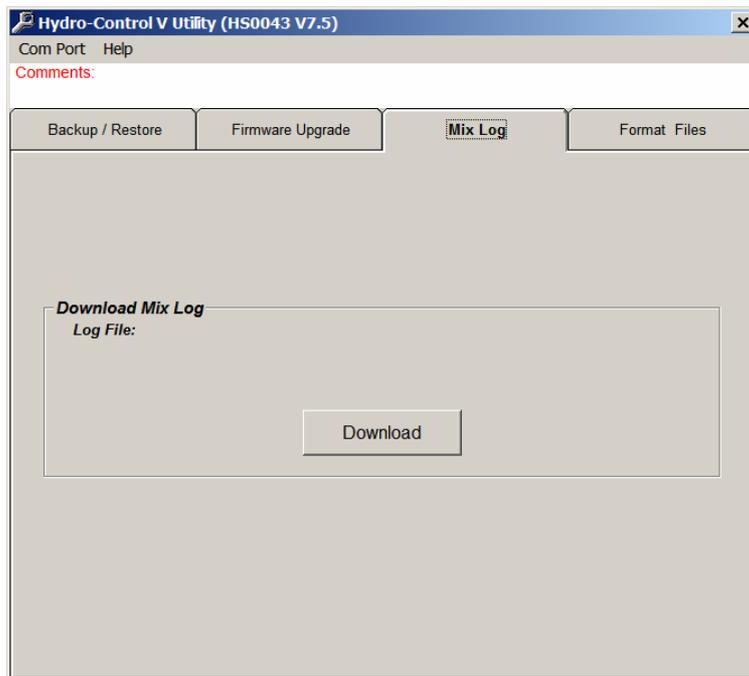


Downloading the Mix Log

NOTE: Mix log data will be erased after a firmware upgrade. These records cannot be restored to any Hydro-Control V.

To download the mix log simply press the 'Download' button and select the file location to store the mix log data text file. Once selected the utility will check the communication link, and if successful will start to download the data. If the communications cannot be established the status bar will display the message 'Error – no response'. If successful the status bar will display the message 'Reading mix log' and once finished this will change to 'Mix log captured – file closed'

Data is saved into a standard text file with tab separated values; making this easy to open into excel or similar program if required. This may be useful for users that wish to store batch information continuously.



Formatting Tab

The formatting tab can be used to reformat the .HC5 file into a .txt file that can be opened and easily read in Excel. The file is formatted into the order of the onscreen menus. Both the recipe and system files can be reformatted but this must be done separately.

