

MagExplorer

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1	MagExplorer 2.50											×	
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		Speed Command 2 Speed Command 3 Speed Command 4	00 00 00	tt/min tt/min tt/min	-3005.0 -3005.0 -3005.0	3000.0 3000.0		Speed Command 2 Speed Command 3 Speed Command 4	50.0 25.0 150.0	thinin thinin thinin	-3000.0 -3000.0 -3000.0	3000.0 3000.0 3000.0	
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Magnetek Explorer Instruction Manual

To properly use the product, read this manual thoroughly and retain for easy reference, inspection, and maintenance. Ensure that the end user receives this manual.

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The Magnetek Explorer is a serial communication program used to work with the HPV 600, HPV900, HPV900 S2, Quattro, HPV1000, and M1000 parameters via a computer's serial port.

The program can:

- Transfer parameters from a personal computer to the drive (HPV 600, HPV 900 Series 1, HPV900 Series 2, Quattro, HPV1000, and M1000)
- Transfer parameters from the drive (HPV 600, HPV900 Series 1, HPV900 Series 2, Quattro, HPV1000, and M1000) to the PC
- 3. Compare two parameter files and report any differences
- 4. Save the parameters to a file
- 5. Edit parameter values on the PC
- 6. Print parameters with settings
- 7. Create an HTML file (for sharing an online parameter file)
- 8. Upload Quattro and HPV900 Series 2 software

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Installation of MagExplorer

1. Click on the following Magnetek elevator download website to get the latest MagExplorer program: <u>http://www.elevatordrives.com/Elevator/Downloads</u>

E.g. you will download *MagExplorer 2.50.12.msi.zip* onto your local computer. After unzipping this file, you will get the program file *MagExplorer 2.50.12.msi*.

2. Double click on *MagExplorer 2.50.12.msi* file, follow the instruction below to install MagExplorer program on your PC:

Troubleshooting Tip: If the following "repair or remove" window appears, MagExplorer is already installed. Select "repair" option if updating to the latest version.

妃 MagExplorer	_		×
Welcome to the MagExplorer Setup Wizard			5
Select whether you want to repair or remove MagExplorer.			
Repair MagExplorer Remove MagExplorer			
Cancel < Back		Fi	nish

3. Agree to the License Agreement.



4. Select a destination folder, or keep default.



5. Installation will begin, wait until complete.

MagExplorer			-			×	
Installation Complete	5		G	NE / ^	T	е I 0	R
MagExplorer has been successfully install	ed.						
Click "Close" to exit.							
Please use Windows Update to check for	r anv critical update	s to the NET Fr	amewo	ork.			
			-				
	Cancel	< Back	1	C	lose		

Opening a Parameter File

1. Select the Open button.



2. Select the parameter file path and name.



Note: File will not open if the file extension is not .par or .parx

Tip: Press **Alt**, then **H**, then **O** to quickly open a file

Filtering Parameters

1. Click on the search box.

File 🔻 🔣	MagExplore	er 2.50					
Dpen Save Save As	Port • Comms	Drive->	PC->Drive Current PC PC PC Parameters	File	Upload Firmware Firmware		
Example.parx	×						
		v	Name	Value	Unit	Min	Max
Quattro A442			CONTRACT CAR SPD	2000) mm/s	0	10000
A07	A1 Drive		CONTRACT MTR SPD	1130.00) rpm	30.00	3000.00

2. Begin typing the parameter name. The menu and parameters list will automatically update to display matching parameters.

🐠 🛅 MagExplorer 2.50						- - ×
File - Home						0
Comms	PC->Drive Current PC PC->Drive File Parameters	File Emparison Fi	Ipload rmware rmware			
Example.parx 🗙						
spe	Name	Value	Unit	Min	Max	
Quattro A442	ARB ZERO SPEED	0.0	%	0.0	2.0	
Al Drive	OVERSPEED LEVEL	115.0	%	90.0	150.0	
A2 S-Curves	OVERSPEED TIME	1.00	seconds	0.00	9.99	
A4 MS Pwr Convert	OVERSPEED MULT	125.0	%	100.0	150.0	
Convert The AS LS Pwr Convert	ZERO SPEED LEVEL	1.00	%	0.00	99.99	
CO Configure	ZERO SPEED TIME	0.10	seconds	0.00	9.99	
C1 User Switches	TACH SPEED SENSE	1.0	%	0.1	40.0	
🖿 C3 Logic Outputs 🎦 C4 Analog Output	SPEED REG TYPE	ELEV SPD REG 🗸 🗸				
👕 U0 Utility						
Not Connected						

Editing Parameters

- 1. Open parameters in MagExplorer via Open or Drive \rightarrow PC.
- 2. Navigate menus using the menu tree on the left.

🐠 🛅 🔚 MagExplorer 2.50						- 0 ×
File V Home						0
Comms	PC->Drive Current PC PC PC Parameters	File Einstein File Einstei	lpload rmware rmware			
Example.parx 🗙						
spe ~	Name	Value	Unit	Min	Max	
Quattro A442	ARB ZERO SPEED	0.0	%	0.0	2.0	
The Adjust	OVERSPEED LEVEL	115.0	%	90.0	150.0	
A2 S-Curves	OVERSPEED TIME	1.00	seconds	0.00	9.99	
🔤 A4 MS Pwr Convert	OVERSPEED MULT	125.0	%	100.0	150.0	
A5 LS Pwr Convert	ZERO SPEED LEVEL	1.00	%	0.00	99.99	
CO Configure	ZERO SPEED TIME	0.10	seconds	0.00	9.99	
C1 User Switches	TACH SPEED SENSE	1.0	%	0.1	40.0	
C3 Logic Outputs	SPEED REG TYPE	ELEV SPD REG 🛛 🛩				
🖆 UO Utility				() 		
Not Connected						

Note: The M1000 drive will have an additional menu titled, "Standard Menu", which is usually not necessary to access.

Modify Numeric Parameter

1. Select numeric parameter. The location of the cursor is set depending on where the mouse is pointed and clicked. The field only allows values within the valid range for the parameter.

Name	Value	Unit	Min	Default	Max
Contract Car Spd	400.0	fpm	0.1	400.0	3000.0
Contract Mtr Spd	11 30.0	RPM	5.0	1130.0	6000.0
Encoder Pulses	2048	PPR	1	1024	60000
					_

- 2. Change the parameter value using the keyboard. It should remain within the bounds specified by the **min** and **max** columns.
- 3. Press **Enter** on the keyboard to finalize the change. The parameter label will turn bold if the value is different than the last save. With M1000 and HPV1000 drives, the value field will have a light blue shade if it differs from the default value.

Name	Value	Unit	Min	Default	Max
Contract Car Spd	400.0	fpm	0.1	400.0	3000.0
Contract Mtr Spd	11.0	RPM	5.0	1130.0	6000.0
Encoder Pulses	2048	PPR	1	1024	60000

Modify List Parameter1. Click the drop down arrow on the right side of the value field of the parameter that will be changed.

Name	Value	Unit	Min	Max
Encoder Pulses	2048	PPR	500	40000
Encoder Ang Ofst	199		0	35999
Encoder Select	endat 🗸 🗸			
Encoder Connect	forward \checkmark			
Encoder Fault	forward			
	reverse			· · · · · ·

2. Select the desired option. The parameter label will turn bold if the value is different than the last save. With M1000 and HPV1000 drives, the value field will have a light blue shade (gray in image) if it differs from the default value.

Name	Value		Unit	Min	Default	Max
Spd Command Src	Multi-Step Speed	~			Multi-Step Speed	
Run Command Src	Communication	~			Digital Inputs	
Serial Run Src	Serial Only	~			Serial Only	
Motor Rotation	Forward	~			Forward	
Encoder Connect	Forward	~			Reverse	
Stopping Method	Coast to Stop	~			Coast to Stop	

Saving Parameter
 Select the *Save As...* function to open a save dialog, or select the *Save* button to save changes to the existing file.



2. If saving as a new file, select parameter file path and name.

🐠 Save Par File Dialog							×
← → × ↑ 📙 > This PC > Documer	nts > Example			~ Ū	Search Example		ρ
Organize 🔻 New folder							?
 ✓ Quick access ➢ Dropbox ▲ OneDrive ☑ This PC ☑ Network 	Name	Date modified	Type PARX File	Size 429 k	(B		
File name: Example2 Save as type: Parameter files (*.parx)							~
∧ Hide Folders					Save	Cancel	

Comparing Parameters

 Select one of the Compare buttons. See <u>Comparing to Drive Parameters</u> for instructions specific to comparing to the drive, see <u>Comparing to Another Open Tab</u> for instructions specific to comparing to another open tab, or see <u>Compare to Another File</u> for instructions specific to comparing to another file.



2. Once a compare tab is open, it will display both parameter files side by side displaying all of the differences between the two files. These differences are highlighted in red.

Save Port Dri	PC->Dri PC->Dri Pc->Dri Parameters	ve Current ve File	File	ve Upload Firmware			
xample.parx × Example	e2.par 🗙 Exam	ple2.par - Exan	nple.parx ×				
ter: Show differences only	~						
Users\chrcar\Documents\Pro	ject 1- MagExplore\	Example2.par		C:\Users\chrcar\Documents\Pr	roject 1- MagExplore\I	xample,parx	
Name	Value	Unit	Min	Name	Value	Unit	Min
CONTRACT CAR SPD	6096	mm/s	0 ^	CONTRACT CAR SPD	2000	mm/s	0
CONTRACT MTR SPD	134.00	rpm	30.00	CONTRACT MTR SPD	1130.00	rpm	30.0
NCODER PULSES	10000	pls/rev	600	ENCODER PULSES	4096	pls/rev	600
NERTIA	6.11	sec	0.25	INERTIA	2.00	sec	0.25
IRAKE PICK TIME	1.00	seconds	0.00	BRAKE PICK TIME	5.00	seconds	0.00
RAKE SWITCH #	2		0	BRAKE SWITCH #	0		0
OSPR TIME	120	minutes	0	DSPR TIME	10	minutes	0
	2.01	mH	0.01	ARM INDUCTANCE	15.00	mH	0.01
RM INDUCTANCE	3.64						

3. The filter can be changed to show differences or show all parameters (similar and different) between the files

Copen	Port	Drive->PC	PC->Driv PC->Driv ameters	e Current e File	File.	Driv Tab	Ve Upload Firmware Firmware			
Example.parx	×	Example2.par 🗙	Examp	ole2.par - Exa	mple.parx >	<				
Filter: Show a	II ~									
C:\Users\chrcar	\Docume	nts\Project 1- Mag	Explore\E	xample2.par			C:\Users\chrcar\Documents\l	Project 1- MagExplore\	Example.parx	
Nam	ne	Value		Unit	Min		Name	Value	Unit	Min
CONTRACT C	AR SPD		6096	mm/s	0	^	CONTRACT CAR SPD	2000	mm/s	0 ^
CONTRACT N	ITR SPD	1	134.00	rpm	30.00		CONTRACT MTR SPD	1130.00	rpm	30.00
ENCODER PU	LSES	1	10000	pls/rev	600		ENCODER PULSES	4096	pls/rev	600
ENC RATIO N	IULT		1.000		0.001		ENC RATIO MULT	1.000		0.001
RESPONSE			10.0	rad/sec	1.0		RESPONSE	10.0	rad/sec	1.0
INERTIA			6.11	sec	0.25		INERTIA	2.00	sec	0.25

Comparing to Drive Parameters

- 1. Be sure that MagExplorer is connected to the drive, and that at least one parameter file is open. If buttons are gray and cannot be selected, the drive is not properly connected.
- 2. Click the *Drive* button in the Comparison section.

File	E Drive Tab • Compare to the connected Drive
Com	parison

3. MagExplorer will begin downloading parameters from the drive. Once complete, it will open the compare tab.

Comparing to another Open Tab

- 1. Have two parameter files open at the same time.
- 2. Click the *Tab* button in the Comparison section.

File	rive ab -	
Compariso	Compare to other open files	

3. A dropdown menu will appear. Select the filename to compare to the current tab.

	Drive
	ſab ▼
riie	Example2.parx
Com	Example.parx

4. MagExplorer will open the compare tab.

Comparing to another File

- 1. At least one parameter file must already be open.
- 2. Click the *File...* Button in the comparison section.

MagExplorer 2.50		- = ×
Copen Save Save Save Save Save Save Save Port Drive->PC PC->Drive Current PC->Drive File	File	
Comms Parameters Example.parx Example2.par X	Compare to a File	

3. An open dialog will appear. Select the file to compare to, MagExplorer will open the compare tab.

Printing

1. Select the *File* button then the *Print* button. This will open a print dialog.

i 💼 🚍 MagExplorer 2.40		1				- 0	×
Open Save		File	Tab +				
Save As			Unit	Min	Dofault	Max	_
Print		0.350	%	0.000	2,400	9,999	1
Export		0.0	fpm	0.0	0.0	152.9	
		0.0	fpm	0.0	0.0	152.9	
1 Help		0.0	fpm	0.0	0.0	152.9	
About		0.0	fpm	0.0	0.0	152.9	
*	∥ ♦E	0.0	fpm	0.0	0.0	152.9	
C3 Logic Outputs	Speed Command 5	0.0	fpm	0.0	0.0	152.9	
C4 Analog Output : C5 Analog Input	Speed Command 6	0.0	fpm	0.0	0.0	152.9	
🖿 U0 Utility	Speed Command 7	0.0	fpm	0.0	0.0	152.9	
Standard Menu	Speed Command 8	0.0	fpm	0.0	0.0	152.9	
	Speed Command 9	0.0	fpm	0.0	0.0	152.9	
	Speed Command 10	0.0	fpm	0.0	0.0	152.9	

Tip: Pressing Alt, followed by F, then pressing P will print.

Creating an HTML File

1. Click the File drop down.



- 2. Click *Export* in the *File* menu.
- 3. If exporting to a new file, choose file path and new file name. If overwriting a file, select file path and the overwritten file name.

Export HTML Dialo	og							×
$\leftarrow \rightarrow \cdot \uparrow$	→ This	PC > Documents			~ Ū	Search Documents		Q
Organize 🔻 Ne	w folder							•
 ✓ Quick access Desktop Downloads Documents Pictures Music New folder Videos OneDrive 	* * *	Name Custom Office Templates New folder Software	Date modified 1/23/2018 1:01 PM 1/23/2018 2:27 PM 1/22/2018 1:34 PM	Type File folder File folder File folder	Size			
This PC	Exampl							~
Save as type:	HTML f	iles (*.html)						~
▲ Hide Folders						Save	Cancel	

Connections and Start-up

- 1. Ensure the proper electrical connections between the digital operator port of the Drive and the serial port (COM1, COM2, etc.) of a Windows based computer.
 - a. The following products use a straight DB-9 cable (Magnetek pn MAG-CABLE):
 - HPV 600 and HPV 900 Series 1
 - Quattro AC and Quattro DC

Note: To connect to a newer PC with a DB-9 cable, a DB-9 to USB adapter may be necessary (Magnetek pn ELEV-USB-RS232)

- b. The following product uses a USB-A to a mini USB-B cable (Magnetek pn HPV2-CABLE):
 - HPV 900 Series 2
- c. The following products use a DB-9 to RJ-45 cable (Magnetek pn M-HPV1000-CABLE). It may be necessary to have a USB to DB-9 cable as well.



• M1000 and HPV1000

2. From Windows, execute MagExplorer.exe or double click the icon.



3. Select proper serial COM port. If there is more than one listed, disconnect the cable and check to see which com port is no longer available and reconnect the cable. If buttons such as "Drive→PC" are grey and can't be clicked, the port is not connected.

🐠 🖻 🔚 🛯 N	/lagExplorer 2.50	- 🗆 ×
File Hom	e la	0
Den Gave	Port Drive->PC	
, b	O COM3 [Intel(R) Active Management Technology - SOL] Firmware	

Note: On HPV 900 Series 2, a special driver is required. Refer to *Installing HPV 900 Series 2 Driver* on the next page. **Note:** Connecting to an HPV 900 Series 2 can take approximately a minute after connecting device.

4. Once the COM port has been selected, MagExplorer will automatically determine the type of drive that is connected. MagExplorer will also automatically change drive types if plugged into a different drive

Troubleshooting Tip: If no COM ports are available, the cable is not connected between the PC and the drive.

Installing HPV 900 Series 2 Driver

The HPV 900 Series 2 requires a special driver in order to allow the USB to properly act as a COM port. When connected to an HPV 900 Series 2 without the proper driver, this message will appear:



- 1. Click on the underlined hyperlink and download <u>MAG Explorer Driver for use on HPV900</u> <u>S2</u>.
- 2. Unzip the folder and install the application.
- 3. After the application is installed, press the windows key on the keyboard and type "Device Manager". Open Device Manager.
- 4. Find the USB port under "other devices", right click on "USB to UART Bridge Controller", and select properties.
- 5. Under the "Driver" tab, select the "Update Driver" button.
- 6. The USB should now be recognized as a COM port in MagExplorer.

"Drive \rightarrow PC" – Transferring parameters from the Drive to PC

"DRIVE \rightarrow PC" is the process of the HPV 600, HPV 900 Series 1, HPV 900 Series 2, HPV 1000, Quattro AC, Quattro DC, M1000, or HPV1000 sending all of its parameter values (from a file with the extension .PAR) to a computer. This process can be used for memory backup. While the drive is running a motor, the only interaction allowed between the drive and Mag Explorer is the transferring of parameters from the drive to the computer.

- 1. Connect to drive (refer back to Connections and Start-up, page 14).
- 2. Select the *Download* function (Drive \rightarrow PC)



3. Select a parameter file path and name, then save.

🐠 Save Par File Dialo	g							×
← → • ↑ 📙	> This PC > Documents	> Example			√ Č	Search Example		Q
Organize 🔻 Ne	w folder							?
 Quick access Dropbox OneDrive This PC Network 		Name	Date modified 7/17/2017 11:10 AM	Type PARX File	Size 429 K	В		
File name:	Example2							~
Save as type:	Parameter files (*.parx)							~
∧ Hide Folders						Save	Cancel	

4. Your parameters will now download and save onto the PC in the location inputted in the previous step.

L Download Progress		×
Downloading pa	arameters 🐠	MAGNETEK
Parameters: 642 Bytes: 8024 7 seconds (estimated)	44	
More details	OK	Cancel

"PC \rightarrow Drive" – Transferring parameters from the PC to Drive

"PC \rightarrow Drive" is the process of a computer sending all settable parameters (with the extension .PAR) to an HPV 600, HPV 900 Series 1, HPV 900 Series 2. Quattro AC, Quattro DC, M1000, or HPV1000. This process can be used to set up the drive with a set of pre-configured parameters.

Important

It is not recommended for the HPV 600, HPV 900 Series 1, HPV 900 Series 2, Quattro AC, Quattro DC, M1000, or HPV1000 to be running a motor while transferring parameters from the PC to the drive "PC → Drive", as this could lead to a dangerous operating condition.

Uploading Parameters to Quattro, HPV 600, HPV 900 Series 1, HPV 900 Series 2

- 1. Connect to the drive.
- 2. Select one of the following Upload functions
 - "PC→Drive Current" will upload the currently visible file to the drive.
 - "PC→Drive File..." will open a file selection dialog, and will upload the selected file.



If the parameters are all within range:

1. A dialog box will appear, informing that in order to proceed, MagExplorer must download parameters from the drive first.



- 2. Click OK to continue. MagExplorer will proceed to download parameters from the drive.
- 3. Once MagExplorer has completed downloading parameters, it will check to make sure the file being uploaded is compatible and display the results.

	To Upload	Drive	
Drive Type:	A4420	A4420	GOOD
Version:	DU0225	DU0225	GOOD
Units:	English	English	GOOD
Number of parar Different lis Number of list its	timum: meters that are above the r st item options: ems that have different opt	naximum value on the	drive. 0
Number of parar Different li: Number of list its Missing parar Number of parar	cimum: meters that are above the r st item options: ems that have different opt rameters: meters missing on the drive event of options.	naximum value on the ions.	drive. 0 0
Number of para Different II: Number of list its Missing pai Number of para Parameters Number of para	cimum: meters that are above the r st item options: ems that have different opt rameters: meters missing on the drive cout of order: meters that are out of orde	naximum value on the ons.	drive. 0 0 0

4. Click Yes to upload parameters. MagExplorer will ask if it should save a copy of the drives parameters if they differ from the parameters being uploaded.

Uploading Parameters to M1000 or HPV1000

For M1000 and HPV1000 Drives, some parameters are special and must be uploaded first. This is because they can affect the ranges or existence of other parameters. Some of these parameters are

- Contract Car Spd (Ranges only)
- Contract Mtr Spd (Ranges only)

If these differ from the drive, the user will be notified before upload:



- 1. Connect to the drive.
- 2. Select one of the following Upload functions
 - "PC→Drive File..." will open a file selection dialog, and will upload the selected file.
 - "PC \rightarrow Drive Current" will upload the currently visible file to the drive.



If there were any errors reported by the drive during upload, the user will be presented with a dialog at the completion of the upload:

Upload Log				- 🗆	
roblems encountered when	n uploading the file:				
Parameter	Error	Min	Value	Max	
"Max Frequency"	is out of range.	10	9.6	200	

Firmware Upload: Loading Motor-side Software in Quattro

- 1. Power up the Quattro drive.
- If wanted, upload the parameter set from the drive to Magnetek Explorer to be placed back in the drive after the new firmware is installed. To do this, see "Drive → PC" on page 17, then save the file.
- 3. Power down the Quattro drive.
- 4. Remove jumper from UPLD and NORM on JM13 located on the Motor Side PWM Control Board. See figure below for location of JM13 and the Motor Side PWM Control Board.



- 5. Place the removed jumper between PRGM and UPLD on the same JM13 found in step 4.
- 6. Power up the Quattro Drive.
- 7. Open MagExplorer on the connected PC.
- 8. Follow the steps in *Connections and Start-up* if not already connected to the drive.
- 9. Click the Upload Firmware button:



10. Choose a .ldr file to upload:

🐠 Quattro Firmware Upload						×
\leftarrow \rightarrow \checkmark \uparrow \square \rightarrow This PC \Rightarrow	Documents > Example		ٽ ~	Search Example		P
Organize 👻 New folder					-	?
- Quick access	^	Name	Date modified	Туре	Size	
		DU0225.ldr	4/28/2017 4:38 PM	LDR File	345	KB
💱 Dropbox						
🗥 OneDrive						
This DC	¥					
File name:	000225.ldr		~	Loader files (*.ldr)		\sim
				Open	Cancel	

- 11. A dialog will appear confirming erasing flash on the drive. If *Yes* is selected, parameter data on the drive will be lost and the firmware will be uploaded. If *No* is selected, the operation will be cancelled.
- 12. While the upload is in progress, a progress dialog will be present:

뒏 Upload Progress			×
Uploading Fi	rmware	S	
Records: 551 of 4670 Sectors erased: 8 of 8			
3 mins 22 secs (estim	ated)		
More details	OK		Cancel

13. When the upload is complete, the dialog will remain open, and will state "Upload Complete". Press *OK* to finish.



- 14. Power down the Quattro drive.
- 15. Reset the jumper to its original position between UPLD and NORM.
- 16. Reset the ribbon cable JM3 to the original position in JM3 on the Motor side board (A2)
- 17. Recycle power. Because defaulted values will be loaded into the drive, it is expected a number of faults will occur. Re-insert the parameters saved in step 2 in Firmware Upload–Loading Motor-side Software in Quattro by using the PC→Drive button in the upper middle portion of Magnetek Explorer. See PC→Drive Transferring parameters from the PC to the Drive on page 19.

Firmware Upload: Loading Line-side Software in Quattro

- 1. Connect RS232 port of computer to RS232 input to drive as shown in below. Open Magnetek Explorer. Note it is not necessary to save line side parameters since they are stored on the motor side control board.
- 2. Power down QUATTRO.
- 3. Move Ribbon Cable from JM3 on the Motor Side PWM Control Board (A2) to JM3 on the Line Side PWM Control Board (A1).



4. Remove jumper from UPLD and NORM on JM13 located on the Line Side PWM Control Board. See figure below for location of JM13 and the Line Side PWM Control Board.



- 5. Place the removed jumper between PRGM and UPLD on the same JM13 above.
- 6. Power up the Quattro drive.
- 7. Open MagExplorer on the connected PC.
- 8. Click the *Upload Firmware* button:



9. Choose a .ldr file to upload:

🐠 Quattro Firmware Uploa	d			
← → · ↑ 📙 « Fi	rmware >			✓ [™] Search 14
Organize 🔻 New fold	ler			
3D Objects ^	Name	Date modified	Туре	Size
🛄 Desktop	L0214.ldr	12/22/2015 3:27 PM	LDR File	147 KB
Documents				
🕂 Downloads				
Music				
Pictures				
📑 Videos				
🔛 Windows (C:)				

- 10. A dialog will appear confirming erasing flash on the drive. If Yes is selected, parameter data on the drive will be lost and the firmware will be uploaded. If *No* is selected, the operation will be cancelled.
- 11. While the upload is in progress, a progress dialog will be present:



12. When the upload is complete, the dialog will remain open, and will state "Upload Complete". Press *OK* to finish.

WARNING

Use extreme care when uploading software. Stopping an upload or disconnecting the cable during an upload could corrupt the software and inhibit the user's ability to upload software.

- 13. Power down QUATTRO
- 14. Reset the jumper on JM13 to its original position (between UPLD and NORM)
- 15. Reset the ribbon cable JM3 to the original position in JM3 on the Motor Side Board (A2).
- 16. Recycle power. Because defaulted values will be loaded into the drive, it is expected a number of faults will occur. Insert the parameters in the Quattro Drive by using the PC→Drive button in the upper middle portion of Magnetek Explorer. See PC→Drive–Transferring parameters from the PC to the Drive on page 19.

Firmware Upload: Loading Software in HPV900 Series 2

- 1. Power up HPV900 Series 2.
- If wanted, upload the parameter set from the drive to Magnetek Explorer to be placed back in the drive after the new firmware is installed. To do this, see "Drive → PC" – transferring



parameters from the Drive to PC on page 17. Save the file and proceed to step 3.

3. Power down HPV900 Series 2.

4. <u>Re-flash board</u> should mount on to the HPV900 Series 2 drive control card fitting the 63 pin connector into its corresponding plug. The board should be mounted such that the plastic standoffs sit over their respective holes on the control card, although it is not necessary to press these standoffs into place.

5. <u>JP2</u> on the Re-flash board should have pins 2 and 3 jumpered. If they are not, place the jumper on JP2 on pins 2 and 3. This only applies to Rv 00.

6. Connect the USB A to USB mini B cable to the <u>port</u> on the control card of the drive and to the computer with the latest version of Magnetek Explorer and drivers installed.

- 7. Power up HPV900 Series 2.
- 8. The LED on the Re-flash board should begin flashing

red.

- 9. Open MagExplorer on the connected PC.
- 10. Click on the Firmware Upload button on MagExplorer, then click the appropriate upload button.



11. Choose a .hex file to upload:

🐠 HPV900 Firmware Uploa	d		
← → • ↑ 📙 « Fi	irmware > SA481 (HPV-900 S2) > Released	> 02 $>$ 20 $>$ 41 $>$ 01-Standard	✓ Õ Seare
Organize 🔻 New fold	der		
🕂 Downloads \land	Name	Date modified Type	Size
J Music	A4810-010220.41.hex	2/15/2017 9:14 AM HEX File	e 669 KB
Pictures			
📑 Videos			
🔛 Windows (C:)			

- 12. A dialog will appear confirming erasing flash on the drive. If *Yes* is selected, parameter data on the drive will be lost and the firmware will be uploaded. If *No* is selected, the operation will be cancelled.
 - Upload Progress X Uploading Firmware O MAGNETEK Records: 551 of 4670 Sectors erased: 8 of 8 3 mins 22 secs (estimated) More details OK Cancel
- 13. While the upload is in progress, a progress dialog will be present:

14. When the upload is complete, the dialog will remain open, and will state "Upload Complete". A green LED will light up. Press *OK* to finish.

WARNING
Use extreme care when uploading software. Stopping an upload or disconnecting the cable during an upload could corrupt the software and inhibit the user's ability to upload software.

- 15. Power down the HPV900 Series 2.
- 16. Remove the Re-Flash board. It is expected a number of faults will occur because the defaulted values will be loaded into the drive. Re-insert the parameters saved in Step 2 by using the PC→Drive button in the upper-middle portion of MagExplorer. See PC→Drive on page 19.

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