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# **MK8 PC SOFTWARE GUIDE**

- Download Manager
- Mk8 Simulator
- Skin Configurator

22.01.2021



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# AUTOFLAME MK8 PC SOFTWARE GUIDE

# 22.01.2021

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Autoflame Engineering Ltd's policy is one of continuous improvement in both design and manufacture. We therefore reserve the right to amend specifications and/or data without prior notice. All details contained in this manual are correct at the time of going to print.

#### **Important Notes**

A knowledge of combustion related procedures and commissioning is essential before embarking work on any of the M.M./E.G.A. systems. This is for safety reasons and effective use of the M.M./ E.G.A. system. Hands on training is required. For details on schedules and fees relating to group training courses and individual instruction, please contact the Autoflame Engineering Ltd. offices at the address listed on the front.

#### **Short Form - General Terms and Conditions**

A full statement of our business terms and conditions are printed on the reverse of all invoices. A copy of these can be issued upon application, if requested in writing.

The System equipment and control concepts referred to in this Manual MUST be installed, commissioned and applied by personnel skilled in the various technical disciplines that are inherent to the Autoflame product range, i.e. combustion, electrical and control.

The sale of Autoflame's systems and equipment referred to in this Manual assume that the dealer, purchaser and installer has the necessary skills at his disposal. i.e. A high degree of combustion engineering experience, and a thorough understanding of the local electrical codes of practice concerning boilers, burners and their ancillary systems and equipment.

#### Autoflame's warranty from point of sale

- Two years on all electronic and electro-mechanical equipment, assemblies and components.
- One year on all EGA systems and UV & IR scanners, including parts, components, cells and sensors.

The warranty assumes that all equipment supplied will be used for the purpose that it was intended and in strict compliance with our technical recommendations.

Autoflame's warranty and guarantee is limited strictly to product build quality, and design. Excluded absolutely are any claims arising from misapplication, incorrect installation and/or incorrect commissioning.

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# Important Note

Autoflame may release updated versions of the software listed in this guide for the purpose of enhancing the features and improving performance. Please make sure that you always upgrade to the latest released version of Autoflame software.

Autoflame approved Tech Centres and registered OEMs can check for the latest available software versions on the software section of our technical website <u>tech.autoflame.org</u>

# 1. DOWNLOAD MANAGER

## **1.1.** Overview and Compatibility

Autoflame Download Manager allows the user to download and upload data from and into the following Autoflame devices:

- Mk8 MM
- Mk8 Mini MM
- Mk8 EGA Evo
- Mk8 DTI

Autoflame Download Manager is compatible with any PC running Windows 7, 8 or 10, both 32 and 64bit formats are supported. The software must be installed in Administrator Mode.

**Note:** Please make sure that you always upgrade to the latest version of Autoflame Download Manager software. Please check the software section on our Tech website <u>tech.autoflame.org</u> for the latest available version or contact Autoflame.

# **1.2.** Serial Number and Activation Code

The IR lead (pt. MM60010) can be used for both the IR Upload/ Download software and the Download Manager software. Bluetooth connectivity doesn't require the purchase of any special hardware.

When installing the Download Manager software onto a PC, a unique License Code is generated for that PC; an Activation Code will be required to activate the Download Manager software for that License Code. The Download Manager software can be purchased in the following three ways:

### Purchase MM80010

- 1. You will receive an IR lead and the Download Manager software on a USB stick with a Serial Number.
- 2. Install Download Manager software onto PC.
- 3. Go to <u>http://www.autoflame.com/download-manager/</u> and request an Activation Code using the serial number on the USB stick.
- 4. If the Activation Code has not already been sent for that Serial Number, we will send you the Activation Code to activate this software. If an Activation Code has already been sent for that Serial Number of Download Manager software, we will require a Purchase Order for a new Serial Number (part number MM80010NLB). Then submit a new request for an Activation Code using the new Serial Number given with the Order Acknowledgement.

## Purchase MM80010/NLA

- 1. You will receive the Download Manager software on a USB stick with a Serial Number.
- 2. Install Download Manager software onto PC.
- 3. Go to <u>http://www.autoflame.com/download-manager/</u> and request an Activation Code using the Serial Number on the USB stick.
- 5. If the Activation Code has not been given for that Serial Number, then we will send you the Activation Code for the unique License Code generated on your PC. If an Activation Code has already been sent for that Serial Number of Download Manager software, we will require a Purchase Order for a new Serial Number/Activation Code (part number MM80010NLB). Then submit a new request for an Activation Code using the new Serial Number given with the Order Acknowledgement.

#### Download from website

- 1. Go to the software section of Autoflame Tech website (tech.autoflame.org) and save Download Manager software to your PC.
- 2. Install Download Manager software onto PC.
- 3. We will require a Purchase Order for a new Serial Number (part no. MM80010/NLB).
- 4. Go to <u>http://www.autoflame.com/download-manager/</u> and request an Activation Code using the Serial Number provided in the Order Acknowledgement.

**Note:** For each Serial Number, there will be one unique License Code, and therefore one Activation Code, so for each PC the Download Manager software is installed on, you will need a new Serial Number and Activation Code. The Serial Number (00001+) refers to the USB Stick with the Download Manager software provided with IR lead MM80010 and Serial Number (5000+) refers to the USB stick MM80010/NLA. If you have downloaded the software from the website, we will issue a new Serial Number (10000+) for MM80010/NLB. Please keep this on record for future reference.

## **1.3.** Installation

The Download Manager software is supplied on a USB stick (MM80010 or MM80010/NLA). The software can also be downloaded from Autoflame Tech Website <u>http://tech.autoflame.org/software/</u> Right click on 'setup' file (Application) and click on 'Run as Administrator'.

	Name		Date modified	Туре	Size
👸 Setup			03/12/2018 09:09	Windows Installer	539 KB
🗟 setup		Open	02/12/2010 00 00	Application	540 KB
		Enable/Disable Digital Signature	e Icons		
	•	Run as administrator			
5		Share with Skype			
		Troubleshoot compatibility			
	È	Share			
		Scan with Sophos Anti-Virus			
	S	Soda PDF Desktop 11	>		
		Always available offline			
		Restore previous versions			
		Send to	>		
		Cut			
		Сору			
		Create shortcut			
		Delete			
		Rename			
		Properties			

The Download Manager Setup wizard box will pop up. Click 'Next' to launch the installation process.



The default installation location is: C:\Program Files (x86)\Autoflame\Download Manager\ Click 'Browse' if you wish to change this location. Click 'Next' to start the installation.

记 Download Manager	_	×
Select Installation Folder	flan	ne
The installer will install Download Manager to the following folder.		
To install in this folder, click "Next". To install to a different folder, enter it be	low or click "Bro	wse''.
<u>F</u> older: C:\Program Files (x86)\Autoflame\Download Manager\	B <u>r</u> owse <u>D</u> isk Cost	
< <u>B</u> ack <u>N</u> ext >	Can	cel

Now the installer is ready to install the software, click 'Next' to confirm.



The software installation has been completed. Click 'Close' to exit the installer.

🛃 Download Manager —		×
Installation Complete	an	ne
Download Manager has been successfully installed.		
Click "Close" to exit.		
Please use Windows Update to check for any critical updates to the .NET Framework	ork.	
< <u>B</u> ack <u>C</u> lose	Cano	el

## **1.4.** Activation

When opening the Download Manager software after installation, the Software License Manager will pop up. Enter your company name and click 'Generate Licence Info.'

Click 'Submit Request Online' or go to <u>www.autoflame.com/download-manager/</u> to request an Activation Code. Using the company name and the generated license code.

Alternatively click 'Copy Info to Clipboard' if you want to send a request via email to Autoflame.

Software Licence	e Manager	;
Step 1: Enter Yo	our Company Name and click "Generate Licence Info"	
Company Name	Generate Licence Info	
Step 2. Select	a network device to lock activation to	
	Marvell AVASTAR Wireless-AC Network Controller $\sim$	
	The software will only function when the selected network device is present.	
	http://www.autoflame.com/download-manager/	
	Submit Request Online Copy Info To Clipboard	
Step 3. Autoflan	ne will send you an Activation Code. Enter here to activate the software	
Activation Code	Activate	
Technical Info		

From 'Select a network device to lock activation to' select an on board device on your PC to link the activation to.

please note that this device must be present and active when using the download manager software, as the software will check the license against this selected device while the software is in use. If this device is unplugged or de-activated then the download manager will not run and the software license manager will pop up every time the you try to use the software. Therefore it is recommended that the selected device is built in to the PC or Laptop.

Once you receive the activation code from Autoflame, enter that in the Activation Code field and click 'Activate', the software has now been activated and ready for use.

# **1.5.** Connectivity

Autoflame Download Manager software can communicate with the supported Autoflame devices via Infrared or Bluetooth.

## **1.5.1. IR Connectivity**

The following tables explain what data can be accessed with IR connectivity.

	Mk8 MM	Mini Mk8 MM	Mk8 EGA Evo	Mk8 DTI
Commissioning data upload				
Commissioning data download				
Long-Term Logs				
Store device screenshot				
Download diagnostics data				

Infrared connectivity requires the use of Autoflame IR Lead – Part number MM60010. This is a USB lead that can be plugged into a USB port on the user's PC.

When connecting to the Autoflame device to upload or download data, hold the IR Lead's port within 5cm (2") of the IR Data Port of the Autoflame device.



Once the IR Lead is connected to the PC, go to the Tools menu on the Download Manager software and select 'Option', make sure that the correct USB port number is selected under 'COM Port' and the 'Port Type' is set to 'Standard USB IR Dongle'

Settings						
Serial Port COM Port: Port Type:	COM4 ~ Standard USB IR Dongle ~					
User Data Path Path:	C:\Users\zaldujayli\AppData\Roaming\DownloadManager					
Language Language:	UK English 🗸					
	OK Cancel					

### 1.5.2. Bluetooth Connectivity

Some Autoflame Systems support Bluetooth connectivity which allow users to download and upload data wirelessly via Bluetooth. This feature further simplifies the process of downloading the commissioning data as well as provides much faster download speed compared to IR.

Bluetooth connectivity requires no special hardware and can utilise the on-board Bluetooth module on the user's PC or laptop to connect to the Autoflame devise.

Please note that Bluetooth connectivity is only supported on limited Autoflame devises and can be used to upload/download certain features only. The following tables explain what data can be accessed with Bluetooth connectivity.

	Mk8 MM	Mini Mk8 MM	Mk8 EGA Evo	Mk8 DTI
Commissioning data upload				
Commissioning data download				
Long-Term Logs				
Store device screenshot				
Download diagnostics data				

This feature is currently available on all Mk8 DTIs and Mk8 MMs with serial number 3,000 onwards, please contact Autoflame if you are not sure about your devise's compatibility.

#### **Benefits:**

- No need to be very close to the Autoflame device, just anywhere within 20 metre radius.
- No need for special hardware or IR lead, the standard Bluetooth module on your PC can be used, if this is not available, an external Bluetooth device can be utilised (Bluetooth USB dongle for example).
- Superior download speed with more reliable connection compared to IR.
- Works on any PC, Laptop or Surface PC running windows 7, 8 or 10, both 32 or 64 bit versions.

#### Pairing Autoflame Devise with your PC

The Autoflame device and your PC must be "Paired", this process needs to be done once for every device and it doesn't need to be repeated for making future uploads/downloads from the same device using the same PC.

To pair the devices, first the Bluetooth Module on your Autoflame device must be enabled:

- On the Mk8 MM; in Online Changes, go to Parameter 84 and set it to 1 'Enabled'.
- On the Mk8 DTI; go to Edit Configuration, select Settings and change Setting 9 to 1 'Enabled'.

Online Changes	
Options Parameters Expansion	
Parameter 84	
MM: Bluetooth Module	
1. Enabled	
0. Disabled	
1. Enabled	
	Default
	Exit

Now the Bluetooth connectivity on your PC must be enabled. Go to 'Bluetooth & other devices' and make sure Bluetooth is turned on.



Navigate to: Control Panel\All Control Panel Items\Devices and Printers Click 'Add a Device', The PC will search for all available devices with Bluetooth connectivity.



In this example the Autoflame device name is 'AF MM8 S/N:3387' which shows the device type (Mk8 MM) and the device's serial number (3387), select the device and click 'Next', the system will install the necessary drivers for the Bluetooth device and both devices will be paired.



Once finished the Autoflame device will be listed with the other devices paired with your PC.



Right click on the device and select 'Properties', go to the "Services" tab and make sure that 'Serial Port SPP Serial Port' box is ticked, if not tick it and click 'OK'.



Select the 'Hardware' tab, under 'Device Functions', you should now be able to see the COM port number listed next to ,Standard Serial Over Bluetooth Link, (COM10 in this case). Click 'OK' to close the window.

	1M8 5/ N:3:	387 Propert	ies		
eneral	Hardware	Services	Bluetooth		
	AF MM8	S/N:3387			
Devic	ce Function	s:			
Name	e F MM8 S/N andard Seri	:3387 al over Bluet	ooth link (C	OM10)	Type Bluetooth Ports (COM
Devic	ce Function	Summary			
- Devic Manu	ce Function facturer: I	Summary — Microsoft	Davias (DS	COMM P	tood TDI)
Devic Manu Locat Devic	ce Function facturer: I ion: c ce status: 1	Summary Microsoft on Bluetooth This device is	Device (RF s working pr	COMM Pro	itocol TDI)
- Devic Manu Locat Devic	ce Function facturer: I ion: c ce status: 1	Summary Microsoft on Bluetooth This device is	Device (RF s working pr	COMM Pro	tocol TDI) P <u>r</u> operties

Now open Autoflame Download Manager software, from Tools menu, select 'Options'.

AE D	ownlo	oad Manager			×
File	Too	ols Help			
-		Options			
		Convert Mini Mk7 Download for Mini Mk8			
Sit		Convert MM Mk6 or Mk7 Download for MM Mk8			
		Unlock MM Features			
		Download Long Term Logs			
		Take Device Screenshot			
Ē		Monitor Data View and Download			
<		>			
			COL	A Port: C	OM9

Under 'Serial Port', select the correct COM port, in this case it is 'COM10'. Change the "Port Type" to 'Bluetooth Adapter'. Click 'OK'.

Settings	
Serial Port COM Port: Port Type:	COM10 (Standard Serial over Bluetooth link) ~ Bluetooth Adapter ~
User Data Path Path:	C:\Users\zaldujayli\AppData\Roaming\DownloadManager
Language Language:	UK English 🗸
	OK Cancel

Now to take a download from the paired device, click 'Download', fill in the download information and click 'Start'.

Download	
Information	
Engineer:	Z.A v
Site:	Test2 🗸 🖌
Notes:	Taking Download From Mk8 MM via Bluetooth
Start	Cancel



Download is taken via Bluetooth.

To do an Upload via Bluetooth:

- Mk8 MM The MM must be on the IR Upload screen in Commission Mode.
- Mk8 DTI The DTI must be on the IR Upload screen in 'Edit Configuration'.

The exact same procedure apply as with an upload via IR Lead.

## **1.6.** Downloading/Uploading Commission Data

#### 1.6.1. Downloading

Before taking a download of a supported Autoflame device, you will need to create a Site, you will not be able to take a download if no site exists.

Click on 'File' and then 'Site' or click on the **m** tab. Type a Site name. You could also add a download to an existing site by selecting that site from the drop-down menu.

AB D	ownload Manager		
File	Tools Help New Site Ctrl+N		
	Import Download		Site Name
	Export Download Download Upload	03	Site Name: Demo OK Cancel
-	Print Ctrl+P Print Preview	03	
	Exit	17	

Right click on the new 'Site' and click 'Start Download', or click on the 🔤 tab, or select 'Download' from 'File' menu. Type the Engineer's name, and choose the Site. Here, you can add notes for that commission data download.

Now make sure that the connectivity is established as per section 2.3. Click 'Start'

Download	
Information	
Engineer:	ZA ~
Site:	Demo 🗸
Notes:	Test Download
Start	Cancel

Once the data transfer is complete, an overview of the commission data download will appear on the Download Manager program.



#### 1.6.2. Uploading

Click on the commission data file you wish to upload to the supported Autoflame device, right click and select 'Upload', or click on <sup>(Δ)</sup>, or select 'Upload' from 'File' menu. Select which data you wish to upload to the Autoflame device.

r	
Upload	
Site: Demo Device: MM Mk8 Id: 1 Download: 09/01/2020 10:41:38 Select elements to upload:	Description Select items from download set
Start Cancel	Exit

To upload commission data to the supported Autoflame device;

On the Mk8 MM and Mini Mk8 MM, go into Commissioning mode and enter the password. In the Commission

Mode screen press

On the Mk8 DTI, go to 'Configure', then 'Edit Configuration', enter the DTI commission password and press

IR Upload

On the Mkk8 EGA Evo, go to 'Configure' then 'Commission' enter the EGA commissioning password and press

IR Upload

Make sure that connectivity is established between the PC and the Autoflame device, click 'Start' on the Download Manager. Once the upload is complete, the Autoflame device will restart.

Once the Autoflame device starts, it will go automatically to commission mode for the settings to be checked by the commissioning engineer, the device need to be restarted again to go into normal operation mode.

IR	Upload	
#	Item	Status
1	Options	Received
2	Parameters	Received
3	Expansion Options	Not Received
4	Commission Data	Not Received
5	Fuel Flow Data	Not Received
6	Run Times	Received
7	Boiler Configuration	Received
8	First Outs	Not Received
9	Bottom Blowdown Schedule	Not Received
10	Capacitance Probes	Not Received
11	External Level Sensor	Not Received
12	Setpoints	Received
13	Language Selection	Received
14	Fully Metered Commission Data	Not Received
Rece	vived Boiler Configuration data	
		Exit

#### 1.6.3. Convert Mk7/Mk6 Download to Mk8 Compatible Download

Autoflame Download Manager software allows users to convert commissioning data downloads from older MM controllers to work on Mk8 controllers

The software allows the conversion of:

- Mini Mk7 MM download to work on a Mini Mk8 MM.
- Mk7 MM download to work on a Mk8 MM.
- Mk6 MM download to work on a Mk8 MM.

This feature is particularly useful for further simplifying the process of upgrading older MM controllers to the Mk8 MM generation controller allowing the use of the same commissioning data without having to fully commission the new MM from scratch.

To convert a Mini Mk7 MM download, from Tools menu, select 'Convert Mini Mk7 Download for Mini Mk8' To convert a Mk6 or Mk7 MM download, from Tools menu, select 'Convert MM Mk6 or Mk7 Download for MM Mk8'

🜆 Do	wnlo	oad Manager	
File	Тоо	ls Help	
-		Options	
		Convert Mini Mk7 Download for Mini Mk8	
÷		Convert MM Mk6 or Mk7 Download for MM Mk8	
E		Unlock MM Features	
ė 📫		Download Long Term Logs	
		Take Device Screenshot	
<b>i i i</b>		Monitor Data View and Download	

Choose the file to open from the location where it is saved on your PC. A dialogue box will appear to indicate what options/parameters must be reviewed, see example below:

Importing fr	om Mini	Mk7 - The following items require i	review
Туре	#	Detail	Checked
Option	42	Sequencing Standby Setpoint	No
Parameter	10	EGA Version	No
EGA	-	Unable to import Trim data	No

Click on the option/parameter and change the setting relevant to the Mk8 MM or Mini Mk8 MM.

MI Importing fro	om Mini	Mk7 - The following items require re	view		×
Type Option Parameter EGA	# 42 10 -	Detail Sequencing Standby Setpoint EGA Version Unable to import Trim data	Checked Yes No No	Setting Sequencing Standby Setpoint 2.0 bar Value 20	ОК .:

Once a listed option/parameter has been reviewed, it will change from 'No' to 'Yes' under the 'Checked' column. After reviewing all the listed options/parameters, click 'OK.'

Importing from	n Mini	Mk7 - The following items require re	view		×
Type Option Parameter EGA	# 42 10	Detail Sequencing Standby Setpoint EGA Version Unable to import Trim data	Checked Yes Yes Yes	Setting EGA Version 0 - Mk7 Protocol 1 - Mk8 Protocol (Legacy) 2 - Mk8 Protocol (RS485) OK	

After checking all options and parameters, the download is now ready to be uploaded.

Warning: It is the responsibility of the commissioning engineer to check all commissioning data are set correctly. Including all options and parameters.

## **1.7.** Importing/Exporting a Download

## **1.7.1. Importing Download**

To open an existing commission data file, go to 'File' and click 'Import Download' or **b** and choose the file to open.

## 1.7.2. Exporting Download

To save a commission data file, go to 'File' and click 'Export Download' or and choose which location to save the download.

## **1.8.** Unlocking Mk8 MM Expansion Features

If you wish to use an Expansion Feature on the Mk8 MM, the feature must be unlocked first before it can be used, for this an unlock code must be purchased; the table below shows the part numbers for the unlock codes for each available Expansion Features. The unlock codes are specific to the serial number of the Mk8 MM and are not interchangeable between the Mk8 MM units.

Unlockable Software Feature	Part Number
Autoflame Water Level	MK8001
Analogue Water Level (requires Autoflame Water Level)	MK8002
Top Blowdown	MK8003
Bottom Blowdown	MK8004
Draught Control	MK8005
Direct Modbus	MK8006
First Out Annunciation	MK8007
Fully Metered Combustion System	MK8008
Heat Flow (Steam Flow + Hot Water Flow)	MK8009
Change on the Fly Fuel Changeover (COF)	MK8010
Setpoint Schedule	MK8011

When sending a purchase order for an unlock code for a Mk8 MM Expansion Feature, please make sure to include the serial number of that Mk8 MM so that the correct unlock code can be provided.

Once the code is received, follow the following steps to unlock the Expansion Feature:

1. On the Download Manager, from Tools menu, select 'Unlock MM Features'

🜆 Down	nload Manager	
File To	pols Help	
📫 ( 🗎	Options	
Site	Convert Mini Mk7 Download for Mini Mk8 Convert MM Mk6 or Mk7 Download for MM Mk8	
	Unlock MM Features	
	Download Long Term Logs Take Device Screenshot Monitor Data View and Download	

2. Copy and paste the unlock code in the 'Enter Keys' column. If you have more than one code you can paste all of them to unlock multiple Expansion Features at the same time.

nlock MM Features			
nlock Keys			
Enter Keys	Dete	cted Keys	
A110603808F916B9587F54E2E4EB83B		Key	Result
	•	5a11060380&f916b9587f54e2e4eb83b	
			_

3. In Commission Mode on the Mk8 MM, press



#	Feature	Status
1	First Outs	Locked
2	Autoflame Water Level	Locked
3	Analogue Water Level	Locked
4	Top Blowdown	Locked
5	Bottom Blowdown	Locked
6	Draught Control	Locked
7	Direct Modbus	Locked
8	Fully Metered System	Locked
9	Heat Flow	Locked
10	Fuel Change On-the-Fly (COF)	Locked
11	Setpoint Schedule	Locked

- 4. Make sure that connectivity is established as per section 2.3 and click 'Send' on the Download Manager Unlock MM Features box.
- 5. One the unlock code has been sent, the Download Manager will show a message to indicate how many keys have been accepted and how many rejected.

niock keys			
Enter Keys	Dete	ected Keys	
5A110603808F916B9587F54E2E4EB83B		Key	Result
	•	5a110603808f916b9587f54e2e4eb83b	
Unlock Keys: 0 accepted, 1 rejected			

6. The expansion features will show as 'unlocked' on the Mk8 MM for the codes that have been accepted.

Ex	pansion Features	
#	Feature	Status
1	First Outs	Locked
2	Autoflame Water Level	Unlocked
3	Analogue Water Level	Locked
4	Top Blowdown	Locked
5	Bottom Blowdown	Locked
6	Draught Control	Locked
7	Direct Modbus	Locked
8	Fully Metered System	Locked
9	Heat Flow	Locked
10	Fuel Change On–the–Fly (COF)	Locked
11	Setpoint Schedule	Locked

## **1.9.** Operation Data Monitoring and Analysis

Autoflame Download Manager software allows the user to download and view diagnostic information stored onboard the Mk8 & Mini Mk8 MMs. This feature provides in depth diagnostics information which can help engineers and technicians diagnose and address faults and errors on-site more quickly and effectively.

This feature provides detailed information and history for the following:

- Processor Temperature
- Mains frequency
- Analogue Supply Voltage
- Expansion Board Analogue Supply Voltage
- Processor Temperature
- Mains Current
- Mains Power Factor
- PCB Temperature
- Fused 12V Supply
- Fused 13.5V Supply

To download the diagnostics data, go to 'Tools' menu and select 'Monitor Data View and Download'.

A Downlo	oad Manager
File Too	ls Help
<b>**</b> ( 🗐	Options
	Convert Mini Mk7 Download for Mini Mk8
Site	Convert MM Mk6 or Mk7 Download for MM Mk8
<b>□</b> ··· <b>*</b>	Unlock MM Features
	Download Long Term Logs
	Take Device Screenshot
<b>P</b>	Monitor Data View and Download

The 'Monitor Data View and Download' dialogue box will open, select 'Download' then 'Download from Device', the following dialogue box appears:

🖶 Monitor Data Download	-		$\times$
Start Cancel		Exit	

Click 'Start' to Start the download.



## Once the download is complete, the following information will be displayed:

The data is displayed in the form of an interactive graph. Which shows the maximum, minimum and average values of the relevant data. You can click on any data on the side menu to display the data on the graph.

By positioning the mouse curser on a point on the curve in the graph, the specific data for that point will be displayed.



To zoom into an area in the graph, use the mouse curser in a click & drag motion.

Click 'File' then 'Save' to save the diagnostic file onto your PC.

The diagnostics data is stored as a (.dat) file. To re-open a saved file, from the 'Monitor Data View and Download' viewer, select 'File' and 'Open', navigate to the file location, select the file and click 'Open'.

# 1.10. Downloading Long Term EGA Data

Up to 3 years' worth of data can be stored internally onboard the EGA including emission gases, pressures, atmospheric pressure, temperatures, efficiency, fuel usage and much more.

Autoflame Download Manager allows the user to download the Long-Term logs from the Mk8 EGA Evo. It allows the output of up to 3 years of raw data via IR port to PC for viewing and manipulation in Excel with Custom-designed emissions graphing spreadsheets to simplify analysis.

This feature is only available for the Mk8 EGA Evo, part #MM82004/E and #MM82004/EPA.

Long-Term Logs can be downloaded for the following:

Exhaust Temperature	NO Concentration	SO2 Mass
HSL Temperature	NO2 Concentration	H2O Mass
Cell Temperature	NOx Concentration	N2 Mass
Pre-Heat Temperature	SO2 Concentration	Fuel 1 Total
Ambient Temperature	Fuel Flow	Fuel 2 Total
Chiller Temperature	Efficiency	Fuel 3 Total
Inlet Pressure	02 Mass	Fuel 4 Total
Barometric Pressure	CO2 Mass	Powered-On
02 Concentration	CO Mass	Sampling
CO2 Concentration	NO Mass	Firing
CO Concentration	NO2 Mass	

From Tools menu, select ' Download Long Term Logs'

🕼 Download Manager					
File	Tools Help				
- <b>#</b>		Options			
Convert Mini Mk7 Download for Mini Mk8		Convert Mini Mk7 Download for Mini Mk8			
Site		Convert MM Mk6 or Mk7 Download for MM Mk8			
		Unlock MM Features			
	Download Long Term Logs				
	Take Device Screenshot				
Ē		Monitor Data View and Download			

Make sure that connectivity is established between your PC and the EGA, the following dialogue box will be opened, click ' Get Log Info'

Download						
Get Log Info						
All	None					
Start	Cancel	Exit				
		al				

A list of data will be established, select that data that you want to download or click 'All' if you want to download all the data. Click 'Start' to begin the process of downloading the data.

The time it takes to complete the download depends on how much data is stored on the EGA, please note that downloading long term logs from the EGA may take up to 30 minutes.

Download	
Get Log Info	
Exhaust Temperature     HSL Temperature     Cell Temperature     Pre-Heat Temperature     Ambient Temperature     Chiller Temperature     Inlet Pressure	~
Barometric Pressure O2 Concentration C02 Concentration C0 Concentration V NO Concentration N02 Concentration N02 Concentration N0x Concentration	>
All None	
Ready Start Cancel Exit	

Once the download is done, a Save As dialogue box will open, enter a name for the download and select a path to store the file in, click 'Save, to save the file.

		Save As				×
⊕ ⋺ - ↑ 🗖	Desktop →		~ ¢	Search Desktop		,P
Organize 🔻 Ne	w folder					0
☆ Favorites ■ Desktop ▶ Downloads	Î 📐	Technical Support				^
Recent places SkyDrive		This PC				
🖳 This PC 🕞 🕞 🕞		Libraries				v
File <u>n</u> ame:	Long Term Log					~
Save as <u>t</u> ype:	Excel File (*.xlsx)					~
Hide Folders				Save	Cancel	

The EGA long-term logs are download and stored in an excel file, this can be viewed and edited as required.



# 1.11. Taking and Storing DTI Screenshot

Download Manager software allows the user to take and store a device screenshot from any screen on the Mk8 DTI.

Navigate to the required screen on the Mk8 DTI. From the 'Tools' menu, select 'Take Device Screenshot'



The Screenshot dialogue window will appear, make sure that connectivity is established between the DTI and your PC as per section 2.3 Click 'Start'

Screenshot		
Start	Cancel	Exit

Once the screenshot is taken, a 'Save As' dialogue box will be opened, name the screen shot and select where you want to save it, click 'Save'.



# **1.12.** Troubleshooting

## 1.12.1. No COM Ports Detected

If the warning 'No COM ports detected' appear when opening the Download Manager, please check your COM port configuration.

x	📇 Device Manager	_	×
Warning	<u>File</u> <u>Action</u> <u>View</u> <u>H</u> elp		
	V 📇 DESKTOP-2IK9QL0		
No COM ports detected	> 4 Audio inputs and outputs		
	> 🚯 Bluetooth		
	> 💻 Computer		
	> 👝 Disk drives		
	> 🏣 Display adapters		
UK	> 🔐 DVD/CD-ROM drives		
	> 🎽 Firmware		
	> 🛺 Human Interface Devices		
	> 🔤 Keyboards		
	> III Mice and other pointing devices		
	> 🖷 Modems		
<b></b>	> 🛄 Monitors		
Settings	> 🖵 Network adapters		
	> 📮 Portable Devices		
Serial Port	V 📮 Ports (COM & LPT)		
COM Port: COM3 (Prolific USB-to-Serial Comm Port)	Prolific USB-to-Serial Comm Port (COM3)		
	Standard Serial over Bluetooth link (COM10)		
Port Type: Standard USB IR Dongle	Standard Serial over Bluetooth link (COM5)		
	Standard Serial over Bluetooth link (COM7)		
User Data Path	Standard Serial over Bluetooth link (COM9)		
Path: C:\Users\zaldujayli\AppData\Roaming\DownloadManager	> 🚍 Print queues		
	Processors		
	> Software devices		
Language	Sound, video and game controllers		
Language: UK English 🗸	Storage controllers		
	> E System devices		
	V Universal Serial Bus controllers		
OK Cancel			

Go to Device Manager on your PC and expand Ports (COM & LPT) Check the port number of the 'Prolific USB-to-Serial Comm Port (COMxx) Make sure that matches the COM Port setting on the Download Manager software.

## 1.12.2. Using Old Type IR Lead

If you are using an early version of the IR lead, you might run into an issue where the Download Manager might not recognise the IR lead. This is caused by compatibility issues of the IR lead's driver software.

Windows might automatically install a driver that does not support the early version of the IR leads. To make older IR leads work with the Download Manager software you must manually install the correct driver version for the IR lead. Windows automatic driver updates must also be disabled to prevent Windows from changing the driver version in the future.

Please follow these steps to install the compatible driver and disable Windows automatic driver updates:

#### Check the current COM Port driver's version

From Control Panel on your PC, go to Device Manager Expand 'Ports (COM & LPT) If you see 'PL2303HXA PHASED OUT SINCE 2012, PLEASE CONTACT YOUR SUPPLIER' this means an incompatible driver is installed for the IR lead. Right click on it and Select 'Properties'

From Properties, select 'Driver' tab

Prolific U	Prolific USB-to-Serial Comm Port (COM3) Properties					×		
General	Port Settings	Driver	Details	Even	ts			
0	Prolific USB-t	o-Serial (	Comm Por	t (COM	13)			
	Driver Provid	er: Pr	olific					
	Driver Date:	07	/10/201	1				
	Driver Version	n: 3.	4.25.218					
	Digital Signer	: Mi Pu	crosoft W Iblisher	/indow	s Hardware Com	patibility		
Drįv	ver Details	View	details al	oout th	e installed driver	files.		
Upo	date Driver	Upda	te the dri	verfor	this device.			
<u>R</u> oll I	<u>R</u> oll Back Driver			If the device fails after updating the driver, roll back to the previously installed driver.				
<u>D</u> isa	Disat	Disable the device.						
Uninstall Device Uninstall the device from t			rom the system (	(Advanced).				
					ОК	Cance	I	

Note the Driver Version, the compatible version is **3.4.25.218**, if you have any other version then you have the wrong, incompatible driver installed and the IR lead will not work, you need to have the correct driver version installed manually.

## **Disabling Windows Automatic Driver Updates**

This is necessary to prevent windows from automatically changing the Driver's version in the future. Navigate to Control Panel > All Control Panel Items > System

M	System			- 🗆 X				
÷	- 🔿 👻 🛧 🔜 « All Contr	ol Panel Items  > System						
	Control Panel Home	View basic information	about your c	omputer				
•	Device Manager	Windows edition						
P	Remote settings	Windows 10 Pro						
•	System protection	© 2019 Microsoft Corpora	tion. All	Windows10				
•	Advanced system settings	rights reserved.						
		System						
		Processor:	Intel(R) Core(T)	M) i7-4770 CPU @ 3.40GHz 3.40 GHz				
		Installed memory (RAM):	: 16.0 GB					
		System type:	64-bit Operating System, x64-based processor					
		Pen and Touch: No Pen or Touch Input is available for this Display						
		Computer name, domain, and	l workgroup settir	ngs				
		Computer name:	-	Change settings				
		Full computer name:						
		Computer description:						
		Domain:						
		Windows activation						
		Windows is activated Rea	d the Microsoft S	oftware License Terms				
		Product ID		Change product key				
	See also							
	Security and Maintenance							

#### Click Advanced System Setting From the System Properties, select the Hardware tab



In the Device Installation Settings dialogue box, select 'No' and click 'Save Changes'

Device installation settings	×
Do you want to automatically download manufacturers' apps and custom icons available for your devices?	
○ Yes (recommended)	
<u>No (your device might not work as expected)</u>	
Save Changes Cancel	]

## To uninstall the incompatible COM Driver version

Keep the IR Lead plugged in to your PC Open Device Manager Right click 'PL2303HXA PHASED OUT SINCE 2012, PLEASE CONTACT YOUR SUPPLIER' Select 'Uninstall Device' Tick 'Delete the driver software of this device' Click Uninstall

Uninstall Device	×				
Prolific USB-to-Serial Comm Port (COM3)					
Warning: You are about to uninstall this device from your system.					
Delete the driver software for this device.					
Uninstall Car	ncel				

Once the uninstallation process is complete, restart you PC.

#### Install the correct driver:

Keep the IR Lead plugged in to your PC

Go to the software section of Autflame Tech website <u>http://tech.autoflame.org/software/</u> Download 'IR Lead Driver for Windows 8 & 10' If you don't have access to Autoflame Tech Website, please contact Autoflame. Unzip the folder

Right click 'ACT-IR224UN-DriverInstaller\_v1.5.0-20111021'

Select 'Run as administrator'

If asked for installation permission, click 'Yes'



On the PL-2303 Driver Installer Program dialogue box, select 'Modify' and click 'Next'

PL-2303 Driver In	nstaller Program	×
Welcome Modify, repair	r, or remove the program.	
Welcome to t modify the cu	the PL-2303 USB-to-Serial Setup Maintenance program. This program lets you irrent installation. Click one of the options below.	
1 <sup>1</sup>	Select new program features to add or select currently installed features to remove.	
⊖ R <u>e</u> pair	Reinstall all program features installed by the previous setup.	
O <u>R</u> emove	Remove all installed features.	
matanomena	Next > Cancel	

Once the installation has been completed, the PC must be restarted.

On the PL-2303 Driver Installer Program dialogue box, keep 'Yes, I want to restart my PC now' selected. Click 'Finish', your PC will restart.

PL-2303 Driver Installer Program	n
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed PL-2303 USB-to-Serial. Before you can use the program, you must restart your computer. • Yes, I want to restart my computer now. • No, I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup.
	< <u>B</u> ack <b>Finish</b> Cancel

Once the PC starts up, go to Device Manager, Check the current COM Port driver's version. From Control Panel on your PC, go to Device Manager Expand 'Ports (COM & LPT)



Right click 'Prolific USB-to-Serial Comm Port (COM#) Select Properties and go to the Driver tab. The correct Driver version (3.4.25.218) is now installed

Prolific U	SB-to-Serial C	omm P	ort (CON	13) Properti	es	×	
General	Port Settings	Driver	Details	Events			
	Prolific USB-t	o-Serial (	Comm Por	t (COM3)			
	Driver Provide	er: Pr	olific				
	Driver Date:	07	7/10/201	1			
	Driver Version	n: 3.	4.25.218				
	Digital Signer: Microsoft Windows Hardware Compatibility Publisher					patibility	
Drįv	ver Details	View	details at	bout the insta	alled driver	files.	
Upp	date Driver	Upda	Update the driver for this device.				
<u>R</u> oll	Roll Back Driver		If the device fails after updating the driver, roll back to the previously installed driver.				
<u>D</u> isa	Disal	Disable the device.					
<u>U</u> nin:	stall Device	Unin	stall the d	evice from th	ne system (	Advanced).	
					ОК	Cancel	

Open the Download Manager software, now the software should be able to recognise the COM Port and IR lead.

# 2. MK8 SIMULATOR

## 2.1. Overview and Compatibility

Autoflame Mk8 Simulator software provides fully simulated, fully configurable version of the Autoflame devices listed below on the user's PC, including all the features, screens and expansion options, it shows the controllers in full running mode.

- Mk8 MM
- Mk8 Mini MM
- Mk8 EGA Evo
- Mk8 DTI

It is very useful to demonstrate the features and capabilities of Autoflame systems as well as providing great training tool.

Autoflame Mk8 Simulator software is compatible with Windows 7, 8 and 10 in both 32 & 64bit. The software must be installed in Administrator mode.

It is recommended to install the Mk8 Simulator software on a Windows PC with touch screen functionality (for example: Microsoft Surface<sup>®</sup>) as the screen will operate in the exact same way as on the Autoflame Mk8 systems. However if this is not possible, normal mouse control can be used.

## 2.2. Installation

Open the installation folder, right click on 'Mk8SimulatorSetup' file and select 'Install'

		Manage	2.1.0				-		×
File Home Share	View	App Tools							~ ?
← → ∽ ↑ 📜 > U	DISK (D:)	> Mk8 Simulat	or > 2.1.0		~ Ü	, ○ Search	2.1.0		
<ul> <li>← → ✓ ↑ ▶ ∪</li> <li>ぱ Quick access</li> <li>Desktop</li> <li>↓ Downloads</li> <li>⊠ Documents</li> <li>₽ Pictures</li> </ul>	IDISK (D:) :	Mk8 Simulat Name Mk8Simu k8Simu k8 k8 k8 k8 k8 k8 k8 k8 k8 k8 k8 k8 k8	or ≥ 2.1.0 AddorSetup Install Repair Uninstall Troubleshoot compatibility Move to OneDrive Share Open with Add to archive Add to archive Compress and email	Date modified 16/12/2019 13:43 p.rar"	V U Typ: Win	e ndows Installer	2.1.0 Size 26,89	5 KB	
1 item   1 item selected	<b>↓</b> 26.2 MB	-	Compress to "Mk8Simulato Send to Cut Copy Create shortcut Delete Rename Properties	rSetup.rar" and email	>				

The Mk8 Simulator software installation wizard box will appear, click 'Next'.



Specify a location for the software on your hard drive, the default location is: C:\Program Files (x86)\Autoflame\Mk8 Simulator 2019 Click 'Browse if you wish to change the location. Click 'Next'.

🛃 Mk8 Simulator 2019	—	
Select Installation Folder		
The installer will install Mk8 Simulator 2019 to the following folder.		
To install in this folder, click "Next". To install to a different folder, enter it belo	w or c	lick "Browse".
Eolder:		
C:\Program Files (x86)\Autoflame\Mk8 Simulator 2019\		Browse
		Disk Cost
Install Mk8 Simulator 2019 for yourself, or for anyone who uses this compu	ter:	
Everyone		
⊖ Just <u>m</u> e		
Cancel < Back		<u>N</u> ext >

The installer is now ready to install the software, click 'Next' to confirm installation.



Once the installation process is complete, click 'Close'.



# 2.3. Activation

When the software is run for the first time, a License dialogue box will appear to prompt the user to activate the software.

License		×
1. Send License	Code to Autoflame	
License Code:	03f5f7ba5b5f72a234d30e41c152935e	
2. Enter Activation	on Key	
Activation Key:		
	Activate	
		ОК

Copy the License Code and send it to Autoflame with request for Mk8 Simulator Activation Key, once the Activation Key is received, enter it in the Activation Key field and click 'Activate'.

# 2.4. Mk8 Simulator Screens

When the Mk8 Simulator is opened, the Mini Mk8 MM simulated screen will be displayed as default. You can switch between the devices by clicking the button for the required device from the top left corner or selecting it from View menu.

The buttons and options on the simulator work in the same way as in the real controller.





Mk8 Mini MM

Mk8 DTI

Mk8 MM

Mk8 EGA

Full Screen Mode

Quit the Simulator

#### Mk8 MM



#### Mk8 EGA Evo



## Mk8 DTI



# 3. <u>Mk8 Skin Configurator</u>

## **3.1.** Overview and Compatibility

For marketing or promotion reasons, Tech Centres, OEMs or End Users might want to upload their own logo, slogan or custom graphics to the MM screen, the Mk8 Skin Configurator software enable users to do so with simple steps.

This software enables users to create custom graphics to be uploaded to:

- Mk8 MM
- Mk8 Mini MM
- Mk8 EGA Evo
- Mk8 DTI

Mk8 Skin Configurator software can be downloaded from the software section of Autoflame Tech website: <u>http://tech.autoflame.org/software/</u>

There is no activation required for the Skin Configurator Software.

Autoflame Mk8 Configurator software is compatible with Windows 7, 8 and 10 in both 32 & 64bit. The software must be installed in Administrator mode.

## **3.2.** Installation

Open the installation folder, right click on 'Setup' file and select 'Run as administrator'



The Mk8 Skin Configurator software installation wizard box will appear, click 'Next'.



Specify a location for the software on your hard drive, the default location is: C:\Program Files (x86)\Autoflame\Mk8 Skin Configurator Click 'Browse if you wish to change the location. Click 'Next'.

🛃 Setup	-		×
Select Installation Folder			
The installer will install Setup to the following folder.			
To install in this folder, click "Next". To install to a different folder, enter it belo	ow or c	click "Browse	e".
<u>F</u> older:			
C:\Program Files (x86)\Default Company Name\Setup\		B <u>r</u> owse	
		<u>D</u> isk Cost.	
Install Setup for yourself, or for anyone who uses this computer:			
Cancel < Back		<u>N</u> ext	>

The installer is now ready to install the software, click 'Next' to confirm installation.



Once the installation process is complete, click 'Close'.



## **3.3. Generating Custom Skins**

## **3.3.1. Target Device**

From Target Device menu, select:

- Mini MM Mk8 for Mini Mk8 MM graphics.
- MM Mk8 for Mk8 MM, Mk8 DTI, Mk8 EGA Evo graphics.

You could opt to remove the Autoflame logo by unticking 'Show Autoflame Logo' under 'Options' on the right side of the window.

If you want to position the graphics in the centre of the screen, tick 'Centre Image' box under 'Options' on the right side of the window.



## 3.3.2. Splash Screen

The Splash Screen is the main screen when the Autoflame device starts.

Use the computer mouse in drag and drop action to upload your logo, company slogan or custom graphics as desired.



#### 3.3.3. System Configuration Screen

Use the computer mouse in drag and drop action to upload your logo, company slogan or custom graphics as desired.



#### 3.3.4. Screen Saver



#### **3.3.5.** Theme Colours

The button colours can be customised in this screen, choose the top and bottom colours, LED colour and text colour.



If the colour you want is not available in the basic colours box, click 'Define Custom colour', pick the colour you want and click 'Add Custom Colour'.

Color	×	
Basic colors:		
	Hug: 50 <u>R</u> ed: 128 Sat: 240 <u>G</u> reen: 255	
Define Custom Colors >>	Color Solid Lum: 120 Blue: 0	
OK Cancel	Add to Custom Colors	

## 3.4. Uploading Custom Skin

Once you complete uploading the graphics and setting the colours, you can upload the custom graphics to the Autoflame device, to do so:

Remove the SD card from the Autoflame unit, please refer to the relevant technical manual to find out how to remove the SD card, insert the SD card into your PC. Select 'Generate Skin' from File menu.

File	Target Device	Help	
	Generate Skin	uration Screen	Scr
	Exit		

Navigate to the SD card and click 'OK'

В	rowse For Folder	$\times$
, ,		
	> 🔛 Local Disk (C:) > 🔤 UDISK (E:)	
	👻 🗫 Removable Disk (H:)	
.	LANG	
	LOG	
'	MAN	
	MONITOR	~
	Make New Folder OK Cancel	

Note: Save the file directly to the SD card and not in any sub-folder.

Extract the SD card from your PC and insert back into the Autoflame unit.

Now the relevant Autoflame device screen displays the custom graphics.

AUTOFLAME Combustion Management Systems	
Mini Mk8	
Loading Data	
BKBD	
ULTRATEC HIGH EFFICIENCY SERIES	
Commission	



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