



- Handheld firmware update programmer for KCG59x
- Optional auto-setting of ROCOF/VS compliance parameters
- Optional auto-setting of G99 LV or HV parameters (230, 110V)
- Self-contained, no connection to computer required
- Self-powered from KCG59x - no batteries required
- LEDs display status of KCG59x firmware revision
- Update is performed by a single button press
- Simplest way to achieve 1Hzs<sup>-1</sup> / 500ms ROCOF compliance on existing installations

**Specifications**

Supply:	Self powered
Connections:	RJ45 (KCG59x) and micro-USB
Temperature range:	0 to +50°C
Dimensions:	90 x 450 x 25mm
Ingress Protection:	IP41
Weight:	0.04kg

**Description**

HPD1 provides simple and convenient updating of pre-installed KCG59x Loss of Mains protection equipment to comply with G99 guidelines.

The HPD1 connects to the KCG59x “Comport” interface via a RJ45 lead and is powered from the KCG59x internal low voltage supply rail. The device is “hot pluggable”, i.e. the KCG59x does not need to be powered down before connecting. The update code is stored internally within the device and there is no requirement for a PC or laptop when updating.

**Windows software for future updates**

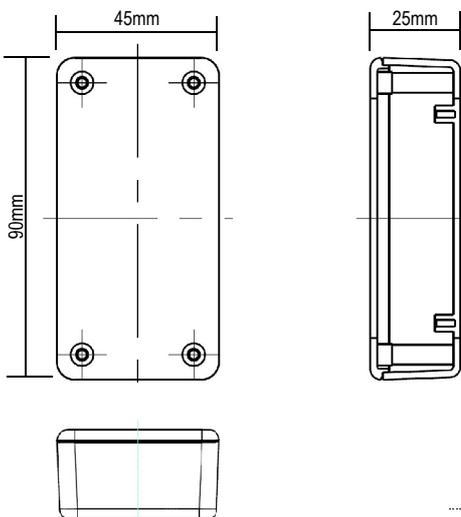


LED indicators show the status of the equipment and whether the firmware currently installed in the connected KCG59x is older, newer or the same revision as that stored in the programmer.

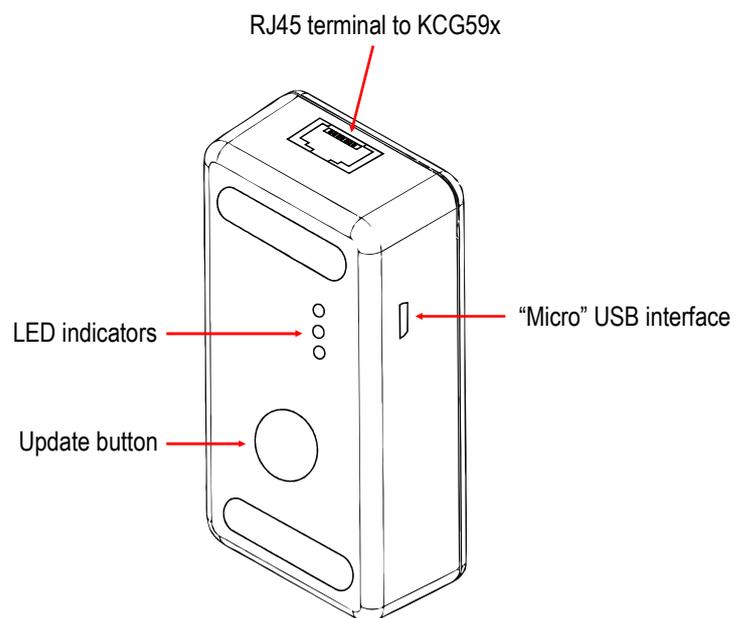
Installation of the new ENA (Energy Network Association) compliant firmware is accomplished by a single press of the button marked “UPDATE”. Optional ROCOF/VS or full LV or HV G99 parameters can be automatically programmed at the same time.

Future firmware updates can be loaded onto the device via a plug-n-play USB connection. Windows software is included to interrogate the programmer and replace the stored code with a later revision which will be downloadable from the Megacon website.

**Dimensions**



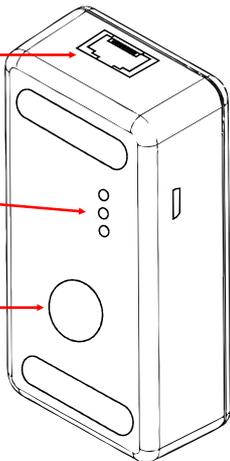
**HPD1 User Interface**



**KCG59x FIRMWARE UPDATE FUNCTION**

**Key to LED Indicators**

1. Connect RJ45-RJ45 lead from HPD1 to KCG59x 'Comport' terminal.
2. LEDs confirm status of firmware currently installed. See key below. (KCG59x must be powered on)
3. Press button once to initiate update. Wait for LEDs to cease flashing and turn green.
4. Check status LEDs, disconnect lead if update is successful, or repeat the process if necessary.

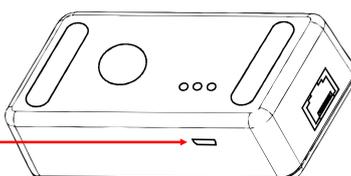


	KCG59x has older firmware than stored on device. Update required.
	<b>Caution!</b> KCG59x has later version of firmware than stored on device. <b>Programmer</b> may need updating.
	KCG59x and updater have the same version of firmware installed. Update complete or not required.
	Connection established with KCG59x but firmware not found. Perform update, contact Megacon if single green LED is not established.
	Searching for KCG59x - ensure correct instrument type is connected. Contact Megacon if connection cannot be made.
	Firmware download in progress - do not disconnect. Red-Green: Updating. Yellow-Green: Downgrading from later revision firmware.
	<b>Error!</b> Disconnect device, reconnect and try again. Contact Megacon if problems persist.
	Successful download but no checksum acknowledgement from KCG59x (pre-2012 bootloader). Follow update with functional checks to be sure there were no data errors.

**HPD1 Setup and KCG59x firmware revision update option**

The HPD1 contains the current KCG59x firmware at the time of manufacture. Future updates to the KCG59x firmware can be loaded into the HDP1 via the USB interface using Windows software "MPD.exe" which can be downloaded from www.megacon.com. This software also allows auto-setup of LV or HV parameters to be selected.

1. Connect micro-usb lead from the HPD1 to the host computer. On first connection, Windows will search for and load the driver.
2. Run "MPD.exe" on the host computer.
3. Click **Connect** to start.



4. **Read from Device** displays parameters currently loaded into HPD1.
5. Use **Select Firmware File** to load latest issue KCG59x update, which can be obtained from www.megacon.com. Updates are provided in the form of a .mkg file.
6. The HPD1 can automatically set up 1Hz/s/500ms ROCOF with VS immunity or full G99 parameters on the KCG59x following firmware update. Select from these options here or **Maintain existing** to retain all settings.



7. When all required selections have been made, the data can be installed on the HPD1 by clicking on the **Upload to Programmer** button.
8. Click on **Exit** to close the program.

**Known Issues**

KCG59x equipment purchased before 2012 which has been previously updated after March 2015 may not accept further upgrading and will need to be returned to Megacon to correct a known bug in the bootloader.