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Product Description



This unit provides a low-cost and effective gateway between the Philips Dynalite lighting control network (Dynet) and the world of Ethernet. This in turn provides connectivity over wired and wireless IP networks within a LAN or WAN environment. The standard Philips Dynalite commissioning & control software (Envision Project / DLightII / DynamicTouch / EnvisionTouch) can all be used but with the added advantage of potential off site access.

The device can pay for itself very quickly from the increased commissioning speed offered when installed onto a wireless network and the remote support possibilities.

In addition to the Philips Dynalite software environment, this product lends itself to third party integration & control. For example...

Bitwise Controls (<http://www.bitwisecontrols.com/remote>) products offer fully integrated AV remote control connectivity via iPhone/iPad and Android handsets. Currently there is a 2-way driver in development that will ease programming but the unit will work with standard Dynet messaging.



The unit has also been tested with URC, universal remote controls (<http://www.universalremote.com/>) offering traditional remote handsets and in-wall controllers.



Hardware Installation

- Mount the unit via DIN rail or using the Screw tabs located within the DIN clips
- Connect the unit to Ethernet network via the RJ45 connector.
- Connect the unit to Dynet lighting network via the RJ11 connector or terminal block connector.
- Power to unit is supplied from the Dynet network or from an external power supply that can be connected via the terminal block.

Hardware Operation

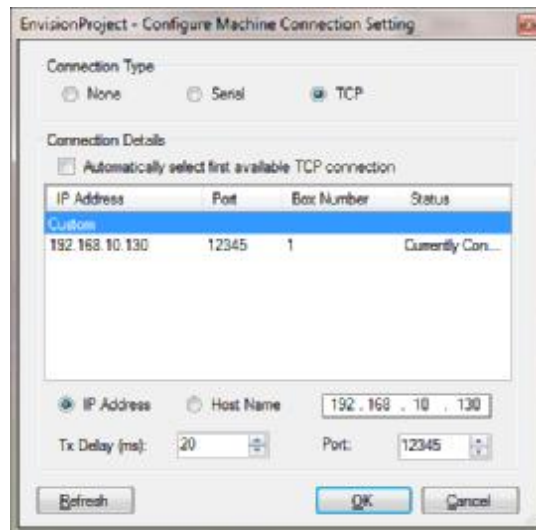
- Pwr LED (Orange):** As soon as the power is applied the Orange power led will illuminate.
- Tx LED (Green):** Every four seconds the LED will pulse twice as heartbeat to indicate that the interface is operational. In addition, it will flash as Dynet traffic is transmitted to the lighting network from the interface.
- Rx LED (Yellow):** The LED will flash with Dynet traffic is received from the lighting network.
- Reset Button:** This can be found besides the terminal block and is labelled "RST". This is for factory defaulting the unit.

Note the LED's on the Ethernet connector mimic the front panel indicators and not Ethernet activity.

Interface Configuration

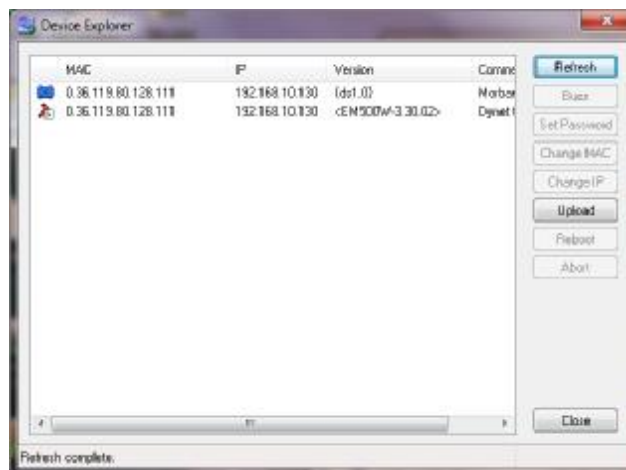
By default, as the unit is powered up, it will seek for a DHCP allocated IP address from the network and once assigned can be used by Envision Project (EP) / Dynamic Touch without any further configuration. However, it is recommended that the gateway is allocated a fixed IP address so that it can be managed and easily located on the network in the future.

The first step is to find the DHCP address that has been allocated to the interface. The easiest way of doing this is to load EP and scan for the device under "connection settings".

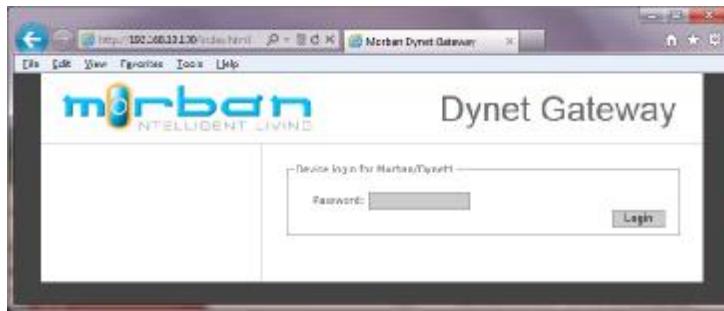


Alternatively, the Tibbo Device Explorer can be downloaded and used; this can be found here...

<http://tibbo.com/support.html>



Once you have the "current address" open up the web page in a suitable web browser e.g. <http://192.168.1.130...>



The web page will ask for a password but by default this will be blank so just click on the "Login" button where you will be taken to a status page...



Click on the “Settings” button then on the “settings” page you can reconfigure the network settings as required...



We recommend the allocation of a fixed IP address so that you know, in advance, where this will be located on the network and to aid the port forwarding configuration on the router for external Internet/WAN access.

After altering any of the settings remember to hit the “Save” button and then restart the unit.

Software Use

Envision Project:

- Under “Tools/connection settings” click configure
- Then set connection type to TCP
- Click refresh and the Gateway should be listed in the connection details window
- Click on the device and click OK

Dynamic Touch:

- Load the app and touch the “cog” (settings)
- Touch “Detect Network”
- Select the gateway from the list and quit setup

Envision Touch:

- Following the manual supplied with the EnvisionTouch software
- http://www.morban.co.uk/support/downloads/envision_touch_user_guide_1.2d.pdf a “Project.xml” configuration file requires uploading to Morban Dynet gateway. Our implementation of this does not restrict the size of the “Project.xml” as the Philips 100BT device does. Also uploading the file to the gateway is very much simpler. Simply bring the gateway up in your web browser and ...

Please note the file takes around 15 seconds to upload during this time there is no feedback from the gateway so please be patient.

- Load the app and touch “edit” (settings)
- Touch “+ New Project”
- Enter the project name and IP address of the Morban Dynet gateway

DLightII:

This application has been superseded by Envision Project but legacy installations may still require its use. DLightII does not natively support IP connectivity and so "Virtual Comm Port" (VSP) connectivity is used to trick the application into thinking that it is connected via a serial port. This requires additional software to be installed on the client PC.

- Download and install the "Tibbo Device Server Toolkit" from the Tibbo website...
<http://tibbo.com/downloads/soi/tdst.html>
- Once installed run the "Tibbo VSP Manager"
- Click on "Add" and select the com port that you wish to setup. Remember that DLII only supports ports 1-8.
- In the destination pane "specify by: IP-address" and click on "browse for DS"
- A new window will open up that will list the device. Highlight this and click "Select"
- You will be returned to the previous window where you can now click "OK" and exit the "Tibbo VSP Manager". The communication port is now setup and can be selected in DLII.

Third Party Control:

There may be specific drivers available for third party equipment but you will need to contact the vendor for these. However, you can send your own correctly formatted 8-byte Dynet 1 messages (including checksum) to the IP address and TCP port of the gateway. This requires an in depth knowledge of the Dynet 1 messaging structure. But you can use the "Dynet Packet Sender" within "Envision Project" to construct a function and send a test message on to the network. From there you can cut and past it from the "network log" into your application.

Remote Internet (WAN) Access

Having access to the interface over the internet provides added remote support benefits to aid diagnostics and minor programming changes.

Gaining access to the gateway via the internet requires an understanding of network connectivity and the correct configuration of your router or virtual private network (VPN). Refer to your network administrator if you feel uncomfortable with this.

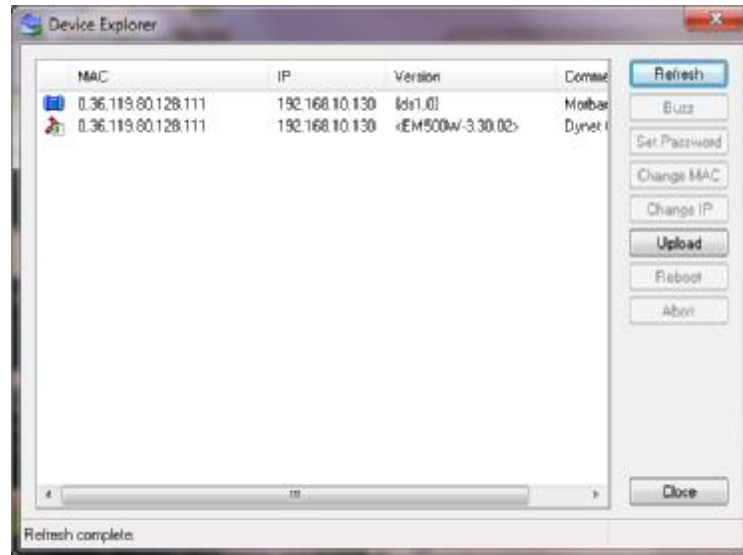
The simplest configuration involves configuring your router to port forward all requests to ports 1001 & 1234 (default port settings, change as required) to the DyNet interface's internal IP address. In this way you will be able to access the gateway via your sites external IP address or DDNS name.



Note: Port forwarding does not offer any network security to the lighting system. If this is a problem, we would advise the use of a Virtual Private Network (VPN).


Firmware Updates


Firmware updates may be required from time to time to provide additional functionality or resolve specific issues.

- Download and install the latest “Tibbo Device Explorer” from the Tibbo website.
<http://tibbo.com/downloads/basic/software.html>
- Once installed run the “Tibbo Device Explorer”...



- There should be two entries shown for the device against the same MAC and IP address of the interface. One is the physical device ( icon) and the other is the application ( icon) running on the device. There is a possibility that the application could get corrupted or is missing due to a firmware update. If this is the case then you may only see one physical device entry.
- Highlight the device that you wish to upgrade in the window and click “Upload”.

To update the firmware (.bin files) select the physical device ( icon) and upload using the “Load firmware through the network” option.

To update the application (.tpc files) select the physical device ( icon) and upload using the “Load application through the network” option.

- Now browse to the path of the file and click OK to apply the update. Morban will supply the update files on request.

If you upload a new firmware image then follow this by reloading the latest application image.

Restoring to factory defaults

With the unit powered up press and hold the reset button for 4 seconds or more, then release. This will now reset the unit on the next power up. Cycle the power and the unit will now have been reset to factory defaults.

Specifications

Part Number:	MILDIF1
Operating Voltage:	9-20Vdc fed via Dynet network or terminal block
Current:	<=110mA
Ethernet Port:	RJ45 10/100BaseT (auto sensing)
Configuration:	via embedded web server
IP Addressing:	Fixed IP or DHCP (default)
Concurrent connections:	up to 5
Default Trunk port:	1234 (configurable via the web interface)
Default Virtual Serial IP Port:	1001 (configurable via the web interface)
Dynet Connectivity:	via RJ11 socket and or wired terminal block
Chassis Format:	DIN Rail mounting 2 units wide.
Warranty:	2 years from proof of purchase
Weight:	80g, packaged 115g
Dimensions (mm):	90H x 36W x 58D, packaged 65H x 132W x 90D

