



Product Name:	glo™ Hyper+
Product Code:	G403/G403i/G403a/G404/G404a
Manufacturer:	Nicoventures Trading Ltd. (subsidiary of British American Tobacco)

Product Description- Glo™ Hyper+ (G403, G403i, G403a, G404, G404a)

Summary

Manufacturer Name:	Nicoventures Trading Ltd (part of British American Tobacco PLC.)
Address:	Globe House, 1 Water Street, London, WC2R 3LA Phone Number: +44 (0)800 1337 350
Product Description:	Tobacco Heating Device
Product Name:	glo™ Hyper+/i-glo™ Hyper+/glo™ Hyper+ UNIQ
Model Number:	G403/G403i/G403a/G404/G404a
Product Category:	Rechargeable Tobacco Heating Product

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Date:	27 th January 2022
Version:	5.0
Author:	Elizabeth Buckland

1 Introduction

1.1 Scope

High level technical document intended for initial engagement with regulators.

1.2 Version control

Revision Table			
Version:	Created/Edited by:	Date:	Description of update:
1.0	Elizabeth Buckland	15 th February 2021	Initial draft based on file "1.1.2 Glo Hyper+ (G402) - Product Description V1.1" Added details pertaining to G403i
2.0	Elizabeth Buckland	23 rd April 2021	Added GLN codes for the two Nolato factories.
3.0	Elizabeth Buckland	17 th June 2021	Added G403a for the Glo Hyper+ UNIQ
4.0	Adam Roach	7 th December 2021	Added G403 for the Glo Hyper+ UNIQ (Bespoke)
5.0	Elizabeth Buckland	27 th January 2022	Added G404/G404a models with EVE cell. Also added GPS coordinates for both factories.

Table 1.1 – Revision table

Product Name:	glo™ Hyper+
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2 Product Description

2.1 General Description

The *glo™ Hyper+* is a tobacco heating device which inductively heats rather than burns a consumable rod of tobacco and is compatible with Demi-Slim size *Neo™* consumables. As an upgrade from the original *glo™ Hyper*, *glo™ Hyper+* has an updated industrial design with factory-customisable side panel and uses single-use, disposable, demi-slim size *Neo™* consumables.



Figure 2.1 – (left) *glo™ Hyper+* tobacco heater device, (middle) *Neo™* demi-slim Consumable 20 pack, (right) *Neo™* demi-slim tobacco consumable

2.2 Operation

The consumable is inserted into the top device via a hole, with the tobacco end of the consumable entering the device first.

The user presses and holds a single button on the front to initiate the inductive heating of the consumable. The device performs an initial pre-heating phase, indicated by LED lighting and haptic vibration. When the pre-heating phase is complete, the LED's are fully lit, and a second vibration occurs. The device is pre-loaded with 2 different heating profiles (standard and boost). The user can choose to initiate either. These heating profiles are initiated by holding the button for 3 seconds, or 5 seconds respectively.

The heater generates aerosol within the consumable composed mainly of water, glycerine, nicotine, and flavour designed to provide a consistent sensory experience.

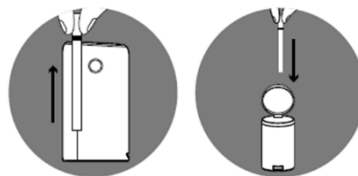
The top end of the consumable protrudes from the device by 22mm through which the user can 'puff' on the consumable to



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inhale the aerosol. The heating cycle ‘session’ delivers aerosol over a period of around 4 minutes.

Once each session is complete, the LED’s will turn off and the consumable must be removed from the device and disposed of responsibly. A new consumable must be used for the next session. One single charge delivers up to 20 sessions based on back-to-back usage.



3 Design

3.1 Internal components

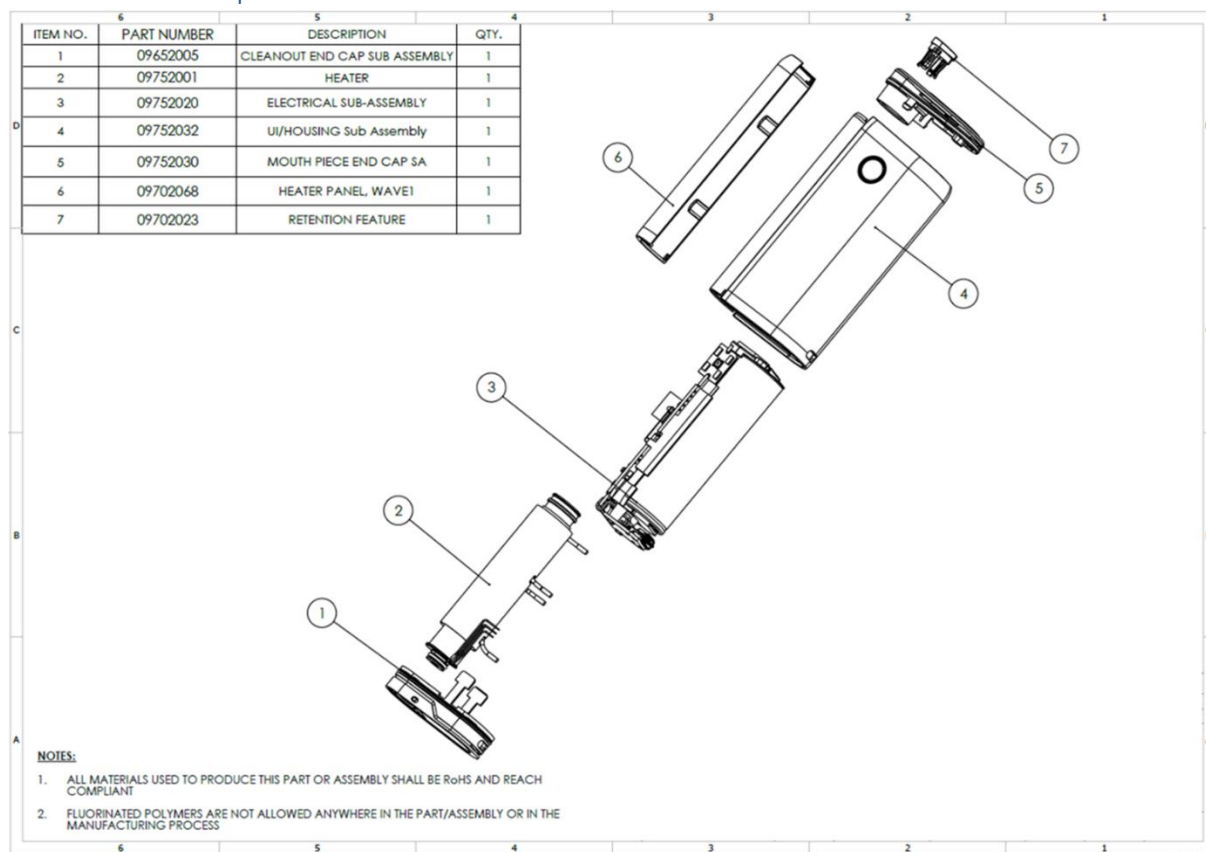


Figure 3.1 – Exploded Diagram of the glo™ Hyper+ device. Note: G40xa only has one coil and heater zone in item 2.

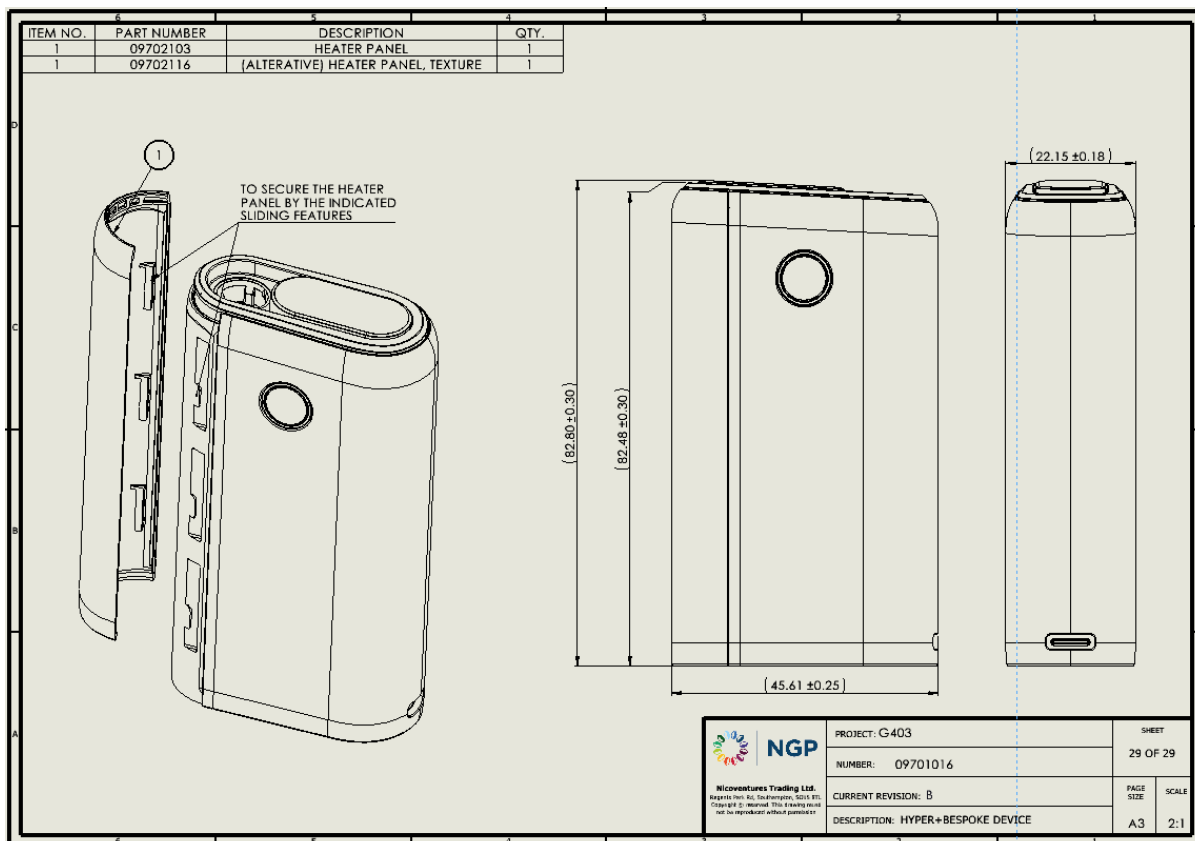


Figure 3.2 – Exploded Diagram of the glo™ Hyper+ UNIQ device. Note: The device is identical to glo™ Hyper+, with the exception of the decorative panel, which is replaceable for this device.

As displayed in figure 3.1, the device features:

- (3) A lithium-ion rechargeable cell to provide electrical power to the heater. In the G403, G403a and G403i models, this is an N18650CP model cell from BAK. In the G404 and G404a models this is an INR18650 33V model cell from EVE.
- (3) A printed circuit board assembly (PCBA) to control the cell and heater.
- (3) A chassis to mount the heater, PCB'S and battery.
- (2) A set of induction coils, with mild steel susceptor that is sealed into a tube. Note: G403a only has one coil.
- (4) (6) (1) (5) A sleeve, side panel and top & bottom cap to provide the outer case.
- (7) A retention feature to hold the consumable securely within the device.
- Materials used for seals and plastics in (1), (2), (3) and (5) are different for model G403i.
- The glo Hyper+ UNIQ (Bespoke) device has a user customisable heater panel (6), as shown in figure 3.2

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3.2 Launch Colours (Hyper+)

The Hyper device is a range of factory customisable and user customisable tobacco heating devices.

The *glo™ Hyper+* is factory customisable only and launched with the below 4 core device/panel colour combinations (market dependant):



Beyond the four core device/panel colour combinations, there are additional panel colours (examples shown with the black sleeve):



In total, there are more than 72 device/panel colour combinations for *glo™ Hyper+*.

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3.3 Launch Colours Hyper+ UNIQ (Bespoke)

The Hyper+ UNIQ is a range of user customisable devices and launched with the following options.



In total, 4 device colours and 19 panels will be offered, with further being added to the range as limited edition offerings and expansion to the core line over the life of the product. The panels can be purchased as accessories and will come in a variety of colours and surface textures.

Both the Hyper+ and the Hyper+ UNIQ may come with a two-zone heating system (model G403) or a single zone heating system (model G403a) – see section 3.7. The availability of each model varies depending on market. The heating system is inbuilt at the factory and may not be modified by the end user.

3.4 Physical characteristics

The glo™ Hyper+ dimensions are displayed in Figure 3.2.

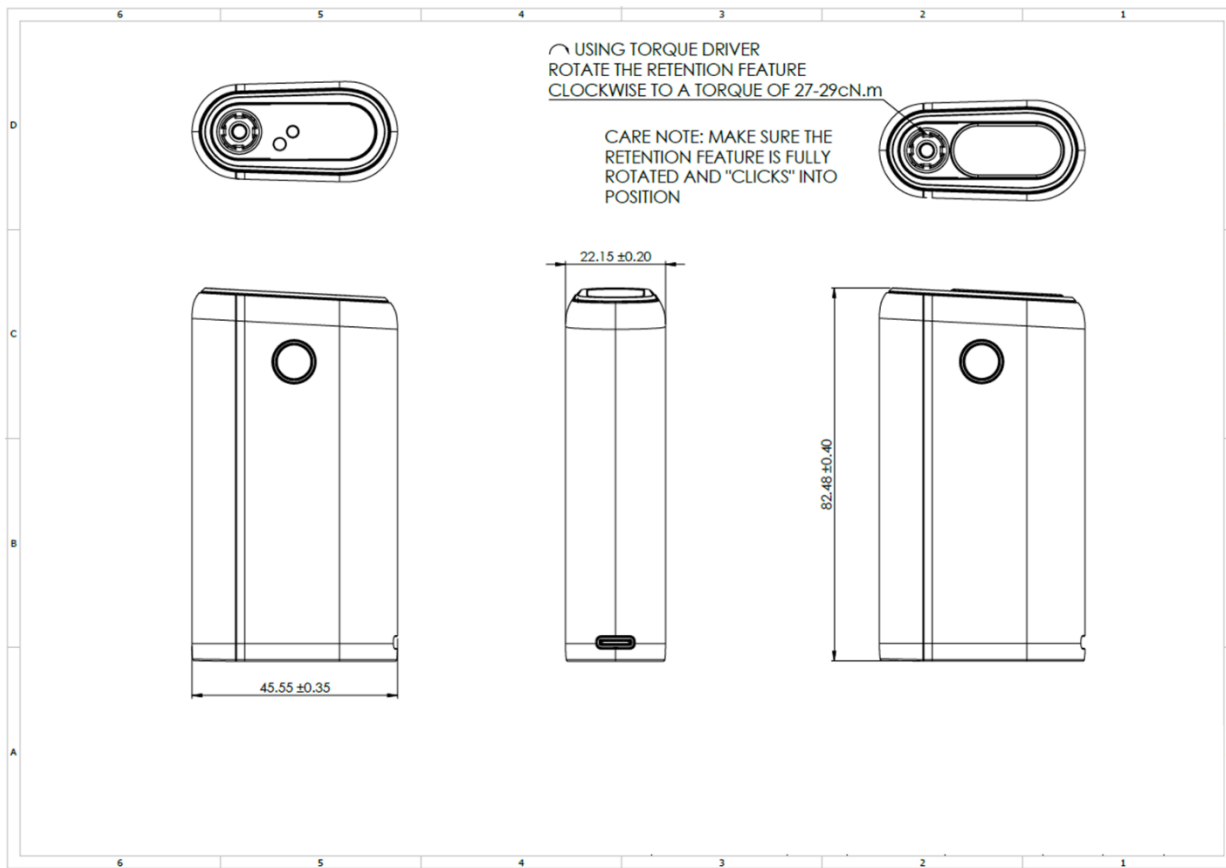


Figure 3.2 - Device dimensions in mm

The device measures 83x46x22mm approx. (HxWxD)

The device weighs 114g approx.

3.5 Battery

Both glo™ Hyper+ battery options have been tested and are compliant with IEC60601, UL and UN38.3 internationally recognised safety and transportation standards for lithium-based batteries. A well maintained, regularly used glo™ Hyper+ device should last at least 12 months. After repeated charge/discharge cycles, lithium-ion batteries start to lose charge capacity. The battery is rated at 3.6V, 3350mAh, 12.06Wh for the cell within the G403 based models, and 3.6V, 3200mAh, 11.5Wh for the G404 based models.

3.6 Model G403i

Model G403i will be used in Indonesia only. Model G403i is functionally identical to G403, however the ABS plastics and silicone seals are changed to PEEK to improve durability with consumables that include cloves (eugenol) as a flavouring agent.

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3.7 Model G403a

Model G403a is a variant design that only has one heated zone. This means that the device has one induction coil and some electrical components that were associated with the second zone have been depopulated. It will also be marketed under the glo Hyper+ UNIQ branding but could have either a fixed or removable heater panel (see section 3.3).

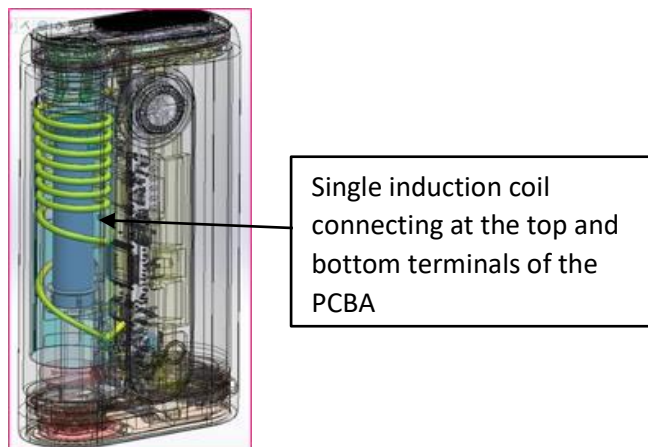


Figure 3.3 – G403a model showing single coil

3.8 Consumable design

When used as directed and intended the Neo™ consumables neither ignite nor burn. During operation the glo™ Hyper+ heating mechanism ensures that the tobacco is not heated above 270 °C. At this temperature the processed, reconstituted tobacco prevents combustion from occurring. Neo™ consumables content of water and glycerol allows low-temperature heating which results in the emission of an aerosol fundamentally different from the smoke emitted from a cigar or cigarette when it is used. The Neo™ is heated to produce heated tobacco vapour but no combustion occurs so there is no smoke or ash.

The consumable is demi-slim sized, with a circumference of 21.1mm and Length of 75mm. It contains a filter section (to provide filtration of the aerosol and cooling, with a capsule option on some products for extra flavour) and a reconstituted tobacco section (with glycerol and flavour added to generate the aerosol at lower temperatures).

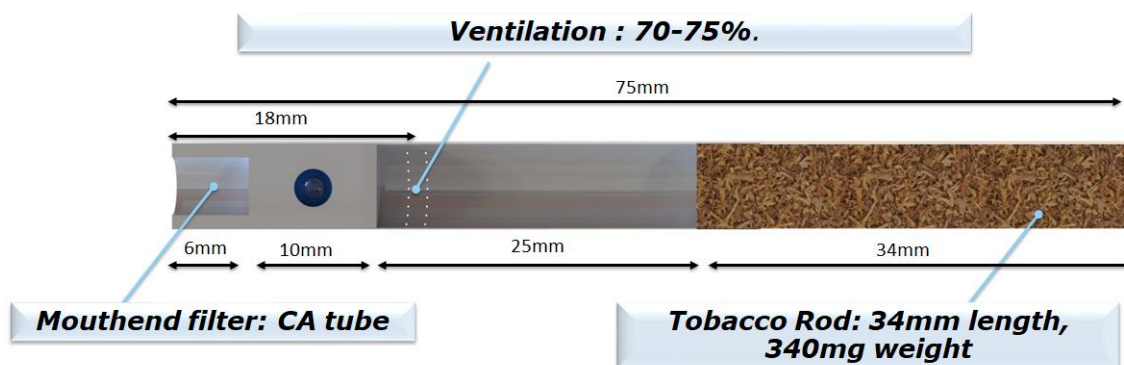


Figure 3.4 – Consumable cross section view with measurements

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4. Place of Manufacture

Manufacturer	Nicoventures Trading Ltd (part of British American Tobacco PLC.)
Location:	China
Assembled by: (Factory 1)	Nolato Mobile Communications (Beijing) Co., Ltd.
Address: (Factory 1)	402 Longsheng Industrial Park, 7 East Rongchang Road, Beijing Development Area, Beijing 100176
Global Location Number: (Factory 1)	6929020307347 (Valid until: 19 April 2024)
GPS Coordinates: (Factory 1)	39.785100, 116.518900
Assembled by: (Factory 2)	Nolato Technology (Suzhou) Co., Ltd.
Address: (Factory 2)	Building E Pingqian Industrial Park, No. 46 Chunxing Road, Xiangcheng District, Suzhou, Jiangsu Province
Global Location Number: (Factory 2)	6929020308764 (Valid until: 20 April 2024)
GPS Coordinates: (Factory 2)	31.451660, 120.533870
Quality Management System:	ISO 9001:2015 Certification

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5. Sales Package

The *glo™ Hyper+* device is sold in a ‘starter kit’ containing:

- *glo™ Hyper+* Device
- Starter kit packaging
- USB cable (0.5m, Black)
- Cleaning brush (0.1m, Stainless Steel/Plastic, Black)
- User guide
- Quick start guide
- Warning card (market specific)
- Warranty card
- AC adaptor (Black) – may or may not be included



Figure 5.1: Starter Kit Contents (Hyper+)

The adaptor, warranty card, warning card, quick user guide and user guide are market specific.



Figure 5.2: Starter Kit Contents (Hyper+ UNIQ (Bespoke))

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6. Applicable Project Names

Various project names have been used across the lifecycle of this product;

Project Name	Commercial Name	Project Number*
Bespoke	Glo Hyper+ UNIQ	097
Desperado/Single Coil	Glo Hyper+ UNIQ	097
Hyper 3/Hyper CMF3/CMF3	Glo™ Hyper +	097
Spirit	Glo™ Hyper	097
N-Spirit	Glo™ Hyper/Glo™ Hyper+ G402 model with cost reduced PCBA	N/A
Nico	Project name to interchangeably describe the induction heating models with cost reduced PCBA (e.g. G202, G402)	N/A
Express	Glo™ Pro (model which shares approximately 50% of parts with Glo Hyper and Glo Hyper+)	096

**Project numbers are used as a prefix in the part numbering system. A part number that begins 097 is specific to a Glo Hyper or Hyper+ product. A part number that begins 096 is a Glo Pro part number and may be shared with Glo Hyper or Hyper+, where relevant.*

7. Standards applied

7.1 Patents

glo™ Hyper+ has several active patents and patent applications in place.

7.2 List of applied standards

The *glo™ Hyper+* device has also been thoroughly safety tested by independent UKAS/CNAS accredited testing laboratories to ISO/IEC 17025:2005; and ISO/IEC 17065:2012 to provide product certification.

Device has been tested for EMC, Safety, Reach & RoHS and IP54.

For the full list of standards applied, please refer to complete list of standards in Technical Compliance File/ Section 5.

Ref: Glo Hyper Technical File, Model G403 or G404.

7.3 Safety features

The following is a summary of the safety features demonstrated:

- The device remains safe after it is dropped
- There are no fire hazards in normal or misuse conditions
- The device remains safe after foreseeable cleaning activities
- The device cannot be accidentally activated
- The user cannot inadvertently access hot parts
- There are no electric shock hazards in foreseeable use

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- The device is not liable to cause the battery to overheat leading to combustion or other hazards

The device has been successfully tested to ensure it is compliant with all the appropriate safety and electronic regulations in the country of sale.

- End of Document -

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