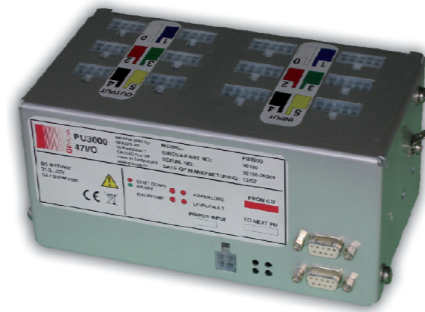


Optional accessories

PU 3000

- 1:1 compatible
- exact replacement for PU-II
- fits perfectly in existing PU-II position (slot)



Printer

- print-out documentation of protocols (customizable)
- impact printer that uses standard paper
- permanent ink (will not fade)



IR-Key (remote control)

- easy-one-button user identification and traceability



External Terminal/Display

- any alternate side
- according to EN ISO 15883-1



Designed and manufactured to fulfill the requirements of ISO9001:2008, ISO 13485:2003 (medical devices – quality management systems) and directive 93/42/EEC



CU3000 replacing **HAMO**-InfraControl

Complete control over washer disinfectors

To work in combination with **HAMO**-units/machine types: T21, T420, LS950, LS2000, KG, DW, T840



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Ginova is an engineering company founded in 1979, for electronics development. It offers comprehensive project solutions in the area of medical systems, software and electronics.

Along with other medical devices i.e. for Refractive Surgery (**LASIK**), GINOVA has developed controllers for washers and disinfectors for over 20 years. 30 years of specialized experience and consistently high quality as well as innovative and flexible action are the essential factors for our companies continued success. Ginova is an efficient and reliable partner for customizing solutions for our clients.

We look forward in becoming your partner too!

The **CU3000** was launched to replace the no longer producible controller **InfraControl** of the **HAMO**-machines.

The controller system consists of two elements: the **Control Unit CU3000** and the **Peripheral Unit PU3000** (Input/Output). It is designed to control stand alone machines like washers/disinfectors, sterilizers or any other fairly complex machines.



Advantages compared to InfraControl

- NEW: 6.5" Color Touch screen with ergonomic human machine interface (HMI)
- NEW: Strongly improved accuracy of temperature measurement
- NEW: **A0 controlled cycles** (complies with new disinfection rules for medical field EN ISO 15883-1)
- NEW: Easy-Backup of System and Wash cycle on **CF-card** (Compact Flash)
- NEW: Supports **21 CFR part 11** (electronic records and signatures)
- NEW: **IR-Key** (remote control) for fast and easy user identification and traceability
- NEW: Timer function (automatic start, weekly or monthly)
- NEW: Only signed wash cycles (identifies the author of the program cycle)

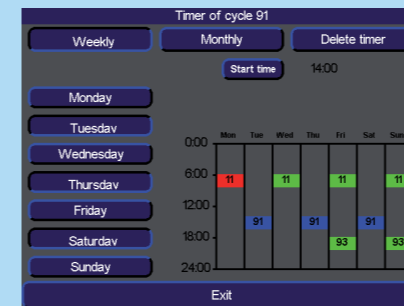
The **CU3000** is equipped with a color touch screen that allows very versatile programming with the possibility of adding functions by a simple program update. The proprietary real time operating system fulfils the requirements of **21 CFR part 11** which controls access to process relevant operations. The complete software is stored in a removable **CF-card**, giving the user the possibility of backing up the entire machine state after validation.



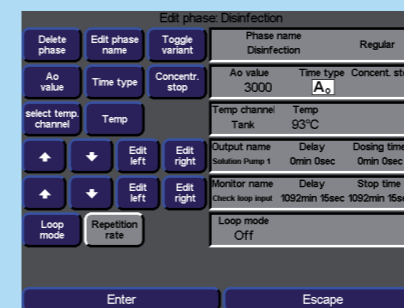
Home Menu advanced



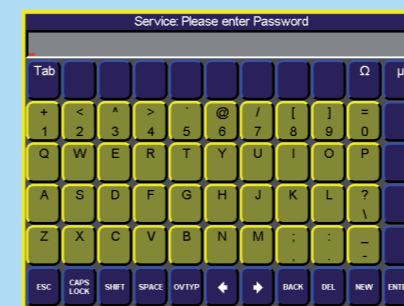
Home Menu simple



Timer



Edit Cycle



Keypad entry

Benefits

- 1:1 HAMO-InfraControl plug-n-play replacement
- 1:1 Transfer of wash programs from InfraControl to CU3000
 - existing PU-II may remain in the machine
 - Maintains complete functionality
 - No rewiring necessary
- Easier programming of wash cycles
- Any connected peripherals operate as usual (**IDMS/PDVS**)
- possibility of assinging controller to any printer
- Permanent CRC32-program code check
- Software on **CF-card** (replaceable in field)
- Text manager, allowing several languages (incl. Japanese, Chinese, Arab, Hebrew, Russian, etc.)
- Event history
- Ability to reuse controller after battery failure

Connections to PC-systems are also available (RS232, RS485, Ethernet). Through these the **CU3000** can interchange process relevant data for further use on process supervising systems (**SCADA**).

This system allows the use of a second display (**Terminal**) to simultaneously follow the state of the machine from a second, alternate side (i.e. the clean side of a disinfection machine).

The **PU3000** is connected via a field bus to the **CU3000**. It can drive a max. of 47 outputs in source mode (high side driver). Each output delivers 1.5A at 24VDC and its output current flow as well as the 47 inputs are software monitored. Several **PU3000** can be connected in series to increase the amount of I/O's.

An **IR-key** (remote control) allows easy one-button identification (**21 CFR part 11**) of an operator when working with the machine. This makes manipulation easier and significantly reduces operator time.