

The LS1C is the ultimate OEM version for Systems Integrators. This version is delivered with its control protocol which includes all the basics commands to set up and perform X-ray exposures.

The LS1C interfacing with PC software allows you to manage from the preparation (preheating, modes, etc...) to the X-ray exposure.

The System integrator is then free to design its Generator/LS1C interface according to its own standards while using the protocol and commands supplied with the unit.

All the features developed on the regular LS1 such as the automatic recognition of BALTOGRAPH generators and TSC/TSD tubeheads, diagnostic and the maintenance modes are also presents through the independent Graphic interface of the LS1C.



OEM Integrator oriented

As it is impossible to design only one interface suitable to every integrator, BALTEAU has chosen to develop the OEM model of its LS1 control unit. This “neutral” version is delivered with its universal control protocol allowing you to extract and send all the necessary information to the X-ray generator through the control unit embedded in a 19” / 2 Units rack box. This gives total freedom to the integrator for the graphic and outlook design of the system he is delivering. The level of integration of the X-ray unit in the complete system can also be defined by deciding whether or not to control the generator with the same computer used for other elements.

Embedded security

All security aspects linked to generators and X-ray emissions are monitored by the LS1C which is sending operating statuses through the client’s interface.

Emergency stop, security loops, 3 positions key switch and high brightness status LEDs are driven by the LS1C through the control box and are directly acting on the generator without transiting by the client’s computer, which assures a high level of security. If the main computer fails, the generator will then automatically stop thanks to the integrated watchdog system.

Service and maintenance

Based on a well-known operating system, the BALTEAU software is, in this case, used only for diagnostics and maintenances.

X-ray exposure functions and other modes are designed and monitored by the client’s interface.

The “Diag” and “Service” modes are integrated in the LS1C: no programming are necessary for these modes. They essentially consist in the reading of internal parameters. The information is used to qualify the equipment and evaluate the type of action needed or even to update the calibration by using the LS1C direct output through a switch (Mouse, VGA screen).

The “Service” mode also helps to update the Firmware version if needed with the latest BALTEAU upgrades.

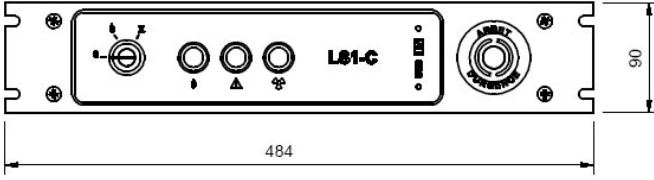
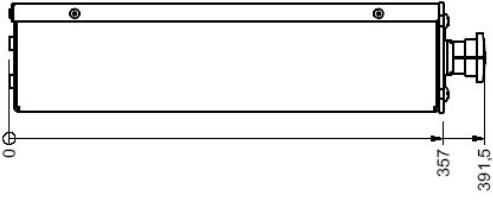
Data for updates and parameters transmission are uploaded with a USB mass storage device

Connection and protocol

The LS1C box features a connection to the generator, a VGA connection for independent screen (“diag” and “service” modes), an RS232 serial interface to connect with the client’s PC, a mouse connection and a USB storage device connection.

The protocol includes more than 200 commands of which 25 are part of the standard equipment. This includes among others kV, mA, time, working status, failure diagnostics, focal spot sizes, monitoring and settings.

Specifications

Mechanical			
			
Electrical			
Mains	V	90 – 245	
Frequency	Hz	45 – 66	
Measure of kV and mA		True measure	
LED display and safety device		3 positions key switch, Mains ON, X-ray ON, Prewarning Emergency stop, Buzzer for audible warning, High Brightness LED	
Embedded software			
Generator status reading (e.g.: Ready to start, Preheating, X-ray ON,...) kV reading and setting mA reading and setting Start / Stop ...			
Connections		Environmental	
Generator connection	Sub-D24	Operating temperature °C Protection	+5 to +50 IP54
RS232 serial interface	Sub-D9		
Mouse connection	PS/2		
VGA screen connection	Sub-D15		
Device connection	1 x USB 2.0		
Optional accessories			
USB storage device, USB mouse, Switch Box (mouse, screen), I/O module with Sub-D9 connector for 4 configurable and programmable I/O			

Producer

<p>Balteau NDT sa Voie de Liège, 12 B-4681 Hermalle Sous Argenteau BELGIUM</p> <p>Tel.: +32 4 374 75 75 Fax: +32 4 374 75 85 E-mail: balteau@balteau-ndt.com Website: www.balteau.com</p>
--

Distributor



All specifications are non contractual and are subject to change without prior notice