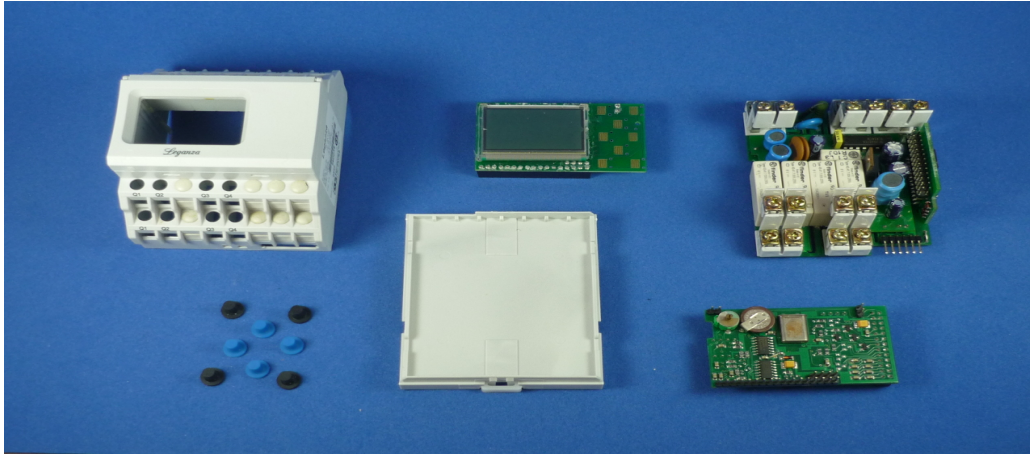


CG LEGANZA 88DDT8 PLC TEARDOWN



CROMPTON GREAVES (CG) LEGANZA 88DDT8

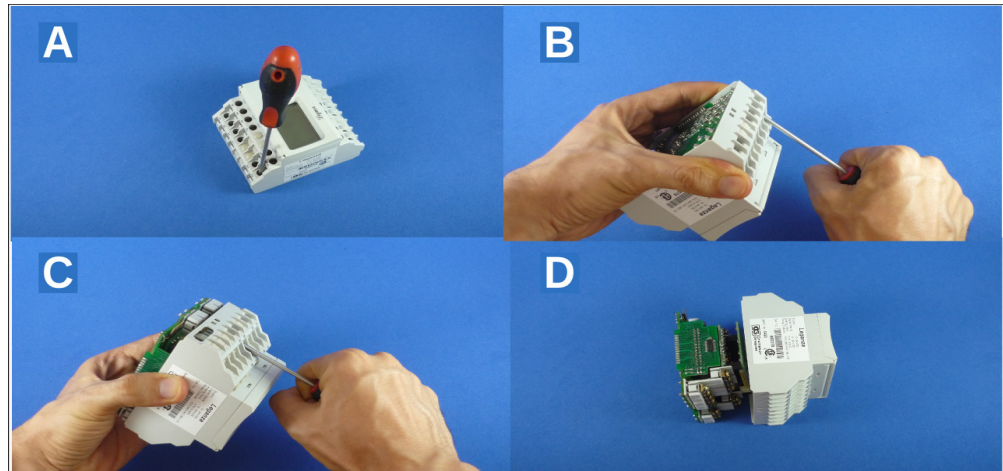
This PLC, which also may belong to the programmable relay category is designed, built and marketed by Crompton Greaves, an Indian company who made and markets a broad range of equipment for the electric business. Information about this PLC is very scarce, as the manufacturer's home page doesn't give a clue of its existence. Visually is very similar to other programmable relays like Siemens Logo! or Allen-Bradley Micro 810. There isn't a production date code on the label nor in PCBs and it is likely a lot of the assembly process is done by hand.

TEARDOWN PROCESS

To open the case the following tools are needed:

- 3mm x 80mm Phillips screwdriver.
- Spudger or pry tool.

Insert the spudger and make a lever to unlatch the plastic hinge that keeps together the upper and lower part of the case, pull slightly to separate both parts. Once unlatched repeat the process with the other latch on the opposite side and remove bottom cover.

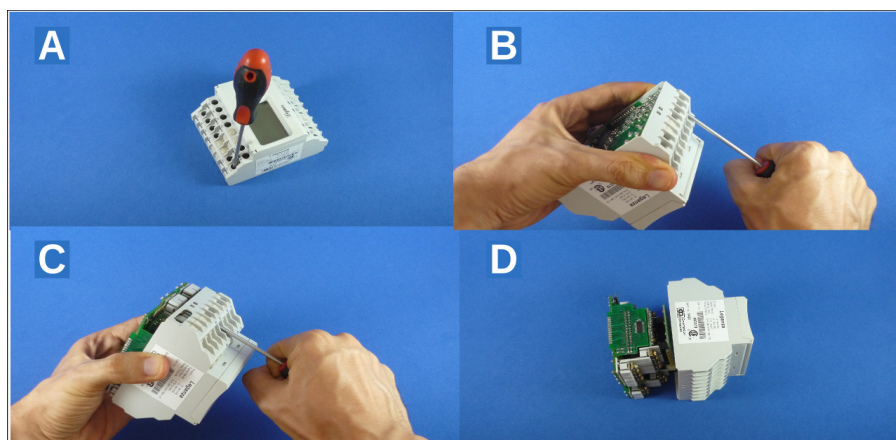


With one hand hold firmly the PLC and with the other hand using the screwdriver, press the outermost screws of the terminals.

Push a little bit in sequence, all the four screws near the corners, until the PCB emerges a bit out of the case.

Once a significant portion of the PCB assembly is out of the case, the screwdriver isn't required anymore, hold the case with one hand pulling the PCB assembly with the other to remove completely.

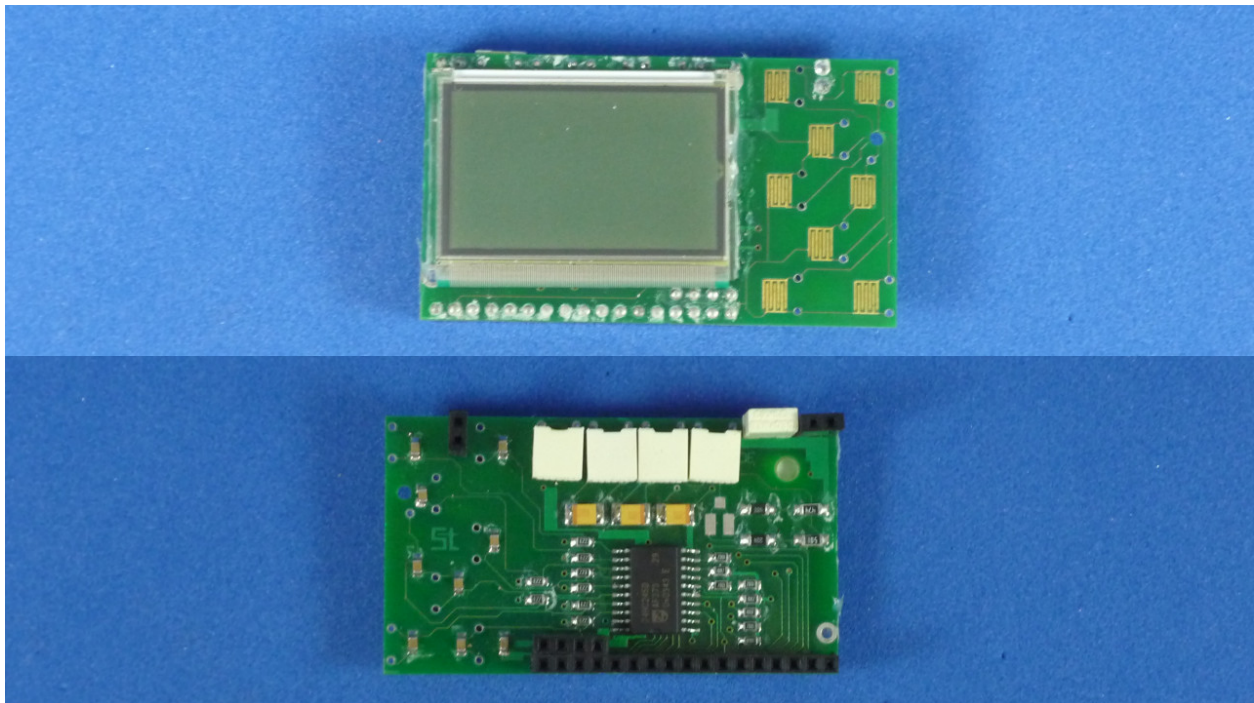
As you can see all the pieces were pressure assembled, no screws were used to hold any part!



ELECTRONIC BOARDS AND MAIN COMPONENTS

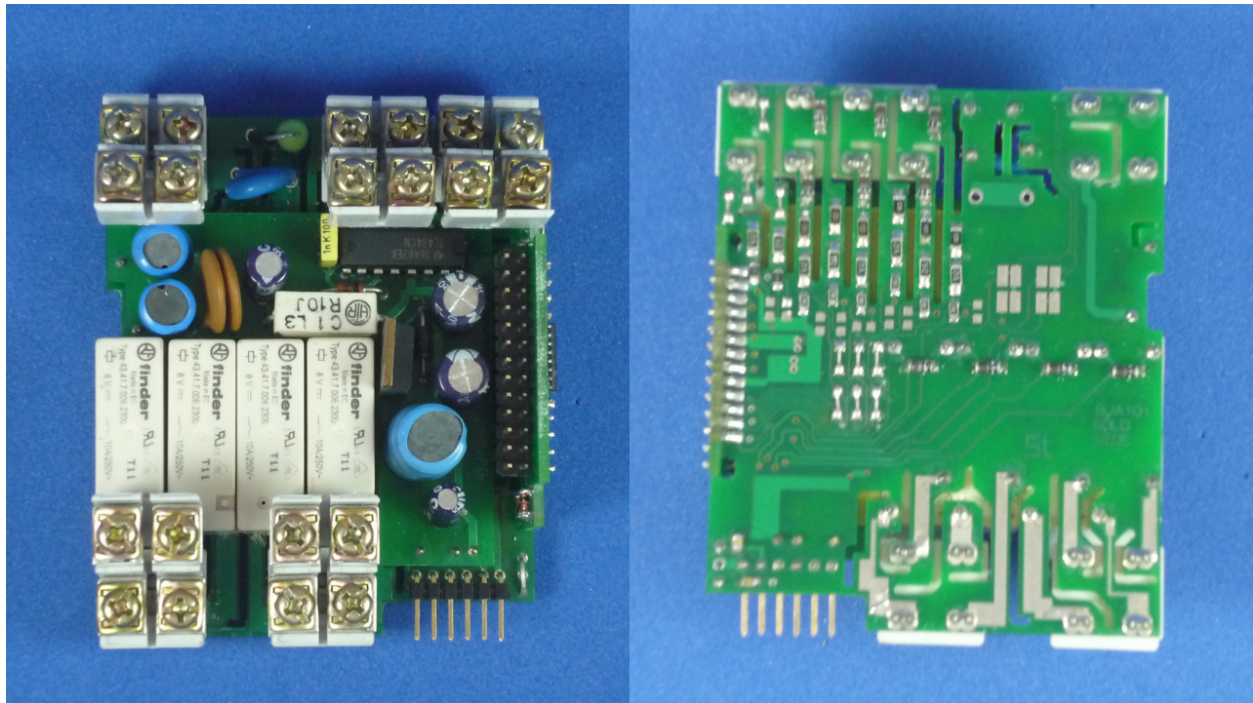
MOST IMPORTANT SEMICONDUCTOR LIST IN DISPLAY BOARD	
Part #	Description
Unavailable info	B&W graphic display module
74HC245D	8 tri-state buffers

Display board.



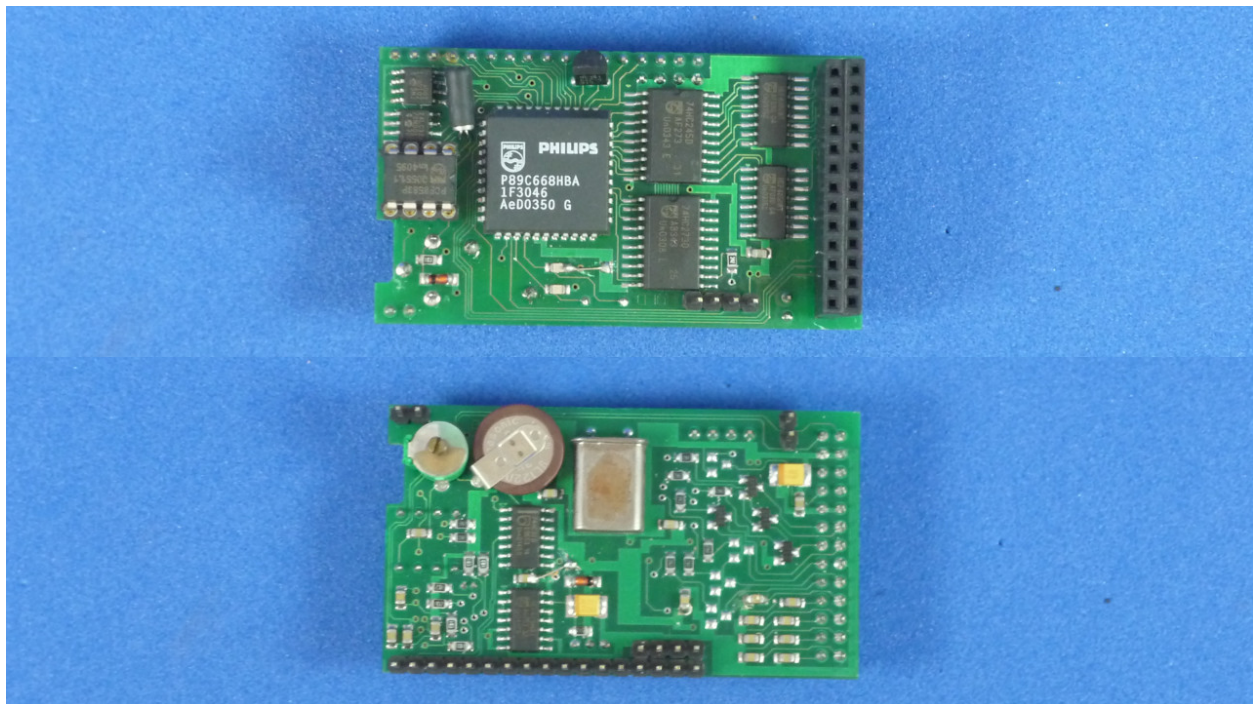
MOST IMPORTANT SEMICONDUCTOR LIST IN POWER AND I/O BOARD	
Part #	Description
TL494CN	Pulse width modulator control circuit
TIP32C	PNP Epitaxial Silicon Transistor
HEF4053BT	Single Pole Double Throw analog switch

Power and I/O board.



MOST IMPORTANT SEMICONDUCTOR LIST IN CPU BOARD	
Part #	Description
74HC32D	2-input high speed CMOS OR GATE
HEF40106BT	Hex Schmitt trigger inverters
MCP3002	2.7V double channel 10-bit A/D SPI
24LC32A	Serial EEPROM 32K I2C™ memory
PCF8583P	Clock and Calendar with 240x8-bit RAM
P89C668HBA	80C51 family 8-bit microcontroller with 64KB FLASH memory and 8KB RAM
74HC245D	8 tri-state buffers
74HC273D	8 D-type flip-flops positive edge trigger
HEF4050BT	8 non-inverting buffers
MC34164P-5	Micropower, low voltage supervisor chip

CPU board.



LINKS

Video showing the teardown process : <https://youtu.be/ER-kxF9J5BI>

Spudger or plastic pry tool : <http://s.click.aliexpress.com/e/AMnaiYzvJ>