Ω OMEGA®

An OMEGA Technologies Company

USER'S GUIDE
FOR THE CLH-II
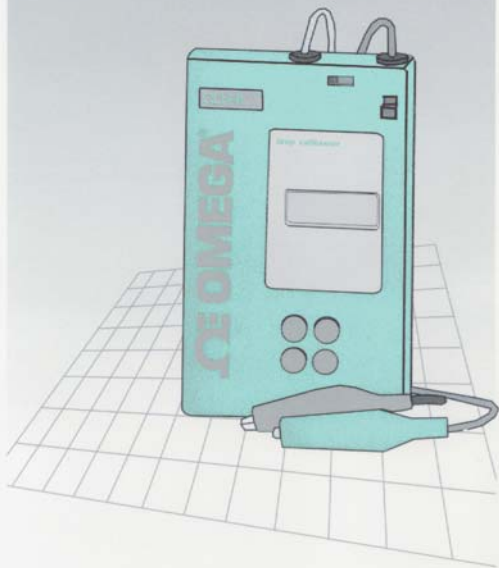
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SPECIFICATIONS

Power supply	Internal power is obtained from 4 x 1.5 Volts Alkaline batteries or 4 x 1.2 Volts rechargeable batteries. Model penlite or AA
Adaptor 50/60Hz	CLHPS 115 VAC
Battery life	30 hours in read mode
Battery life	13 hours at 12mA
Storage temperature	-20°C to 45°C
Transmitter supply	24 Volts at 20mA
Accuracy	: 0,05% of range
Resolution	: 10 microamps
Temperature effect	: 0,003% /°C 0,0015% /°F
Measurement input	: 12 Ohms fused
Drive capability	: 20mA into 900 Ohms
Ambient temp.	: -10°C to 40°C 14°F to 104°F
Loop mismatch	: Flashes "LOOP"
Low battery	: Flashes "LOBAT"
Overrange	: Flashes "EEEE"
Reversed polarity	: Flashes "POL"
Housing	: High impact ABS
Size	: 3" x 5" x 0,83" 77 x 124 x 21mm
Weight	: 285 grams/9oz including batteries

Specifications subject to change without notice

NOTES:
Use preferably alkaline batteries. Leaking batteries may damage the unit in such a way that it cannot be repaired. Rechargeable batteries must be recharged outside the calibrator. Use an external commercially available charger. At lower ambient temperatures the capacity of rechargeable batteries is significantly lower.

OPERATING THE CLH-II

The CLH-II has special functions for fixed steps and readings in %. To open menu press ✳ for 2 seconds. Scroll menu contents with ↓ key and make your choice. Press ✳ again to confirm your choice.

SWITCH	MENU CHOICE	CURVE
out	4 - 20mA ◆	lin
out	0 - 20mA	lin
out	4 - 20mA	flow
out	0 - 20mA	flow
out	4 - 20mA	valve
read	4 - 20mA ◆	lin
read	0 - 20mA	lin
read	4 - 20mA	flow
read	0 - 20mA	flow

NOTE:
Functions marked with ◆ directly available after **out** *or* **read** *selection. Flow = SQ.RT in %.*

Press **mA/%** key to read in mA or %. Press ✳ to select *continuous* or *fixed steps* in output mode.

To output fixed calibration currents in series as indicated below: choose range from the menu and select *fixed steps*.
Press ↑ or ↓ to advance one step.

SPAN	STEPS mA	CURVE
4 - 20mA ◆	4-8-12-16-20	lin
0 - 20mA	0-5-10-15-20	lin
4 - 20mA	4-5-8-13-20	flow
0 - 20mA	0-1,25-5-11,25-20	flow
4 - 20mA	3,8-4-4,2-12-19-20-21	valve

To output these currents automatically select *fixed steps* and press ↑ ↓ keys simultaneously.
Time between steps is 10 seconds.
Stepping starts at the low end of span.
To return to manual press ↑ or ↓.

Note that in the valve mode, stepping will be 3,8 - 4 - 4,2 or 19 - 20 - 21mA.
Select appropriate current to start auto-stepping.

To output a continuous up/down ramp cycle press ↑ ↓ keys simultaneously. Ramp travel time between range limits is 60 seconds Cycle starts at

displayed value. Press ↑ or ↓ first to select start direction. To return to manual press ↑ or ↓.

Recalibration

Trimmer ID and calibration sequence	FUNCTION
1	Zero Read
2	Span Read
3	Zero Out
4	Span Out

TRACEABILITY AND QUALITY DECLARATION MODEL CLH-II

Serial No:

Month:

Year:

This notification serves to certify that the unit described above has been inspected and tested in accordance with specifications published by Omega.

The unit has been calibrated on equipment which is calibrated at planned intervals in a testing laboratory accredited by NKO (National Dutch Calibration Services).

The unit calibration is traceable to the Dutch National Standards with correlation to other European national standards and NIST.

Our equipment is guaranteed against defective material and workmanship for a period of 1 year from date of shipment. **Claims under guarantee can be made by returning the equipment prepaid to our factory.** *The equipment will be replaced, repaired or adjusted at our option. The liability of OMEGA is restricted to that given under our guarantee. No responsibility is accepted for damage, loss or other expense incurred through sale or use of the equipment. Under no condition shall OMEGA be liable for any special, incidental or consequential damage.*

CLH-II CALIBRATOR TECHNICAL NOTES
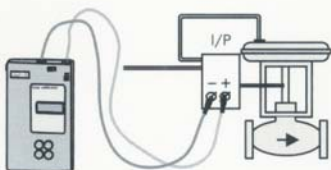
Output current reading

Switch positions	
Function	Loop power
Read	Ext.
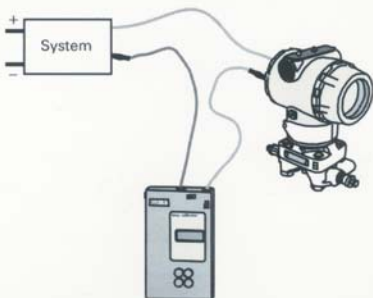
Transmitter calibration

Switch positions	
Function	Loop power
Read	Int.

Control valve stroking

Switch positions	
Function	Loop power
Out	Int.

Transmitter simulation

Switch positions	
Function	Loop power
Out	Ext.