

HELP6L20



Workstation Frames		
HELP6L20	Help6 motorized multifunction workstation, 2000 x 1062 mm	1 x
Equipment Panels		
DEFAULT_HELP6L20	Default panel for HELP model	1 x
Power Supply Units		
(S1) SU1	1-phase supply unit, 230 V	1 x
Modules		
(1) ELPSL2	1-phase schuko socket outlets, 2 pcs	1 x

(2) FGTGF4042	Function generator, 40 MHz	1 x
(3) TBS1052C	Digital oscilloscope, 50 MHz, 1 GS/s, 2 channels, education model	1 x
(4) DCACPX400S	Variable DC power supply, 0-60 V, 20 A, 420 W	1 x
DCAETHERNET	Ethernet connection and control software for DCA power supply	1 x
(5) ACP40	1 phase programmable AC power supply, 0-250 V, 0-4 A	1 x
ACPETHERNET	Ethernet connection and control software for ACP power supply	1 x
(6) FLUKE117	Digital multimeter	1 x
(7) DPANEL	Connection panel, max. 4 connections	1 x
DETH	RJ45-connection	1 x
DUSB2	2 x USB charger, type A, 5 V, 2.1 A	1 x
(8) ELPSL2	1-phase schuko socket outlets, 2 pcs	1 x
(9) SUNET	Supply unit control module	1 x
Accessories		
C20PU	Chair, black, polyurethane	1 x

HELP6L20 Motorized multifunction workstation

- Multipurpose construction: electric workstation and theory desk in one solution
- Construction includes a fixed table section (2000 x 600 mm) in the front and a motorized panel section (2000 x 525 mm) in the rear
- Motorized panel section includes a built-in device panel for integrated electrical equipment and a storage unit below it
 - Device panel is modular: devices can be added later on. Integrated modules are covered with polyester film to ensure long lifetime for the markings in the front panel
 - Storage space is suitable for storing training kits, motors, soldering equipment etc. Storage space is also suitable for A4 training panels. Storage space dimensions: 1800(W) x 440(D) x 300(H) mm.
- Motorized panel equipped with fast, silent and service free electric motors for moving panel up / down
- Motorized panel can be used in three positions: down (flat work surface), middle (device panel available), up (device panel + storage space available)



- While panel is down, devices and equipment are safe from unauthorized use
- Panel can be driven either using a manual controller, or using laboratory control software
- Safety switch between the motorized panel and workstation frame for finger protection
- Workstation body made of ESD painted steel
- L-shaped ergonomic legs in the front
- Table tops with laminate surface, durable rounded plastic edges, colour light speckled grey
- Load capacity for workstation: 250 kg
- Adjustment screws to eliminate the roughness of the floor
- Can be connected to LAN and used with TLC software
- Options: Lightning and extra sockets at storage box.
- Total dimensions: 2000(W) x 1125(D) mm

SU1 1-phase supply unit

- Operating voltage: 230 V \pm 10 % AC, 50-60 Hz
- Main switch for the workstation with START position
- Green indicator light
- Integrated emergency switch, reset from the main switch
- Automatic restart prevention system e.g. after power failure
- 16 A thermal overload protector
- Fault current protection 0.03 A for all devices connected to the supply unit
- Earth terminal screw
- Outlets for the device modules
- Dimensions: 1/2-module, 125(W) x 200(H) mm



ELPSL2 1-phase socket outlets

- 2 pcs earthed schuko socket outlets
- Dimensions: 1/4-module, 62.5(W) x 200(H) mm



FGTGF4042 Function generator

- Max. frequency range 40 MHz sine
- Max. frequency range 25 MHz square/pulse
- Vertical bits/sample rate 14 digits
- Noise bandwidth 62.5 MHz
- Waveforms: Sine, Square, Ramp (Variable Symmetry), Triangle (50% Ramp symmetry), Positive Ramp (100% Ramp symmetry), Negative Ramp (0% Ramp symmetry), Pulse, Noise (Gaussian), DC, Sin(x)/x, Exponential Rise, Exponential Fall, Logarithmic Rise, Logarithmic Fall, Haversine, Cardiac, Gaussian, Lorentz, D-Lorentz and 4 User Defined Arbitrary Waveforms. Dozens of useful pre-built arbitrary waveforms are also supplied on Website



- 125 MHz frequency counter/timer with 5 measurement modes
- Programmable via USB and LAN (LXI) interfaces; GPIB optional
- Front USB host socket for waveform storage and file transfers using Flash drives
- High sine wave purity with low phase noise and jitter, audio band THD down to 0.05%
- Two identical channels - independent or linked with coupled and tracking modes
- Harmonics generation using up to 16 harmonics
- Waveform Manager Plus for Windows, editing software included
- Input voltage: 110-120 V / 220-240 V AC, 50/60 Hz
- Standard accessories: power cord, instruction manual
- Dimensions: 1 module, 250 (W) X 200(H) mm

TBS1052C Digital storage oscilloscope

- Bandwidth: 50 MHz
- 2 channels
- Sample rate (each channel): 1 GS/s
- Record length (each channel): 20 k points
- Vertical resolution: 8 bits
- Vertical sensitivity: 1 mV - 10 V / DIV
- Time base range (s/div): 2 ns - 100 s
- 7 inch WVGA (800X480) Active TFT Color Display
- 32 automated measurements
- Dual window FFT, simultaneously monitors both the time and frequency domains
- Integrated Courseware feature: Lab content can be loaded directly onto the oscilloscope, Students can review lab content, perform step-by-step instructions, record lab results and create lab reports all on the scope
- Dual channel frequency counter
- Zoom Function
- Advanced triggers including pulse and line-selectable video triggers
- Autoset and signal auto-ranging
- Autoset enable/disable feature with password protection
- USB 2.0 host port on the front panel for quick and easy data storage
- USB 2.0 device port on rear panel for easy connection to a PC
- Multiple language user interface
- Dimensions: 1 ¾ module, 437.5(W) x 200(H) mm
- Standard accessories: passive probes (one per channel), OpenChoice software, Traceable certificate of calibration - NIM/NIST, CD including: Courseware Editor software, Example Courseware labs, oscilloscope tutorials



DCACPX400S Adjustable DC power supply

- Output values: 0-60 V, 0-20 A, 420 W
- PowerFlex design gives variable voltage and current combinations within a maximum power range
- PowerFlex or fixed-range operation plus custom limits
- Constant voltage or constant current operation
- Variable OVP trips
- True analogue controls
- Voltage Setting: By coarse and fine controls
- Current Setting: By single logarithmic control
- Settings locking
- Independent digital voltage and current meters for each output with 4 digit resolution
- Voltage meter:
 - Resolution: 10 mV
 - Accuracy: 0.1 % of reading \pm 2 digits
- Current Meter:
 - Resolution: 10 mA
 - Accuracy: 0.3 % of reading \pm 20 mA
- Ripple & noise: Typically < 3 mV rms (CV mode)
- Switchable local or remote sensing
- View Settings
- LED indication of Output On, V/I Limits, CV, CI, Power Limit
- Silent fan-free cooling
- DC output on/off switch
- All outputs are intrinsically short circuit proof, and are protected against external voltages and reverse currents
- Output terminals: Universal 4mm safety binding posts on 19mm (0.75") spacing. Terminals can accept fixed shroud 4 mm plugs, standard 4 mm plugs, fork terminals and bare wires
- AC Input: 110 to 240 volts \pm 10 % 50/60Hz
- Dimensions: 1/2 module, 125(W) x 200(H) mm



DCAETHERNET Ethernet connection and software for TLP power supply

- Ethernet connection for DCA power supply
- Control program
 - Fast two-way communication
 - Versatile user interface enables e.g. automatic measurements without programming
 - Advanced datalogging function enables e.g. simultaneous follow-up and saving of several quantities, or saving of an individual value by the snapshot function
- LabView-driver
 - Advanced TCP/IP based LabVIEW driver speeds up making own applications

ACP40 Programmable 1-ph. AC power supply

- Output values: 0-250 V, 0-4 A, max. 900 VA
- Galvanic isolation
- Digital display for viewing output voltage, current and settings
- Setting accuracy and display resolution: 1 V / 0.1 A
- Measuring accuracy: voltage ± 2 V, current ± 0.1 A
- Overvoltage protection setting 0-250 V, overcurrent protection setting 0-4 A with OFF-position
- Short-circuit protected
- Output from 4 mm safety terminals or from unearthed socket (one output active at a time)
- Output ON / OFF -buttons with indicator lights
- Automatic self-test and line voltage measurement when starting
- Stability feature for stabilizing output voltage
- Firmware update possibility
- Dimensions: 1/2-module, 125(W) x 200(H) mm



ACPETHERNET Ethernet connection and software for ACP power supply

- Ethernet connection for ACP power supply
- Control program
 - Fast two-way communication
 - Versatile user interface enables e.g. automatic measurements without programming
 - Advanced datalogging function enables e.g. simultaneous follow-up and saving of several quantities, or saving of an individual value by the snapshot function
- LabView-driver
 - Advanced TCP/IP based LabVIEW driver speeds up making own applications

FLUKE117 Digital multimeter

- AutoVolt automatic AC/DC voltage selection
- LoZ: helps prevent false readings due to ghost voltage
- Large white LED backlight to work in poorly lit areas
- True-rms for accurate measurements on non-linear loads
- Measures 20 A (30 seconds momentary; 10 A continuous)
- Resistance, continuity, frequency and capacitance
- Min/Max/Average to record signal fluctuations
- CAT III 600 V safety rated
- Dimensions: 1/2-module, 125(W) x 200(H) mm



DC voltage

Max. range	600 V	
Best resolution		1 mV
Best accuracy	± 0.5 % + 2 digits	

AC voltage

Max. range	600 mV
Best resolution	1 mV
Best accuracy	±1.0 % + 3 digits

DC current

Max. range	10 A
Best resolution	1 mA
Best accuracy	±1.0 % + 3 digits

AC current

Max. range	10 A
Best resolution	0.01 A
Best accuracy	±1.5 % + 3 digits

Resistance

Max. range	40 MΩ
Best resolution	0.1 Ω
Best accuracy	±0.9 % + 1 digit

Capacitance

Max. range	10000 μF
Best resolution	1 nF
Best accuracy	±1.9 % + 2 digits

Frequency

Max. range	50 kHz
Best resolution	0.01 Hz
Best accuracy	±0.1 % + 2 digit

DPANEL Connection panel

- Connection panel, max. 4 connections
- Dimensions: ¼-module, 62.5(W) x 200(H) mm



DETH RJ45 connection

- RJ45 connection
- Require connection panel DPANEL



DUSB2 USB charger

- 2 x USB charger, type A, 5 V, 2.1 A
- Require connection panel DPANEL



ELPSL2 1-phase socket outlets

- 2 pcs earthed schuko socket outlets
- Dimensions: ¼-module, 62.5(W) x 200(H) mm



SUNET Supply unit control module

- Enables remote control for electricity in the workbench (requires TLC software)
- Features
 - Connection permission for power
 - Power off control
 - Power on/off status information
- Key switch for bypassing software control
- Ethernet connection
- Dimensions: ¼ module, 62.5(W) x 200(H) mm



C20PU Chair

- User-friendly and quick adjustability
- Large, ergonomically designed seat and backrest and lumbar support
- Black
- Polyurethane
- Height/backrest/tilt adjustment
- Castors with load-sensitive brakes
- Seat height: 440-620 mm

