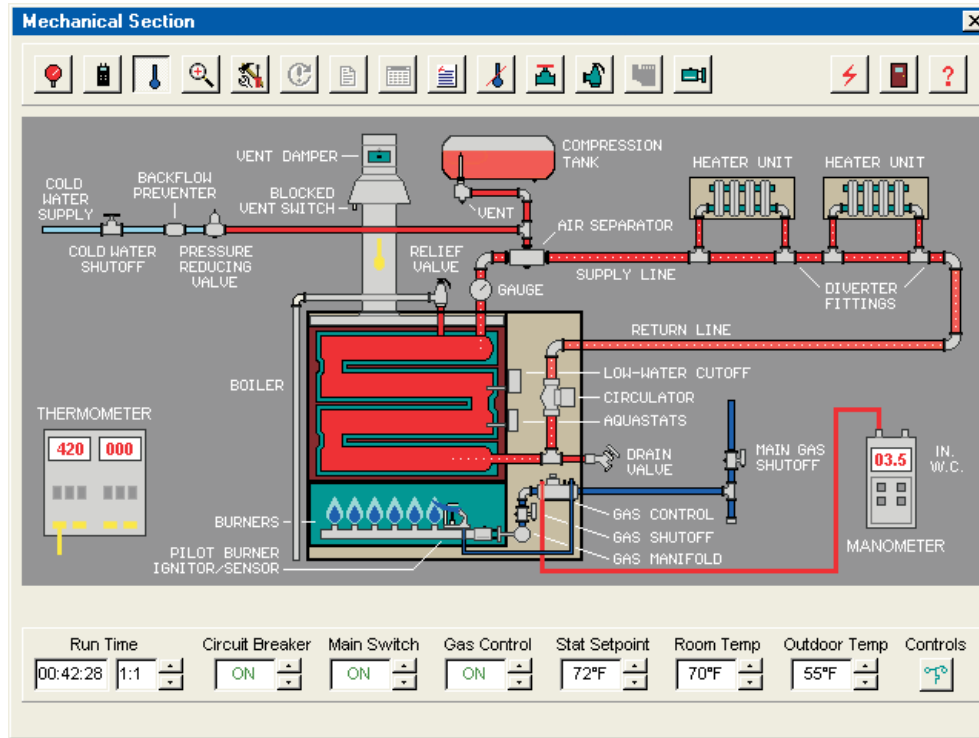


HOT WATER BOILER SIMULATOR *SIMUHYDRO*™



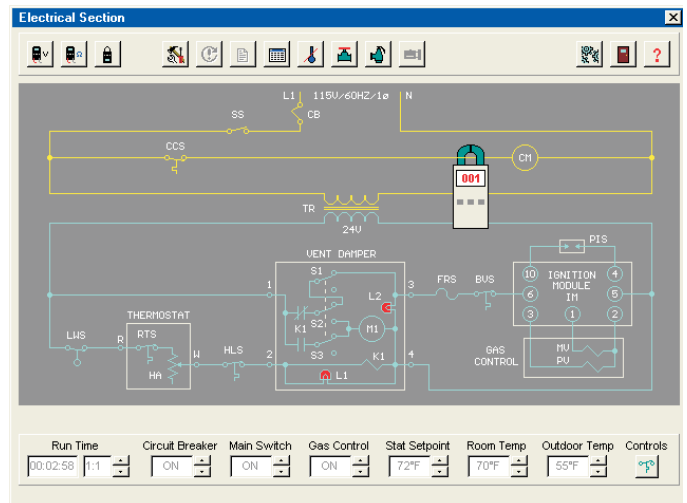
SIMUHYDRO™ simulates a generic gas-fired low-pressure hot water boiler. This residential/light commercial hydronic system uses a cast-iron boiler, a compression tank, and continuous circulation. Room and outdoor temperatures, thermostats, high-limit cut-out, circulator cut-in, gas manifold pressure, cold water pressure, and burner primary air are fully adjustable. The gas and water valves, and compression tank vent may be opened and closed by just a click of the mouse. Having the capability of changing operating temperatures, pressures, and water levels, allows the trainee to observe the boiler system under various conditions; something very difficult to do with real hydronic equipment.

Animated mechanical and electrical schematic diagrams of the simulated hot water boiler are provided in “real-time”. The **mechanical diagram** shows gas and water flow, water temperatures, boiler and compression tank water levels, and valve positions. In the **electrical ladder diagrams**, controls and switch contacts constantly change state as the system operates.

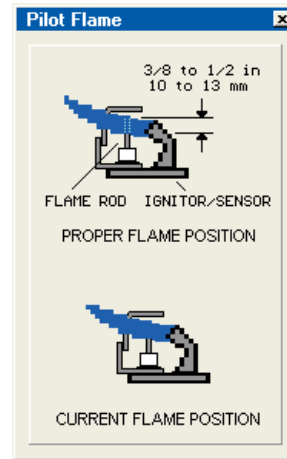
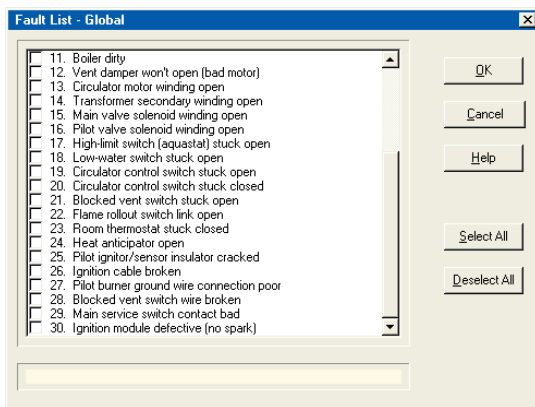
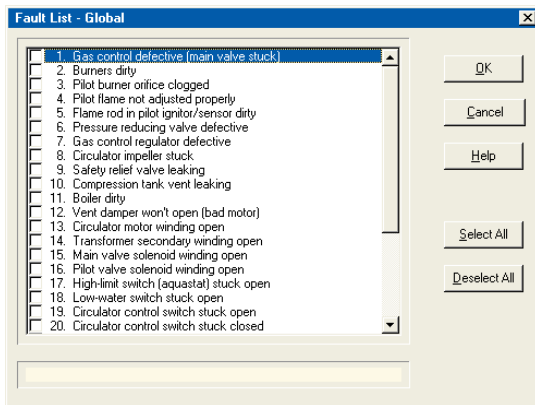
The trainee may “zoom” into the system to visually inspect various components, including checking for a dirty combustion chamber, clogged burner and pilot burner orifices, vent damper operation, and proper pilot ignitor position. The trainee can also drain and fill the boiler and compression tank, while observing water levels.

SIMUHYDRO provides easy-to-use “point-and-click” selection of meters and test points, which are saved to an *Instrument Log* to monitor the users’ troubleshooting skill. Temperatures may be displayed in either *Fahrenheit* (°F) or *Celsius* (°C), and pressures may be displayed in either *imperial* (psig/in. w.c.) or *metric* (kPa). The on-screen instruments include:

- Pressure gauges
- Manometer
- Thermometers
- Voltmeter
- Ohmmeter
- Microammeter
- Clamp-on ammeter



HOT WATER BOILER SIMULATOR *SIMUHYDRO*™



SYSTEM REQUIREMENTS

SIMUHYDRO requires the following minimum IBM compatible computer:

- Pentium, Core, or equivalent processor (32 or 64-bit)
- Windows XP, Vista, 7, 8, 8.1, 10
- Hard drive, 17MB available disk space

SIMUHYDRO network version is compatible with Novell and Windows Server 2003, Server 2008, Server 2012

Up to 30 commonly encountered mechanical and electrical faults may be selected, as shown in the *Fault Lists* above.

SIMUHYDRO provides testing and troubleshooting of the devices listed below, which are commonly found in hot water boilers.

Cast-iron boiler	Transformer
Compression tank	Gas control valve
Air separator	Circulator
Compression tank vent	Heater units
Backflow preventer	Ignition module
Pressure reducing valve	Circulator motor
Pressure relief valve	Vent damper motor
Pressure gauge	Main valve solenoid
Temperature gauge	Pilot valve solenoid
Gas manifold	Pilot ignitor/sensor
Gas burners	Room thermostat
Burner orifices	Heat anticipator
Pilot burner	Low water switch (LWCO)
Gas shutoff valves	High-limit aquastat
Cold water shutoff valve	Blocked vent switch
Vent damper	Flame rollout switch
Vent pipe	Circulator control aquastat
Draft hood	Main service switch
Diverter fittings	Circuit breaker



ORDERING INFORMATION

SIMUHYDRO™ Hot Water Boiler Simulator

Standalone Licenses

MB-500	1 computer license	\$795.00
MB-505	5 computer licenses	\$1,395.00
MB-511	10 computer licenses	\$1,795.00
MB-515	15 computer licenses	\$2,095.00
MB-520	20 computer licenses	\$2,395.00

Network Licenses

MB-540	10 seats	\$1,695.00
MB-560	25 seats	\$1,995.00
MB-570	50 seats	\$2,795.00

For further prices and ordering information, please see Page 20

ORDERING INFORMATION

METHODS OF ORDERING

MAIL

Simutech Systems, Inc.
PO Box 7212
Beaverton OR 97007 (U.S.A.)

PHONE

(800) 648-6209 (USA & Canada)
(503) 649-9076
Hours: 8:00 am to 5:00 pm Pacific Time

FAX

(503) 649-8972

ON-LINE STORE / E-MAIL

www.simutechsystems.com
sales@simutechsystems.com

METHODS OF PAYMENT

U.S. CUSTOMERS

- Purchase Order from government agency, school, or corporation (OAC), Net 30-days
- Visa, MasterCard, or American Express
- Prepaid by check



CANADA & INTERNATIONAL CUSTOMERS

- Purchase Order from government agency or school, Net 30-days, payable in U.S. funds
- Visa, MasterCard, or American Express
- Prepaid by International Bank Check, payable in U.S. funds

SHIPPING

All orders are shipped *FOB shipping point* and a shipping charge is added to invoice. Shipment is normally via *UPS ground* in USA and *UPS Air* to Canada and international. *Next-day* or *second-day air* is available upon request. For Canada and international orders, GST, local taxes, and duty are not included in our prices.

Orders are normally shipped within 24-hours

SYSTEM CONTENTS

Each simulator system includes the following:

- CD-ROM
- User's Manual
- Instructor's Manual
- Technical Support, unlimited, with toll-free number (USA and Canada)

- (1) Additional licenses are required if simulators are installed and used on more than one standalone computer at same campus or training facility
- (2) Network versions are valid for installation on a LAN server at one campus or training facility, for concurrent use by maximum licensed users
- (3) Network versions for more than 50 users are also available
- (4) May be used on tablets and iPads when a remote access server is used

Prices are subject to change without notice

Note: Simutech reserves the right to refuse any order, including shipment to countries where prohibited by U.S. export laws or lacking proper international copyright protection. Export, reshipment, or resale is prohibited without prior written permission, subject to U.S. export laws.

INSTRUCTOR INTERFACE MODULES

These *optional* programs are installed on the instructor's computer to *preselect faults* for all users at one time. Using a CD or flash drive, the faults are then uploaded to each workstation. In addition, when a printer isn't available at each workstation, these interfaces can be used to download reports, for display and printout at the instructor's computer. **These are recommended when six or more workstations are utilized without a network.** Prices are shown below:

DESCRIPTION	PART NO.	UNIT PRICE
ACINST™ Version 5.1	TA-500	\$ 195.00
HPINST™ Version 5.1	TP-500	\$ 195.00
REFRINST™ Version 5.1	TR-500	\$ 195.00
MKTINST™ Version 5.1	TS-500	\$ 195.00
GASINST™ Version 5.1	TF-500	\$ 195.00
OILINST™ Version 5.1	TO-500	\$ 195.00
HYDROINST™ Version 1.1	TB-500	\$ 195.00
GEOINST™ Version 1.0	TG-500	\$ 195.00

© 2016 Simutech Systems, Inc
Printed in U.S.A.

IBM PC is a registered trademark of IBM Corp.
Pentium and Core are registered trademarks of Intel Corp.
Windows XP, Vista, 7, 8, 8.1, 10, Server 2003, Server 2008, and Server 2012 are registered trademarks of Microsoft Corp.
iPad is a registered trademark of Apple Inc.