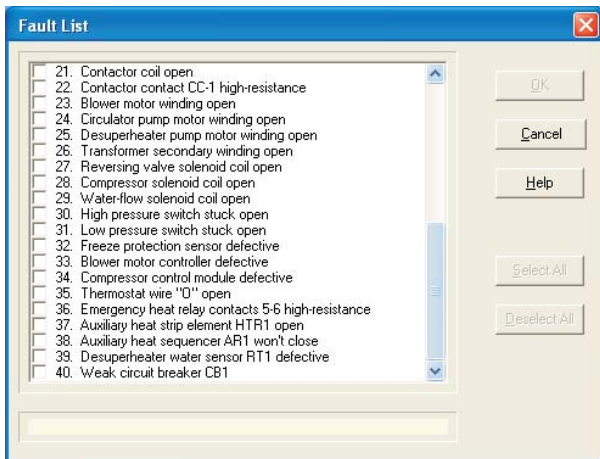
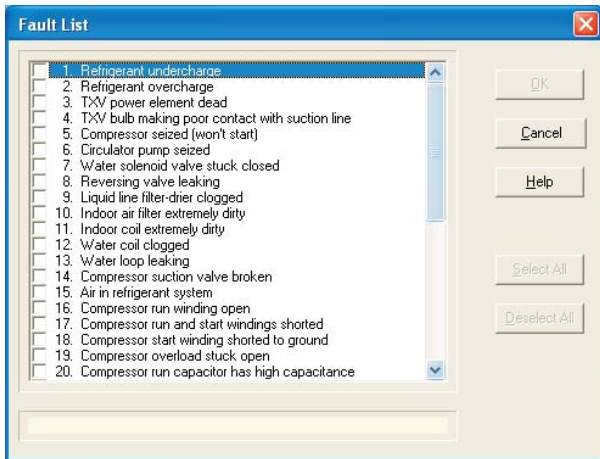


GEOHERMAL HEAT PUMP SIMULATOR *SIMUGEO*™



Up to 40 commonly encountered mechanical and electrical faults may be selected, as shown in the Fault Lists above.

SIMUGEO provides troubleshooting of the devices listed below, which are commonly found in geothermal heat pumps. An animated mechanical diagram and three electrical schematic diagrams of the simulated geothermal heat pump are provided in “real-time”. The **mechanical diagram** shows refrigerant

Compressor	Reversing valve solenoid
Evaporator coil	Compressor solenoid
Heat exchanger	Water-flow solenoid
TXV valve	Low-pressure switch
Filter-drier	High-pressure switch
Air filter	Freeze-protection sensor
Circulation pump	Run capacitor
Blower	Thermistor
ECM Motor	Auxiliary heater element
Reversing valve	Room thermostat
Compressor contactor	Auxiliary heat sequencer
Compressor control module	Desuperheater pump
Blower control module	Desuperheater module
Emergency heat relay	Transformer

and water flow, as well as the *liquid*, *liquid/vapor*, and *super-heated vapor* states of the refrigerant. In the four **electrical ladder diagrams**, the controls and switch contacts constantly change state as the system operates. Providing a means of visually tracing refrigerant, water, and current flow during operation, makes it much easier for the trainee to understand how a geothermal heat pump is supposed to work. Pressure-temperature charts, performance charts, specifications, and nomenclature are available on-screen. In addition, the trainee can “zoom” into the system to visually inspect various components, including the indoor coil, and a dirty air filter.

SIMUGEO provides easy-to-use “point-and-click” selection of meters and test points, and 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) or *metric* (kPa/barg). The on-screen test instruments include:

- Gauge manifold set
- Thermometer
- Pressure gauge
- Leak detector
- Voltmeter
- Ohmmeter
- Ammeter
- Capacitance meter

SYSTEM REQUIREMENTS

SIMUGEO requires the following minimum IBM compatible computer:

- Pentium, Core, or equivalent processor (32 or 64-bit)
- Windows XP, Vista, 7, 8, 8.1, and 10
- Hard drive, 21MB available disk space

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



ORDERING INFORMATION

SIMUGEO™ Geothermal Heat Pump Simulator

Standalone Licenses

MG-500	1 computer license	\$895.00
MG-505	5 computer licenses	\$1,595.00
MG-511	10 computer licenses	\$1,995.00
MG-515	15 computer licenses	\$2,295.00
MG-520	20 computer licenses	\$2,595.00

Network Licenses

MG-540	10 seats	\$1,895.00
MG-560	25 seats	\$2,095.00
MG-570	50 seats	\$2,895.00

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

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iPad is a registered trademark of Apple Inc.