ESPEC
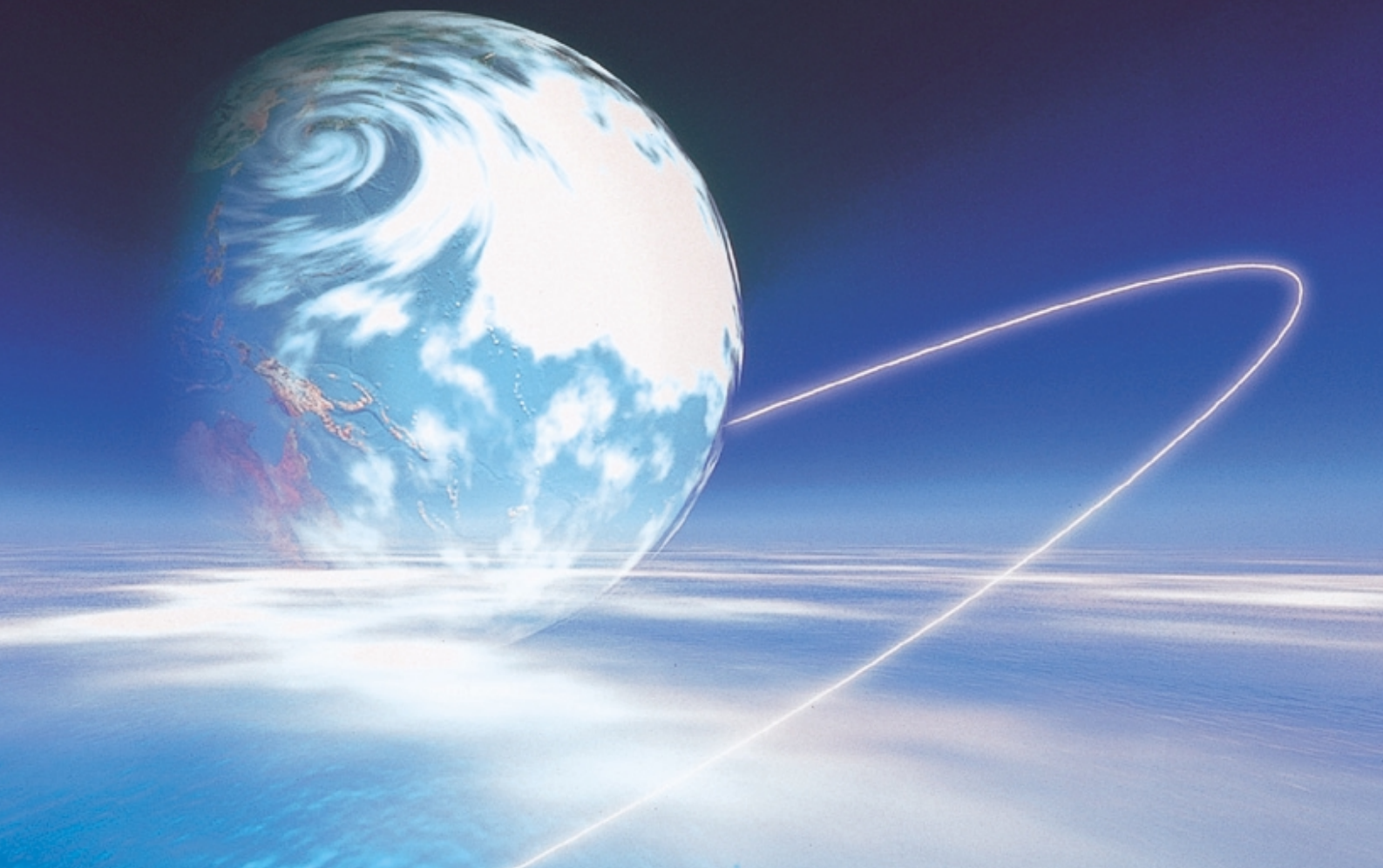
Communication Network System
for Environmental Testing Equipment
E-PILOT 21

The Second Stage Toward an Environmental Test Network E-PILOT 21

The E-PILOT 21 series of software solutions hold a myriad of
possibilities to evolve data communication network system
of environmental testing equipments to a new dimension.
The vision of E-PILOT 21 is a "solution net" of centralized control
to specimen measurement and remote maintenance of test chambers
——— an open network system.
Rely on us to lead you to the future stage of environmental testing.

Environmental Testing Centralized Control Software

Windows Compatible ————————————
The ERC-100M/200M application software makes it easy to control all types of ESPEC test chambers with a computer. Use it to set operation parameters, monitor testing, create programs, and record data for up to 16 systems. The communication system of ERC-100M is compatible with ESPEC exclusive interface E-BUS. ERC-200M is compatible with common interface RS-485, allowing remote control of test operation.

* We also provide a full-customized central control system CMS-J30 (compatible with E-BUS) which enables control of up to 32 chambers.

● Remote operation for easier testing

Set testing parameters or monitor operations while still in your office from a communication distance of up to 500 meters via E-BUS (ERC-100M) / RS485 (ERC-200M).

● Automatic registration of connected test chambers

The functions of test chambers connected to the network are automatically recognized and registered in the system.

● Improved operation

A mouse can perform all basic operations on the personal computer.
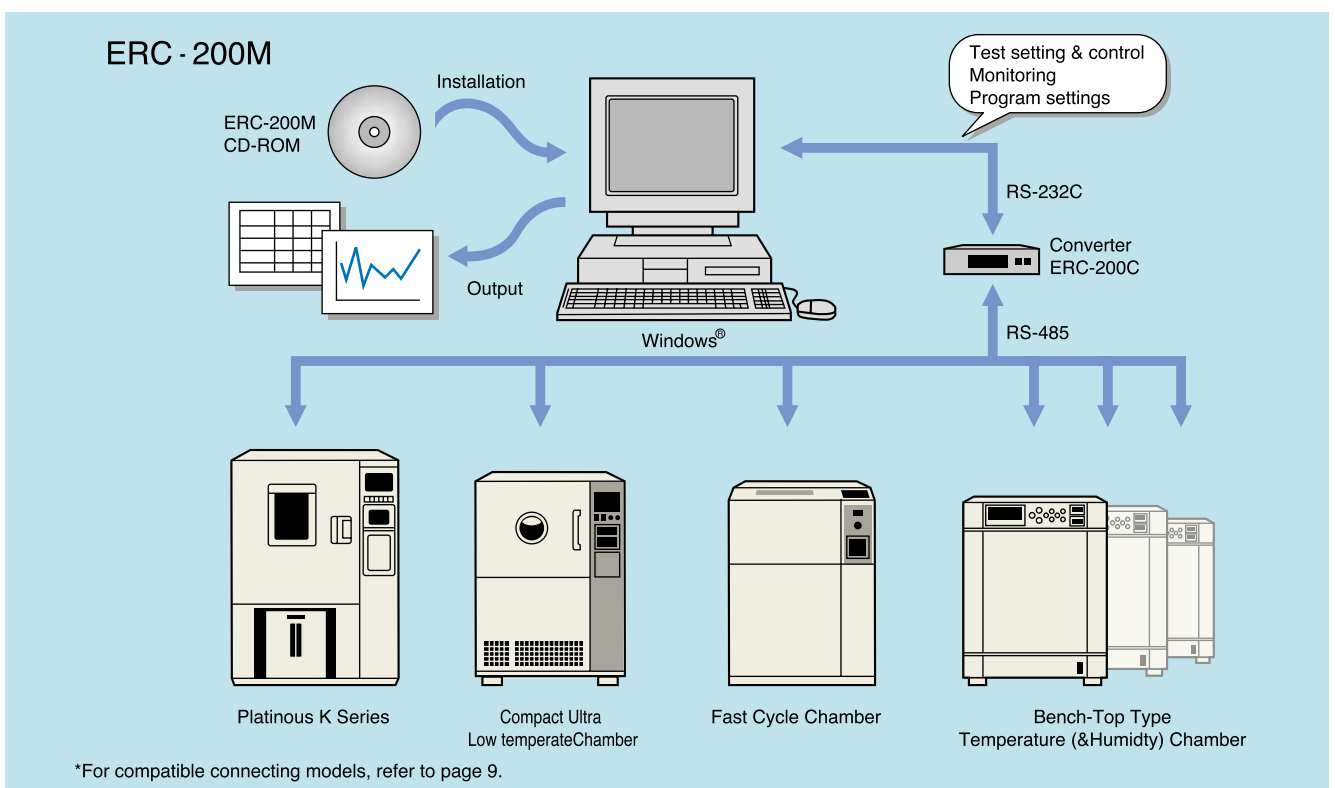
● Easy control and data logging

The software can automatically record the test operation and save to a universal CSV (comma separated values) file.
This file can then be opened in spreadsheet software like Excel for analysis and graphing.

● Achieve greater functionality

The ERC-100M/200M allows program operations to be run on test chambers with less-expensive single-setting controllers, thus saving initial cost.

ERC 200M

ERC-200M CD-ROM — Installation — Output — Windows® — Test setting & control / Monitoring / Program settings — RS-232C — Converter ERC-200C — RS-485

Platinous K Series   Compact Ultra Low temperateChamber   Fast Cycle Chamber   Bench-Top Type Temperature (&Humidty) Chamber

*For compatible connecting models, refer to page 9.
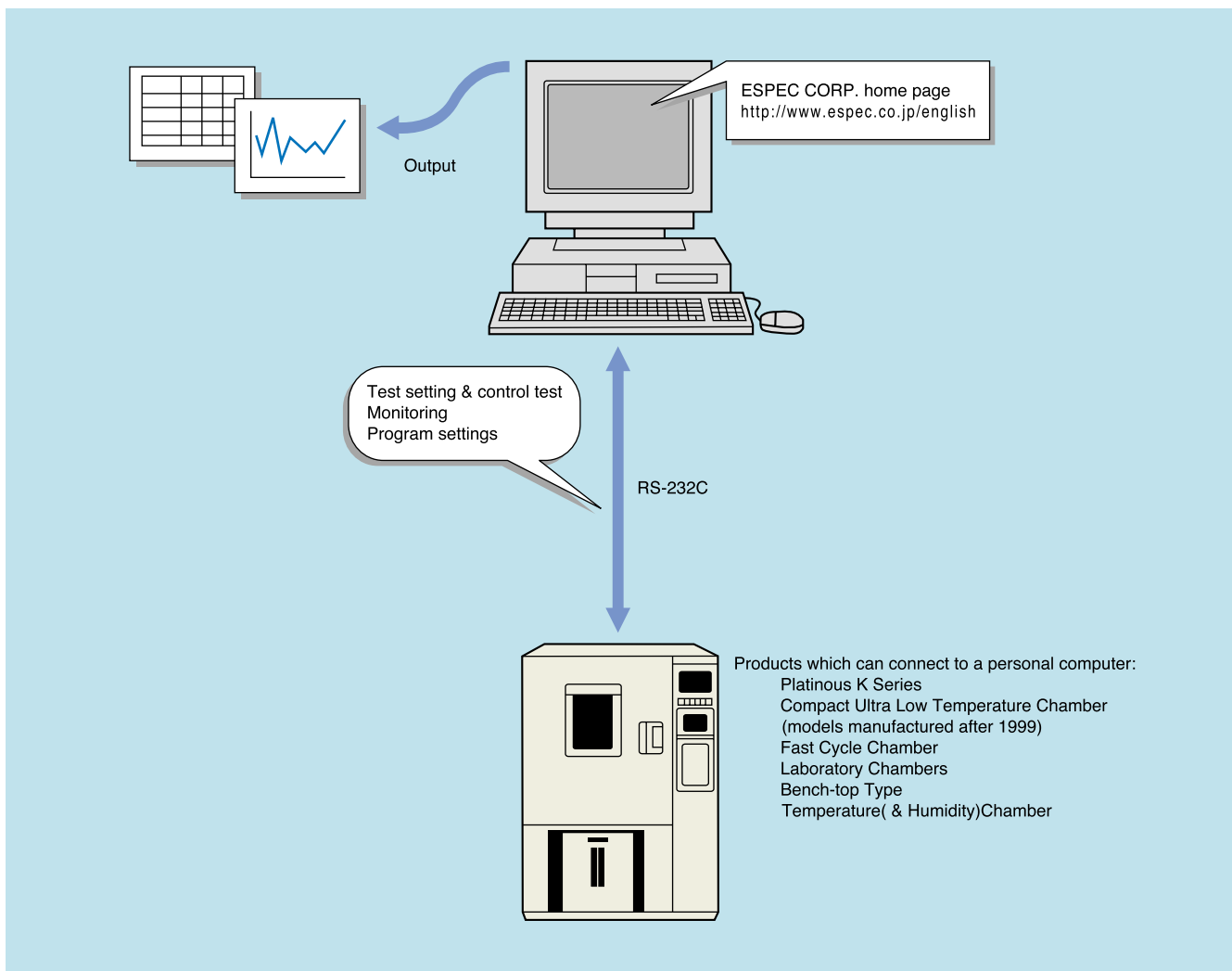
Remote Device Software

One-to-One Remote Device System —————
The ERC-100S Remote Device Software provides the functionality, but for only a single chamber.
The software can be downloaded directly from our website for free.

● **For our One-to-One users**

If you are not ready to establish a network of test chambers, this software would be an ideal trial of the high-level capabilities of our ERC-100M/200M package.

● **Download and trial**

Access our home page (http://www.espec.co.jp/english) to download the ERC-100S Remote Device Software and see what it can do for you.

ESPEC CORP. home page
http://www.espec.co.jp/english

Output

Test setting & control test
Monitoring
Program settings

RS-232C

Products which can connect to a personal computer:
Platinous K Series
Compact Ultra Low Temperature Chamber
(models manufactured after 1999)
Fast Cycle Chamber
Laboratory Chambers
Bench-top Type
Temperature(& Humidity)Chamber

Drivers for Measurement Software

For customers using LabVIEW mode by National Instruments Corporation ——— We support automation of environmental testing by providing operation drivers in conjunction with ESPEC equipment, thus enabling simultaneous operation of chamber and measurement evaluation.

● **Drivers for connecting to test chambers**

Drivers required to connect ESPEC products to a personal computer can be downloaded from our home page.

LabVIEW
CD-ROM

Drivers set
(download)

GP-IB

GP-IB

Measurement Evaluation System Type

Centralized Control Type

Platinous K Series

Measurement Evaluation System

Protocol Converter
PMS-CA

E BUS

Measurement
Evaluation System

(Max16)
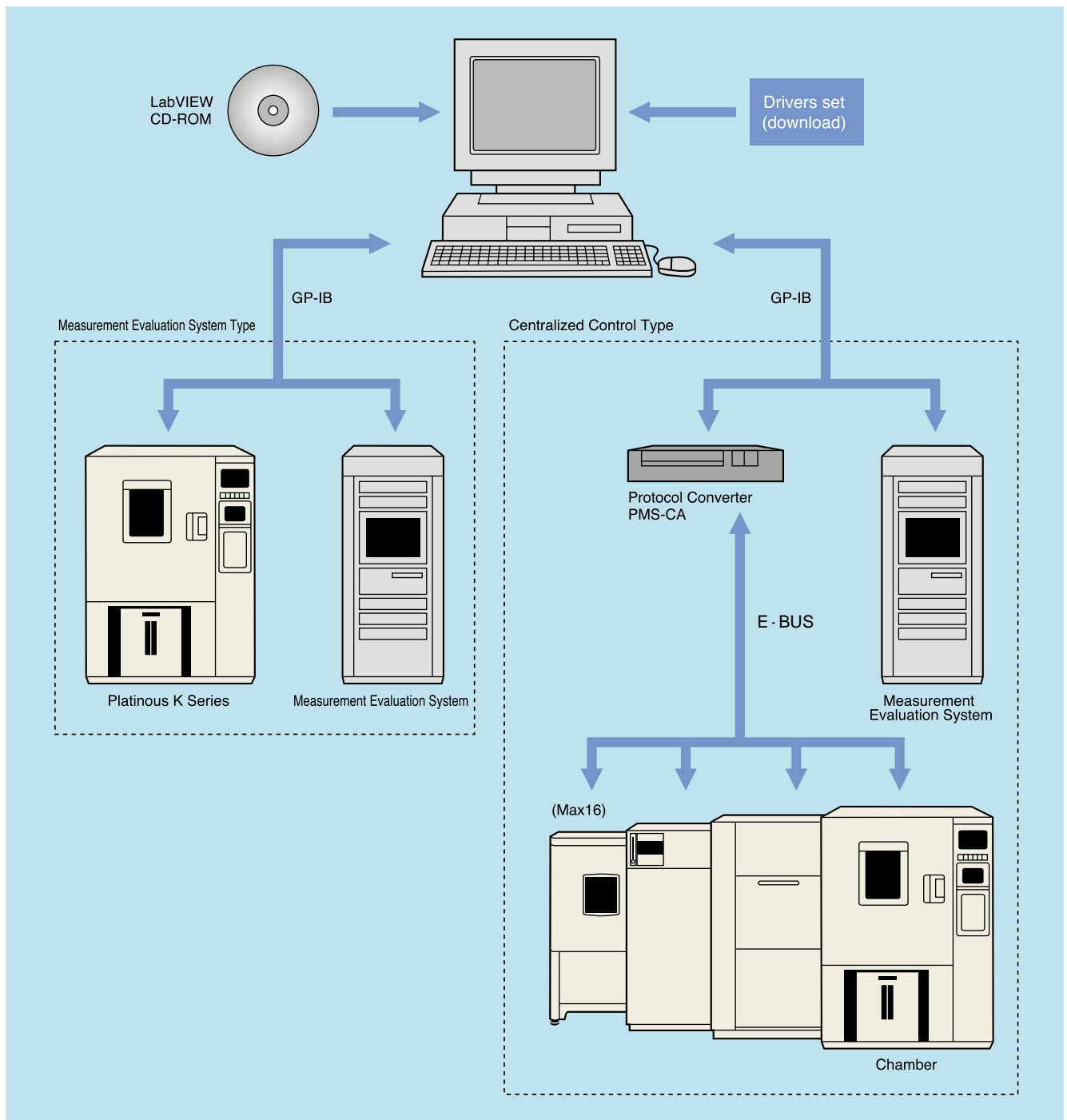
Chamber

Web-PILOT

Set up a Web-PILOT site with an Ethernet (intranet) and E-BUS to allow monitoring of up to 16 chambers through a Windows PC.   ERC-300M

● **Monitor settings and operation of your chambers from a PC while sitting in your office.**

CD-ROM
ERC-300S
ERC-300M

Ethernet

Intranet

ERC-300S

Web-PILOT
(ERC-300S)

RS-232C

(One-to-One)

Chamber

ERC-300M

Web-PILOT
(ENET-232/2)

RS-232C

Protocol Converter
PMS-CA

E-BUS

(Max16)

Chamber

*For compatible connecting models, refer to page 9.

Elmatik AS, Türi 9, 11314 Tallinn Estonia tel. +372 650 3875 tel. +372 650 3876 fax +372 655 8019 e-mail: elmatik@elmatik.ee
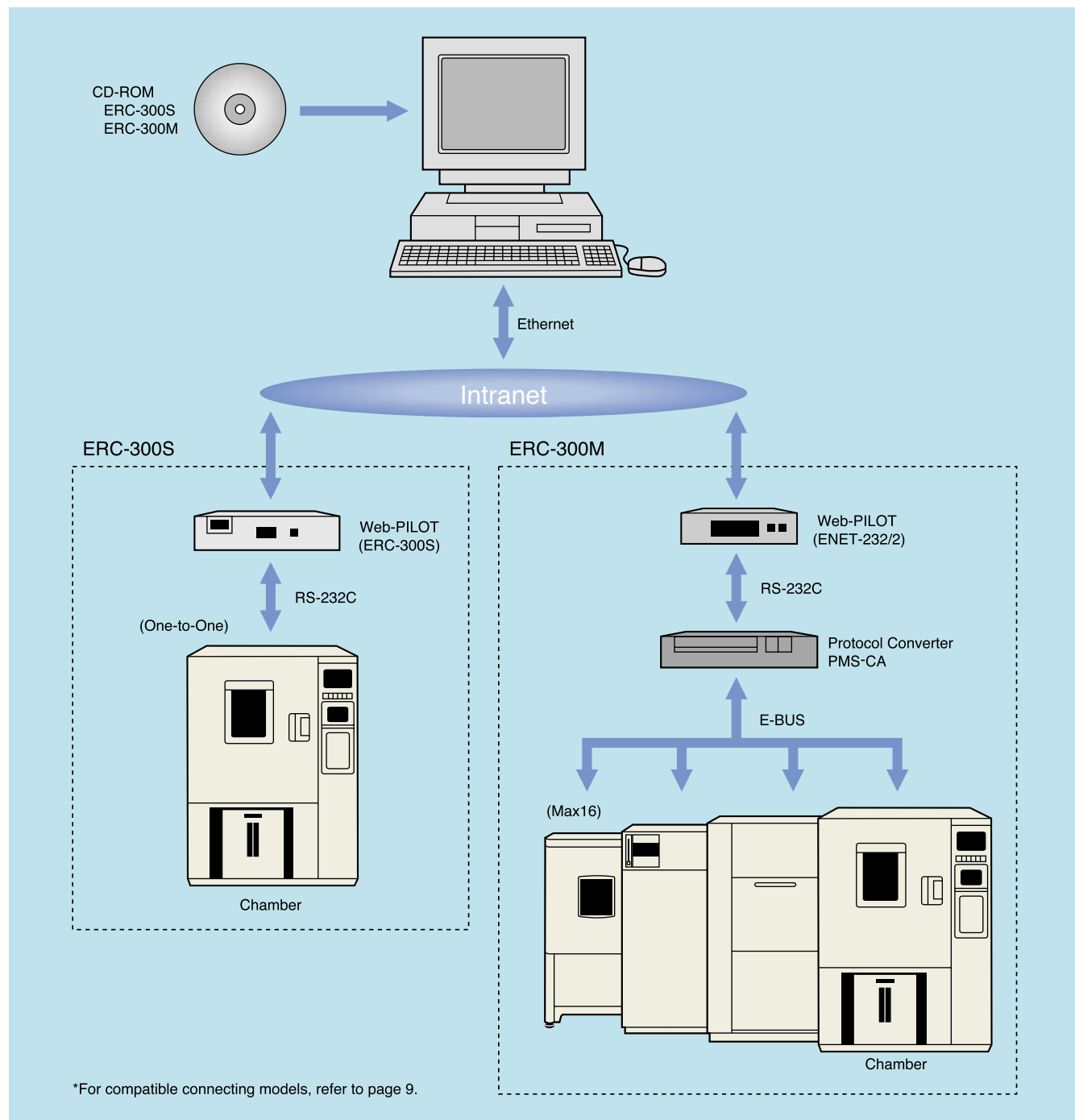
Setting and Monitoring Function System   ERC-100M   200M

Screen menu

Main
Main screen
- Display measurements from chamber
- Switch operation
- Display measurement recording screen
- Display calendar timer screen*
- Display program editing screen
- Make operation settings for each group*

Main screen

Monitor
Information monitor screen
- Display operation information
- Display chamber conditions
- Display control information
- Display program information

Trend graph screen
- Display trend graph

Alarm history screen
- Alarm history

Information monitor screen

Trend graph screen

Program
Program editing screen
- Set constants
- Set program

Recording
Recording screen for measured values
- Create log file

Program editing screen

Reservations
Calendar timer screen   *
- Set starting timer
- Set reservation log
- Set end timer

System
Communication setting screen
- Online/Offline
  RS-232C communication settings

Recording screen for measured values

Registration screen   *
- Chamber registration
  Group registration

Setting screen for trend graph
- Set temperature range
  Clear trend graph

Option screen
- Change user password
- Manufacturer maintenance
  Trend graph/log sampling
- Periodic settings*

Help
Version information screen   *
- Display version/license

*Function is not available with ERC-100S

Network Comparisons

Type	ERC-100S	ERC-100M	ERC-200M
Software	Download (Free)	CD-ROM (For Value)	CD-ROM (For Value)
Number of chambers supported	1	16	16
Configuration	**Free** **Download** → Computer (RS-232C port) ↕ RS-232C → Chamber	**For value** ERC-100M CD-ROM → Computer (RS-232C port) ↕ RS-232C → Protocol Converter PMS-CA ↕ E-BUS → Chamber	**For value** ERC-200M CD-ROM → Computer (RS-232C port) ↕ RS-232C → Converter ERC-200C ↕ RS-485 → Chamber
Required hardware	PC communication port (RS-232C) RS-232C straight cable Test Chamber communication port (RS-232C)	PC communication port (RS-232C) RS-232C straight cable Protocol Converter (PMS-CA) E-BUS cable Test Chamber communication port (E-BUS)	PC communication port (RS-232C) RS-232C straight cable RS-485 Converter (ERC-200C) RS-485 cable

* An optional communication port should be equipped for some chambers.

ERC-300S	ERC-300M	Driver software for "LabVIEW" (measurement software)	
For Value	For Value	Commercial software (purchased by customer)　driver (Download for free)	
1	16	16 (3)	1

Column 1 (ERC-300S):
For value
ERC-300S CD-ROM
→ Computer
← Ethernet →
Intranet
Web-PILOT (ERC-300S)
RS-232C
Chamber

Column 2 (ERC-300M):
For value
ERC-300M CD-ROM
→ Computer
← Ethernet →
Intranet
Web-PILOT (ENET-232/2)
RS-232C
Ptotocol Converter PMS-CA
E-BUS
Chamber

Column 3:
Free / Driver
Computer — GP-IB board
GP-IB
Measurement Evaluation System
Protocol Converter PMS-CA/CG
E-BUS
Chamber

Column 4:
Free / Driver
Computer — GP-IB board
GP-IB
Platinous K Series
Measurement Evaluation System

ERC-300S	ERC-300M	Driver (16 (3))	Driver (1)
PC communication port (Ethernet)	PC communication port (Ethernet)	GP-IB board (National Instruments Corp.)	GP-IB board (National Instruments Corp.)
LAN cable	LAN cable	GP-IB cable	GP-IB cable
RS-232C straight cable	RS-232C straight cable	Protocol Converter (PMS-CA/PMS-CG)	Test Chamber communication port (GP-IB)
Test Chamber communication port (RS-232C)	Protocol Converter (PMS-CA)	E-BUS cable	
	E-BUS cable	Test Chamber communication port (E-BUS)	
	Test Chamber communication port (E-BUS)		

ERC-Compatible Models

Products	Connection				
	ERC-100M	ERC-200M	ERC-300M	ERC-100S	ERC-300S
Platinous K Series					
Platinous S Series		—		—	—
Platinous F Series		—		—	—
Platinous ESU, ESZ, ESL, ESX Series		*1			
Platinum ENU, ENZ, ENL, ENX Series		*1			—
Platinous SET(H) Series		*1			
Platinous GR, GL, GSL Series		*1			
Bench-Top Type Temperature (&Humidity) Chamber (models manufactured after Dec 10, 2001)					—
Compact Ultra Low Temperature Chamber T-instrumentation (models manufactured after 1999)					—
Compact Ultra Low Temperature Chamber P-instrumentation (models manufactured after 1999)		*1			
Climatic Test Chamber		—		—	—
Work Operation Type Low Temperature Chamber		—		—	—
Walk-in Type Temperature (&Humidity) Chamber P/T-instrumentation		*1		—	
M Series	—	*1	—	—	—
Air Supply Equipment		—		—	—
Temperature Chamber (Industrial Ovens)		—		—	—
Ultra-High Temperature Chamber		—		—	—
Temperature Chamber with Explosion Vent		—		—	—
Temperature Chamber with Rotating Specimen Rack		—		—	—
Anaerobic Temperature Chamber		—		—	—
Clean Oven (Type PV(H)C)		—		—	—
Vacuum Oven		—		—	—
Desk-Top Type High-Temp Chamber	*2	—	*2	—	—
Super Thermal Plate	—		—	—	—
Fast Cycle Chamber		*1			
Air to Air Thermal Shock Chamber TSA Series (models manufactured before Nov, 2003)	*2	—	*2	—	—
Air to Air Thermal Shock Chamber TSA Series (models manufactured after Jnu, 2003)	*2	—	*2	—	—
Air to Air Thermal Shock Chamber ETS Series	*2	—	*2	—	—
Air to Air Thermal Shock Chamber TSE Series (models manufactured after Dec 10, 2001)	*2	*1	*2	—	—
Liquid to Liquid Thermal Shock Chamber (models manufactured before May, 2003)	*2	—	*2	—	—
Liquid to Liquid Thermal Shock Chamber (models manufactured after Jnu, 2003)	*2	—	*2	—	—
High Accelerated Stress Test System (HAST Chamber)	*2	—	*2	—	—
Laboratory Chamber (models manufactured after 1999)		*1	*2		—

When using ERC-100M, chambers must have an E-BUS port.

When using ERC-100S, chambers must have an RS-232C port.

Choose from two versions for ERC-100S depending on the compatible models.

for setting parameters and monitoring.
for monitoring only.

may not be compatible with some models or may only be able to monitor.

For other compatible models and further information, please contact us.

*1 For further information, please contacu us.

*2 Up to 16 units may be connected. However, no more than four Thermal Shock Chambers (TSA, TSE, TSB), Vacuum Ovens, and High Accelerated Stress Test Systems can be accepted.

Requirements

Model	ERC-100M		ERC-200M		ERC -300M		ERC -100S	ERC-300S
CPU	Pentium 200MHz	Pentium II 400MHz	Celeron 700MHz	Pentium III 800MHz	Celeron 700MHz	Pentium III 800MHz	Pentium 200MHz	Celeron 700MHz
Memory	Minimum 64MB							
Disk space required for installation. *1	Minimum 20MB						Minimum 15MB	Minimum 30MB
Communication port	COM1 or COM2 is required				Ethernet		COM1 or COM2 is required	Ethernet
Display	SVGA (800× 600 dots) or better							
Hard disk capacity	Approx. 80KB/chamber is required to store recorded data(when recorded in 1-minute intervals for 24 hours) *4							
OS *2	Windows® 95(OSR2) Windows® 98(Second Edition) Windows NT®4.0(SP3) Windows® 2000 *5 Windows® XP *5		Windows® 95(OSR2) Windows® 98(Second Edition) Windows NT®4.0(SP3) Windows® 2000 *6 Windows® XP *6		Windows NT®4.0(SP5)		Windows® 95(OSR2) Windows® 98(Second Edition) Windows® XP	Windows® ME Windows NT®4.0 (SP5) Windows® 2000 (SP2) *3
Number of chambers supported	3	16	3	16	3	16	1	1

*1 Required capacity will vary depending on how the hard disk is formatted Therefore, it is recommended that extra space be allowed for storing data.

*2 vtdapi.vxd should be upgraded on Windows® 95 (OSR2).

*3 Windows® 98 (Second Edition) recommended. Internet Explorer 5.0   is required.

*4 ERC-300S can be stored only on Windows® 95, Windows® 98, and Windows® Me.

*5 ERC-100M Ver 2.12   can be used.

*6 ERC-200M Ver 1.13   can be used.

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ISO 14001 (JIS Q 14001)
Environmental Management System Assessed and Registered
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　　　　　　　　　ESPEC KANSAI CORP.
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