



Advanced Test Equipment Rentals
www.atecorp.com 800-404-ATEC (2832)

Service Manual

**Temperature Chamber
(Industrial Oven)**


PH(H)-101, 201, 301, 401

SPH(H)-101, 201, 301, 401

IPH(H)-201, GPH(H)-101, 201

STPH-101, 201, SSPH-101, 201

4021205000300

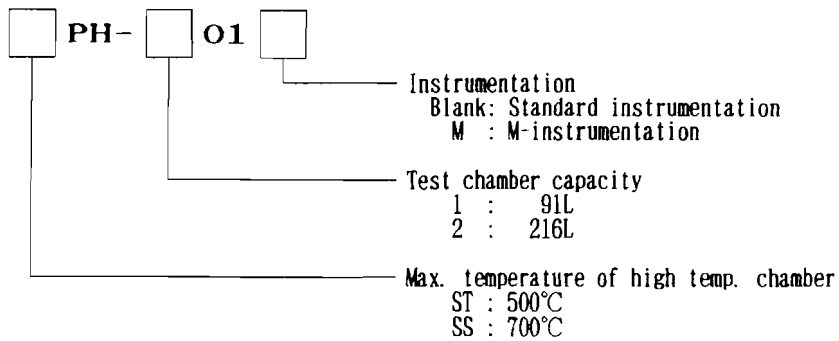
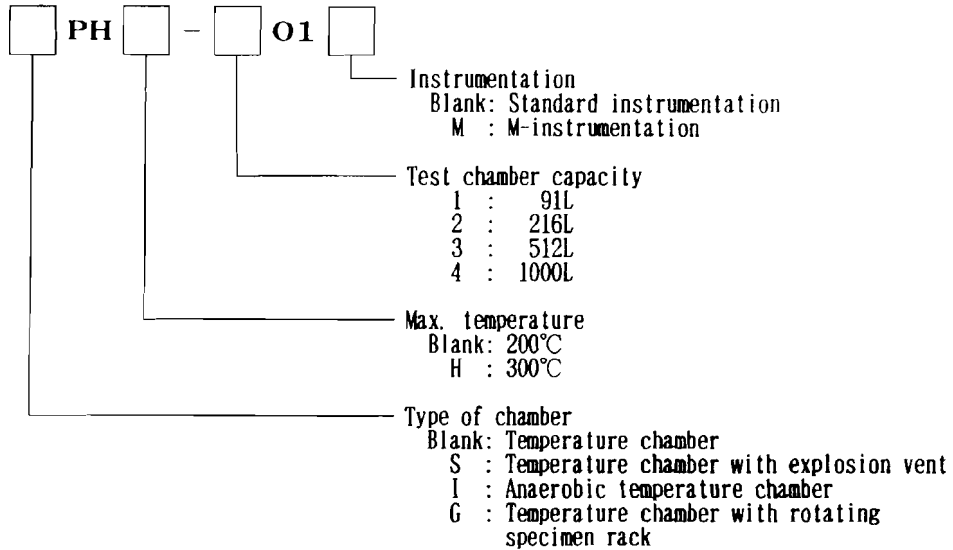
 This Service Manual has been compiled specifically for service-people trained or certified by ESPEC ENGINEERING CORP. Because of the dangers involved, service described herein should not be performed by other persons.

ESPEC ENGINEERING CORP.

Chapter 2 Chamber configuration

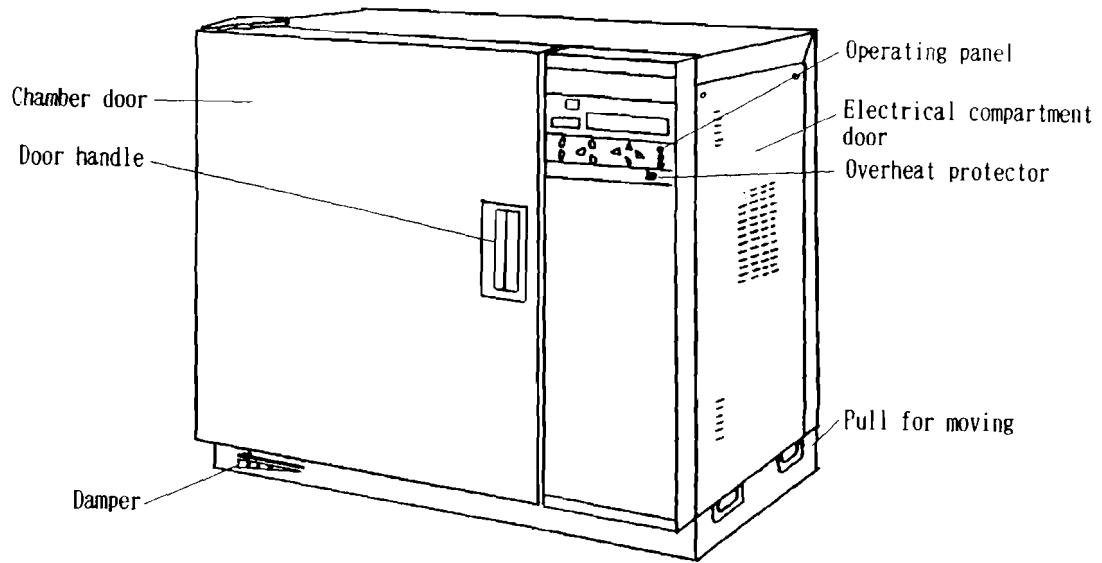
2-1 Temperature chamber models

Explanations given in this manual may regard functions not provided with your chamber. You should, therefore, familiarize yourself with the type and model of chamber(s) you are using.

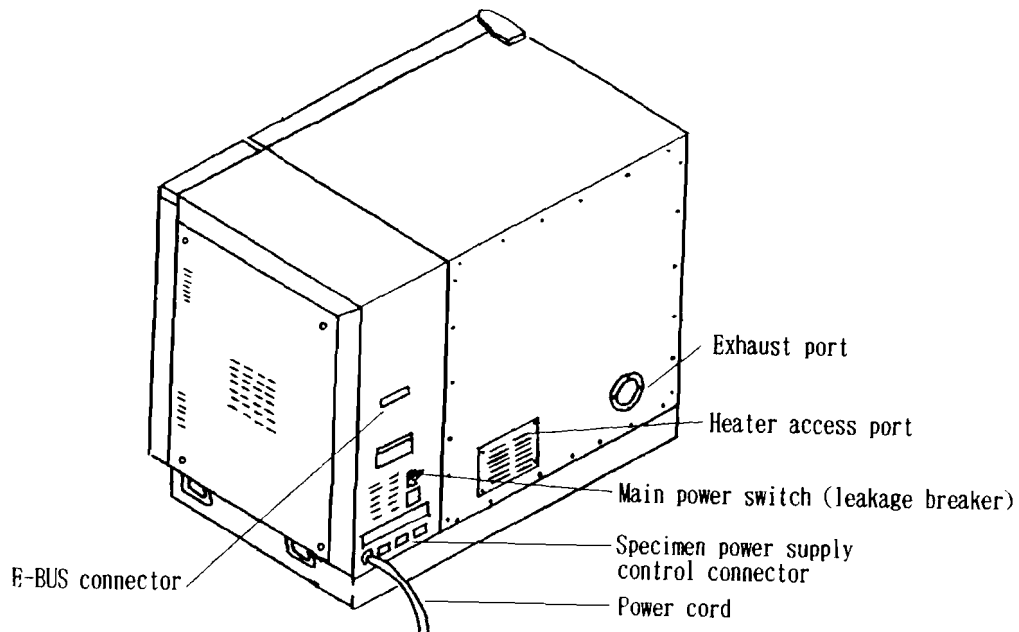


2-2 Names of chamber parts

• PH(H)-101, 201, 301



Chamber front view



Chamber rear view

PARTS LIST

Products Name: TEMPERATURE CHAMBER			Model: PH (H) - 101, 201, 301, 401							Dwg. No. 4021223073400		1 / 3
SYM	DESCRIPTION	SPECIFICATION	QTY								PARTS CODE	
			PH-101	PH-201	PH-301	PH-401	PHH-101	PHH-201	PHH-301	PHH-401		
LB1	Leakage Breaker	15A, 30mA, 1PH W/TBL	1									
LB1	Leakage Breaker	20A, 30mA, 1PH W/TBL		1				1				
LB1	Leakage Breaker	30A, 30mA, 1PH W/TBL							1			
LB1	Leakage Breaker	20A, 30mA, 3PH W/TBL			1							
LB1	Leakage Breaker	30A, 30mA, 3PH W/TBL				1				1		
LB1	Leakage Breaker	40A, 30mA, 3PH W/TBL									1	
DS1	Door Switch	250VAC, 0.5A	1	1	1	1	1	1	1	1	1	
DS2	Door Switch	250VAC, 5A Door open detection				1					1	
F1	Glass Body Fuse	3A ϕ 6.4 \times 30mm	1	1		1	1	1			1	
F1	Glass Body Fuse	5A ϕ 6.4 \times 30mm			1					1		
X1	Relay	250VAC, 20A(TC1)	1	1	1	1	1	1	1	1	1	
X2	Relay	250VAC, 20A(TC1)			1	1			1	1	1	
X3	Relay	250VAC, 20A(TC1)			1	1				1	1	
SSR1	Solid-State Relay	250V, 20A Input 24VDC	1	1	1	1	1	1	1	1	1	
SSR2	Solid-State Relay	250V, 20A Input 24VDC			1	1			1	1	1	
SSR3	Solid-State Relay	250V, 20A Input 24VDC			1	1				1	1	
H1,2	Stripped Wire Heater	200VAC, 0.9KW	2									
H1,2	Stripped Wire Heater	200VAC, 1.25KW		2				2				
H1,2	Stripped Wire Heater	200VAC, 1.8KW							2			
H1,2,3	Stripped Wire Heater	200VAC, 1.5KW			3							

PARTS LIST

Products Name: TEMPERATURE CHAMBER			Model: PH (H) -101, 201, 301, 401							Dwg. No. 4021223073400		1 / 3
SYM	DESCRIPTION	SPECIFICATION	QTY								PARTS CODE	
			PH-101	PH-201	PH-301	PH-401	PHH-101	PHH-201	PHH-301	PHH-401		
LB1	Leakage Breaker	15A, 30mA, 1PH W/TBL	1									
LB1	Leakage Breaker	20A, 30mA, 1PH W/TBL		1				1				
LB1	Leakage Breaker	30A, 30mA, 1PH W/TBL							1			
LB1	Leakage Breaker	20A, 30mA, 3PH W/TBL			1							
LB1	Leakage Breaker	30A, 30mA, 3PH W/TBL				1				1		
LB1	Leakage Breaker	40A, 30mA, 3PH W/TBL									1	
DS1	Door Switch	250VAC, 0.5A	1	1	1	1	1	1	1	1	1	
DS2	Door Switch	250VAC, 5A Door open detection				1					1	
F1	Glass Body Fuse	3A ϕ 6.4 \times 30mm	1	1		1	1	1			1	
F1	Glass Body Fuse	5A ϕ 6.4 \times 30mm			1					1		
X1	Relay	250VAC, 20A(TC1)	1	1	1	1	1	1	1	1	1	
X2	Relay	250VAC, 20A(TC1)			1	1			1	1	1	
X3	Relay	250VAC, 20A(TC1)			1	1				1	1	
SSR1	Solid-State Relay	250V, 20A Input 24VDC	1	1	1	1	1	1	1	1	1	
SSR2	Solid-State Relay	250V, 20A Input 24VDC			1	1			1	1	1	
SSR3	Solid-State Relay	250V, 20A Input 24VDC			1	1				1	1	
H1,2	Stripped Wire Heater	200VAC, 0.9KW	2									
H1,2	Stripped Wire Heater	200VAC, 1.25KW		2				2				
H1,2	Stripped Wire Heater	200VAC, 1.8KW							2			
H1,2,3	Stripped Wire Heater	200VAC, 1.5KW			3							

P A R T S L I S T

Products Name: TEMPERATURE CHAMBER			Model: PH (H) -101, 201, 301, 401							Dwg. No. 4021223073500		2 / 3
SYM	DESCRIPTION	SPECIFICATION	QTY								PARTS CODE	
			PH-101	PH-201	PH-301	PH-401	PHH-101	PHH-201	PHH-301	PHH-401		
H1,2,3	Stripped Wire Heater	200VAC, 2.0KW								3		
H1,2,3	Stripped Wire Heater	200VAC, 2.0KW				3						
H1to6	Stripped Wire Heater	200VAC, 1.5KW									6	
PR1	Phase Reversal Relay	200VAC				1					1	
OHP1	Overheat Protector	0~220°C Type K	1	1	1	1						
OHP1	Overheat Protector	0~320°C Type K						1	1	1	1	
TEC1,2	Temp. Sensor	Type K(Double)	1	1	1			1	1	1		
TEC1,2	Temp. Sensor	Type K(Double)				1					1	
NF1	Noise Filter	250VAC 3A	1	1	1	1	1	1	1	1	1	
TF1	Transformer	200VAC/8.5VAC, 19VAC, 19VAC	1	1	1	1	1	1	1	1	1	
TC1	Temp. Controller	NPO-CPU-1	1	1				1				
TC1	Temp. Controller	NPO-CPU-2							1			
TC1	Temp. Controller	NPO-CPU-3			1	1				1	1	
M1	Motor	200VAC 4P 20W	1	1				1	1			
M1	Motor	200VAC 6P 200W			1					1		
M1	Motor	200VAC 4P 200W 3PH				1					1	
C1	Capacitor	400VAC 2μF	1	1				1	1			
C1	Capacitor	500VAC 4μF			1					1		
MS1	Magnetic Contactor	200ACV (W/Th1)				1					1	
Th1	Thermal Overload Relay	1.3A				1					1	