

INSTRUCTION MANUAL

Turbo Molecular Pump Monitor software

MODEL UTM_B Series

Before using this product, be sure to read this operation manual. Keep this manual with care to use at any time

> ULVAC, Inc. Components Division http://www.ulvac.co.jp/

Introduction

Thank you for choosing the ULVAC Turbo Molecular Pump.

This instruction manual is written for customers who use this product and our service personnel.

Before using this pump and this power supply unit, please read the instruction manual thoroughly and use it properly according to the contents.

Also, please keep it in a place where you can retrieve the instruction manual immediately after reading.

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Every effort has been made to prepare an accurate and complete manual, but if an error or omission should be discovered, revisions might not be possible immediately.

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1. Overview and specifications

1.1 Overview

This application is software to collect and save pump information via turbo molecular pump and RS-232C. This application has the following functions.

 $\cdot\,$ Collection and preservation of pump information

Operation mode
Run time
Maintenance call time
Power failure touchdown count
High-speed touchdown count
MB warning counter
Maintenance call time setting
Model identification number
Rotational speed
"ALARM" signal operation setting
"REMOTE" signal operation setting
"STOP" signal operation setting
Low speed value (0.1% unit)
Warning output setting
Power failure detection time
RS-485 Network ID *1
RS-485 Multidrop setting *1
\cdot 1 second period logging of status information
Rotational speed
Rotational speed (0.1% unit)
Motor current
Rated rotational speed
Axis 1 unbalance monitor amount
Axis 2 unbalance monitor amount
MB sensor output X1
MB sensor output Y1
MB sensor output X2
MB sensor output Y2
MB sensor output Z



- \cdot Start / Stop / Alarm reset operation
- · Collection and preservation of Alarm history
- *1 It is displayed only when RS 485 communication.



1.2 Standard specification

Model	UTMTool
Compatible models	UTM70B,UTM300B
	Microsoft Windows 7 Professional in English (SP1、32bit)
Operating OS	Microsoft Windows 7 Professional in English (SP1、64bit)
	Microsoft Windows 10 Professional in English (SP1、64bit)
CPU	Core2 Duo Processor or more
Memory	2GB or more
HDD	16MB or more
Free space on HDD	1GB or more
optical drive	Software will be provided on CD-ROM.
RS-232C Port	One port is required for communication with the pump.
Screen resolution	1024 × 768 or more

* It is necessary for Microsoft .Net Framework 4 to be installed for operation.

- 2. Instoll
 - 2.1 Installation method
 - 1. Insert the product's CD-ROM into the CD drive of the computer.

2. Please open the CD-ROM drive in Explorer.

Setup.exe is in the "Software" folder. Double click on setup.exe and execute it.

3. The user account control is displayed.

Please select "Yes".

4. The language selection screen is displayed.

Select S	etup Language	×
12	Select the language to use dui installation:	ing the
	English	
	OK	

Please select the language you want to install and press the OK button.

5. The agreement screen of the license agreement is displayed.



Please read the agreement, select "I agree" and click the "next" button.

6. The installation destination specification is displayed.



If you do not want to change the installation location, please press the "Next" button

7. The screen to add the icon appears.

Setup - UTMTool			
Select Additional Tasks Which additional tasks should be p	erformed?		27
Select the additional tasks you wou then click Next.	uld like Setup to perform	n while installing U'	ſMTool,
Additional shortcuts:	ר		
Create a desktop shortcut			
	< Back	Next >	Cancel
	A Eddin		

Please check if you create an icon on the desktop.

Please press the "Next" button.



8. Ready to install is displayed.

Setup is now ready to begin instal	ling UTMTool on your computer.	Ć
Click Install to continue with the in	stallation, or click Back if you want to	review or
Destination location: C:\ULVAC\UTMTool		<u>×</u>
T		v F

Please press "Install" button. Installation will start.

9. The completion screen of the setup wizard is displayed.

🐻 Setup - UTMTool	
	Completing the UTMTool Setup Wizard Setup has finished installing UTMTool on your computer. The application may be launched by selecting the installed shortcuts. Click Finish to exit Setup.
	Einish

Please press "Finish" button.

UTMTool starts when "Run UTMTool" is checked on this screen.

- 2.2 How to uninstall
- To delete applications, please do in the following order.
- 1. Click "Start" \rightarrow "Control Panel".
- "Control panel" is displayed.
 Click "Uninstall a program".
- "Program and function" is displayed.
 From the list of applications, click UTMTool.
- The user account control is displayed.
 Please select "Yes". The uninstallation will be executed.



3. Operation

3.1 Starting method



Double-click the UTMTool icon on the desktop,

 $\mathsf{Please \ select \ UTMTool \ of \ ``Start'' \ \rightarrow \ ``ULVAC'' \ \rightarrow \ ``UTMTool''.}$

UTMTool starts up.

JTM Tool				<u>_ </u>
COM3 RS-485	CONNECT	DISCONNECT	Exit	
,,				
Save folder: C:\ULVAC\UTMTool				



- 3.2 Connection method
- 1. Connect the serial port of the PC and the serial connector of the turbo molecular pump.
- 2. Select the serial port name from the dropdown and press the "Connect" button.

💐 UTM Tool				
COM3 RS-485	CONNECT	DISCONNECT	Exit	ULVAC
Save folder: C:\ULVAC\UTMTool				



3. The folder reference screen is displayed.

Please select the storage location of the data collected from the pump,

🧾 Desktop		
🕀 词 Libraries		
🗆 🜉 Computer		
🕀 🚽 Floppy Disk	Drive (A:)	
🕀 🏭 Local Disk ((Ð)	
🖽 📑 DVD Drive (I	D;)	
	\backslash	
	\backslash	

Please press "OK" button.

* When connecting with RS-485 communication, communication can not be performed if the multidrop setting of the pump side is ON. Therefore, a confirmation message to turn off the multidrop setting is displayed.



If "Yes" is selected here, change the multidrop setting to OFF and continue the connection processing. If "No" is selected, the connection process will be aborted.



4. Pump status is collected and displayed.

Pr	ocessing			×		
]			
'M Tool						_
M3 💌 RS-485 💌	CONNECT DIS	CONNECT	Exit		UL	
ave folder: C:\ULVAC\UTMTool						
mp Status Alarm History						
	Re-get		*ONLIN	IE is the RS- IE is REMOT	232C/485 operati 'E or LOCAL mod	on mode. e.
Operation mode	Local	ONLINE		ie io neno i	OFFLINE	
vlodel identification number	UTM300B					
Run time	1					
.ast maintenance time	1		Cle	ar		
Maintenance call time	1	1	÷		Set	Clear
Number of start-ups	1					
Rotationalspeed	LOW SPEED	LOW SPEED	•		Set	
.ow speed value(0.1% Unit)	25.0	25.0	-		Set	
RY1 (relay output 1) operation setting	RY1 is ON when DI1 is OFF	RY1 is ON when DI1 is OFF	•		Set	
RY2 (relay output 2) operation setting	RY2 is ON when DI2 is OF	RY2 is ON when DI2 is OFF	•		Set	
001 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•	All set	Set	
002 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•		Set	Default
Analog output setting	Motor current(0 to 15A)	Motor current(0 to 15A)	•		Set	
Acceleration overtime setting	300	300	*		Set	
Power limit setting	25	25	*		Set	
Vormal speed setting	50	50.0	÷		Set	
/enting valve operation time setting	1	1	÷		Set	
RS-485 Network ID	1	1	÷		Set	
RS-485 Terminator ON/OFF	OFF	OFF	•	RS-485	Set	RS-485
終端抵抗 ON / OFF				All set	Set	Default
	1	,				

When the connection is established, each operation button becomes effective.



3.3 End method

1. are in the connected state please press "Disconnect" button.

DM3 T RS-485 T	CONNECT DIS	CONNECT	Exit	1	LIIX	
ave folder: C:\ULVAC\UTMTool					CL	
ump Status Alarm History						
	Re-get		*ONLIN	IE is the RS-	232C/485 operatio	on mode.
Operation mode	Local	ONLINE			OFFLINE	
Model identification number	UTM300B					
Run time	1					
Last maintenance time	1		Cle	ar		
Maintenance call time	1	1	*		Set	Clear
Number of start-ups	1	_				
Rotationalspeed	LOW SPEED	LOW SPEED	•		Set	
Low speed value(0.1% Unit)	25.0	25.0	<u>+</u>		Set	
RY1 (relay output 1) operation setting	RY1 is ON when DI1 is OFF	RY1 is ON when DI1 is OFF	•		Set	
RY2 (relay output 2) operation setting	RY2 is ON when DI2 is OF	RY2 is ON when DI2 is OFF	•		Set	
DO1 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•	All set	Set	
DO2 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	-		Set	Default
Analog output setting	Motor current(0 to 15A)	Motor current(0 to 15A)	•		Set	
Acceleration overtime setting	300	300	*		Set	
Power limit setting	25	25	-		Set	
Normal speed setting	50	50.0	÷		Set	
Venting valve operation time setting	1	1	-		Set	
RS-485 Network ID	1	1	÷		Set	
RS-485 Terminator ON/OFF	OFF	OFF	•	RS-485	Set	RS-485 Default
約提托拉 ON / OFF	ON		•	Anset	Set	Derault

* If you wish to change the multidrop setting from ON to OFF when connecting via RS-485 communication, a confirmation message will be displayed asking whether to return the multidrop setting to ON.



If "Yes" is selected, communication will be disconnected after returning the multi drop setting to ON. If you select "No", communication will be disconnected with multi drop setting as it is.



2. Please press "Exit" button.

M3 💌 RS-485 💌	CONNECT DIS	CONNECT	Exit		UL	
ave folder: C:\ULVAC\UTMTool						
ump Status Alarm History						
	Re-get		*ONLIN	NE is the RS-	232C/485 operati 'E or LOCAL mode	on mode.
Operation mode	Local	ONLINE		ie in rie in o i	OFFLINE	
Model identification number	UTM300B					
Run time	1					
Last maintenance time	1		Cle	ar		
Maintenance call time	1	1	÷		Set	Clear
Number of start-ups	1	_				
Rotationalspeed	LOW SPEED	LOW SPEED	•		Set	
Low speed value(0.1% Unit)	25.0	25.0	÷		Set	
RY1 (relay output 1) operation setting	RY1 is ON when DI1 is OFF	RY1 is ON when DI1 is OFF	•		Set	
RY2 (relay output 2) operation setting	RY2 is ON when DI2 is OF	RY2 is ON when D12 is OFF	•		Set	
DO1 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•	All set	Set	
DD2 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•		Set	Default
Analog output setting	Motor current(0 to 15A)	Motor current(0 to 15A)	•		Set	
Acceleration overtime setting	300	300	÷		Set	
Power limit setting	25	25	÷		Set	
Normal speed setting	50	50.0	÷		Set	
Venting valve operation time setting	1	1	÷		Set	
RS-485 Network ID	1	1	÷		Set	
RS-485 Terminator ON/OFF	OFF	OFF	•	RS-485 All set	Set	RS-485 Default
終端抵抗 ON / OFF	ON	ON	-		Set	_ or doin

The UTMTool screen disappears and the application ends.



- 3.4 How to change display language
- 1. Please click the ULVAC logo.

DM3 💌 RS-485 💌	CONNECT	CONNECT	Exit		UL	/A(
Save folder: C:\ULVAC\UTMTool						
Pump Status Alarm History						
	Re-get		*ONLIN OFFLIN	NE is the RS-	232C/485 operati E. or I. O.C.A.L. mode	on mode.
Operation mode	Local	ONLINE		ie io nemo i	OFFLINE	
Model identification number	UTM300B					
Run time	1	_				
Last maintenance time	1		Cle	ear		
Maintenance call time	1	1	-		Set	Clear
Number of start-ups	1					
Rotationalspeed	LOW SPEED	LOW SPEED	•		Set	
Low speed value(0.1% Unit)	25.0	25.0	-		Set	
RY1 (relay output 1) operation setting	RY1 is ON when DI1 is OFF	RY1 is ON when DI1 is OFF	•		Set	
RY2 (relay output 2) operation setting	RY2 is ON when DI2 is OF	RY2 is ON when DI2 is OFF	•		Set	
DO1 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•	All set	Set	
DO2 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•		Set	Default
Analog output setting	Motor current(0 to 15A)	Motor current(0 to 15A)	•		Set	
Acceleration overtime setting	300	300	÷		Set	
Power limit setting	25	25	+		Set	
Normal speed setting	50	50.0	*		Set	
Venting valve operation time setting	1	1	÷		Set	
RS-485 Network ID	1	1	÷		Set	
RS-485 Terminator ON/OFF	OFF	OFF	•	RS-485 All set	Set	RS-485 Default
終端抵抗 ON / DFF	ON	ON	Ŧ		Set	

2. Version information of UTMTool is displayed.



Select the language you want to display from the drop down list and press the "OK" button. The screen of the application is changed to the display of the specified language.

4. Display

4.1 Main display

Note back_CVULVACUUTMTool Image: Status Image: Status <t< th=""><th>M3 (1) 🗹 RS-485 (2) 🗹</th><th></th><th></th><th>Exit</th><th></th><th>UL</th><th>VA</th></t<>	M3 (1) 🗹 RS-485 (2) 🗹			Exit		UL	VA
Re-get "ONLINE is the RS-232C/485 operation OFFLINE is REMOTE or LOCAL mode. Operation mode Local ONLINE OFFLINE Model identification number UTM 3008 OFFLINE OFFLINE Run time 1 Clear Clear Maintenance time 1 Set Set Mumber of start-ups 1 Set Set Rotationalspeed LOW SPEED LOW SPEED Set Set Set Set Set RY1 (relay output 1) operation setting RY1 is ON when DI1 is OFF RY2 is ON when DI2 is OF Set SY2 (relay output 2) operation setting RY2 is ON when DI2 is OF RY2 is ON when DI2 is OFF Set SY2 (relay output 2) operation setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF All set Set Sold setting ALARM=ON, Not ALARM=OFF Set Set Set Set Sold setting 300 300 Set Set Set Set Sold setting 50 50.0 Set Set Set Set Set Sold setting 50 50.0 Set	ave folds C:\ULVAC\UTMTool						
Deperation mode Local ONLINE OFFLINE Model identification number UTM3008 Image: Constraint of the second of the se		Re-get		*ONLIN OFFLIN	IE is the RS-: IE is REMOT	232C/485 operati E or LOCAL mode	on mode. e.
Model identification number UTM300B Run time 1 Last maintenance time 1 Maintenance call time 1 Clear Maintenance call time 1 Set Number of start-ups 1 Set Rotationalspeed LOW SPEED LOW SPEED Set Set Set Set Set RY1 (relay output 1) operation setting RY2 is 0N when DI1 is 0FF RY1 is 0N when DI2 is 0F Set D01 setting ALARM=0N, Not ALARM=0FF ALARM=0N, Not ALARM=0FF Set D02 setting Motor current(0 to 15A) Motor current(0 to 15A) Set Analog output setting 300 300 Set Set Set Set Set Set Set Set Set Set Set Set D02 setting ALARM=0N, Not ALARM=0FF ALARM=0N, Not ALARM=0FF Set Set Set Set Set Set Set Set Set D03 setting 300 300 300 Set Set Set Set	Operation mode	Local	ONLINE			OFFLINE	
Run time 1 Last maintenance time 1 Clear Maintenance call time 1 1 Set Number of start-ups 1 Set I Rotationalspeed LOW SPEED LOW SPEED Set Source speed value(0.1% Unit) 25.0 25.0 Set RY1 is ON when DI1 is OFF RY1 is ON when DI1 is OFF Set Set RY2 (relay output 1) operation setting RY2 is ON when DI2 is OF RY2 is ON when DI2 is OF Set D01 setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF All set Set D02 setting Motor current(0 to 15A) Motor current(0 to 15A) Set Set Power limit setting 25 25 Set Set Set Power limit setting 25 25 Set Set Set Set Power limit setting 1 1 Set Set Set Set Set Recuest relimit setting 1 1 Set Set </td <td>Model identification number</td> <td>UTM300B</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Model identification number	UTM300B					
Last maintenance time 1 Clear Maintenance call time 1 1 Set Number of start-ups 1 Set Set Rotationalspeed LOW SPEED LOW SPEED Set Low speed value(0.1% Unit) 25.0 25.0 Set RY1 (relay output 1) operation setting RY1 is ON when DI1 is OFF RY1 is ON when DI2 is OF Set RY2 (relay output 2) operation setting RY2 is ON when DI2 is OF RY2 is ON when DI2 is OF Set D01 setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF Alarm=ON, Not ALARM=OFF Set Analog output setting Motor current(0 to 15A) Motor current(0 to 15A) Set Set Power limit setting 25 25 Set Set Set Normal speed setting 50 50.0 Set Set Set Set Set Set Set Set Set Set More current(0 to 15A) Motor current(0 to 15A) Set Set Set Set Power limit setting 50 50.0 Set Set Set Set	Run time	1	_				
Maintenance call time 1 1 1 Set Number of start-ups 1 1 Set Set Rotationalspeed LOW SPEED LOW SPEED Set Set Low speed value(0.1% Unit) 25.0 Set Set Set RY1 (relay output 1) operation setting RY1 is DN when DI1 is DFF RY1 is ON when DI1 is OFF Set RY2 (relay output 2) operation setting RY2 is ON when DI2 is OF RY2 is ON when DI2 is OF Set D01 setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF Set D02 setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF Set Analog output setting 300 300 Set Set Power limit setting 25 25 Set Set Normal speed setting 50 50.0 Set Set Set Set Set Set Set Set Set Set Set Set Power limit setting 50 50.0 Set Set Set Set Set Set Set	Last maintenance time	1		Cle	ar		
Number of start-ups 1 Rotationalspeed LOW SPEED Low speed value(0.1% Unit) 25.0 25.0 25.0 RY1 (relay output 1) operation setting RY1 is ON when D11 is OFF RY2 (relay output 2) operation setting RY2 is ON when D12 is OF RY2 (relay output 2) operation setting RY2 is ON when D12 is OF D01 setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF Analog output setting Motor current(0 to 15A) Acceleration overtime setting 300 Sourd limit setting 50 Sourd limit setting 50 Sourd limit setting 1 Sourd limit setting 1	Maintenance call time	1	1	÷		Set	Clear
Rotationalspeed LOW SPEED LOW SPEED Set Low speed value(0.1% Unit) 25.0 25.0 Set RY1 (relay output 1) operation setting RY1 is 0N when DI1 is 0FF RY1 is 0N when DI1 is 0FF Set RY2 (relay output 2) operation setting RY2 is 0N when DI2 is 0F RY2 is 0N when DI2 is 0F Set D01 setting ALARM=0N, Not ALARM=0FF ALARM=0N, Not ALARM=0FF AlARM=0FF Set D02 setting ALARM=0N, Not ALARM=0FF ALARM=0N, Not ALARM=0FF Set Set Analog output setting Motor current(0 to 15A) Motor current(0 to 15A) Set Power limit setting 300 300 Set Set Verning valve operation time setting 1 Set Set	Number of start-ups	1					
Low speed value(0.1% Unit) 25.0 25.0 3 RY1 (relay output 1) operation setting RY1 is ON when DI1 is OFF RY1 is ON when DI1 is OFF Set RY2 (relay output 2) operation setting RY2 is ON when DI2 is OF RY2 is ON when DI2 is OF Set D01 setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF Set Set D02 setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF Set Set Analog output setting Motor current(0 to 15A) Motor current(0 to 15A) Set Set Power limit setting 25 25 3 Set Set Venting valve operation time setting 1 1 Set Set	Rotationalspeed	LOW SPEED	LOW SPEED	•		Set	
RY1 (relay output 1) operation setting RY1 is ON when DI1 is OFF RY1 is ON when DI1 is OFF Set RY2 (relay output 2) operation setting RY2 is ON when DI2 is OF RY2 is ON when DI2 is OF Set D01 setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF All set Set D02 setting ALARM=ON, Not ALARM=OFF ALARM=ON, Not ALARM=OFF Set Set Analog output setting Motor current(0 to 15A) Motor current(0 to 15A) Set Power limit setting 300 300 Set Normal speed setting 50 50.0 Set Venting valve operation time setting 1 Set	Low speed value(0.1% Unit)	25.0	25.0	*		Set	
RY2 (relay output 2) operation setting RY2 is 0N when DI2 is 0F RY2 is 0N when DI2 is 0F Image: Set is 0N when DI2 is 0F D01 setting ALARM=0N, Not ALARM=0FF ALARM=0N, Not ALARM=0FF ALARM=0FF All set is 0F D02 setting ALARM=0N, Not ALARM=0FF ALARM=0N, Not ALARM=0FF Image: Set is 0F Set is 0F D02 setting ALARM=0N, Not ALARM=0FF ALARM=0N, Not ALARM=0FF Image: Set is 0F Set is 0F Analog output setting Motor current(0 to 15A) Motor current(0 to 15A) Image: Set is 0F Set is 0F Power limit setting 300 300 300 Set is 0F Set is 0F Normal speed setting 50 50.0 Set is 0F Set is 0F Venting valve operation time setting 1 Set is 0F Set is 0F	RY1 (relay output 1) operation setting	RY1 is ON when DI1 is OFF	RY1 is ON when DI1 is OFF	•		Set	
DD1 setting ALARM=DN, Not ALARM=OFF ALARM=ON, Not ALARM=OFF All set Set DD2 setting ALARM=DN, Not ALARM=OFF ALARM=ON, Not ALARM=OFF Set Set Analog output setting Motor current(0 to 15A) Motor current(0 to 15A) Set Set Acceleration overtime setting 300 300 Set Set Power limit setting 25 25 Set Set Venting valve operation time setting 1 Set Set	RY2 (relay output 2) operation setting	RY2 is ON when DI2 is OF	RY2 is ON when DI2 is OFF	•		Set	
DD2 setting ALARM=ON, Not ALARM=OFF ALARM=OFF Set Analog output setting Motor current(0 to 15A) Motor current(0 to 15A) Set Acceleration overtime setting 300 300 Set Power limit setting 25 25 Set Normal speed setting 50 50.0 Set Venting valve operation time setting 1 Set	D01 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•	All set	Set	
Analog output setting Motor current(0 to 15A) Motor current(0 to 15A) Set Acceleration overtime setting 300 300 Set Power limit setting 25 25 Set Normal speed setting 50 50.0 Set Venting valve operation time setting 1 Set	DO2 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•		Set	Default
Acceleration overtime setting 300 300 1 Power limit setting 25 25 1 Normal speed setting 50 50.0 1 Venting valve operation time setting 1 1	Analog output setting	Motor current(0 to 15A)	Motor current(0 to 15A)	•		Set	
Power limit setting 25 Set Normal speed setting 50 50.0 Set Venting valve operation time setting 1 Set	Acceleration overtime setting	300	300	+		Set	
Normal speed setting 50 50.0 Set Venting valve operation time setting 1 1 Set	Power limit setting	25	25	÷		Set	
Venting valve operation time setting 1 Set	Normal speed setting	50	50.0	-		Set	
RS.495 Network ID 1 Set	Venting valve operation time setting	1	1	÷		Set	
	RS-485 Network ID	1	1	•		Set	
RS-485 Terminator ON/OFF OFF OFF Set	RS-485 Terminator ON/OFF	OFF	OFF	•	RS-485 All set	Set	RS-485 Default
終端抵抗 ON / OFF ON ON Set	終端抵抗 ON / OFF	ON	ON	•		Set	

#	Contents	Description
1	Serial port selection	Select the serial port name to be connected with the pump.
2	Communication type	Select RS-232C or RS-485.
3	Connect button	Establish a connection with the pump.
4	Disconnect button	Disconnect communication with the pump.
5	Exit button	Quit the application $_{\circ}$
6	Save folder display	The save destination of each log file is displayed.
7	ULVAC logo	The version information screen is displayed.
8	Pump tab	This is a tab for displaying / changing pump setting.
9	Status tab	This is a tab for displaying and operating various statuses of the
		pump.
10	Alarm history tab	This tab is used to display / acquire alarm history.

4.2 Pump tab display

M3 🔽 RS-485 💌	CONNECT DIS	CONNECT	Exit	UL	AC
ave folder: C:\ULVAC\UTMTool					
ump Status Alarm History					
	1 Re-get		*ONLINE is the RS-2	32C/485 operat	ion mode.
Operation mode	Local			OFFLINE	
Model identification number	UTM300B				
Run time					
Last maintenance time	1		Clear		
Maintenance call time	1			Set	Clear 🧕
Number of start-ups	1	6		8	
Rotationalspeed	LOW SPEED	LOW SPEED	•	Set	
Low speed value(0.1% Unit)	25.0	25.0	-	Set	
RY1 (relay output 1) operation setting	RY1 is ON when DI1 is OFF	RY1 is ON when DI1 is OFF	•	Set	
RY2 (relay output 2) operation setting	RY2 is ON when DI2 is OF	RY2 is ON when DI2 is OFF	· ⑦	Set	10
D01 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	✓ All set	Set	
D02 setting	ALARM=ON, Not ALARM=OFF	ALARM=ON, Not ALARM=OFF	•	Set	Default
Analog output setting	Motor current(0 to 15A)	Motor current(0 to 15A)	•	Set	
Acceleration overtime setting	300	300	3	Set	
Power limit setting	25	25		Set	
Normal speed setting	50	50.0		Set	
Venting valve operation time setting	1	1		Set	
RS-485 Network ID	1	1	∃ (1)	Set	(12)
RS-485 Terminator ON/OFF	OFF	OFF	RS-485 All set	Set	RS-485 Default
終端抵抗 ON / OFF	ON			Set	Dordant

#	Contents	Description
1	Retry	We will reacquire pump data.
2	Data display section	Displays the current data of the pump.
3	ONLINE button	Switch the operation mode to ONLINE.
4	OFFLINE button	Switch the operation mode to OFFLINE.
5	Clear button	Clear the maintenance call time to 0.
6	Data setting section	Enter the change value of each set value.
7	All settings button	Set values to the pump in batch. * 1
8	Setting button part	Set the setting values of the left side item individually to the pump.
9	Clear button	Clear the maintenance call time setting to 0.
10	Initial setting	The setting value is returned to the factory shipment state. * 1
11	RS-485 All settings	Set all RS-485 setting items as pump. *2
12	RS-485 Initial setting	Return the setting values of RS-485 to factory default. *2

* 1 A confirmation message is displayed. To execute, please click "Yes" button.

* 2 These are displayed only when the communication type is set to RS-485 and connected.



4.2.1 About ONLINE button operation

When the operation mode is Local, you can not switch to the mode to perform the RS-232C/RS-485 operation. When you operate the ONLINE button in Local mode, the following warning screen will be displayed.



To perform RS-232C or RS-485 operation, set the pump unit setting to Remote mode.

4.2.2 About RS-485 multidrop setting

If RS-485 multidrop setting is set to ON, communication can not be performed normally. Therefore, when setting the RS-485 multidrop setting to ON, the following confirmation message will be displayed.



If "Yes" is selected, change the RS – 485 multidrop setting to ON. Please be aware that it may be impossible to communicate with the pump with this software after change. If you select "No", the setting will not be changed.

4.3 Status tab display

TM Tool			
IM3 💌 RS-485 💌	CONNECT DISCONNECT	Exit	ULVAC
mo Status Alarm History			
Start	Stop	(3) Reset	
Bun Status 🕢 Stop			
Cause	0		
Rotational speed	10 rpm		
Rotational speed (0.1%)	0.1 %		
Motor current	0.1 A		
Rated rotational speed	10 rpm		
Bearing temperature	1 deg C		
Motor temperature	1 deg C		
Logging			
6 Log start			

#	Contents	Description
1	Start button	Perform start operation on the pump.
2	Stop button	Perform stop operation on the pump.
3	Reset	Perform an alarm reset operation on the pump.
4	Operation status indication	Displays the operation status. $*1$
5	Status display section	Displays various status information of the pump.
6	Log start button	Start acquiring 1 second log.
7	Log stop button	Stop acquiring 1 second log.



* 1. Detailed display of operation status

#	State	Display	color	Flashing
1	Static levitation	Stop	White	Nothing
2	Accelerating	Acceleration	Yellow	Fast
3	During rated rotation	Normal	Green	Nothing
4	Deceleration	Deceleration	Yellow	Slow
5	Alarm static levitation	Stop/Alarm	Red / Orange * 2	Nothing
6	Alarm free run	Free/Alarm	Red / Orange * 2	Nothing
7	Alarm Regenerative braking	Deceleration/Alarm	Red / Orange * 2	Slow
8	Alarm Deceleration	Deceleration/Alarm	Red / Orange * 2	Slow

* 2. The display color changes depending on the abnormality level. At alarm level, it becomes red, and at warning level, it becomes orange.

4.3.1 About operation buttons

Start, Stop, Reset operation buttons can not be used in OFFLINE mode. When the pump unit setting is OFFLINE mode, the following confirmation message will be displayed. Press "Yes" to switch to ONLINE mode and the requested operation will be executed.



When an invalid response is returned when each operation button is executed, the following message will be displayed.



Stop operation at stop and reset operation at normal time are invalid operation.

When each operation button is pressed when the pump unit setting is Local, the following warning message is displayed.



To perform each operation, set the pump unit setting to Remote mode.



4.4 Alarm history tab display

imp Status	Alarm History							
	,		(1) Get				
Time	Pump type	Alarm Code	Alarm Name	Run status	Rotational speed	Motor current	Motor temperature	Bearing temperature
,								
,								
2								
1								
)								
2								
3				2				
1								
5								
6								
7								
3								
3								
)								
2								
3								
1								
5								

#	Contents	Description
1	Get button	Acquire Alarm history from pump.
2	History display	Displays 99 error logs.



4.5 Version information display

营业	UTMTool Version 1.1.0.0	
16.2	Copyright(c) 2017 ULVAC,Inc.	
	UTM Series Monitoring Tool	

#	Contents	Description
1	Version information display	Version number and copyright notice
2	language choice	Select the language you want to display.
3	OK Button	Close the screen.

5. logfile

5.1 Pump log

It is created when connecting and reacquiring the pump tab screen.

PumpLog_YYMMDDHHmm.csv

YYMMDDHHmm is the 2 digits of the last 2 digits of the year, month, day, hour, minute.

In the case of 7:06 on September 8, 2017,

PumpLog - 1709080706.csv

5.2 Status log

It is created at the start of the log on the status tab screen.

Write the status to the file at 1 second intervals. The file is updated every day.

 $StatusLog_YYMMDDHHmm.csv$

YYMMDDHHmm is the 2 digits of the last 2 digits of the year, month, day, hour, minute.

In the case of 7:06 on September 8, 2017,

StatusLog_1709080706.csv

5.3 Alarm history log

It is created when acquiring the Alarm history tab screen.

AlarmLog_YYMMDDHHmm.csv

YYMMDDHHmm is the 2 digits of the last 2 digits of the year, month, day, hour, minute.

In the case of 7:06 on September 8, 2017,

AlarmLog_1709080706.csv

Display times of various logs are displayed in Greenwich Mean Time (GMT).

- 6. trouble shooting
 - 6.1 Communication error

If communication with the pump can not be performed, the message

"~ Communication Error." Will be displayed.



Check the connection cable to the pump and the serial port of the PC for any abnormality.



6.2 Save folder error

Make sure that the set save folder exists on the hard disk of the computer. If it does not exist, disconnect it once and set it as the correct folder

6.3 Connection error



It is displayed when the specified communication port can not be used from this software. Make sure that the specified port is not used for other purposes.

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