CDL
Cool Designs Ltd

Air Conditioning Design & Distribution

Pocket Quick Reference Guide On the TOSHIBA

RBC-AMT32E / RBC-AMS41E

Remote Controllers

Cool Designs Ltd
Raising the Standards in Air Conditioning Distribution

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Quick Reference Guide

To assist service engineers working on Toshiba air conditioning equipment, there is a large quantity of data available via the standard remote controller, either the RBC-AMT32E or the RBC-AMS41E, this data is **NOT** available via an Infrared remote or the RBC-AS21E2 simplified remote controller.

Accessing the data is a simple process of pressing a sequence of buttons on the remote controller.

Fault Code Guide

Current fault codes are displayed automatically on the left of the remote controller, (Four figure display in Black) fault code history can be accessed by pressing "Test and Set" (The two yellow buttons) together and holding for 4 seconds.

Each controller will hold four fault codes per unit controlled, the first displayed fault code is the youngest and the fourth will be the oldest.

To scroll through the faults use the "**TEMP▲▼**" buttons.

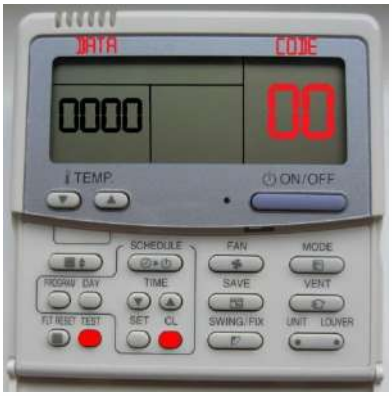
- ***Refer to the Technical Handbook for fault code diagnosis and descriptions***

Data Retrieval Guide

System data can be obtained by pressing "**Test and CL**" together and holding for 4 seconds

Codes are displayed on the right of the remote display
To scroll through the codes use the "**TEMP▲▼** " buttons.
Data is displayed on the left of the remote controller.

Data is available for "0, 1, 2, 3 & 4 Series" Digital/Super Digital Inverter and VRF equipment (SMMS, SHRM, SMMSI & SHRMi).



Digital/Super digital "0-1-2-3 – R410A" series data

Code	Indoor Data	Code	Outdoor Data
00	Room Temp (Control Temp) (°C)	60	TE Sub-cooled Liquid Temp. (°C)
01	Room Temp. (Remote Controller) (°C)	61	TO Ambient Temp. (°C)
02	TA Return Air Temp. (°C)	62	TD Discharge Temp. (°C)
03	TC Coil – Vapour Temp. (°C)	63	TS Suction Temp. (°C)
04	TCJ Coil – Liquid Temp. (°C)	65	THS – Inverter Heat Sink Temp. (°C)

Digital/Super digital "4 – R410A & 1 – R32" series

Code	Indoor Data	Code	Outdoor Data
00	Room Temp (Control Temp) (°C)	60	TE Sub-cooled Liquid Temp. (°C)
01	Room Temp. (Remote Controller) (°C)	61	TO Ambient Temp. (°C)
02	TA Return Air Temp. (°C)	62	TD Discharge Temp. (°C)
03	TC Coil – Vapour Temp. (°C)	63	TS Suction Temp. (°C)
04	TCJ Coil – Liquid Temp. (°C)	65	THS – Inverter Heat Sink Temp. (°C)
07	Fan Speed (rpm)	6A	Operation Current (A)
F2	Fan Run Time (x 100h)	70	Compressor Frequency (Hz)
F3	Filter Duration Timer (x 1h)	72	Fan Speed (Lower) – (rpm)
F8	Discharge Temp. (Indoor – If fitted) (°C)	73	Fan Speed (Upper) – (rpm)
		F1	Compressor Run Time (x 100h)

VRF indoor data for Mini SMMS / SMMS / SMMSI & SHRM equipment

Code	Indoor Data	Code	Indoor Data
00	Room Temp (Control Temp) (°C)	06	Indoor Discharge Temp (If Used) - (°C)
01	Room Temp. (Remote Controller) (°C)	08	PMV Position (0 – 10)
02	TA Return Air Temp. (°C)	0A	Number of Connected Indoor Units (No.)
03	TCJ Coil – Liquid Temp. (°C)	0b	Indoor Capacity (x 10 = HP)
04	TC2 Coil – PMV Pipe Temp. (°C)	0C	Number of Outdoor Units (No.)
05	TC1 Coil – Vapour Temp (°C)	0d	Outdoor Capacity (x 10 = HP)

VRF Outdoor data for Mini SMMS / SMMS & SHRM equipment

Code	Outdoor Data	Code	Outdoor Data
*0	Td1 - Compressor 1 Discharge Temp. (°C)	*8	TU – Low Pressure Saturated Temp. (°C)
*1	Td2 - Compressor 2 Discharge Temp. (°C)	*9	Compressor 1 Current (A)
*2	Pd – High Pressure Sensor (MPa)	*A	Compressor 2 Current (A)
*3	Ps - Low Pressure Sensor (MPa)	*b	PMV1 + 2 Opening (0 – 100)
*4	TS – Suction Temp. (°C)	*d	Compressor 1, 2 ON/OFF
*5	TE - Outdoor Heat Exchanger Temp. (°C)	*E	Outdoor Fan Mode (0 – 31)
*6	TL – Liquid Temp. (°C)	*F	Outdoor Unit Size (HP)
Note. * Would be replaced with 1, 2, 3 or 4 to obtain data from respective outdoor unit.			

VRF Outdoor data for SMMSi / SHRMi equipment

Code	Outdoor Data	Code	Outdoor Data
*0	Pd – High Pressure Sensor (MPa)	#0	Compressor 1 Revolutions (rps)
*1	Ps – Low Pressure Sensor (MPa)	#1	Compressor 2 Revolutions (rps)
*2	Td1 – Compressor 1 Discharge Temp. (°C)	#2	Compressor 3 Revolutions (rps)
*3	Td2 – Compressor 2 Discharge Temp. (°C)	#3	Outdoor Fan Mode
*4	Td3 – Compressor 3 Discharge Temp. (°C)	#4	Compressor IPDU 1 Heat Sink Temp. (°C)
*5	TS – Suction Temp. (°C)	#5	Compressor IPDU 2 Heat Sink Temp. (°C)
*6	TE1 – Outdoor Coil Temp. (°C)	#6	Compressor IPDU 3 Heat Sink Temp. (°C)
*7	TE2 – Outdoor Coil Temp. (°C)	#7	Outdoor Fan IPDU Heat Sink Temp. (°C)
*8	TL – Liquid Temp. (°C)	#8	Heating / Cooling Recovery Controlled
*9	TO – Outdoor Ambient Temp. (°C)	#9	Pressure release
*A	PMV 1 + 2 Opening	#A	Discharge Temp. Release
*B	PMV 4 Opening	#B	Follower Unit Release
*C	Compressor 1 Current (A)	#F	Outdoor Unit Size (HP)
*D	Compressor 2 Current (A)	Note. * Would be replaced with 1, 2, 3 or 4 to obtain data from respective outdoor unit. # would be replaced with either 5, 6, 7, 8 to obtain data from outdoor units 1,2,3 or 4	
*E	Compressor 3 Current (A)		
*F	Outdoor Fan Current (A)		

VRF Outdoor data for SMMSe/SHRMe equipment

Code	Outdoor Data	Code	Outdoor Data
*0	Pd – High Pressure Sensor (x100) (MPa)	#0	PMV 1 Opening
*1	Ps – Low Pressure Sensor (x100) (MPa)	#1	PMV 3 Opening
*2	Td1 – Compressor 1 Discharge Temp (°C)	#2	PMV 4 Opening
*3	Td2 – Compressor 2 Discharge Temp (°C)	#3	1 Fan model : Comp. 1 Current (x10) (A) 2 Fan model ; Comp. 1 and Fan current (x10) (A)
*5	TE1 – Outdoor Coil Temp (°C)		
*6	TE2 – Outdoor Coil Temp (°C)	#4	1 Fan model : Comp. 1 Current (x10) (A) 2 Fan model ; Comp. 1 and Fan current (x10) (A)
*9	TO – Outdoor Ambient Temp (°C)		
*A	TS1 – Suction Temp (°C)	#6	Compressor 1 revolutions
*B	TS2 – Suction Temp (°C)	#7	Compressor 2 revolutions
*D	TL – Liquid Temp (°C)	#9	Outdoor fan mode
		#A	Compressor IPDU 1 Heat Sink Temp (°C)
90	Heating/cooling recovery controlled	#B	Compressor IPDU 2 Heat Sink Temp (°C)
91	Pressure release	#D	Outdoor Fan IPDU 1 Heat Sink Temp (°C)
92	Discharge temperature release	#E	Outdoor Fan IPDU 1 Heat Sink Temp (°C)
93	Follower unit release	#F	Outdoor unit horsepower (HP)

For descriptions that are more detailed please, refer to the relevant technical service manual.

Common Configurable Control Options

***Accessed via Toshiba hard wired remote controller RBC-AMT32E and RBC-AMS41E**

Relocation of room temperature sensing from return air to remote controller sensor

Press and hold the **TEST, SET & CL Buttons** simultaneously for 4 seconds

The Engineering Menu is accessed at item code 10

Use the **Temperature ▲▼ Buttons** to navigate to item code 32

Use the **Timer ▲▼ Buttons** to adjust the value from 0000 to 0001

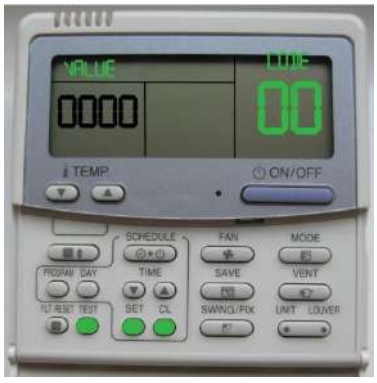
Press **SET** to acknowledge the change

Press **Test** to exit the Engineering Menu

The display will go blank and then flash SETTING whilst the system reconfigures

When SETTING stops flashing press **ON/OFF Button** to restart the operation

Automatic restart after power failure



Press and hold the **TEST, SET & CL Buttons** simultaneously for 4 seconds

The Engineering Menu is accessed at item code 10

Use the **Temperature ▲▼Buttons** to navigate to item 28

Use the **Timer ▲▼ Buttons** to adjust the value from 0000 to 0001

Press **SET** to acknowledge the change

Press **Test** to exit the Engineering Menu

The display will go blank and then flash SETTING whilst the system reconfigures

When SETTING stops flashing press **ON/OFF Button** to restart the operation

Simplified Instructions for the RBC-AMS41E Remote Controller

Setting Present Time and Day of Week

Press and hold **SCHEDULE** for 4 seconds, (setting appears on screen)

Press **DAY** until the correct day of the week is indicated

Press **TIME** up and down keys to set current time

Press **SET** to confirm entries. Day and time now set.

Setting ON and OFF Times (scheduled operations)

1. Press **PROGRAM**, display will flash **PG-01**
2. Press **DAY** until Monday is selected then Press **SET**
3. Press **SET**, **PG-01** will stop flashing
4. Press **TIME** up and down keys until required ON TIME is displayed
5. Press **SCHEDULE** until blinks (symbol denotes start operation)
6. Press **SET**
7. Press **UNIT**, **PG-02** will appear
8. Press **SET**, **PG-02** will stop flashing
9. Press **TIME** up and down keys until required OFF TIME is displayed
10. Press **SCHEDULE** until blinks (denotes stop operation)
11. Press **SET** and then **PROGRAM**

The bar now underlining **MONDAY** indicates that times have now been entered

Copying From Monday to Remaining Days of Week

1. Press **PROGRAM**, display will flash **PG-01**
2. Press **DAY** key and select **Monday**
3. Press **SET**
4. Press **UNIT** key until **PG-CP** appears (program copy)
5. Press **SET**
6. Press **DAY** and select **Tuesday**
7. Press **SET** (**Monday** times have now been copied into **Tuesday**) to continue copying return to step 4
8. Press **PROGRAM**

The times have now been programmed into the controller

N.B. To activate the programmed times press **SCHEDULE**, will flash,
Press **SET**, remains displayed, scheduled programming now activated.

To deactivate the programmed times press **SCHEDULE**, will flash,
Press **CL**, disappears from screen.

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Time, Temperature and Mode Selection when Programming the RBC-AMS41E

Setting Present Time and Day of Week

Press and hold **SCHEDULE** for 4 seconds, (setting appears on screen)

Press **DAY** until the correct day of the week is indicated

Press **TIME** up and down keys to set current time

Press **SET** to confirm entries. Day and time now set.

Setting Scheduled Operations with Mode and Temperature functionality

12. Press **PROGRAM**, display will flash **PG-01**
13. Press **DAY** until Monday is selected then Press **SET**
14. Press **SET**, **PG-01** will stop flashing
15. Press **TIME** up and down keys until required ON TIME is displayed
16. Press **MODE** key selecting desired mode of operation
17. Press **TEMPERATURE** up & down arrows to set desired temperature
18. Press **SCHEDULE** until blinks (symbol denotes start operation)
19. Press **SET**
20. Press **UNIT**, **PG-02** will appear
21. Press **SET**, **PG-02** will stop flashing
22. Press **TIME** up and down keys until required OFF TIME is displayed
23. Press **SCHEDULE** until blinks (symbol denotes stop operation)
24. Press **SET** and then **PROGRAM**

The bar now underlining **MONDAY** indicates that times have now been entered

Copying From Monday to Remaining Days of Week

9. Press **PROGRAM**, display will flash **PG-01**
10. Press **DAY** key and select **Monday**
11. Press **SET**
12. Press **UNIT** key until **PG-CP** appears (program copy)
13. Press **SET**
14. Press **DAY** and select **Tuesday**
15. Press **SET** (**Monday** times have now been copied into **Tuesday**) to continue copying return to step 4
16. Press **PROGRAM**

The times have now been programmed into the controller

N.B. To activate the programmed times press **SCHEDULE**, will flash,
Press **SET**, remains displayed, scheduled programming now activated.

To deactivate the programmed times press **SCHEDULE**, will flash,
Press **CL**, disappears from screen.

Contact details:

Cool Designs Ltd Technical Support

07590 775510 / 07706 293028

Monday – Friday 07.30 to 19.30

Email: support@cooldesignsltd.co.uk

Web site: www.cdlweb.info

Toshiba Air Conditioning

24/7 technical support

0870 843 0333 (Option 7)

Text back service

07624 803 017

(Type fault code in lower case no spaces)

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