



# Reference Guide On the TOSHIBA

RBC-AMT32E / RBC-AMS41E









### **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** $\blacktriangle$  $\blacktriangledown$ " 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 $\blacktriangle$ " 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).









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

	Code	Indoor Data	Code	Outdoor Data
	00	Room Temp (Control Temp) (°C)	60	TE Sub-cooled Liquid Temp. (°C)
7	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" 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.	*8	TU – Low Pressure Saturated Temp. (°C)
*1	Td2 - Compressor 2 Discharge Temp.	*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.			

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#### 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
*E	Compressor 3 Current (A)	obtain	data from respective outdoor unit.
*F	Outdoor Fan Current (A)		d be replaced with either 5, 6, 7, 8 to data from outdoor units 1,2,3 or 4

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









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#### **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 A V 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 A V 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











#### <u>Simplified Instructions for the RBC-AMS41E Remote Controller</u>

#### **Setting Present Time and Day of Week**

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

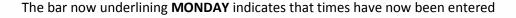
Press DAY until the correct day of the week is indicated

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 **OII** 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 **OO** blinks (denotes stop operation)
- 11. Press SET and then PROGRAM



#### **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, emains 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 Dlinks (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 **DO** 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**, emains 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

Monday - Friday 07.30 to 19.30



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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