CDL
Cool Designs Ltd

Air Conditioning Design & Distribution

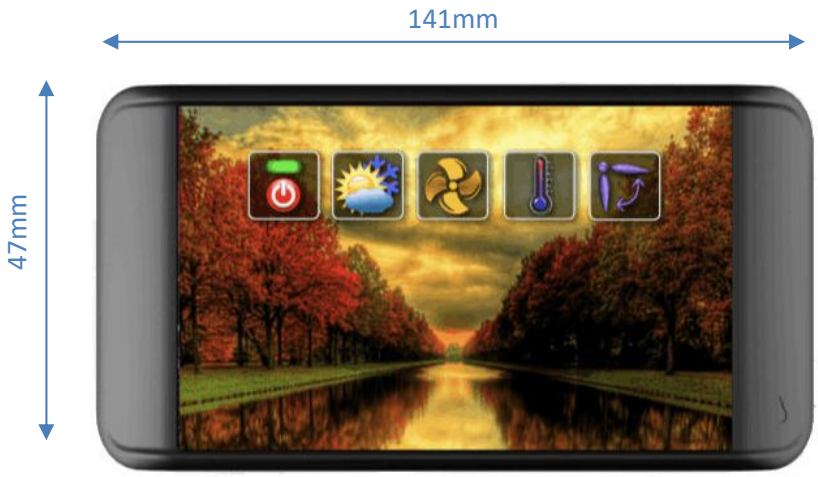
Pocket Quick Reference Guide On the TOSHIBA

Colour Smart Touch

Remote Controller

RBC-MTSC2

Toshiba air conditioning's
Latest addition to their wired remote controller portfolio.



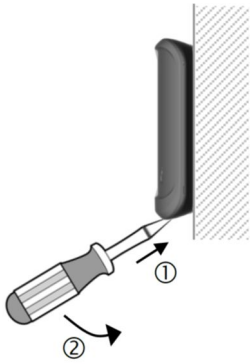
<u>The RBC-MTSC2.</u>

A small, 47 x 141 x 15mm (h x w x d) wired colour smart touch remote controller,
Large capacitive touch screen.
Up to 30 different wallpapers.
Text input for instructions.
Fault Diagnostics.
DN Code access.
Room Temperature Sensor.
7-Day scheduler.

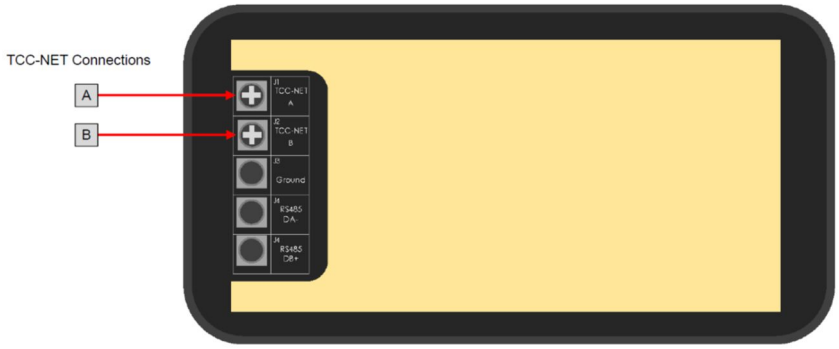
Opening the device.

To separate the front cover from the rear, there are three small straight slots located on the bottom of the device, using a flat bladed screwdriver, insert scredriver blade into each slot and gently twist the screwdriver 30º left or right.

To replace the front cover, hook the front cover to the base cover via lugs on the top, gently push the front cover downwards and push the bottom edge to the “wall”, a gently click will be heard.



Connections (Rear)



Power supply is 12V DC, which is obtained via the A&B connections located in the indoor unit.

USB, Front bottom center, micro USB

The Micro USB connection is used for configuration via a PC and for firmware updates.

Configuration of wallparers, logos etc is handled by the Pyrus configuration software, which can be downloaded from: https://www.toshiba-aircon.co.uk/product/rbc-mtsc1/

Start-Up Display.

Initial display screen when power is applied.

Automatic addressing can take up to 5 minutes

Display after initialisation, system OFF.

Pressing the power button instigates the default display.

	Low fan speed		Cooling mode		Auto mode
	Medium fan speed		Heating mode	21°C	Temperature setting
	High fan speed		Fan only mode		Louvre operation
	Auto fan speed		Dry mode		On/Off
17°C 22°C		Minimum and maximum temperature setting			Disable activity

Control Panel

Power

Mode

Set Point

Fan Power

Louver

Configuration.

The RBC-MTSC2 controller allows access to the configuration menu, where additional functions can be activated or restricted.

To access the configuration menu.

Press and hold the bottom right corner of the screen, (do not remove your finger) then with a second finger, press and hold the bottom left-hand corner of the screen.

Keep pressing the bottom left corner of the screen, release your right-hand finger from the bottom right of the screen, keeping the bottom left of the screen pressed.

Then tap the bottom right-hand corner of the screen four times.

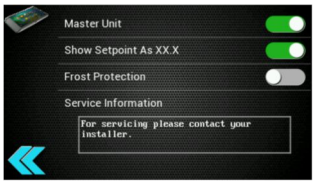
If carried out correctly the display screen will change, and the following will be displayed.

Configuration menu Icons.

1. General Remote Controller setup.
Enable or disable Header Unit (Master, Slave remote)
Show setpoint 0 or 1 decimal place
Activate “Frost” Protection”
Input Service Information, (Requires PC)

1. General R/C setup		2. User interface setup	
3. DN code editing		4. Appearance	
5. Clock and Scheduler		6. Not assigned or used	
7. Diagnostics		8. Model information	
9. Reboot button		10. Back button	

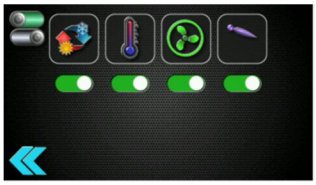
Frost Protection (8°C).



1. Continued.
Frost protection, it is recommended that the temperature sensor in the controller is selected as the “Room Temperature – Return Air)

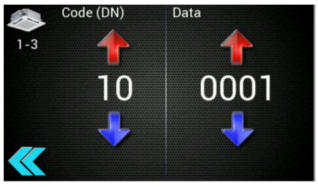
Once Frost protection is enabled, the return air will be constantly monitored, and the following strategy is implemented.

Frost Protection State	Return Air Temperature	Action
Inactive	< 8.0°C	1) Save current indoor unit state 2) Set indoor unit as follows... On, Heating, SP=21°C 3) Frost Protection State=Active
Active	>=10.0°C	1) Restore indoor unit state 2) Frost Protection State=Inactive



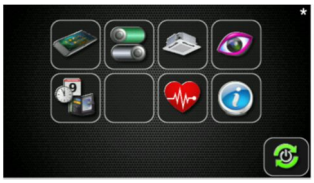
2. User interface setup.
Enable or disable functions.
Operating mode, temperature change, fan speed, louvre.

3. DN Code Setting.
To change DN code or Data, use the respective UP/DOWN buttons.
To enable changes, press the “GREEN” button (9), to EXIT press the “Back Button (10)



To change to a different indoor unit within a “Group”,
tap the air conditioner icon, the following screen will appear.
Available units will be highlighted, tap the respective unit to edit its “DN” codes

A list of useful DN codes is available at the end of this document.



9. Reboot Button.
Is displayed when configuration settings have been changed.

Display will clear and the "Pyrus" screen will be displayed, this will clear, and the display will revert to normal.

Disable function / activity

Power

Fan Speed

Temperature Set Point

Fan Speed

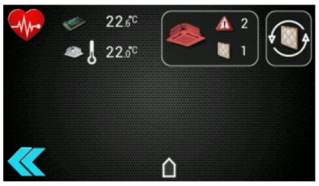
Louvre

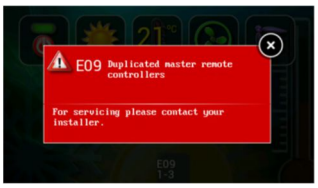
Error / Diagnostics.

If a system error is detected this will be displayed on the bottom section of the display screen, further details can be obtained by entering "Configuration Menu – Diagnostics"

Diagnostics.

7. Diagnostics.
Displays error message, tap the picture of the air conditioner, for more information.





7. Diagnostics.
The display automatically changes to display more details of the error.

The diagnostic display shows,
Room air temperature from the remote controller and the master indoor units (TA-Return Air Sensor), the thermometer indicates which is selected as the control sensor, (In the above, TA-Return Air Sensor in the Indoor Unit.)
The quantity of units in error condition.
The quantity of units with the filter sign active, the filter reset button is displayed if the filter sign count is none zero.

For "Group Controlled" systems, pressing the air conditioning icon, will bring up a new screen, which displays the current, status of each unit within the group. (Max quantity of units in a "Group" = 8.)

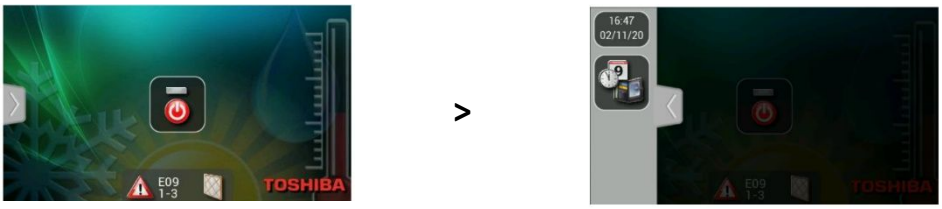
Icons displayed in “Red” are in fault condition, numbers show being the first number is the outdoor unit system number (1 to 28), the second number is the indoor unit number (1 to 64).

For details of error codes, please refer to the Toshiba fault code “app”.

Available for android or IOS via the relevant “Store”, or via Cool Designs Technical Handbook’s or our web site, https://www.cdlweb.info/resources/toshiba-fault-codes/

Or contact CDL Technical contact details at the rear of this document.

Control Panel



With the controller in the OFF position, press the “Arrow” on the left-hand side of the screen to open the “Control Panel”.

Within the “Control Panel” you have access to the time and date, also access to the scheduler configuration menu.

The MSTC-2 is fitted with a super capacity which when fully charged will retain power for approx. 2.5 days in the event of a power outage, all programmed data will remain in-tack within the memory of the device during this period. If the device is without power for longer than the 2.5 days, the time and date will reset to factory which is 00:00, 01/01/2016 and will require resetting, press the top left “Date and Time” icon and follow the on screen display.

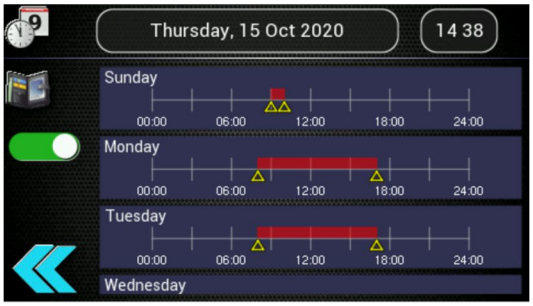
Date and Time | Date | Time

7-day schedule

The 7-day scheduler allows for up to 8 control events per day, enable or disable the scheduler by pressing the toggle switch.

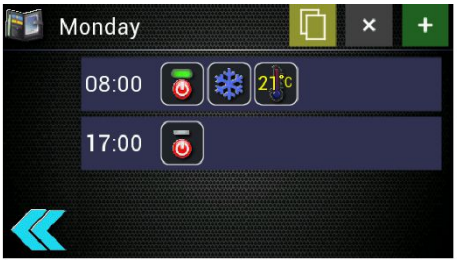
Each timeline summary indicates when control events will occur and when the respective indoor unit is programmed to be on.

Press the timeline to edit the control event for that day.



The following functions can be programmed; ON/OFF - time, (Green On – Blank OFF), Mode, (Auto-Heat-Cool-Fan only), Temperature set point (18°C to 29°C), Fan Speed, Louver position.

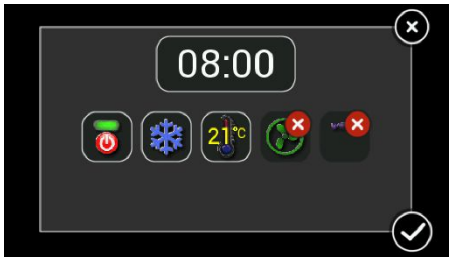
Events can be Added, Deleted or Copied.



+	Add new control event.
×	Toggle 'delete event' buttons.
	Copy this event list to other days.

The example, shows the system will be turned ON at 08:00 on Monday, in Cool Mode, and a temperature set point of 21°C, , fan speed and louvers are not scheduled
the system will be turned OFF Monday at 17:00

Pressing an event or "Add new control event" will bring up a new screen

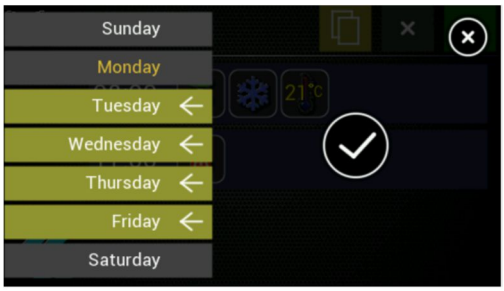


Press the time or the respective control icon to adjust the respective settings,

Selecting the red "X" for any control icon, will prevent this function from being actioned by the scheduler, in the above, "Fan Speed and Louvre" will not be actioned, both Fan speed and Louver will operate as per the settings on the controller prior to the schedule.

To delete an event, press the "Delete Event" toggle button, this will show/hide the delete button next to each event, pressing the delete button removes the corresponding event from the schedule list.

To copy the event list, press the "Copy Event" button, which will bring up the "Copy Event List", the events for the currently selected day can be copied to any other day of the week.
Pressing the day will show/hide the selected indicator.



In the above example, Monday is the source and Tuesday, Wednesday, Thursday, and Friday have been selected to copy Monday's event list and repeat on Monday, Tuesday, Wednesday, Thursday, and Friday.

The system would be turned OFF from 1700 Friday and ON, at 0800 on Monday.

Model Information.

Reboot Button

This will be displayed when certain configurations have been changed and requires the indoor unit and the remote controller to be restated. Tap the symbol to save and update settings

Some useful DN codes.

For a full list of "DN Codes" please refer to the service manual for the installed equipment or to one of the" CDL Pocket Handbooks" R32 or R410A.

ITEM	DESCRIPTION		VALUE	DEFAULT
03	Network address	When under network control.	0099: Unset 0001 to 0064 available	0099
06	Stratification control	Increases effective return air temperature setting in heating mode (0 to 10K)	0000 to 0010	0002; +2°C Floor type 0000; 0°C
0d	Auto mode	Enable or disable Auto mode	0000 = available 0001 = unavailable	0000 except SMMSe
0E	SHRMi only	Used when multiple indoor units are served via a single FS box	0000 = normal 0001= multiple units	0000
0F	Heat Mode	Enable or disable Heat Mode	0000 = available 0001 = unavailable	0000
10	Indoor unit model	Must be set when replacing indoor printed circuit board	0000: 1-way cassette (s models) 0001: 4-way cassette 0002: 2-way cassette 0003: 1-way cassette (y models) 0004: duct (standard) 0005: slim duct 0006: duct (high static) 0007: ceiling 0008: hi wall 0010: console 0011: concealed floor 0014: 4-way compact cassette (600 x 600) 0013: tall cabinet 0016: fresh air intake 0050: air to air heat exchanger	
11	Indoor unit capacity	0000 will generate a (L09) fault	MM / RAV 0004 =005* - 0001 =007* - 0003 =009* 30* 0005 =012* - 0006 - 40* 0007 =015* - 0009 =018* 56* 0011 =024* - 0012 =027* 80* 0013 =030* 90* 0015 =036* 110* 0017 =048* 140* 0018 =056* 160* 0021 =072* 224* 0023 =096* 280* - - Air to air heat exchanger Type 0001 = 150m^3/h 0002 = 250m^3/h 0003 = 350m^3/h 0004 = 500m^3/h 0005 = 650m^3/h 0006 = 800m^3/h 0007 = 1000m^3/h	
12	System number	DI/SDI indoor and outdoor units are automatically addressed, this value may be set manually but it must be done via the wired controller – on an individual basis. Settings are 0001 to 0030	0001: outdoor unit 1 0002: outdoor unit 2	0099
13	Indoor unit number	Indoor units connected to a common outdoor unit (e.g. twinned indoor units) will have the same system number - settings are 0001 to 0064. Automatically allocated – but may be manually overridden.	0001: indoor unit 1 0002: indoor unit 2	0099
14	Group master/slave	Allows selection of master indoor unit within group. Automatically allocated but may be manually overridden.	0000: single indoor unit 0001: group master 0002: group slave	0099
16	Indoor Fan	Indoor fan speed selection. Binary addition.	0015 = all speeds available 1 = auto; 2 = low; 4 = medium; 8 = high	0015 except high static 0008
1E	Dead band - auto	Changeover sensitivity in automatic mode. (1 to 10 k adjustable)	0000: 0 K 0010: 10 K	0003
1F	Max. Setting	Cooling mode maximum temperature setting (18 – 29°C)	0018 = 18°C 0020 = 20°C 0029 = 29°C	29 ° C
20	Min. Setting	Cooling mode minimum temperature setting (18 – 29°C)	0018 = 18°C 0020 = 20°C 0029 = 29°C	18 ° C
21	Max. Setting	Heating mode maximum temperature setting (18 – 29°C)	0018 = 18°C 0020 = 20°C 0029 = 29°C	29 ° C
22	Min. Setting	Heating mode minimum temperature setting (18 – 29°C)	0018 = 18°C 0020 = 20°C 0029 = 29°C	18 ° C
23	Max. Setting	Dry mode maximum temperature setting (18 – 29°C)	0018 = 18°C 0020 = 20°C 0029 = 29°C	29 ° C
24	Min. Setting	Dry mode minimum temperature setting (18 – 29°C)	0018 = 18°C 0020 = 20°C 0029 = 29°C	18 ° C
25	Max. Setting	Auto mode maximum temperature setting (18 – 29°C)	0018 = 18°C 0020 = 20°C 0029 = 29°C	29 ° C
26	Min. Setting	Auto mode minimum temperature setting (18 – 29°C)	0018 = 18°C 0020 = 20°C 0029 = 29°C	18 ° C
28	Auto restart	Enable or disable	0000: disabled 0001: enabled	0000
2d	Modes available	Binary addition of modes available.	0015= all modes 1 = fan; 2 = cool; 4 = dry 8 = heat	0015

Contact details:

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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)

Try our on-line training videos on YouTube.

Cool Designs Ltd

Raising the Standards in Air Conditioning Distribution