



*Pocket Quick
Reference Guide
on the **TOSHIBA***

*“UP” Range of
VRF Indoor units*



In 2021/22 Toshiba air conditioning, updated there range of VRF Indoor units (FCU) introducing the “UP” Range.

The aim of this pocket guide is to assist engineers in understanding the configuration and variations between the new range “UP” and the original “AP” range.

The next generation of VRF FCU’s “UP” are fully compatible with earlier R410A VRF systems and can be integrated on a system with original “AP” FCU’s. The “UP” range of units incorporates a dual control strategy, utilising the original TCC-Link and introducing the new TU2C-Link, (“U” Series).

The new controls logic, TU2C-Link allows, under certain conditions, for a greater quantity of units to be controlled within a “Group Control”, with a “U” series outdoor unit, (CDU), “UP” series FCU’s and “U” series local remote controllers, the quantity of FCU’s that can be controlled within a group control strategy increases from 8 to 16, also the quantity of FCU’s which can be controlled via a Toshiba central control increases from 64 FCU’s to 128 FCU’s.

If the system utilises a combination of “A” series and “U” series CDU’s,FCUS, local remote controllers, the quantities revert to the original TCC-Link quantities of 8 FCU’s per group and 64 FCU’s on a central remote.

	Unit type							
Outdoor unit	U series	U series	U series	U series	*	*	*	*
Indoor unit	U series	U series	*	*	U series	U series	*	*
Remote controller	U series	*	U series	*	U series	*	U series	*
Communication type	TU2C-Link	TCC-Link						
Max. number of connectable units	16	8						

* : Other than U series

Installation is the same for both “UP” series and “AP” series

The “Key” differences are in the configuration options, the new “U” series CDU’s now allow for configuration changes via the “DN” codes, in the past this was undertaken via a range of “Dip Switches” located in the CDU’s control panel, some of the new configurations utilise a new three digit “DN” code, to access the new three figure codes you will need one of the new generation “U” series hard wired remote controllers.

- 1) RBC-AMTU31-E - Standard remote controller, two core electrical non polarity connections, terminals A & B, including full control and service functions, the timer is limited to
 - a) OFF timer, turns off the system after a specific period (0.5 hours to a maximum of 168 hours (7-Days).
 - b) Repeat OFF, turns off the system after a specific period, each time the system is turned on.
 - c) ON timer, turns on the system after a specific period, (0.5 hours to a maximum of 168 hours (7-Days).
- 2) RBC-AMSU51-ES - Standard functions, plus service functions, energy monitoring, scheduled timer, (8 different running patterns), back-lite display, power saving.
- 3) RBC-ASCU11-E - Compact remote controller, including, back-lite display, (Adjustable), OFF timer, (0.5 hours to a maximum of 24 hours, not a scheduled timer.), service function.

NOTE, Earlier generation remote’s are **UNABLE** to access the new three figure DN codes.

When “UP” series FCU’s are installed, either on a “U” series or “A” series CDU system and are connected to either a central remote controller or a BMS interface, but without a local remote controller installed, additional manual configuration is required.

By default the FCU requires an active local remote controller, (Hard wired or Infra-Red), this applies to singular and grouped FCU’s.

If a local remote is not active, i.e. no infra-red remote or hard wired remote connected, (Control is via the central device only), the FCU will display an “E03” error code, (No communication from remote controller). to rectify this anomaly, “DN” code 103 requires changing, default setting is 0000

Configuration is carried out using one of the new “U” series remote controllers, RBC-ASCU11-E, RBC-AMTU31-E or RBC-AMSU51-ES, previous generation remote’s are unable to access the new “DN Codes” required to re-configure the equipment.

Using one of the listed remote’s, access the “DN Codes” settings, scroll through the codes until DN Code 103 is reached, data will be shown as “0000” change this to “0001”, follow the relevant instructions associated with each remote controller to “Fix/Lock” the new configuration.

RBC-ASCU11-E

With power on but the system off i.e. the power light is **NOT** illuminated.

Press and hold for 10 seconds the “Menu” button and the “Down button”

Once the display changes then press the “Timer” button.

The system automatically starts at “DN Code” 10.

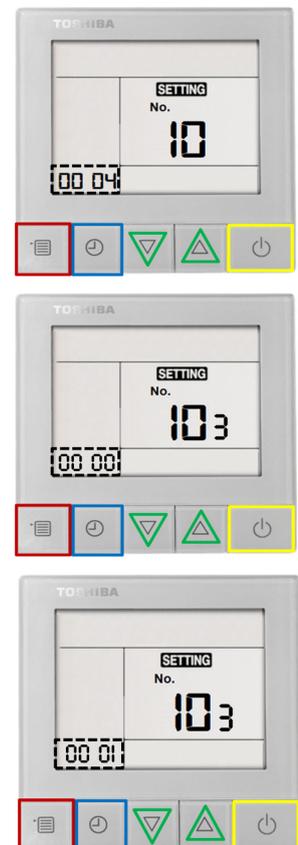
Scroll through the “DN Codes” using the “Up/Down” buttons.

To move to “Data” (Bottom left display) press the “Menu” button.

To change the “Data” use the “Up/Down” buttons.

To “Fix” a change to the “Data” press the “Timer” button.

To end press the “Power Button”



RBC-AMTU31-E

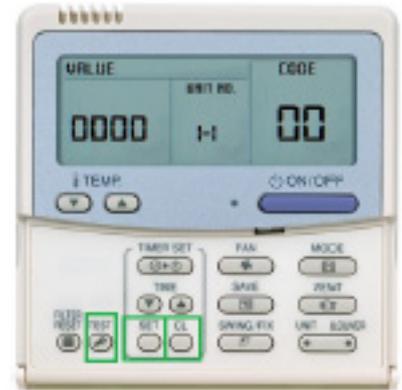
Press and hold the **TEST, SET & CL** Buttons simultaneously for 4 seconds

The Engineering Menu is accessed at item **DN** code 10 on the right.

The fan and louver of the selected unit will start.

Use the **Temperature ▼▲** Buttons to navigate to **DN Code 103**

When accessing the new 3 figure codes, the third digit will be displayed where the Unit No, (Centre) was displayed, to change the unit no. press the left hand "**UNIT**" button, Unit No flashes three times then returns to the third digit.



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

RBC-AMTU51-ES

Press the “  MENU ” button to display the “Menu screen”

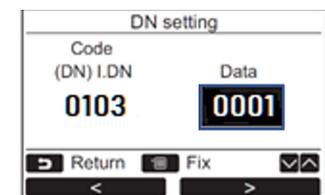
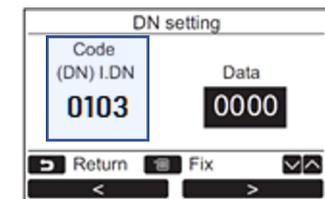
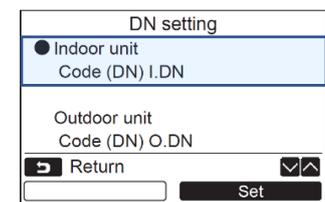
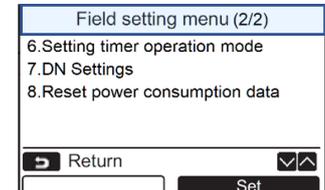
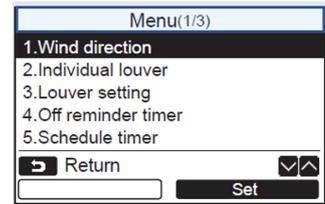
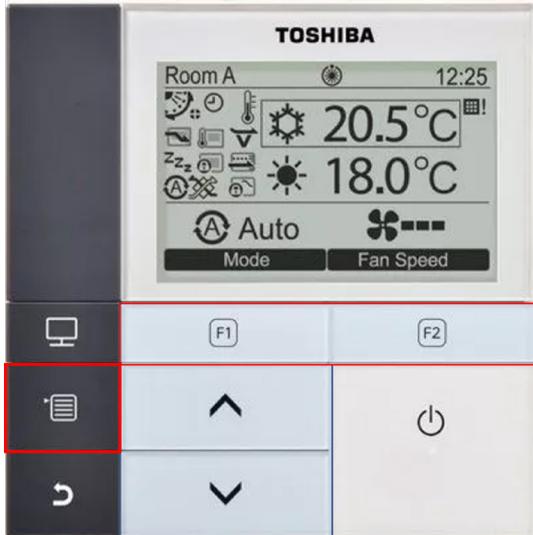
Press and hold the “  MENU ” button and the “   ” button at the same time for more than 4 seconds to display the “Field setting menu”

Select “Indoor Unit - I.DN ” Press “F2  ”

Code (I.DN) 0010 is displayed on the left. Using the “   /   ” Change I.DN from “0010” to “0103”
Press “  ” (F2) to highlight “Data” on the right.

Change “Data” from “0000” to “0001” by pressing the “   /   ”

Press “  ” then follow the on screen instructions.



In addition to the “103” DN Code, there are a couple of additional codes these being,

1FB - Central remote / BMS interface control status

Default setting = 0000: No central device (Remote controller use is possible)

0001: Central device connected (Remote controller use impossible.)

This code activate or deactivates the local hard wired remote’s power switch from turning ON or OFF the system, when set at 1FB-0001, this disables the local remote’s facility to turn on/off the system, on/off function is only available via the central device.

1FC - FCU Terminating Resistance

Default setting = 0000 - OFF, 0001 - ON

For further details relating to the new three figure DN codes, please refer to Cool Designs Pocket Guide SMMSu 2022 or Cool Designs Technical Handbook for R410A equipment.

NOTES

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For future
developments*

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(Type fault code in lower case, no spaces)



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