RAS-M Interface
for
Toshiba TCC-Link

Installation and User Guide

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Contents

1. Important Information **2**
2. Product Overview **2**
3. Supplied Parts **2**
4. Connection Details **3**
5. Installation **3**
6. Configuration **4**
6.1 S1 Bitswitch Function 4
Appendix A : Document Revision History **5**

1. Important Information

- **All electrical work should be carried out by a competent person and wiring must be in accordance with the national electrical installation regulations.**
- **Ensure that installation work is done correctly using the information contained in this manual.**
- **Make all connections securely so that any outside forces acting on the cables are not applied to the terminals.**
- **Never modify or repair the Black Pear interface by yourself.**
  Any attempt to do so will void the warranty.
- **To dispose of this product, consult your dealer.**

2. Product Overview

The Black Pear RAS-M interface provides a TCC-Link connection for new style Toshiba MIRAI air-conditioner units eg. RAS-07BKVG-E.

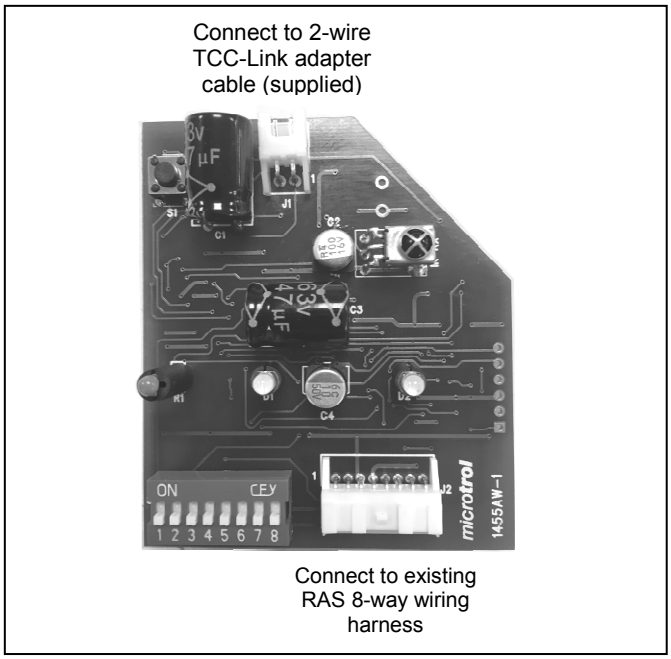
It replaces the existing air-conditioner infra-red PCB but still allows manual control using the I/R remote controller.

3. Supplied Parts

	RAS-M interface pcb
	2-wire TCC-Link adapter cable

4. Connection Details

All electrical work should be carried out by a competent person and wiring must be in accordance with the national electrical installation regulations.



5.Installation

The RAS-M interface replaces the existing IR receiver pcb in the RAS unit.

ISOLATE THE RAS UNIT BEFORE REMOVING THE COVER.

1) Carefully remove the existing board in its plastic housing.

2) Separate the housing and remove the board, unplugging the 8-way white connector CN10.

3) Take the RAS interface and plug in both the 8-way connector (J2) and the supplied 2 pin TCC-Link connector (J1).

4) Fit the RAS interface into the plastic housing and re-assemble the housing ensuring that both leads exit through the provided side holes.

5) Fit the 2 way TCC-Link terminal block into the space adjacent to the main supply connector, securing it with the screw provided.

6. Configuration

6.1 S1 Bitswitch Function

S1-1 On = 100 ohm terminator connected across the TCC-Link lines

Off = No terminating resistor.

Note:- Only one terminating resistor should be enabled per network

S1-2 On = Auto Restart

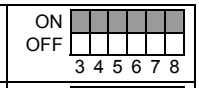
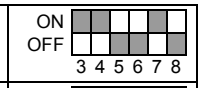
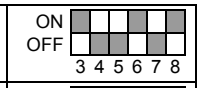
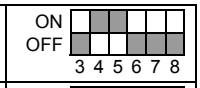
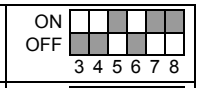
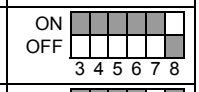
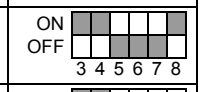
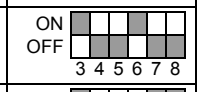
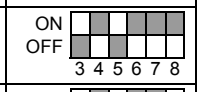
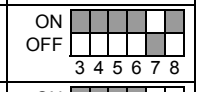
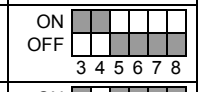
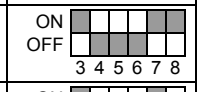
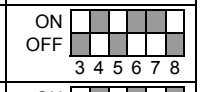
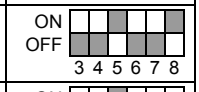
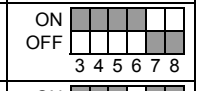
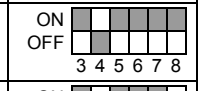
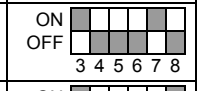
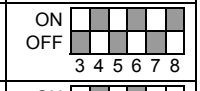
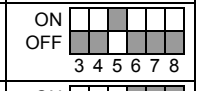
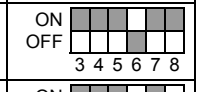
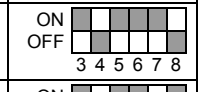
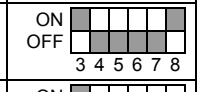
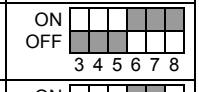
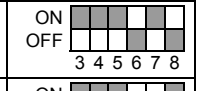
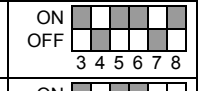
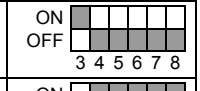
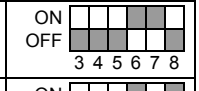
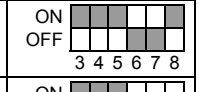
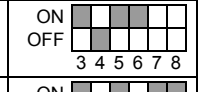
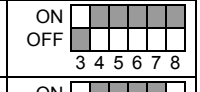
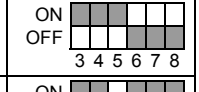
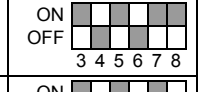
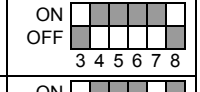
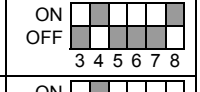
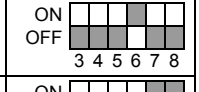
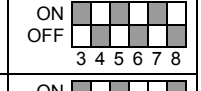
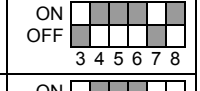
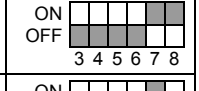
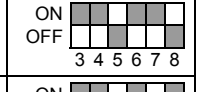
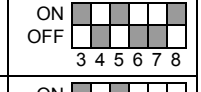
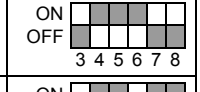
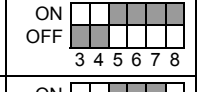
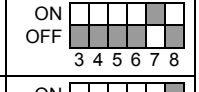
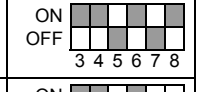
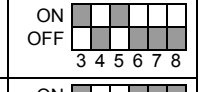
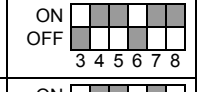
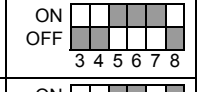
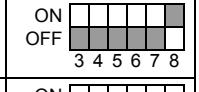
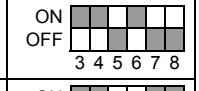
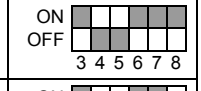
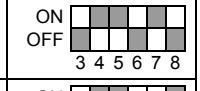
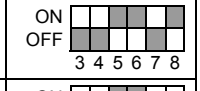
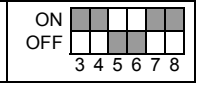
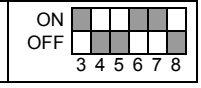
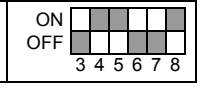
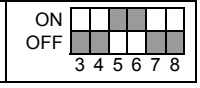
Off = Start in the OFF condition

Note:- S1-2 overrides the normal auto restart feature

S1-3 to S1-8 Set the address of the unit; S1-3 = MSB : S1-8 = LSB

The address is the binary value of S1-3 to S1-8 plus 1.

(all switches off = 1, all switches on = 64)

1		14		27		40		53	
2		15		28		41		54	
3		16		29		42		55	
4		17		30		43		56	
5		18		31		44		57	
6		19		32		45		58	
7		20		33		46		59	
8		21		34		47		60	
9		22		35		48		61	
10		23		36		49		62	
11		24		37		50		63	
12		25		38		51		64	
13		26		39		52			

The address set by S1-3 to S1-8 is used for both the central TCC-Link address and also for the Unit address in the Line/Unit addressing mode.

The Line address for the RAS-M interface is always 30.

Appendix A : Document Revision History

Date	Document Ver	Firmware Ver	By	Comments
19/01/2018	v1.00	v1.13	mcb	First version converted from preliminary instructions to booklet.

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