# Pocket Quick Reference For the

## CDL-BMS01

## RAV & VRF Indoor Interface

# CDL BMS01

This interface is for connection to a Toshiba indoor unit from the Digital Inverter, Super Digital Inverter or VRF range of units.

## One interface with five options.

### 1) - Remote ON / OFF.

### 2) - Remote Controller Locking, (Wired versions only).

### 3) - Remote ON / OFF and Remote Controller Lock, (Wired versions only).

### 4) - Indication of Operation.

### 5) - Indication of "Lock Out" (Stopping) Fault.

The interface connects to the CN61 socket on the indoor printed circuit board, the installer is then required to provide and connect to other switching or display devices.

## 1) Remote ON / OFF, Volt Free Normally closed contact.

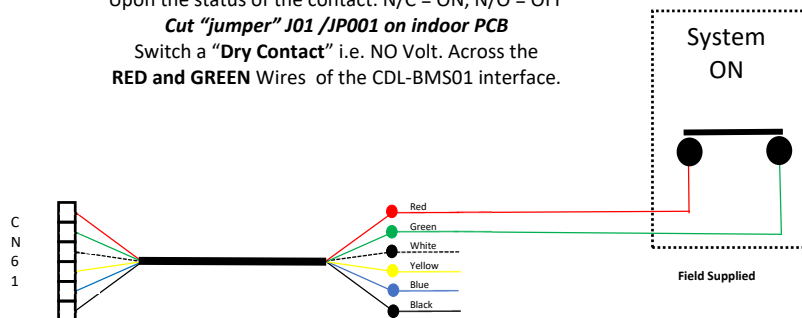Closed contact (Volt Free) system on.
Open contact (Volt Free) system off.

**ON/OFF Control**
This will switch the individual indoor units on or off depending
Upon the status of the contact. N/C = ON, N/O = OFF
*Cut "jumper" J01 /JP001 on indoor PCB*
Switch a "**Dry Contact**" i.e. NO Volt. Across the
**RED and GREEN** Wires of the CDL-BMS01 interface.

System ON

Red
Green
White
Yellow
Blue
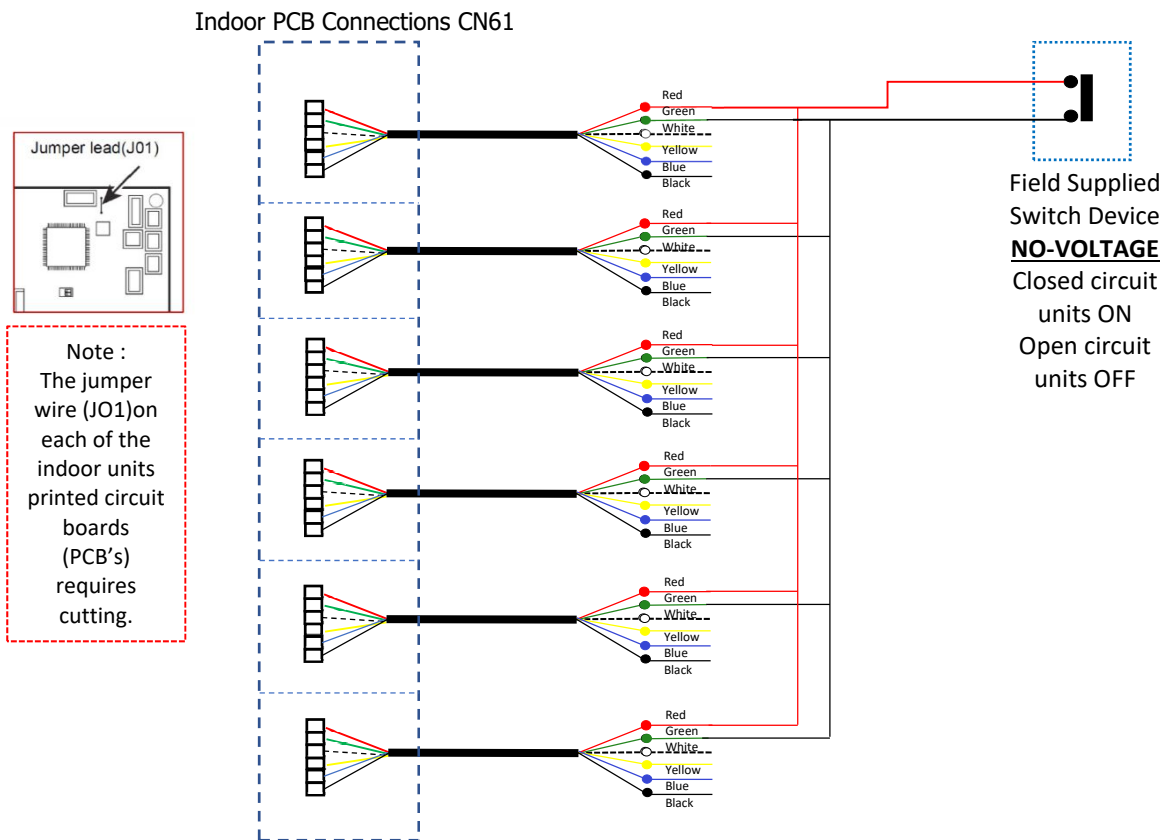Black

C N 6 1

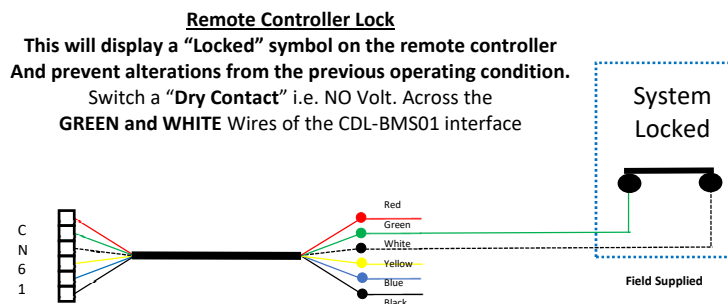**Field Supplied**

Sample RAV SM

Sample VRF PCB

In order for the external on/off switch to work correctly the link J01/J001 located on the indoor printed circuit board **MUST** be cut.

Multiple indoor units, can be controlled via a single "field supplied" on/off device, (BMS – Volt Free, Leaving Building Switch, Fire alarm etc), each indoor unit would require a CDLBMS01 connected, with each CDLBMS01, (RED & Green) external switch circuit wired in a parallel format.
NOTE: On each indoor PCB the JO1/JOO! Link would need to be "cut".

Indoor PCB Connections CN61

Jumper lead(J01)

Note :
The jumper wire (JO1)on each of the indoor units printed circuit boards (PCB's) requires cutting.

Red
Green
White
Yellow
Blue
Black

Field Supplied
Switch Device
**NO-VOLTAGE**
Closed circuit units ON
Open circuit units OFF

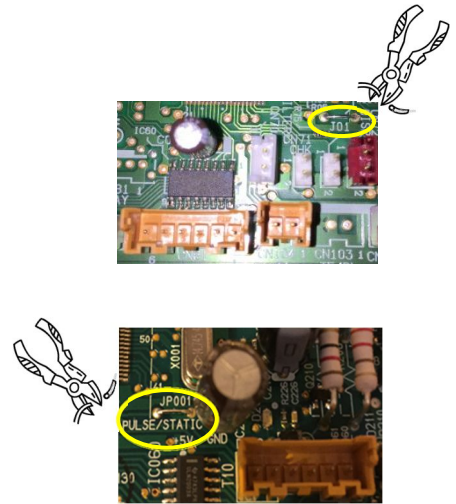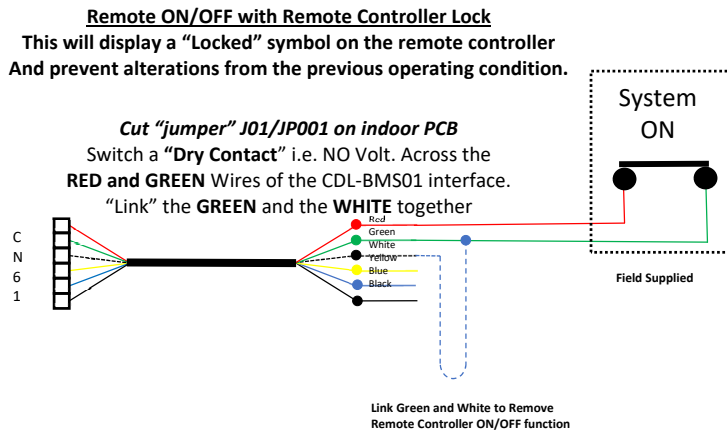## 2) - Remote Controller Locking, (Wired versions only).

This option, allows for the power (ON / OFF) button on the local remote controller to be disabled, ideal for systems installed in server rooms etc. (This function only works on hard wired remote controllers.)

**Remote Controller Lock**
**This will display a "Locked" symbol on the remote controller**
**And prevent alterations from the previous operating condition.**
Switch a "**Dry Contact**" i.e. NO Volt. Across the
**GREEN and WHITE** Wires of the CDL-BMS01 interface

System Locked

C N 6 1

Red
Green
White
Yellow
Blue
Black

**Field Supplied**

When the remote contact is closed, (NO VOLTAGE) the remote controllers power button (ON / OFF) is disabled and the system is locked in the ON mode, when the remote contact is open, the remote controllers power button can be used to turn ON / OFF the system.
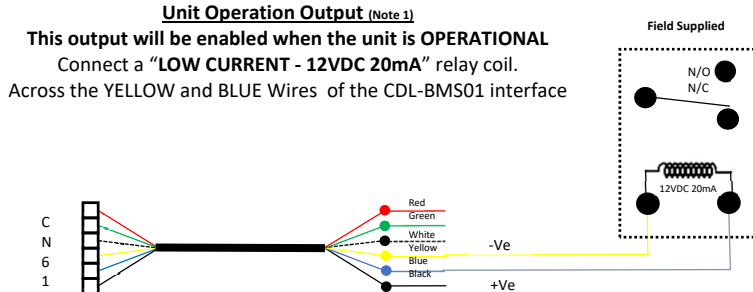
# 3) - Remote ON / OFF and Remote Controller Lock, (Wired versions only).

This option combines option 1 & 2.

**Remote ON/OFF with Remote Controller Lock**
**This will display a "Locked" symbol on the remote controller**
**And prevent alterations from the previous operating condition.**

*Cut "jumper" J01/JP001 on indoor PCB*
Switch a **"Dry Contact"** i.e. NO Volt. Across the
**RED and GREEN** Wires of the CDL-BMS01 interface.
"Link" the **GREEN** and the **WHITE** together

System
ON

Field Supplied

CN61

Red
Green
White
Yellow
Blue
Black

Link Green and White to Remove
Remote Controller ON/OFF function

# 4) - Indication of Operation.

This option provides an external circuit which gives indication of operation.
This is a LOW voltage circuit

**Unit Operation Output** (Note 1)
**This output will be enabled when the unit is OPERATIONAL**
Connect a **"LOW CURRENT - 12VDC 20mA"** relay coil.
Across the YELLOW and BLUE Wires of the CDL-BMS01 interface

Field Supplied

N/O
N/C

12VDC 20mA

CN61

Red
Green
White
Yellow    -Ve
Blue
Black
+Ve

**NOTE 1**
**Extreme caution must be used when using this accessory, as incorrect connection will result in damage to the indoor PCB.**

When the indoor unit (RAV or VRF) is operating the interface (CDLBMS01) provides a 12VDC 20mA power supply via the interfaces Yellow (-Ve) and the Blue (+Ve) wires, which can be connected to a "field supplied" 12VDC 20mA Relay.
Which can then be wired to provide an external indication of system operation, this could be a indication light, link to a BMS system, were operation indication is required.

When the indoor unit is no longer operating this voltage is removed.

# 5) - Indication of "Lock Out" (Stopping) Fault.

This option provides an external circuit which gives indication of "Lock Out - Fault", system stopped under error conditions.
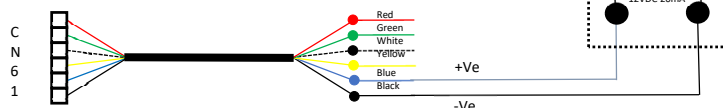This is a LOW voltage circuit

**Unit Error Output** (Note 1)
**This output will be enabled when the unit has a "Lock Out" fault.**
Connect a "**LOW CURRENT - 12VDC 20mA**" relay coil.
Across the BLACK and BLUE Wires of the CDL-BMS01 interface

**Field Supplied**

N/O
N/C

12VDC 20mA

C
N
6
1

Red
Green
White
Yellow
Blue          +Ve
Black
             -Ve

When the system (RAV or VRF) enters into a "Lock Out – Fault" the interface (CDLBMS01) provides a 12VDC 20mA power supply via the interfaces Black (-Ve) and the Blue (+Ve) wires, which can be connected to a "field supplied" 12VDC 20mA Relay.

This can then be utilised to activate an external light, sounder (buzzer) or close a contact to give a BMS a fault signal.

When the indoor unit is no longer in a "Lock Out – Fault" condition, this voltage is removed.

# NOTES

# Contact details:

# Cool Designs Ltd Technical Support

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### Monday – Friday 07.30 to 19.30

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**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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