



Natcomm
AUSTRALIAN INNOVATION



MULTIPLE INPUT UNIT

User Guide



For Technical Assistance
Please Phone: (07) 5596 5128

National Communications (Aust.) Pty Ltd.

Units 11, 39 Lawrence Dr NERANG QLD 4211

www.natcomm.com.au

DESCRIPTION

Our MULTIPLE INPUT UNIT (**MIU**) accessory has been designed to allow up to 12 separate Dry Contact Switches to be connected to one **TDU** Talking Display Unit.

The **TDU** Talking Display Unit can then play one of up to 12 separate messages, held in its memory, depending on which MULTIPLE INPUT UNIT Switch has been triggered.

This means that :

- Switch 1 when triggered will cause Message 001 to play
- Switch 2 when triggered will cause Message 002 to play
- Switch 3 when triggered will cause Message 003 to play
- Switch 4 when triggered will cause Message 004 to play
- Switch 5 when triggered will cause Message 005 to play
- Switch 6 when triggered will cause Message 006 to play
- Switch 7 when triggered will cause Message 007 to play
- Switch 8 when triggered will cause Message 008 to play
- Switch 9 when triggered will cause Message 009 to play
- Switch 10 when triggered will cause Message 010 to play
- Switch 11 when triggered will cause Message 011 to play
- Switch 12 when triggered will cause Message 012 to play

Each Switch Trigger will cause the appropriate message to play, as indicated above. **TDU** can only play one message at one time.

While the **TDU** is playing a message, the default settings of **MIU** allow it to detect further triggering by the attached Switches and it will hold in buffer up to 10 separate further triggers.

Then when each message is complete, the **MIU** will instruct **TDU** to play the message corresponding to the next triggering action.

MIU is provided with a **TWO YEAR FACTORY WARRANTY.**

DESCRIPTION Cont.

During Message play **MIU** can be configured to handle further Switch triggering in 3 separate modes :

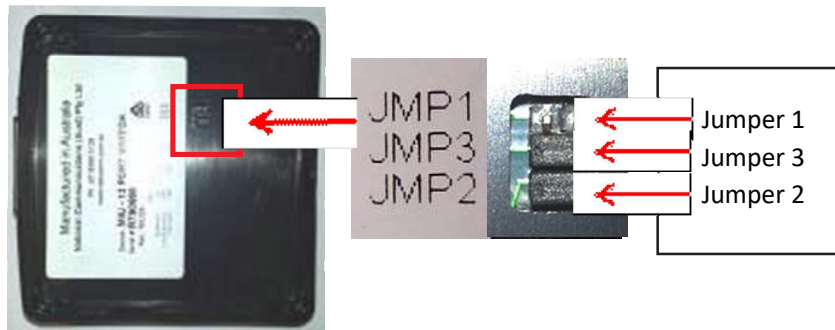
MODE 1 (Default Mode) MIU will **STORE** up to 10 further triggers and then instruct **TDU** to play these Messages in trigger order. This is the default mode.

MODE 2 - MIU will **IGNORE** any further triggering while playing a Message. Triggering will only take place when a Message is **NOT PLAYING**.

MODE 3 - MIU will **INTERRUPT** an existing Message. In this situation a trigger during Message Play will cause the existing Message to **STOP** and the **NEW MESSAGE WILL PLAY**.

The appropriate **MIU** Triggering Mode is set by **REMOVING JUMPER CONNECTORS** which are linking **PINS** that are accessed through a small hole located on the underside of **MIU** (see below).

Note : The Jumpers are not in order



To Set MODE 1 - Leave all 3 JUMPERS in place.

To Set MODE 2 - Remove JUMPER 1.

To Set MODE 3 - Remove ALL 3 JUMPERS.

Note : For Jumper Settings to update, you **MUST** power down the MIU by disconnecting the input cable from the TDU for 15 seconds or more.

MODEL TABLE



Our MULTIPLE INPUT UNIT (**MIU**) accessory is available in 3 separate models, for use with Normally Open switches :

- MIU4** - Provides input capability for up to 4 (N.O. Switches)

- MIU8** - Provides input capability for up to 8 (N.O. Switches)

- MIU12** - Provides input capability for up to 12 (N.O. Switches)

MESSAGE DETAILS

Messages used with MIU should be in MP3 format and written to a 2GB Flash Card supplied with TDU.

Important Note : When a TDU is used with an MIU, all messages loaded onto the SD card should have a filename that begins with 3 numbers 001-012.

This way TDU knows to play Message Filename 003xxxx when Switch 3 connected to the MIU is triggered. Similarly, TDU knows to play Message Filename 002xxxx when Switch 2 connected to the MIU is triggered and so on up to Message 012xxx, should an MIU12 be used.

INSTALLATION

Switches connect to the MULTIPLE INPUT UNIT via a female DB25 connector.

A separate male DB25 connector, with exposed terminals is supplied with to allow direct solder connection of cables leading to each Switch.

Each Switch has been allocated two specific pin positions on the DB25 connector as per the diagram and table on page 7.

MIU output 12V on the lower rows of pins, which are pins 14-25 (see P 6). MIU is activated by the detection of 12V on pins 2 – 13, which results from a remote (normally open) switch closure.

The remote switch must close for a minimum of 100mS to cause MIU to respond.

Switches can be located up to 100m from the **MIU** unit, or greater than 100m from the **MIU** if low resistance wiring is used.

Communication: Between the **MIU** and **TDU** is achieved via a standard 6 Wire telephone cable. A short 6 Wire telephone cable is supplied with the **MIU**, to allow for connection to **TDU**. This cable can be substituted if necessary with any 6 Wire cable with a length up to 100m. Cat5 cable is ideal.

Power: For **MIU** is supplied from the **TDU** via the same 6 Wire cable.

Note: a separate power input jack has been fitted to **MIU** to allow for operation at distances greater than 100 meters from **TDU**. You can connect 12VAC or 12VDC input (minimum 300mA, polarity independent) to this jack if necessary.

SWITCH DETAILS

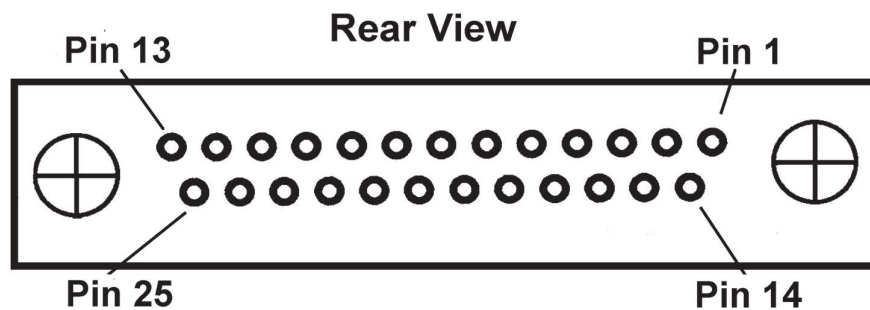
Switches for use with the **MIU** must be Normally Open

NORMALLY OPEN SWITCHES do not need any modification.



SUPPLIED DB25 MALE SWITCH CONNECTOR

Use this supplied connector to connect to your switches. Connections are made by soldering the wires from the switch to the pin positions as indicated on the next 2 pages.



Note : Pins 14-25 are all wired in COMMON to 12V within the **MIU**. This means that if each remote switch has 1 leg wired in common to each other, then only 1 switch need have both wires connected back to **MIU**.

SUPPLIED DB25 MALE CONNECTOR

The SUPPLIED DB25 MALE CONNECTOR that is to connect to the DB25 Male Output of **MIU**, should be wired as per the following table :

Pin 1	Not Used		
Pin 2	Switch 1 -	Pin 14	Switch 1 +
Pin 3	Switch 2 -	Pin 15	Switch 2 +
Pin 4	Switch 3 -	Pin 16	Switch 3 +
Pin 5	Switch 4 -	Pin 17	Switch 4 +
Pin 6	Switch 5 -	Pin 18	Switch 5 +
Pin 7	Switch 6 -	Pin 19	Switch 6 +
Pin 8	Switch 7 -	Pin 20	Switch 7 +
Pin 9	Switch 8 -	Pin 21	Switch 8 +
Pin 10	Switch 9 -	Pin 22	Switch 9 +
Pin 11	Switch 10 -	Pin 23	Switch 10 +
Pin 12	Switch 11 -	Pin 24	Switch 11 +
Pin 13	Switch 12 -	Pin 25	Switch 12 +

SPECIFICATIONS

Dimensions (all in mm)	:	106 (W) x 106 (D) x 43 (H)
Weight	:	200 – 250 grams
Power Supply	:	12VAC or 12VDC min 500mA
Switch Input	:	Via DB25 Male Connector (supplied)
Compliance	:	Supplier Number N 782

WARRANTY

This device is guaranteed against defects from workmanship for a period of two years (24 months) from the date of purchase.

In the event of failure, you should return the product, along with proof of purchase date, and a written statement about the nature of the problem.

The obligation is solely to repair or replace the product. The warrantor is not liable for any incidental or consequential damages due to such defects.

This Warranty shall not apply to any unit which has been subject to alteration, modification, abuse, negligence, accident, external voltage/lightning surge or used in any manner contrary to these instructions.

The user is responsible for freight costs to the repair point. The warrantor will be responsible for freight costs in returning this unit back to the user.

Damage caused to this device or attached equipment, by lightning strikes or over voltage surge is not covered under this warranty.

**CASE SEALED AT FACTORY
OPENING THE CASE VOIDS THE WARRANTY**