TECHNICAL SPECIFICATIONS

MAIN PANEL

Manufacturer	: Micro-CTL Electronics Sdn.Bhd
Brand	: Mictron
Model	: 800
Part Number	: M800P-MP
Power Consumption	: 24V DC 150mA
Operating Temperature	: 0 - 45 degree C
Operating Humidity	: 5% to 95% (Non-condensation)
Panel Construction	: Mild Steel
Panel Thickness	: 1.2 - 1.5mm
Finishing	: Epoxy powder coated paint
Colour	: Red
Testing Standard	: MS1745 Part2 : 2004
	: EN 54 Part2 : 2004
Test Report	: 2011EL0096 & 2011EMC014 SIRIM

DIGITAL SUB-PANEL (RTTU)

Model	: RTTU (Remote Telephone Terminal Unit)
Material	: Mild Steel
Thickness	: 0.9mm
Finishing	: Epoxy powder coated paint
Colour	: Red
Dimension	: 292mm (H) x 216mm (W) x 90mm (D)
Capacity Zone Card	: 10 maximum
Part Number	: M800-RTTU-ALL
Zone module card	: M88-RTU2
Termination module card	: M88-RFT2
Power Consumption	: 20mA or 0.6w, 22-32 volts DC
Max. Distance to Main Panel	: 2km (wires as shown in schematic)
Operating Temperature	: 0 - 50 degree C
Operating Humidity	: 5% to 95% (Non-condensation)

REMOTE FIREMAN INTERCOM STATION (RFIS)

Model	: M8-RFIS
Handset Material	: High Impact Thermoplastic
Handset Colour	: Red
Constant Rating	: 24V DC 1A
Transmitter	: Condenser mic.
Receiver	: Dynamic
Impedance	: 150 ohms
Max. Distance to MH	: 2km (2 x 1.5mm^2 PVC cable)
Operating Temperature	: 0 - 50 degree C
Operating Humidity	: 5% to 95% (Non-condensation)
Box Material	: Mild Steel
Box Colour	: Red
Box Thickness	: 0.9 - 1.2mm
Box Finishing	: Epoxy powder coated paint
Box Dimension	: 356mm (H) x 172mm (W) x 80mm (D)
Box Cover Dimension	: Surface Mount (M8-BC-S)
	(364mm (H) x 178mm (W))
	Flush Mount (M8-BC-F)
	(380mm (H) x 195mm (W))

MIMIC DISPLAY

Model	: M800-Mimic
Material	: Multicolour mimic on perspex
	with calling LED
Operating Temperature	: 0 - 45 degree C
Operating Humidity	: 5% to 95% (non-condensation)
Enclosure Construction	: Mild Steel
Enclosure Thickness	: 1.2 - 1.5mm
Enclosure Finishing	: Epoxy powder coated paint
Colour	: Red
Dimension	: Customized

SUB-PANEL

Model	: M800-SFIP
Maximum Distance	: 2 km
Operating Temperature	: 0 - 45 degree C
Operating Humidity	: 5% to 95% (non-condensation)
Panel Construction	: Mild Steel
Panel Thickness	: 1.2 - 1.5mm
Finishing	: Epoxy powder coated paint
Colour	: Red
Dimension	: Customized

PC Station

Model	: M800-PC-R1
Operating System	: Windows XP, 7 or higher
MFIP Interface	: RS232 serial communication
User Interface	: Graphical User Interface (GUI)
Maximum Display	: 99 display panel
	: 99 graphical floor plans
Maximum Users	: 16 with password
Features	: Automatic display calling intercom
	: Zone indication on floor plan

BATTERY CHARGER

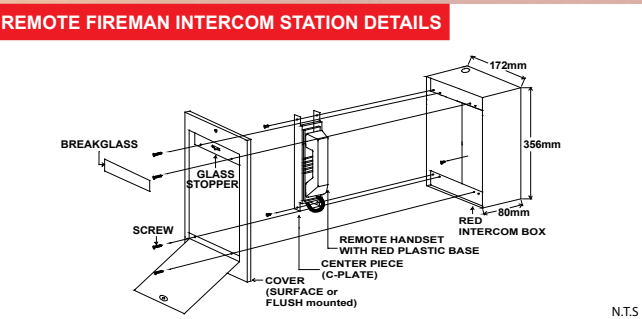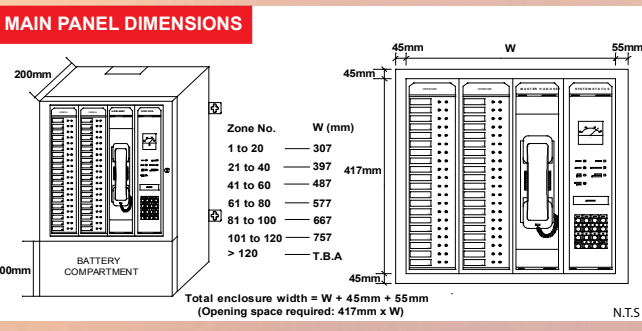|	
Model	: MCPS-8
Charger Type	: Constant voltage
Input Voltage	: 240V AC ±10% 50Hz
Charging Voltage	: 27.5V DC 1.2A
(output voltage)	
Ripple & Noise	: 100mV (RMS) maximum
Operating Temperature	: 0 - 50 degree C
Operating Humidity	: 5% to 95% (Non-condensation)

SYSTEM STATUS PANEL

Panel Model	: M800P- CPU
Type	: Microprocessor based
Model	: Freescale MC68HC05/08
Memory	: 8K byte EPROM
	2K byte RAM
I/O port	: 1 serial & 2 parallel
Operator Interface	: Keyboard with 16 keys
	16 x 1 Alphanumeric LCD Display
System Indications	: LED for system fault, AC on/fail
	DC on, Charger fail & Battery low
Type of meter	: Voltmeter 0 - 30V DC
Power Consumption	: 22-32V DC, 50mA or 1.5W
Panel Construction	: Perspex on aluminium
Panel Colour	: Light grey / light blue / with black labelling
Panel Dimension	: 400mm (H) x 90mm (W) x 30mm (D)
Operating Temperature	: 0 - 50 degree C
Operating Humidity	: 5% to 95% (Non-condensation)

INTERCOM STATUS PANEL

Panel Model	: M800P- DP
Capacity Per-panel	: Maximum 20 zones
Indication	: CALL - Red LED
	FAULT - Amber LED
Display card Construction	: Display card model : M800DP1
	Capacity : 20 zones
	Multiplexer model : M801-DMX
	(for >160 zones)
Power Consumption(20 zones)	: 22 - 32V DC, 20mA or 0.6W
Panel Construction	: Perspex on aluminium
Panel Colour	: Light grey / light blue / with black labelling
Panel Dimension	: 400mm (H) x 90mm (W) x 30mm (D)
Operating Temperature	: 0 - 50 degree C
Operating Humidity	: 5% to 95% (Non-condensation)

MASTER HANDSET PANEL

Panel Model	: M8P-MH
Handset Material	: High Impact Thermoplastic
Handset Colour	: Red
Constant Rating	: 24V DC1A
Transmitter	: Condenser mic
Receiver	: Dynamic
Impedance	: 150 ohms
Panel Construction	: Perspex on aluminium (surface panel)
	Mild-steel (flush panel)
Panel Colour	: Light grey / light blue / with black labelling
Panel Dimension	: 400mm (H) x 90mm (W) x 30mm (D)
Operating Temperature	: 0 - 50 degree C
Operating Humidity	: 5% to 95% (Non - condensation)

MAIN PANEL DIMENSIONS

Zone No.	W (mm)
1 to 20	307
21 to 40	397
41 to 60	487
61 to 80	577
81 to 100	667
101 to 120	757
> 120	T.B.A

Total enclosure width = W + 45mm + 55mm
(Opening space required: 417mm x W)

N.T.S

REMOTE FIREMAN INTERCOM STATION DETAILS

N.T.S

THE ULTIMATE CHOICE WITH UNCOMPROMISING FEATURES

MICTRON 800
MULTIPLEX
FIREMAN INTERCOM SYSTEM

- Low in price
- High in technology
- Low in maintenance costs
- High in efficiency
- Minimum servicing required
- Maximum performance expected

- Intelligent buildings
- Apartments
- Commercial complexes
- High rises
- Hospitals / Medical centres
- Distributed blocks of buildings

Made in Malaysia

Other available Products:

Mictron 8 — Conventional Fire Alarm System
Mictron 9 — Microprocessor-Based Conventional Fire Alarm System
Mictron 900 — Microprocessor-Based Multiplex Fire Alarm System
Mictron 9900 — Analog Addressable Fire Alarm System

Micro-CTL reserves the right to alter specification of its product
from time to time without notice.

MICTRON 800 MULTIPLEX FIREMAN INTERCOM SYSTEM

The Mictron 800 Microprocessor-Based Multiplex Fireman Intercom System is a result of the advanced technologies available today & uses the latest single chip microprocessor. It provides features which are beyond the capability of the conventional 2-way communication system.

Digital Sub-Panel RTTU (Remote Telephone Terminal Unit)
A RTTU is a distributed data gathering panel. All the external remote handsets are connected to the RTTU.

The microprocessor in the RTTU will convert the data into serial format and communicate with the Main Fireman Intercom Panel (MFIP) via standard data cable.

A standard RTTU can interface up to 10 Remote Fireman Intercom Station (RFIS).
Depending on building zoning layout, each RTTU can be used to serve several floors.

A standard Mictron 800 is a 2-BUS system, each BUS allows up to 32 RTTU. However, an extension can be added to increase the BUS to 6 with maximum of 192 RTTU & 1920 zones.

The distributed configuration (Multiplex Technique) of the sub-panel (RTTU) in Mictron 800 offers the ultimate solution in terms of wire saving, reduces installation cost and easy maintenance work.

Optional Multi-Colour Mimic Panel (M800-Mimic)
Consist of all floor plans and section of building printed on perspex sheet with LEDs on the mimic floor plans to indicate location of each intercom zone.

Interlinking Capability :
Integration between main panel and other sub-system can be achieved through 2 twisted pair of data cable or other medium.
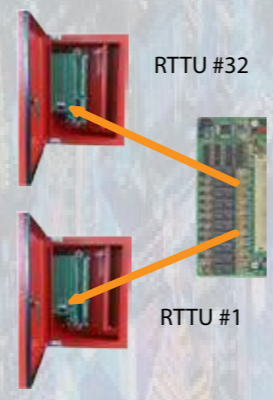
The sub-system can be a full repeater or just a simple panel for the master handsets in different control room to communicate with each other.

High level integration to other building services system can also be achieved by RS-232 serial communication, with protocol provided upon request.

Why Mictron 800 is Preferred :-
- Its excellent features.
- Its competitive pricing.
- Easy availability of parts.
- Reliable and well-trained support team to provide after sales service.
- Free in-house training on trouble-shooting is available upon request.

No extra wiring. All wirings from remote handsets are pulled to nearest sub-panel (RTTU). Looping from Mictron 800 to sub-panel (RTTU) consists of only 4 data cables, 2 speech cables and 2 power supply cables.

No extra labour. All the numbering details at the termination cards of RTTU enable each cable to be easily identified for tracing wirings so as to save on labour time.

2 x 1.5mm² PVC cable per RFIS

2 twisted pair and screened cable for data transmission
Minimum 16 / 0.2mm or 7/0.3mm (8mm diameter)

Minimum 2 x 2.5mm² PVC cable for RTTU power supply.
Minimum 2 x 1.5mm² PVC cable for speech line.

M800 - SFIP   M800 - MFIP   M800 - Mimic

PC Station
M800 - PC - R1

Repeater
M800 - Rep - R2

Link with others
M800 - Link - R3

Depending on the distance of the RFIS to the RTTU, and the RTTU looping to the MFIP, the wire size may vary, refer to the actual project schematic drawing for verification.


RTTU #32

RTTU #1

Parts Interchangeability

No Address setting is required for RTTU module. The address is set on the wire termination module. To replace the faulty RTTU, just un-plug the faulty card & plug in a new card.

A typical highrise building will require each RTTU to serve several floors. A straight forward wiring configuration is required for looping RTTU to RTTU and back to main control panel.

OFFICE Block   HOTEL Block

PODIUM Block

For highrise buildings with different blocks of configuration, RTTU will be installed at strategic locations to serve various floors, interconnection of RTTU can be directly pulled back to master control panel or tee-off from another RTTU of another block.

Block D

Block E

Block B   Block C

Block F   Block A

RTTU will be ideal in distributed blocks of building like campuses and hostels. The data cable interlinking the RTTU can be "branch" or "star" connection.

Condo A

Condo B

Guard House

Condo C

For different blocks of building like condominiums, each condo will have its own main control panel and RTTUs. Since 24 hours standby guard is normally at the guard house, all information will be repeated at the guard house master control panel. Cabling required is 2 pairs data cable + 1 pair speech cable from each block to master control panel at guard house. The master handset at guard house will be able to talk to any of the remote handset of any block.
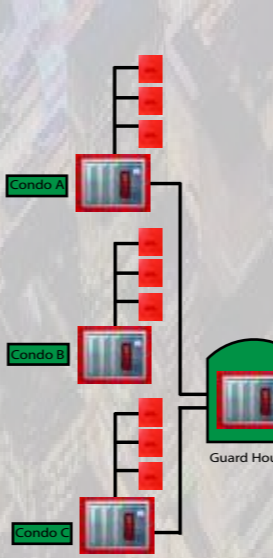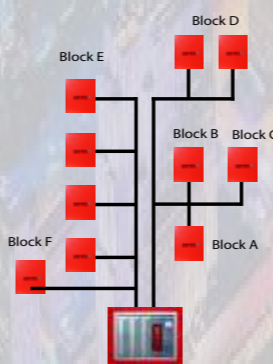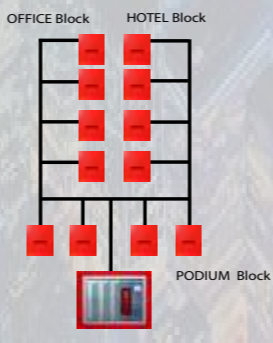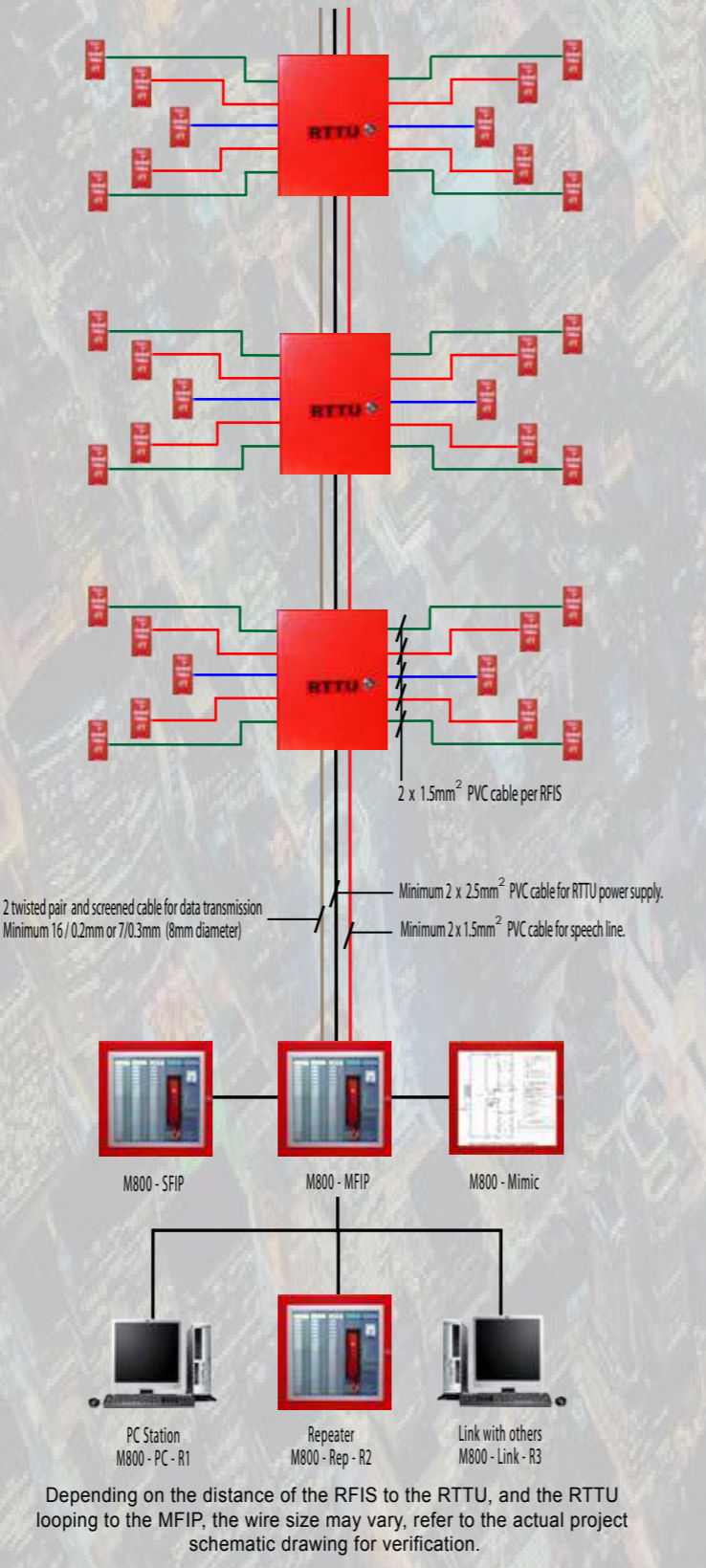
User friendly simple keyboard operation to call and connect between the master and remote handset.

16 x 1 character LCD on keyboard. Displays alphanumeric message.

Auto connection between the remote handset with the master handset, when the latter is lifted.

Calling tones both at the remote and master handset, to show callers the status of the system

Two non-polarised wires are required for inter linking each remote handset with the main fireman intercom panel.

Party lines / conference calls from master handset to seven remote handsets.

Compact plug-in modules save on space.

20-Point indication on facial display saves space on main cabinet housing. Red & amber LEDs to differentiate calling & fault conditions.

Automatic volume compensation for different wire length.

Superb interlinking ability between master-master-remote. Only 2+1 pair data cable is needed between the two masters.

Voltmeter & LED indication on keyboard panel showing system status.

Audio & visual facility both at master panel & remote handset.

Built-in transient suppressor to protect the modules from external high surge or irregular voltage.

Built-in servicing software for easy maintenance and servicing.

Optional mimic diagram to show the locations of all remote handsets by LED Lights.

Optional printer/computer interfacing for event recording.