



# EM-181Mu

## User Guide

Rev: 1.0.2133.2

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# Description

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The EM-181Mu master controller is the heart of your emergency lift communication system. Feature rich and designed to meet the latest EN-81-28 standards. Supporting up to eight stations providing high quality, hands-free loud speaking intercom and emergency auto-dialling.

## Features:

- EN-81-28 compliant
- Built in battery backup
- Self-test via P100 & Pixels RPMS monitoring solutions
- Remote (DTMF) & local (SD Card) programmable
- Robust 4-wire DataBus station connectivity
- Intercom paging
- Support for eight programmable emergency help numbers
- Programmable I/O with global alarm filtering option
- LED System Status Indication
- Single telephone line analogue FXO interface
- Voice storage programmable site identification message
- Advanced system and telephone programming options

# Installation & Setup

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- 1 Mount the EM-181Mu using the DIN Rail mounting clip
- 2 Referencing the Installation Diagram (back page), connect the:
  - Telephone line to Phone Line input
  - Power supply to the DC IN input

*Once powered the status LED will blink BLUE indicating both power and telephone line is connected. Refer to Installation Diagram (back page) for additional LED status indicators.*

- 3 Dial into the line number connected to the unit from your mobile or telephone handset.

 *Default System PIN: 123*

- 4 Program your emergency help number by entering;

# PIN 9 # 0 HELP NUMBER \*

To verify your entry, enter \* 0

- 5 Record a voice Location ID message by entering;

# PIN # 9 Wait for 2 beeps to commence

Once you complete your recording, press 0 to end.

To hear playback voice message, enter \* 9

- 6 The unit provides connectivity to the intercom stations, refer to the EM-181/S & SK Installation Diagrams to prepare the wiring and finalize the system installation.

 *Check station wiring before connecting to EM-181Mu*

Once all stations are connected back to the EM-181Mu, incoming & outgoing test calls can be made to ensure all devices are setup and operational.

# Specifications

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|                       |  |
|-----------------------|--|
| Operating Voltage     | 18 - 24V DC                                |
| Operating Current     | EM-181Mu: 150mA EM-181/S (SK): 18mA        |
| Inputs                | Dry Contact, Active Low (ON)               |
| Output                | Open Collector, 24V   50mA (max)           |
| StationBus            | 4-wire, 400m (max), 8 Station Total        |
| Status Indication     | Status (RGB LED)                           |
| Voice ID Message      | 16 seconds (max)                           |
| Battery Type          | 12V SLA 0.8Ah                              |
| Battery Runtime       | 4 Hours (Standby)                          |
| (4 Station Install)   | 2 Hours (Talk Time)                        |
| FXO Interface         | 24 - 50V DC, 3kV Isolated, Analogue Line   |
| Operating Temperature | 0 - 50°C                                   |
| Operating Humidity    | 90% max relative humidity, noncondensing   |
| Mounting              | DIN Rail                                   |
| Dimensions (mm)       | 81.5(W) x 118.5(H) x 54(D) (with DIN Rail) |

## FXO Interface (Phone Line)

PABX System, PSTN, NBN or Wireless Cellular Gateway

### Dialling into the System

When dialling into the system, and there are previous alarm logs, your call will be automatically connected to the last station which raised an alarm.

**!** In order to page another station you must return back to the EM-181Mu master controller by entering;

# #

You will now be ready to connect to another station.

### To Page a Station

Enter the Station ID number from your remote handset

|     |   |       |   |
|-----|---|-------|---|
| MR  | 0 | SPARE | 4 |
| TOP | 1 | AUX-A | 5 |
| CAR | 2 | AUX-B | 6 |
| PIT | 3 | AUX-C | 7 |

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When connected, the system will playback the station name.

### Alarm Logs

All outgoing alarm calls are registered by the system.

The Alarm LED at the stations will remain ON to indicate an alarm had been made. [EN81-28:2018 compliant](#)

To RESET the Alarm Logs and LED indicators at all station, ensure you are connected to the EM-181Mu master controller by entering # #, then enter the following sequence;

# 1 2 3 4 \*

The system will respond with "sequence accepted".



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To access the EM-181Mu  
Advanced Programming  
Guide on your tablet  
or smart phone

Please visit  
[www.pixeltechnologies.com.au](http://www.pixeltechnologies.com.au)  
for warranty disclaimer, mechanical drawings and serviceable parts.

|                       |                         |               |          |
|-----------------------|-------------------------|---------------|----------|
| PIXEL<br>TECHNOLOGIES | EM-181Mu                | Date:         | 23-08-21 |
|                       | Installation Diagram    |               |          |
| Designed By:<br>D.H   | Revision:<br>1.0.2133.2 | Sheet:<br>1/1 |          |

### I/O Interface Port

|     |                        |
|-----|------------------------|
| I-1 | Alarm Filter (Master)  |
| I-2 | *Lift Breakdown Report |
| O-1 | Output 1               |
| O-2 | Output 2               |

**!** Outputs: Open-Collector  
Max Sink Current: 50mA (max)

Both outputs 1 & 2 are configurable  
\*Lift Breakdown Report via RPMS (Monitoring Service)

Please reference *Advanced Programming Guide*  
for further details.

Optional PSU  
PN: CT-18V/2A

### LED Indication

|                  |  |               |
|------------------|--|---------------|
| Status (Blue)    |  | Idle          |
| In-Use (Green)   |  | Incoming Call |
|                  |  | Outgoing Call |
| Battery (Yellow) |  | Battery Mode  |
| Fault (Red)      |  | No Battery    |
|                  |  | No Phone Line |

1 Second

### SD Card

- Call Voice Recording
- Easy System Setup

Please reference *Advanced Programming Guide*  
for further details.

### Battery Replacement

Battery replacement required 3 years from install date.

Standby: 4 Hours  
Talk Time: 2 Hours

Pixel replacement PN: SR-12V-0.8AH

To replace simply remove the two case screws. Push back the two PCB board retainer tabs to remove circuit board allowing access to internal battery.

Data & V+

**!** Keep away from  
high voltage wiring  
& DC & VF drives

Signal & 0V+ (Shield)

For improved noise immunity

**Recommended Cabling:**  
Shielded Twisted Pair  
Belden 8723 or equivalent

Station Bus  
Interface to lift intercom stations

