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## **CCU/232-NIM Install Instructions      Part #: CCU/232-NIM**

This equipment is designed to be installed and serviced by fully qualified field engineers. No user serviceable or installation parts inside.

### **Supplied:**

- 1      x      CCU/232 board with firmware for NIM (FSI) Interface
- 1      x      Mounting Bracket
- 1      x      Power connector for CCU/232
- 1      x      Supervision relay connector for CCU/232

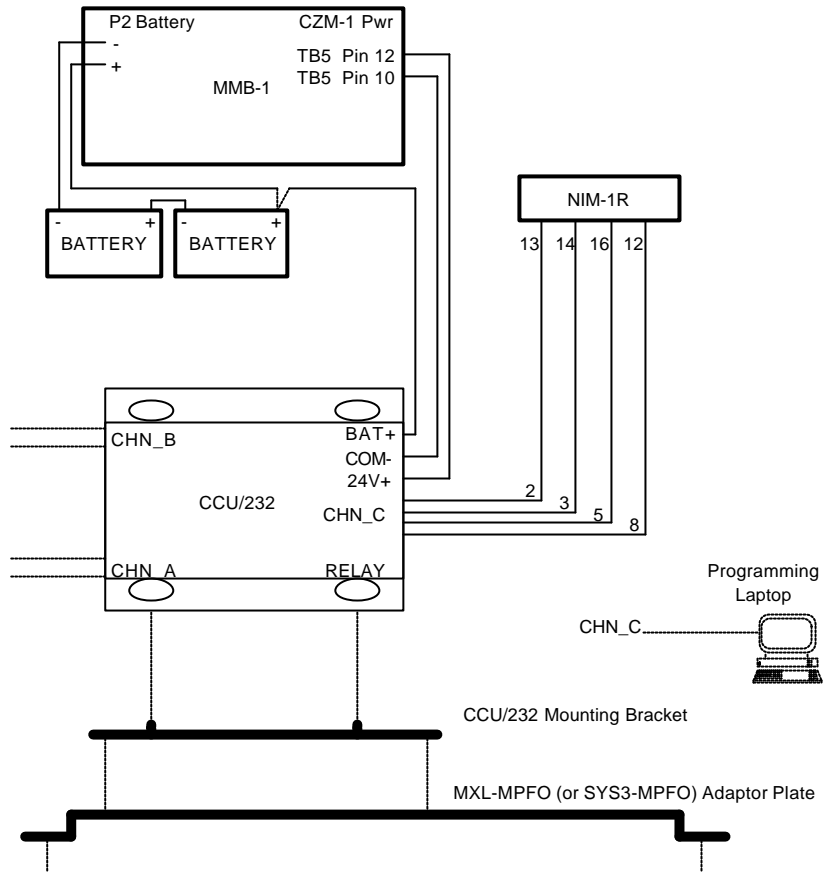
### **You will need:**

- 1      x      cable from MXL-CZM (24V) & Batt. to CCU/232. Connector supplied.
- 1      x      interface cable from NIM-1R to CCU/232 (see later for wiring information)
- 1      x      (Optional) MXL-MPFO Adaptor plate (MXL installations)

### **Power Requirements:**

- Typical:                      200mA at 24VDC
- Voltage Input:              20-30 VDC

### **Installation of CCU/232 (MXL Fire indicator Panel):**



The CCU/232 is designed to mount on the MXL-MPFO adaptor plate for the MOM-4 position, occupying one D2300CP position (MXL Only). CCU/232 can also mount to SYS3-MPFO adaptor plate for System 3 enclosure (EA-31, EA-32, EA-35) mounting.

- Connect D9 port CHN\_C of CCU/232 to NIM-1R using the following connection diagram.

CCU/M 232-C 9PIN (DTE)	NIM-1R (MOM4)
2	13
3	14
5	16
8	12

- A PC can be temporarily connected to port CHN\_C of CCU/232 for programming of CCU/232. Note that this is a straight through standard RS232 cable for laptops.

CCU/232 CHN_C 9PIN (DCE)	PC/LAPTOP 25PIN	PC/LAPTOP 9PIN
2	3	2
3	2	3
4	20	4
5	7	5

- If hardware supervision is required connect the relay output from the CCU/232 to a suitable input on the MXL (software supervision does not require this). There are two relay sockets located next to the D9 connector - these are IDENTICAL and either can be used. The relays will Energise when Supervision failure is detected.
- Connect the 24V DC power source (CZM or plug pack) to the supplied connector. The power connector is next to the CHN\_C port. Pin connections are:  
PWR (+24VDC)                      RETURN/COM(0V)                      BATTERY(24V)  
These connections are written on the board. On an MXL,

MXL	CCU/232
TB5 (CZM) Pin 12	24V
TB5 (CZM) Pin 10	COM
Battery 24V	BAT

### **Operation of LEDs:**

- Each port has a Green and a Yellow LED. Green means the port is operating OK. Yellow means that the port is not operating OK, or there has been supervision failure on this port.

## Connecting CCU/232 RS232 Ports A and B to the CCU network:

- First Determine which two ports you are connecting using the following table:

<b>CCU BOARD</b>	<b>PORT A</b>	<b>PORT B</b>	<b>PORTC</b>
CCU/232	DTE	DTE	DCE
CCU/M	DCE	DTE	DTE
CCU/F CCU/422	n/a	n/a	DCE

- Connecting a DTE to DCE uses a straight through cable. Connecting a DTE-DTE or DCE-DCE requires a null modem cable (pins 2 and 3 swapped on a D9 connector).
- If you are connecting to a PC COM port then this is a DTE port.

<b>CCU/232 9PIN (DTE)</b>	<b>DCE port of a CCU Board</b>	<b>DTE Port of a CCU Board</b>	<b>PC COM 25PIN (DTE)</b>	<b>PC COM 9PIN (DTE)</b>
2	2	3	2	3
3	3	2	3	2
5	5	5	7	5

## Configuration of CCU/232:

- If your network has less than 256 CCU nodes, you can use the jumpers (IN1 to IN8) on the CCU/232 to configure the CCU Network address. Each CCU Node must have a unique address. Address 0 CANNOT BE USED. The jumpers represent a BINARY address. Example:

Addr	IN8	IN7	IN6	IN5	IN4	IN3	IN2	IN1
1								SHORT
2							SHORT	
3							SHORT	SHORT
4						SHORT		
5						SHORT		SHORT
6						SHORT	SHORT	
7						SHORT	SHORT	SHORT
8					SHORT			
9					SHORT			SHORT
10					SHORT		SHORT	
11					SHORT		SHORT	SHORT
12					SHORT	SHORT		
13					SHORT	SHORT		SHORT
14					SHORT	SHORT	SHORT	
15					SHORT	SHORT	SHORT	SHORT
16				SHORT				
255	SHORT	SHORT	SHORT	SHORT	SHORT	SHORT	SHORT	SHORT

- If you need to use the jumpers as supervised inputs, or you need to program addresses from 256 to 65535 (The CCU Network does not support more than 65535 nodes). You will need to use a laptop to program the network address.
- Software configuration requires that a laptop be connected to port CHN-C using a straight through RS232 cable. A terminal program (such as Procom/Telix or Windows Terminal using VT100 emulation) can be used with communication parameters set to 9600,N,8,1. Power up the CCU. After approximately 3 seconds, all LEDES on the CCU will indicate. BEFORE this happens you can type **MENU**, allowing programming of the CCU/232 using the default configuration.
- Type **MENU** to invoke the programming menu. There is no need to press <Enter>.
- Follow the menu options (detailed instructions follow) and set the:
  - ADDRESS** -Addresses from 1 to 65535 can be used.
  - INPUTS** - Specify whether you want to use the jumpers for the address (or the internal address). The CCU/232 is supplied with factory setting using the JUMPERS. So, on smaller networks there is no need to connect a laptop.
- Jumpers **MODA**, **MODB** and **RST** should have no jumpers connected.

## Configuration of NIM-1R:

The NIM-1R must be programmed as an FSI. Consult the NIM-1R installation sheet for instructions on setting dip switches.

Using CSGM, the NIM-1R(FSI) Should be set for the following communications options:

- FSI
- Supervised Operation
- 9600 Baud
- 7 bits
- EVEN Parity (NOTE: The CSGM parity setting must be EVEN)
- 1 stop bit
- Make sure you give this NIM a panel address.

If you require commands to be sent to this panel. Example by an operator using XL Graphics on the CCU-NET, then you must allow the NIM to accept commands. This can only be done by logging onto CSGM using the 'PASSWORD OF THE DAY'. Detail for the NIM will then allow commands to be enabled.

