

P-MUX-485-V1/2



User/Installation Manual

The MUX has a AC voltage input in the left side of the box, and 3-communication terminals.

The center terminals (RS-485 A and B terminals) are connected to the ROTEM controllers in the houses and the other ones are connected to the P.C. and the modem.

As shown on the last page of this manuale.

The cable which comes out of the ROTEM Controllers should be 2 wires shielded cable. This cable is connected to all the controllers in a daisy chain connection to the RCLP-485 in the following manner;

The shield is to be connected to the communication input of the Controllers.

Red wire **A** (in **MUX**) is to be connected to **A** in the Controllers.

Green wire **B** (in **MUX**) is to be connected to **B** in the Controllers.

The shield should be connected to the earth. (Safety Ground)

The following inputs: **MODEM** and **PC** may be connected to **MODEM** and /or to **PC**. That means that the **MODEM** input is the **PRIORITY CHANNEL**. However, the **PC** is the **NONE PRIORITY CHANNEL**. Nevertheless, a **PC** or a **MODEM** may be connected to each input, when communication is performed simultaneously both in the **MODEM** and **PC**, then the modem channel is being transmitted, and the **PC** channel is blocked till the **MODEM** is completing its transmission.

A 3 wires' cable is coming out of the **MODEM** channel, this cable should be connected to **PC** or to **MODEM**, the following manner;

The grey (not isolated) wire(**COMMON**) is to be connected to **PC/ MODEM - COMMON** pin no. 7 in the **DB25** connector or pin 5 in **DB9** connector.

The red wire **TX** (in **MUX**) is to be connected to **RECEIVE** in **PC** pin no3, in **DB25** or pin no. 2 in **DB9** connector.

The black wire **RX** (in **MUX**) is to be connected to **TRANSMIT** in **PC** pin no 2, in the **DB25** or pin no.3 in **DB9** connector.

NOTE: If communication does not performed, try swapping pin no.2, and pin no3, in **PC**.

Modem type recommended by ROTEM is: U.S Robotics SPORTSTER external 33.6 modem with external Switches on the back (for programming).

The Switches settings should be: 2,4,5,6,7 in Up position and 1,3,8 in Down position. (1 is Data Terminal Ready Override and it is must be in down position).

PC(9) MUX (Priority Or Non Priority Channel)

- 2 ----- TX RED
- 3 ----- RX BLACK
- 5 ----- COM GREY

PC(25) MUX (Priority Or Non Priority Channel)

- 3 ----- TX RED
- 2 ----- RX BLACK
- 7 ----- COM GREY

MODEM(9) MUX (Priority Or Non Priority Channel)

- 2 ----- TX BLACK
- 3 ----- RX RED
- 5 ----- COM GREY

MODEM(25) MUX (Priority Or Non Priority Channel)

- 2 ----- TX BLACK
- 3 ----- RX RED
- 7 ----- COM GREY

MUX(ROTEM CONTROLLERS) ROTEM Controller

RX ----- TX

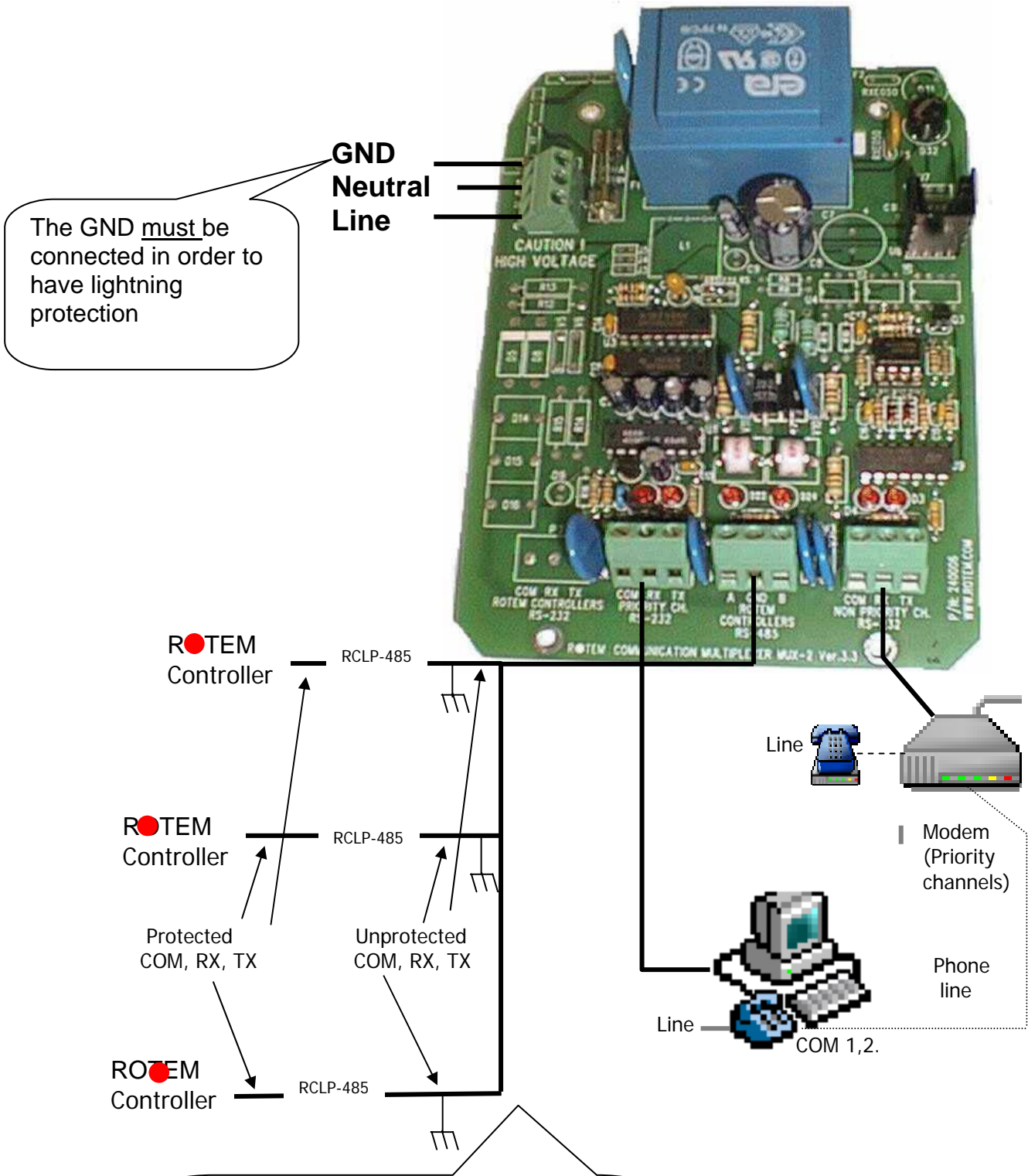
TX ----- RX

COM ----- COM

Environmental Protection



Recycle raw materials instead of disposing as waste. The controller, accessories and packaging should be sorted for environmental-friendly recycling. The plastic components are labeled for categorized recycling.

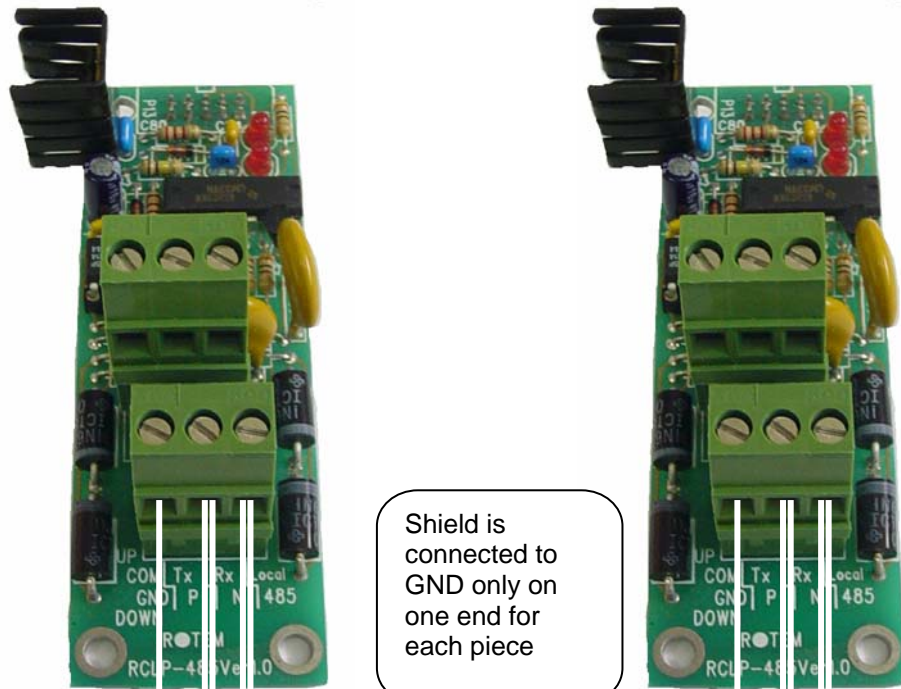


Speed	Cable Length	Number of Houses
2400	1000 m	32 Controllers
2400	1500 m	10 Controllers
4800	500 m	32 Controllers
9600	300 m	10 Controllers

The speed (baud rate) depended on cable length, number of houses, and level of Noise in the lines. These results are Lab testing and may vary in the field according to other parameters.

The connection between the RCLP-485 and the ROTEM controller is illustrated in the following schema.
Note the way the ground connection is made.

RCLP-485 HOUSE-1 RCLP-485 HOUSE-2



MUX-485

2 wire shielded cable

Coming In Cable
From Previous
Controller Or Mux

