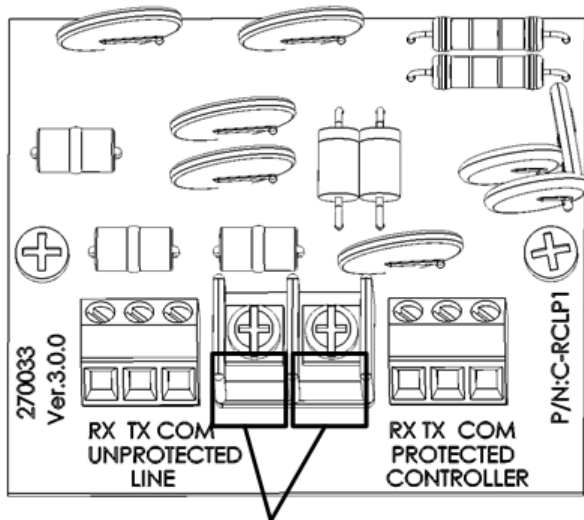


# Communication Lightning Protection

## 1 Precautions

**CAUTION** The COM connection for communications is not the shield wire. The COM, RX and TX wires must connect to each other at all controllers.



Grounding terminals

**CAUTION** Connect the safety ground wire to one of the grounding terminals!

- Install the lightning protector in series on the cable leading from the controllers to the multiplexer. Locate the protector close to the controller. Install a good ground; otherwise, protection is not effective.
- Connect the side marked "Protected" to the controller side. Connect the side marked "Unprotected" to the other side of the cable, leading to multiplexer.
- Use 3 wire shielded cable (3 + shield) for the communication line. Connect the shielded wire to the safety ground terminal.

**CAUTION** Do not ground the shield of the protected side.

# 2 Wiring

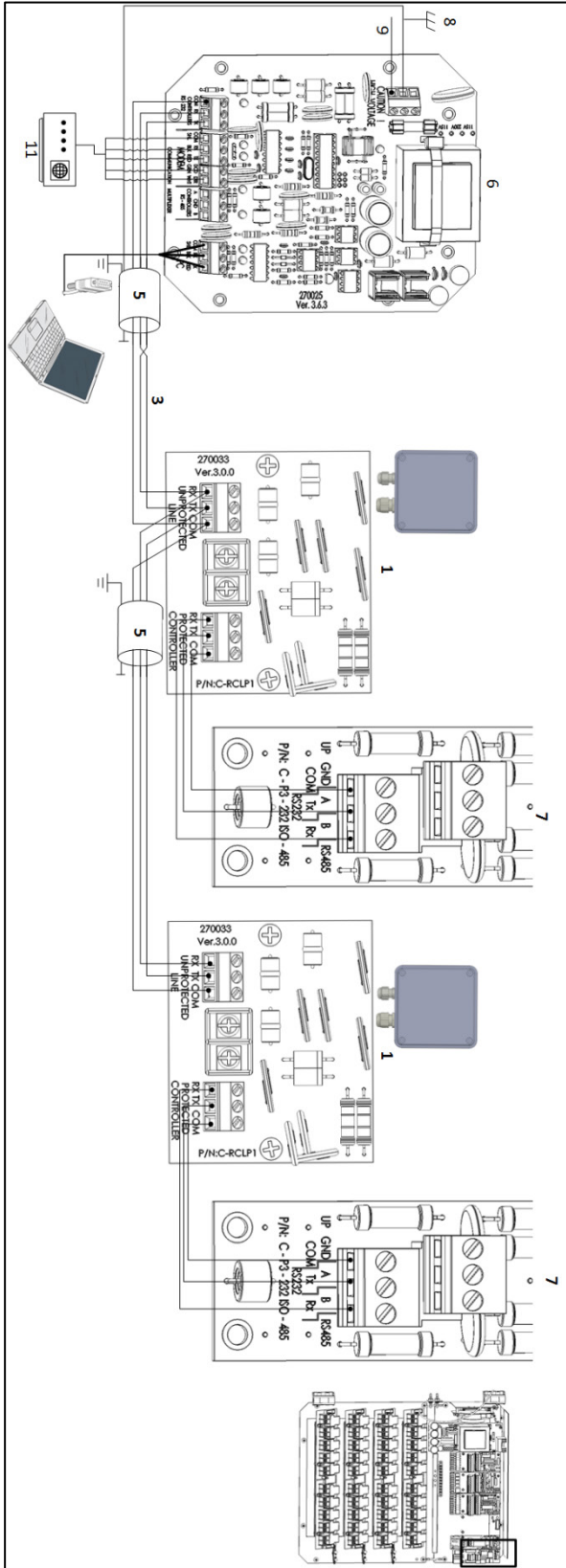


Figure 1: RCLP RS-232 Wiring

**CAUTION** Ground the RCLP on one side only!

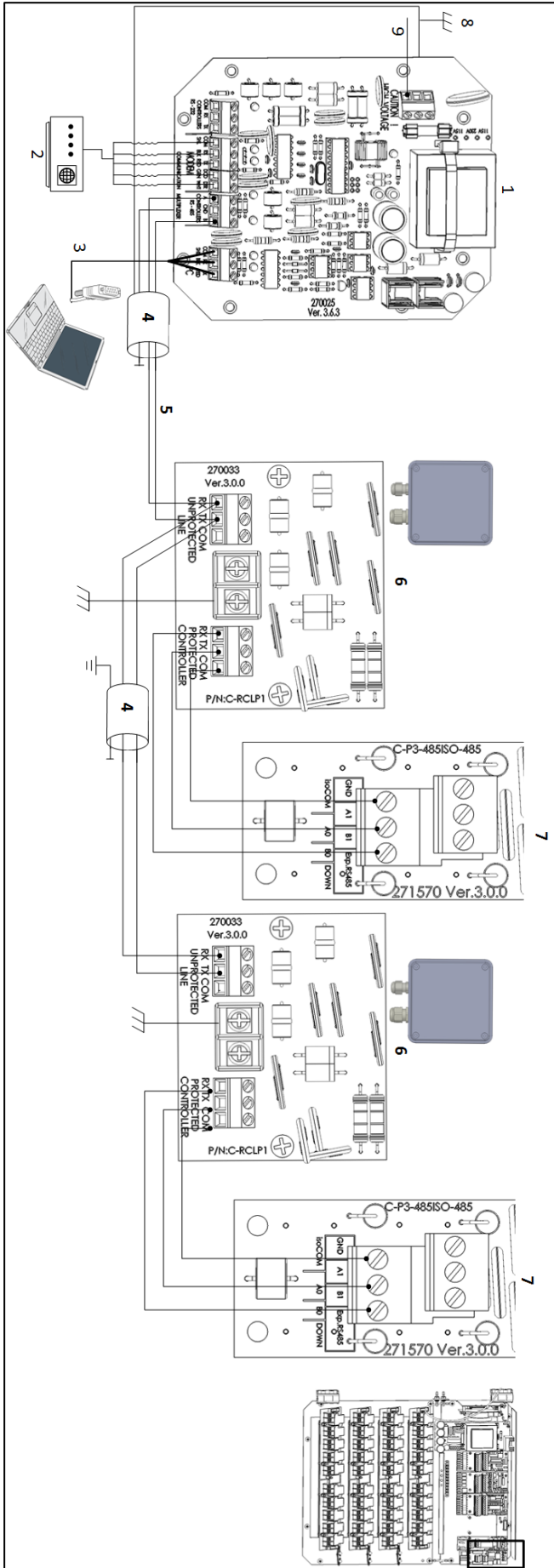


Figure 2: RCLP RS-485 Wiring

1: MUX board	6: RCLP card
2: Modem (priority channels)	7: Controller RS-232 or RS-485 communication card
3: PC	8: Neutral
4: Connect shield to ground	9: Grounding
5: Long distance wiring	

**CAUTION** Ground the RCLP on one side only!

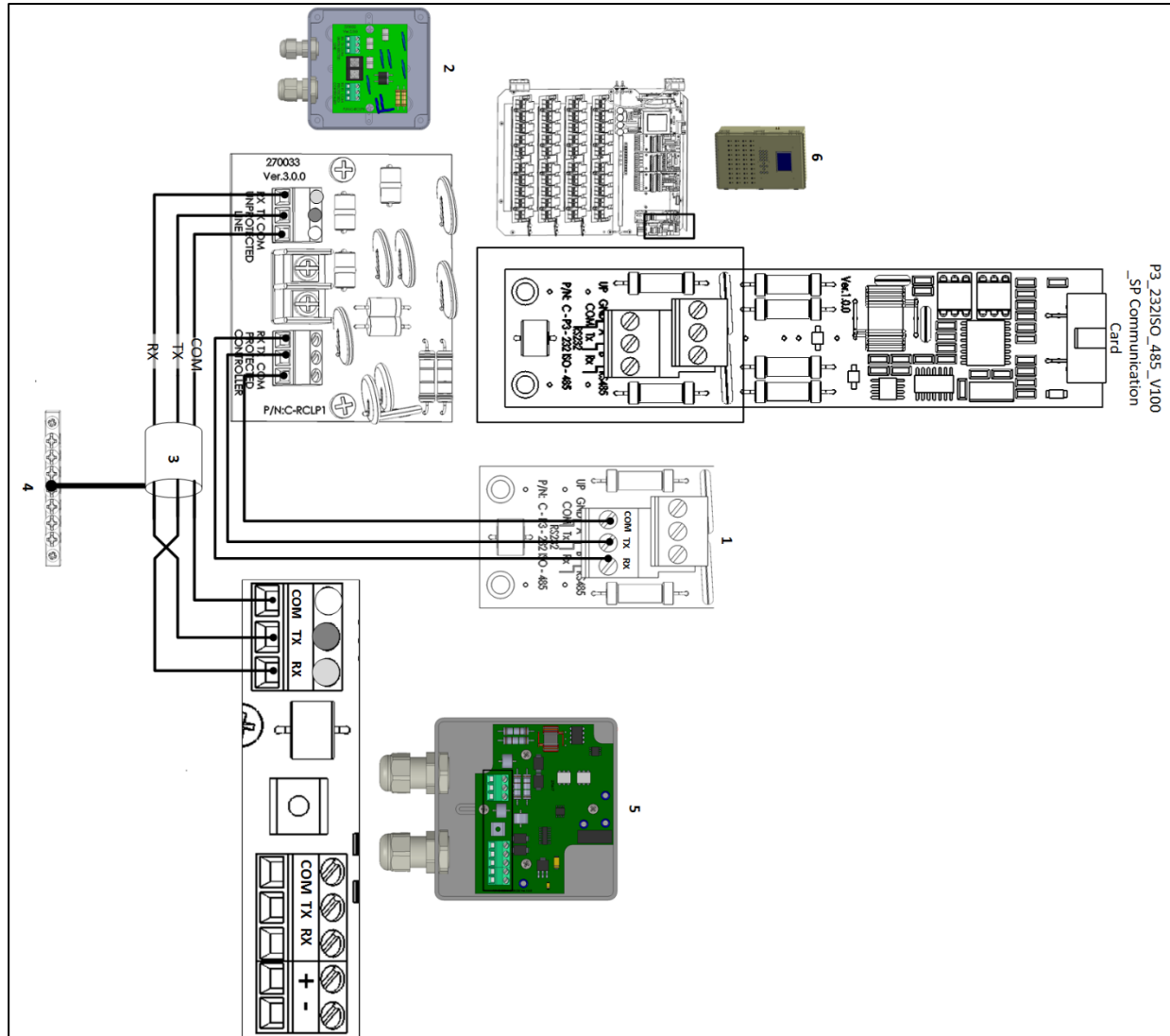


Figure 3: Comm-Box Junction Box RS-232 Wiring

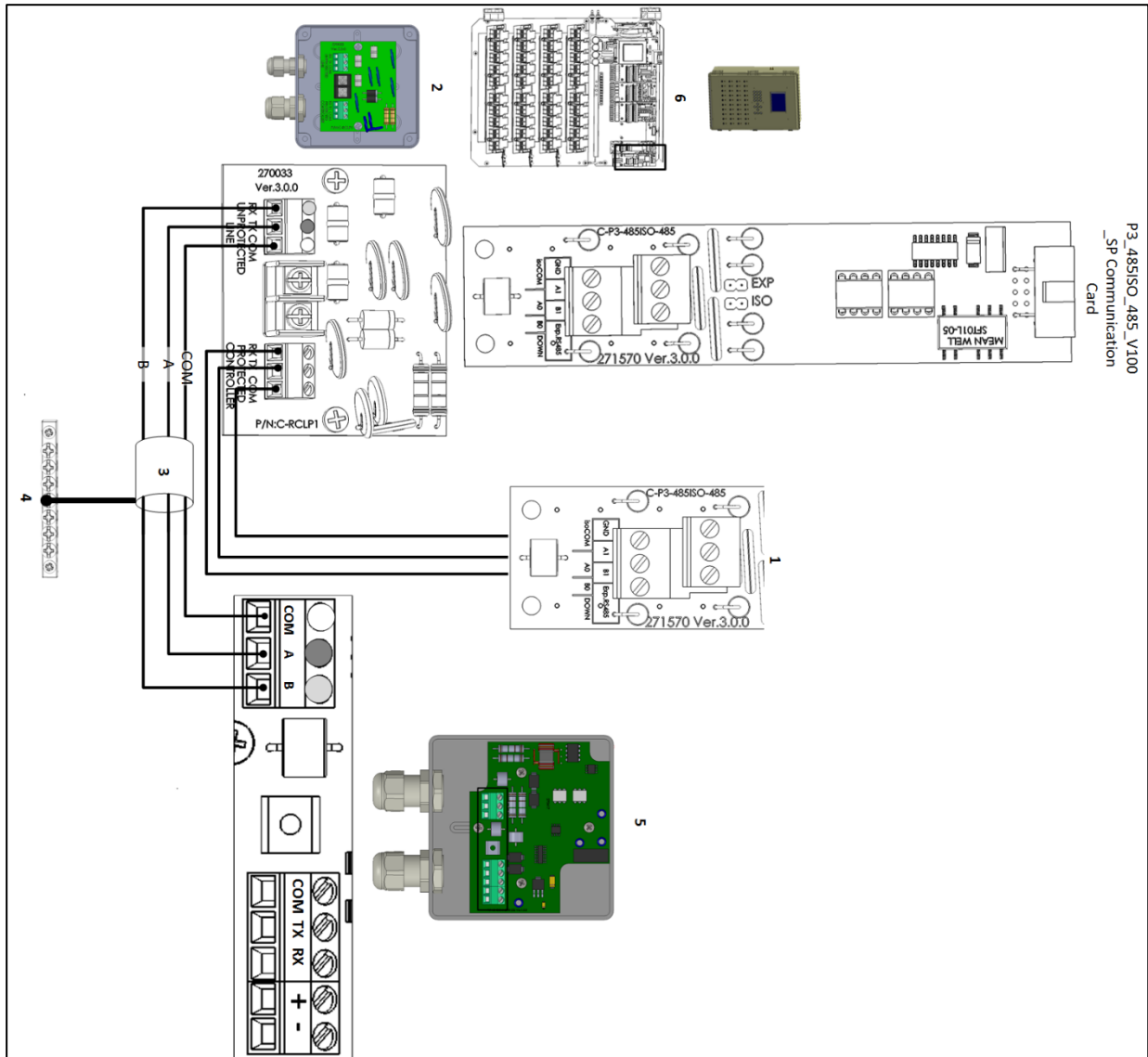


Figure 4: Comm-Box Junction Box RS-485 Wiring

NOTE Refer to the Comm-Box Manual for details on wiring the Junction Box to the Comm-Box.

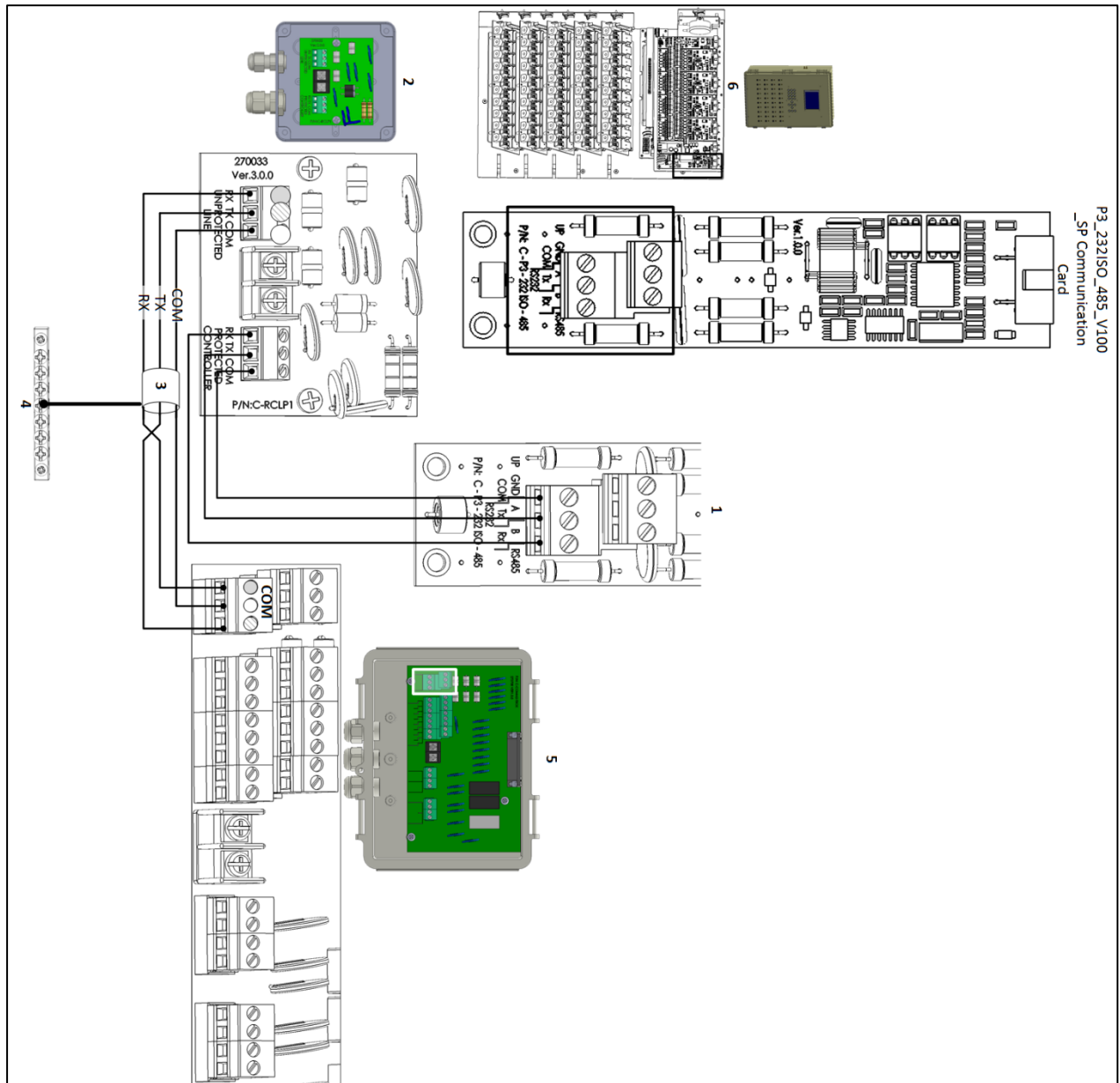


Figure 5: Communicator 2.0 Junction Box RS-232 Wiring

NOTE Refer to the Communicator 2.0 Manual for details on wiring the Junction Box to the Communicator 2.0.

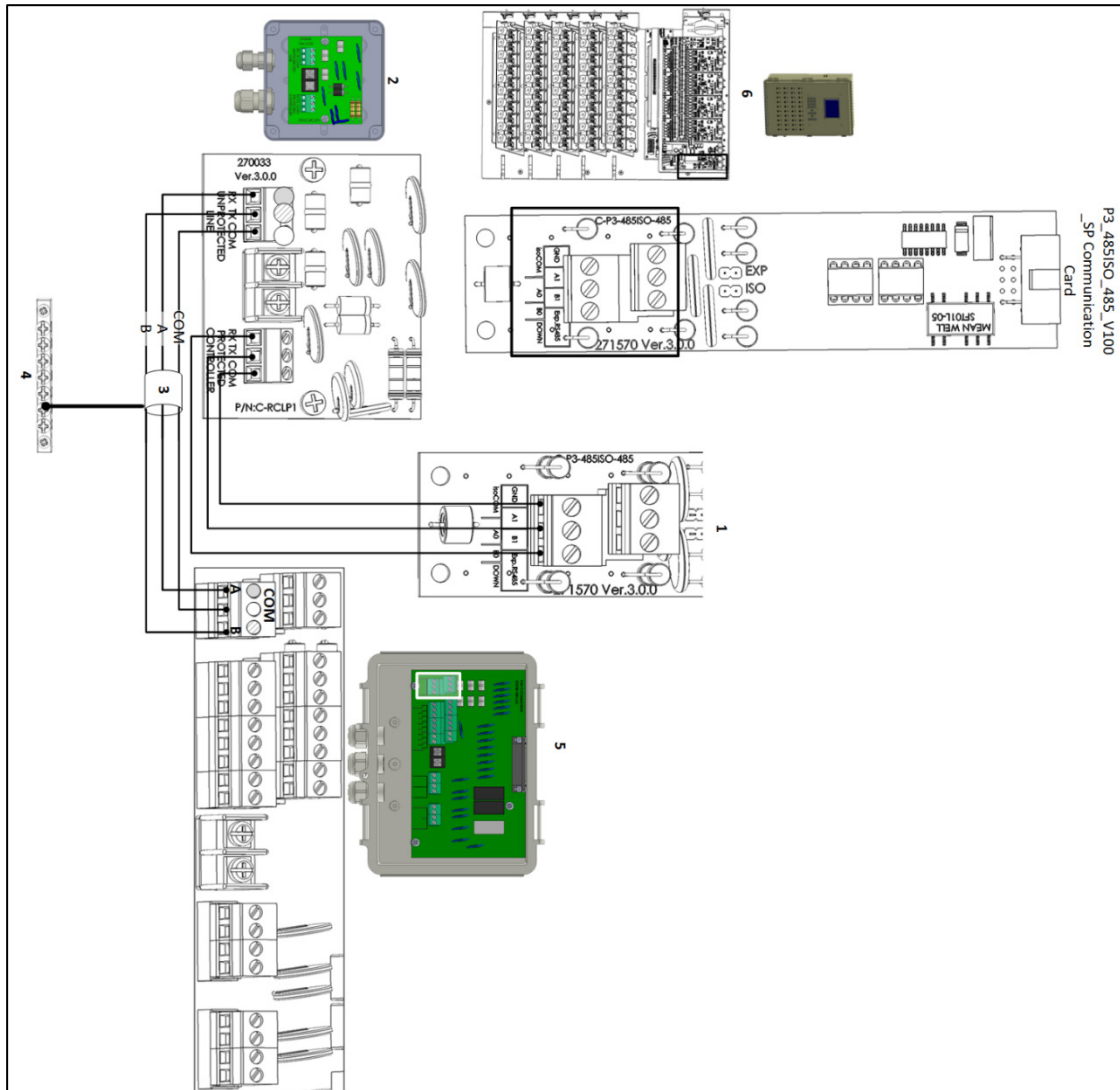


Figure 6: Communicator 2.0 Junction Box RS-485 Wiring

NOTE Refer to the Communicator 2.0 Manual for details on wiring the Junction Box to the Communicator 2.0.

Table 1: Figure 3, Figure 4, Figure 5 Figure 6 Key

1	Communication card ports	4	Grounding strip
2	RCLP unit and card	5	Junction Box and card
3	See Table 2: Shielded cable length and baud speed	6	Controller and communication card

Table 2: Shielded cable length and baud speed

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>○ For 10 controllers:</li> <li>1200 meters: 9600 Baud</li> <li>1800 meters: 4800 Baud</li> <li>2400 meters: 2400 Baud</li> </ul> | <ul style="list-style-type: none"> <li>○ For one controller:</li> <li>2000 meters: 9600 Baud</li> <li>2500 meters: 4800 Baud</li> <li>3000 meters: 2400 Baud</li> </ul> |
|---|---|

NOTE The possible baud rate is dependent on the cable length and the number of controllers connected.