

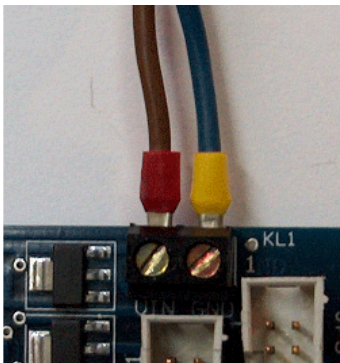
THIS MANUAL DESCRIBES CABLES AND POWER SUPPLY FOR MCA2X16 LED DISPLAY CONTROLLER AND CABLES FOR INTERFACE BOARDS

Ver. 1.5

1. Power supply

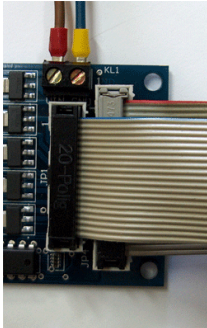
Power supply – LED controller MCA2X16 uses DC 8V - 25V supply source. Power supply can be switched mode or linear. Keep your mind that MCA2X16 with connected all external shift registers consumes less than 40 mA on 12V. When SMPS power supply is used, load resistor must be added to power source. SMPS are not so suitable to drive LED displays, because load current is changing extremely depending of appropriate PWM and mode. Also can be used low cost linear power supply including transformer, rectifier and filter capacitors. To avoid frustration of LED Display Luminary, please provide power source with enough current for specific application. LED Controllers has internal step down circuitry that provides precisely filtered (VCC) source for supplying all electronics (internal and external shift registers). Refer to page PRODUCTS in our Web: <http://www.itsdisplays.com/products.htm>

Caution: Check carefully polarity of power supply when connecting controller. If polarity is wrong, it will damage controller permanently!!!



Input Power cable – 2 wire least 2 sq. mm multywire. Before connecting to KL1, please check carefully polarity of the power source! Picture shows KL1 and connected power cable.

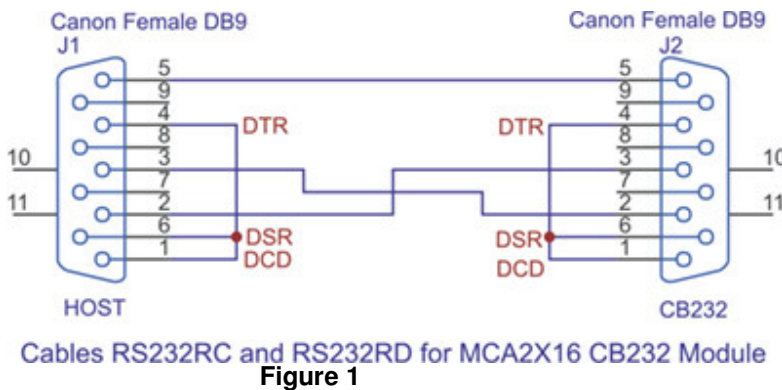
2. Cables for anodes and LINE connectors



Anode connector – 26-pin ribbon cable crimped with 26 pin socket connectors. Good practice is anode cables to be shorter as possible. Also maximal cable current connection for each anode pin is 3 A / 12V.

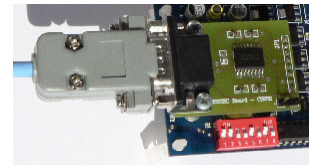
LINE connectors -10 pin ribbon cables crimped with 10 pin socket connectors. Must be no longer than 1 meter. Cables are equals for both LINES. Refer to hardware reference manual for MCA2X16 for pin description.

3. Cables for CB 232 interface board

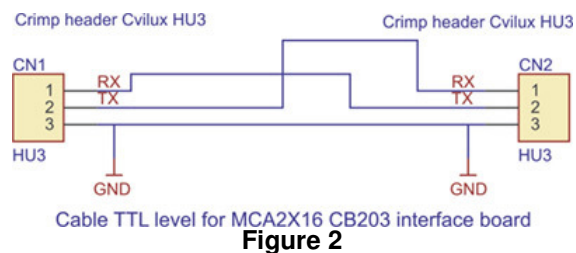
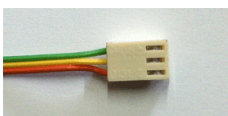


This is standard RS232C crossed line tree wire cable.

On both cable sides are used DB9 female connectors. Cable can be up to 30 meter long.

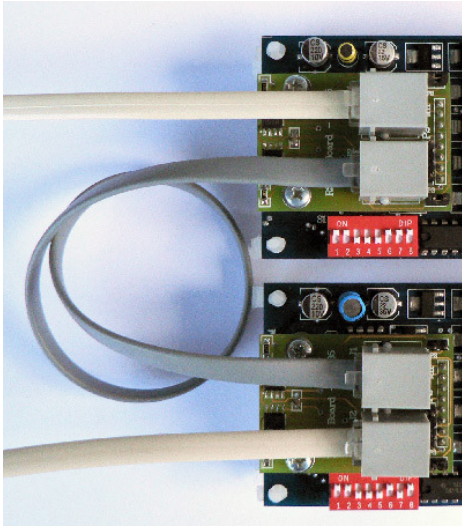


4. Cables for CB 203 interface board



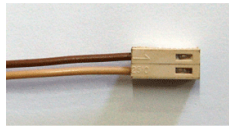
In Schematic in **Figure 2** is shown CB203 serial channel cable wiring for MCA2X16 LED display controller. Cable can be longer up to 5 meters. Signal lines RX and TX to the side of MCA2X16 LED display controller are TTL buffered.

5. Cables for CB 485 interface board



Used is 6 wire telephone cable, crimped straight. Connectors type is TPL6P. Total maximal length of the cables in one loop without repeater is 1000 meters.

6. Cable for photo detector



Can be up to 50 cm long. Resistance of photo resistor must be from about 60 ohms under maximal Intensity up to 2 Mohms to full dark.

Photo detector cable - this cable is only two wires. Connector to the LED controllers MCA2X16 side is a C121 - CviLux 0,1 inch pitch crimp type connector. The other side is connected to a photo resistor.

If you have any questions or find some mistakes in this document, do not hesitate to contact us on the next E-mails: its@itsdisplays.com or support@itsdisplays.com, and we try to answer you as soon as possible.

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