



Mounting

The M1DBH can be mounted with double faced foam tape, or with the included 3" structured wiring plate (ELK-SWP3). The advantage of the SWP3 plate is that it attaches to Elk Enclosures and many other brands of structured wire boxes.

Connections

1. Connect the M1DBH to the M1 Control in one of two methods.
 - A. Use standard 4 conductor cable to connect the terminals marked +12V, Data A, Data B, and Neg of each product.
 - B. Use a special 4 conductor ribbon cable - Elk part number "ElkW018B" (purchased separately) provided the M1DBH and M1 Main Board are mounted within 24" of each other.
2. Pull a separate CAT5 (Category 5) cable to each data bus device or drop location.
 - Terminate the CAT5 cable at the M1 DBH location using a RJ45 plug and the appropriate crimping tool.. Follow the 568A wiring standard (see wire color code below). **Note: RJ45 plugs are not included with the M1DBH due to the variety of brands and terminating tools which are subject to dealer preference.**
 - At each device location terminate the CAT5 to the device using the 568A color codes and the wiring diagrams on back of page. The Pos & Neg wires connect singularly to the Pos & Neg terminations of the device (flying lead wires or terminals). The data & B lines are made as a three (3) way splice because each data line is returned back to the M1DBH to be used for feeding the next connected device. Effectively, this puts the data lines in a series circuit so that the control communicates with each device in a progression or "daisy chain" fashion. The very end of this daisy chain (which will be the two return wires from the last data bus device) requires a terminating resistor (see step 5). This is very important due to the high speed of the M1's RS-485 data bus communications.
3. Plug each data bus cable into it's own RJ45 jack on the M1DBH board starting with J1. Do not skip over positions.
4. Place the EOL resistor terminating plug (included) into the first unused jack. This plug places a 120 Ohm resistor across the A & B data return lines coming from the last wired device, effectively terminating the bus.
5. M1DBH units may be daisy chained together by constructing a special Crossover cable that is plugged between 1st unused jack and J1 on next M1DBH.

Data Bus Hub ELK-M1DBH

APPLICATION:

The **ELK-M1DBH** is the ideal way to connect multiple data bus home runs to the M1 Control. It utilizes 8 conductor CAT5 type cables terminated with RJ45 plugs. The M1DBH internally series the data lines (A & B) of each home run and provides a clean, organized method for managing the data bus wires.



Data Bus Hub ELK-M1DBH



FEATURES:

- Accomodates 9 Data Bus Home Run Cables
- Internally "Series" Connects Data A & B Lines Between Each Connected Home Run
- Multiple Hubs May be Daisy Chain Connected for Expansion of Additional Home Runs
- Simple EOL Bus Termination Via RJ45 Terminating Resistor Plug (Included)
- Flexible Mounting Options

SPECIFICATIONS:

- 6 Position Screw Terminal Input
- 4 Position Quick Connect (J10) - For Use With ELKW018B Cable Assembly
- Data Bus Outputs: RJ 45 8-Pin Jacks
- Circuit Board Dimensions: 5" x 2.5"
- Mounting Plate Dimensions: 6.5" x 3" x .5"



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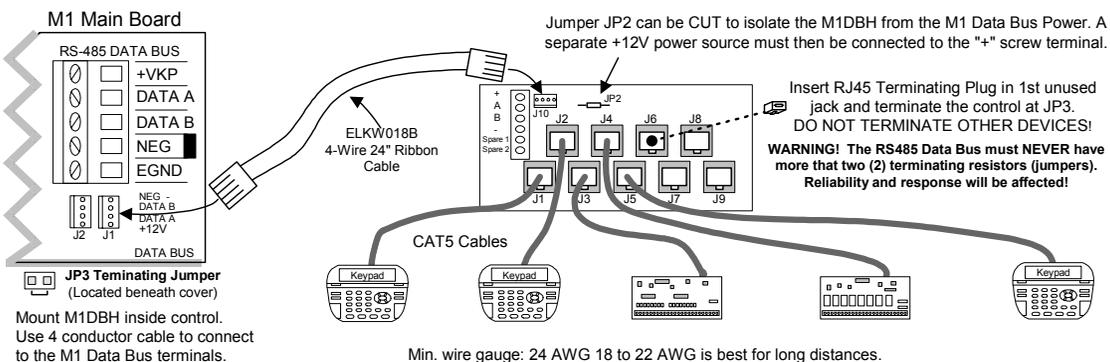
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Instructions Printed On Inside



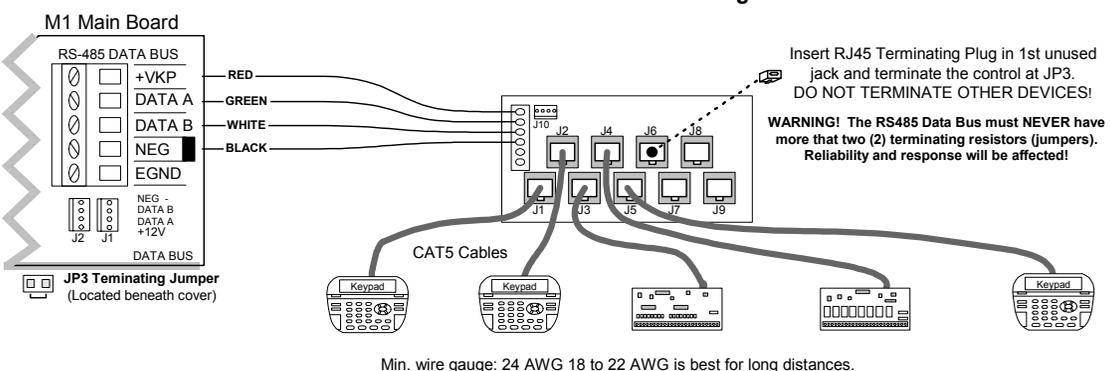
ELK-M1DBH Data Bus Hub connected to M1 Main Control using an ELKW018B 4-wire ribbon cable.

The ELK-M1DBH Data Bus Hub is great for new installations where it is possible to run multiple CAT5 homerun cables. The RJ45 jacks allow neat and organized connections. A third wire pair is used to return the DATA lines back from each device where they are used to feed the next adjacent jack. The result is the M1DBH circuitry daisy chains the devices by series connecting the DATA lines A & B. Termination is accomplished with a plug-in RJ45 terminator (supplied).

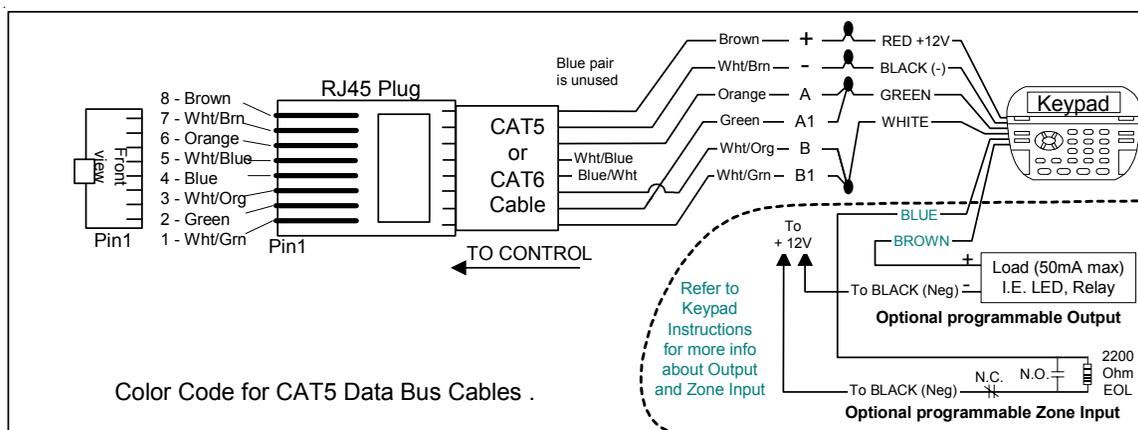


NOTE: RS-485 Data Bus Max. wire length is 4000 ft. Total. Each CAT5 homerun from the M1DBH must be calculated as double the running distance since the Data A & B lines travel out and then back (A1 & B1) where they are used to feed the next homerun.

ELK-M1DBH Data Bus Hub connected to M1 Main Control using standard 4 conductor cable.



Please Remember, the maximum "TOTAL" Length of the M1 RS-485 Data Bus should NOT exceed 4000 feet. Since the data lines originate out and return back to the M1DBH each homerun must be calculated as double the physical length.



To daisy chain M1DBH units together construct a "Crossover" Cable. Connect from 1st unused RJ Jack to J1 on next M1DBH.

