

This application brief describes the M2000 cable splice kit bracket mounting, component assembly, installation and wiring. The cable splice kit is used to repair damaged cable or extend existing cable when the installed mag meter has the submersible option. The cable between the splice kit and the meter amplifier is not included and must be ordered separately.

KIT COMPONENTS

Cable splice kit without resin 65568-001

Cable splice kit with resin 65568-002

NOTE: The resin is only required if the splice kit assembly is used in an area prone to temporary submergence.

Each kit includes the following items.

- Junction box enclosure and cover, with screws
- Cable connection terminal board, with screws
- Bracket, screws and rubber gasket
- Cable connectors
- (Optional) 3M Scotchcast 2123 re-enterable electrical insulating resin

IMPORTANT

The Scotchcast material is not impaired by freezing but should be warmed to at least 40°F (4.4°C) before being mixed and poured.

If any kit components are missing, please contact Badger Meter Technical Support.

Required tools (customer supplied):

- Allen wrench
- Phillips screwdriver
- Small flat head screwdriver

BRACKET MOUNTING

1. Mount the metal bracket on the junction box one of two ways: under the junction box (*Figure 1*) or behind the junction box (*Figure 2*).
 - a. To mount the metal bracket *under* the junction box, place the small part of the metal bracket at the bottom of the junction box and the larger part of the metal bracket on the back of the junction box as shown.

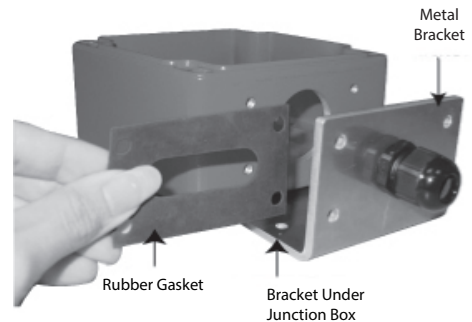


Figure 1: Mounting bracket **under** junction box

- b. To mount the bracket *behind* the junction box, place the small part of the metal bracket at the bottom of the junction box. The larger part of the metal bracket will be attached to a different surface.

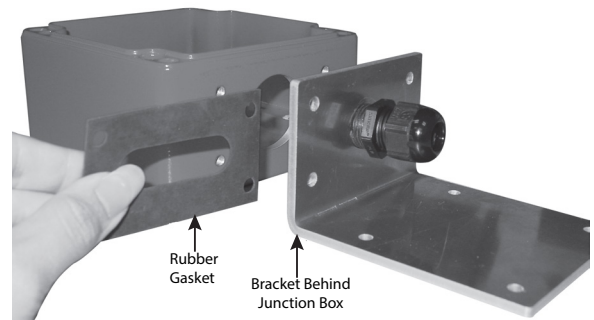


Figure 2: Mounting bracket **behind** junction box

2. Slide the rubber gasket between the junction box and metal bracket to create a seal to prevent fluids from entering the connection hole.
3. Secure the junction box to the metal bracket using the provided screws.

CABLE SPLICE KIT ASSEMBLY

1. Connect the terminal board to the junction box with four screws. [Figure 3](#) shows proper orientation of the PCB board.

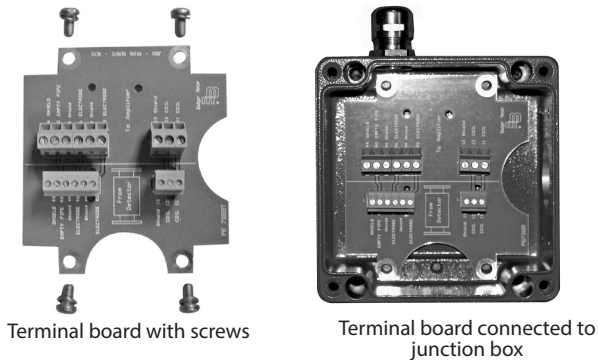


Figure 3: Terminal board

2. Once the terminal board is connected to the junction box, begin the wiring process. See the wiring diagram on page 3.
3. After wiring is complete, the assembly should look like [Figure 4](#).

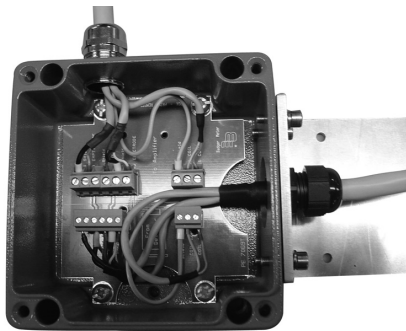


Figure 4: Wiring complete

If the optional resin was not ordered, skip to step #7.

NOTE: The resin is only used if the cable splice kit assembly is used in an area prone to temporary submergence.

4. Locate the 3M two-part Unipak® bag of re-enterable electrical insulating resin. Grip the center of the bag, where the divider stripe is positioned and firmly pull the bag apart until the divider stripe is detached ([Figure 5](#)). Knead the bag with your hands for several seconds until the resin is fully mixed.



Figure 5: Knead the bag to mix the resin

5. The mixture is ready to be poured into the junction box. Cut open the bag with scissors or a cutting blade.
6. Pour the entire bag of compound into the junction box. Do not expect the resin to completely fill the junction box but ensure the wires are completely covered by the resin ([Figure 7](#)).

Allow 2 hours for the resin to set up. Total cure time for the resin is 24 hours.



Figure 6: Pour resin into the junction box

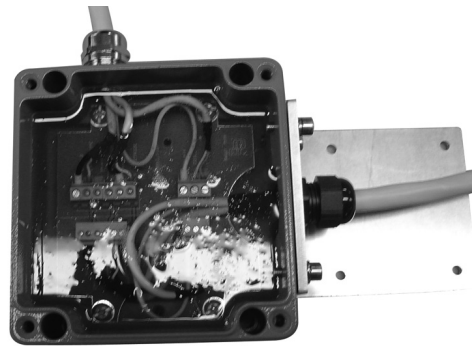


Figure 7: Resin covering the wiring

7. Place the lid on the junction box enclosure and secure it with the 4 screws. Assembly is now complete.

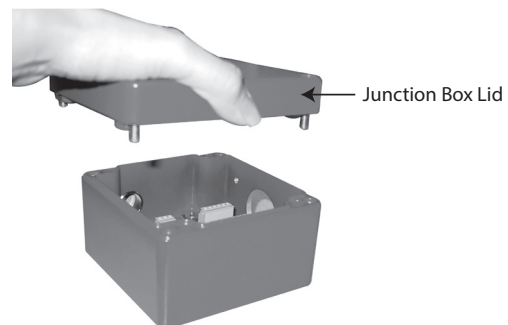
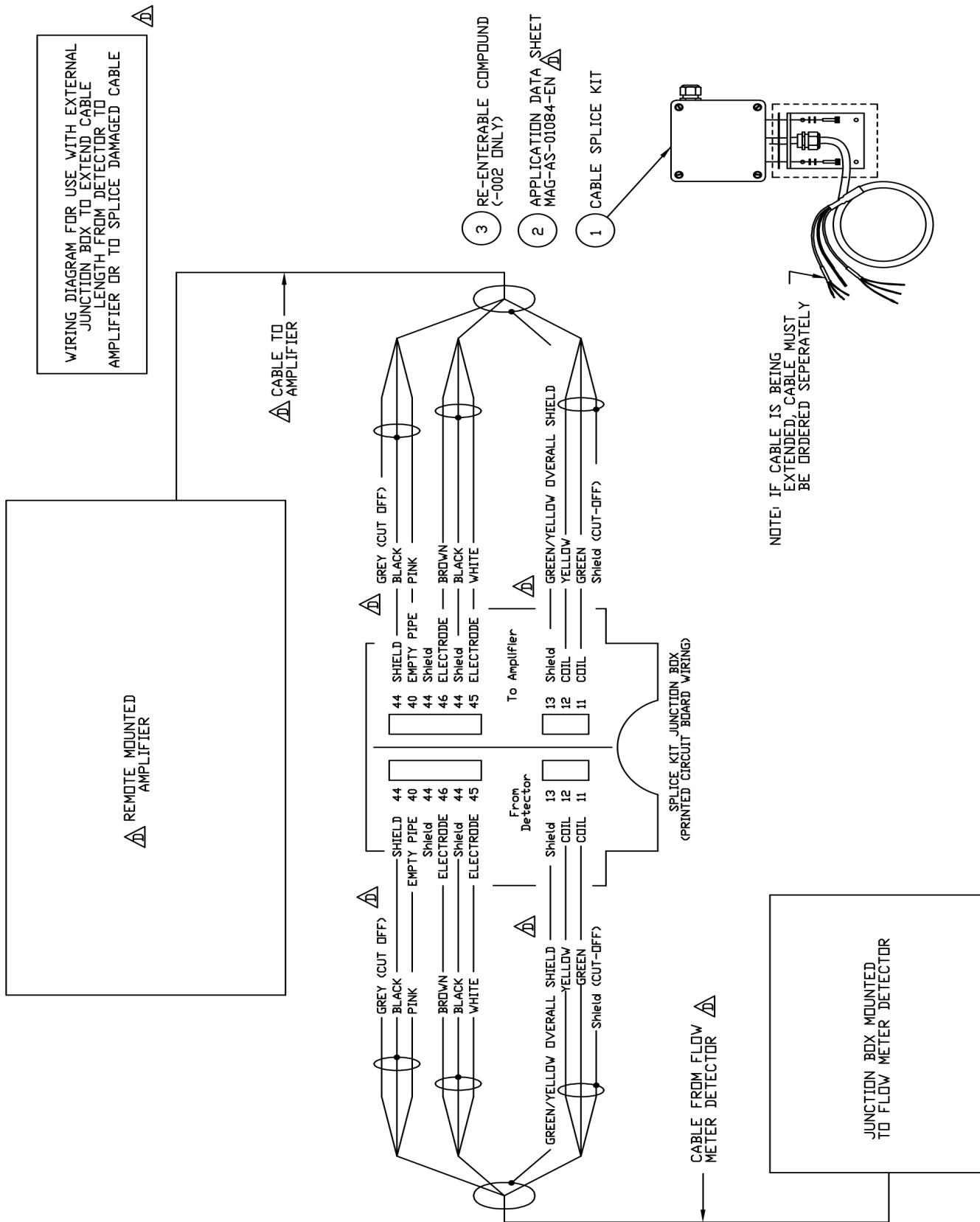


Figure 8: Screw the lid onto the junction box

Mount the junction box at the proper designated area.

NOTE: When using the optional resin, the lid can be screwed to the junction box after 2 hours, however, waiting to mount the junction box for **24 hours** is recommended to avoid shifting of resin.



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