e-*ASK* Demonstration Fixture Operation Instructions

Using this Guide

Some Monaco RVs (includes *Monaco, Holiday Rambler, Beaver*, and *Safari*) with the Doorbell version of the Tri*Mark* e-*GRAB* Handle or the embedded e-*PAD* have the doorbell button of the keypad directly connected to the doorbell device inside the RV. The type of doorbell being controlled by the keypad requires much more than the 500mA that the keypad is rated for, and will eventually destroy the keypad. To prevent this from happening, or to retrofit a replacement so that it does not happen again, a relay must be installed to electrically isolate the keypad from the doorbell.

Do you need this guide?

The vehicles that have shown this kind of failure were model years 2007, 2008, and in rare cases 2009. Later models do not need this fix. The way to tell is to find your vehicle's doorbell fixture. If it is a *chime-style doorbell* with chimes in the fixture, then you will need this fix. The *chime-style doorbell* pulls between 2 and 10 Amps through the keypad. If it is a *piezo-electric doorbell* with a speaker instead of chimes, you may still need this fix. The *piezo-electric doorbell* pulls less than 500mA through the keypad during normal operation, but its design makes it susceptible to passing voltage spikes from other devices through the signal wire to the keypad, resulting in similar damage. If your *piezo-electric doorbell* has a large capacitor soldered between the power and ground wires (not the signal wire) near where they enter the doorbell, then your vehicle's doorbell design is safe and this fix is not necessary.

Finding the Doorbell Wiring

The wire connecting the doorbell to the keypad must be traced to ensure that there is not already a relay in place. If there is already a relay in the doorbell control wire, and the doorbell system has failed, then the relay may be faulty and should be replaced instead of, or in addition to, the keypad.

The best place to start is at the doorbell. If the doorbell cannot be found, contact the manufacturer of the RV to determine where the likely mounting locations are. If the doorbell is still functional, triggering the doorbell can aid in locating it, but each time the doorbell is activated without this problem fixed greatly reduces the life expectancy of the keypad.

e-*ASK* Demonstration Fixture
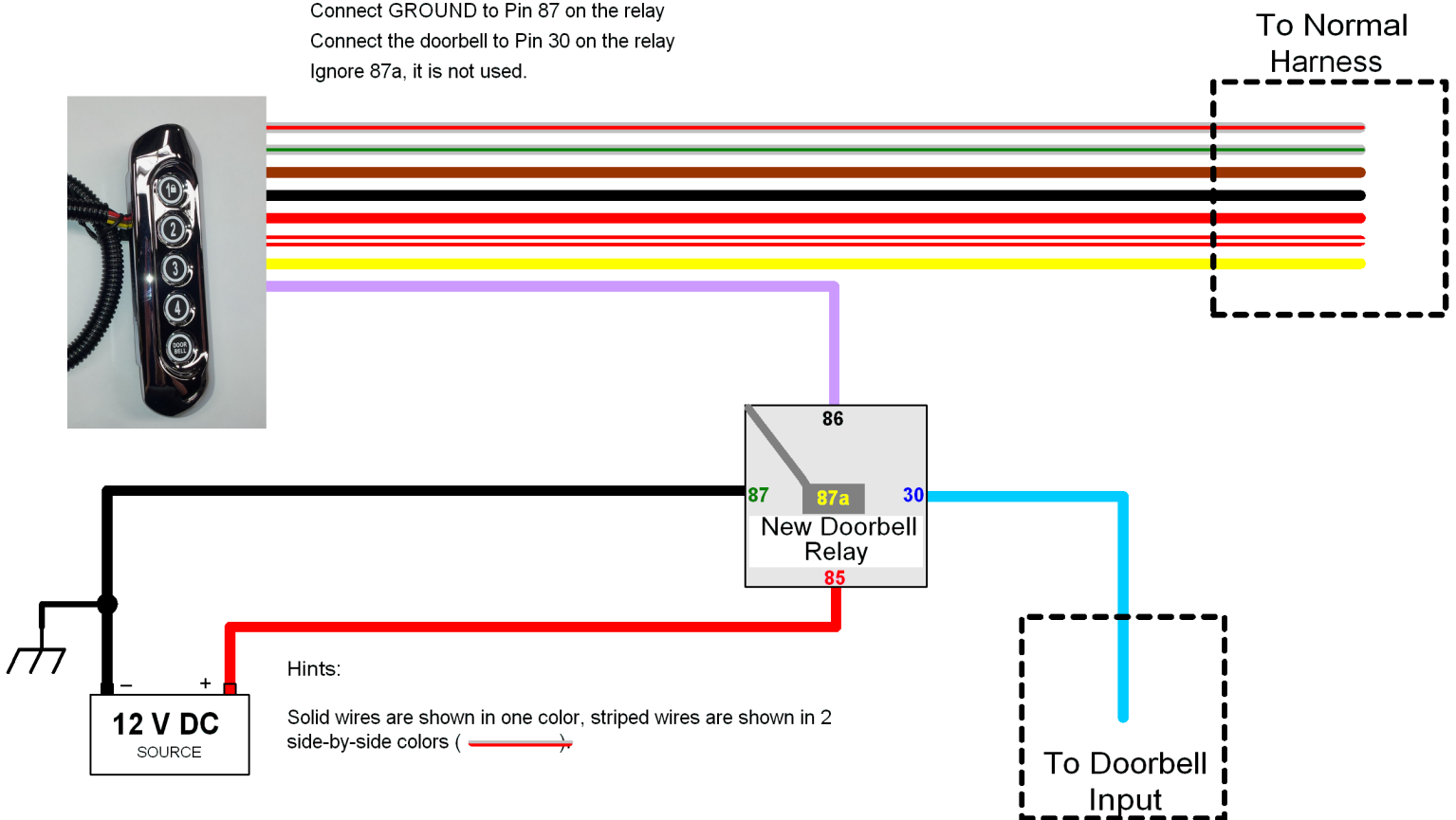# Operation Instructions

Modifying the Doorbell Wiring

1. Cut the wire connecting the keypad to the doorbell near an area that can conveniently mount a relay, such as near a hidden wall or electrical cabinet.

2. Run a +12V and a Ground wire to the location where the relay will be mounted.

3. Wire the relay according to the schematic below.

4. Test the doorbell for proper operation with the keypad.

NOTE: Colors shown below are based on the colors of the wires coming out of the keypad based on production in 2010. Your colors may vary depending on Monaco's coach harness and some color changes in TriMark production between 2007 and 2010. The doorbell signal wire will be the only wire that is routed from the keypad towards the doorbell.

Wiring Diagram - Doorbell Keypad Doorbell Output

Notes: Cut the purple wire from the rest of the harness and route it to Pin 86 on the new relay
Connect +12V to Pin 85 on the relay
Connect GROUND to Pin 87 on the relay
Connect the doorbell to Pin 30 on the relay
Ignore 87a, it is not used.

To Normal Harness

86

87   87a   30
New Doorbell
Relay
85

12 V DC
SOURCE

Hints:

Solid wires are shown in one color, striped wires are shown in 2 side-by-side colors (———————)

To Doorbell
Input

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Operation Instructions

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