



Kymeta u8 Terminal Vehicle Power Kit Installation Instructions

Product code: U8ACC-00001-0

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1 Introduction

This document describes how to install the Kymeta™ u8 terminal vehicle power kit (U8ACC-00001-0). The kit includes wiring to cleanly and efficiently tie antenna power-on to vehicle power-on.

Before beginning any component replacement, refer to *700-00121-000 Kymeta u8 terminal installation guide* or *700-00107-000 Kymeta products integrator guide* section "Safety and Handling" to familiarize yourself with the key steps to remember during the Kymeta u8 terminal installation.

 If you are not familiar with your vehicle power system or making vehicle modifications, contact your local automotive aftermarket installation shop for support.

2 Kit contents

The following parts are included in the u8 automotive power kit.

Part number	Description	Quantity
115-00444-000	4 AWG 9.14 m (30 ft.) wire, red	1
115-00445-000	4 AWG 6.1 m (20 ft.) wire, black	1
115-00446-000	18 AWG 9.14 m (30 ft.) wire, blue	1
117-00009-000	Cable tie mount 19 mm × 19 mm	10
125-00530-000	4 AWG ring terminal connector	4
125-00533-000	2-to-14 AWG in-line splice connector	3
145-00025-000	5 A mini automotive fuse	1
160-00266-000	100 A circuit breaker	1
160-00267-000	Black braided nylon wire shielding, 10 ft.	1
160-00268-000	Black heat-shrink tubing, 6 in.	1
160-00282-000	16 AWG inline fuse holder	1
445-00228-000	Cable tie	10

3 Recommended tools

Before you start, ensure you have all installation tools required for the assembly. Installation tools are not provided with the product. A list of recommended tools is provided below. The exact set of tools may vary based on your method of installation and the vehicle into which you install the power kit.

- » [Diagonal cutter](#)
- » [Crimpers](#)
- » [Wire strippers](#)
- » [Socket set](#)
- » [Multi screwdriver](#)
- » [Razor knife](#)
- » [Heat gun](#)

4 Install power kit without penetrating vehicle roof

To install the power kit without penetrating the roof of your vehicle, do the following.

4.1 Mount the u8 onto the vehicle

1. Lay the u8 onto a clean, flat surface, like a work bench or table.
2. Strip about 1 in. of wire casing from the 4 AWG red DC positive wire, 4 AWG black ground wire, and 14 AWG red ACC wire extending from the u8, and then twist the exposed wiring.



3. Attach a 2-to-14 AWG in-line splice connector to the 4-gauge red DC positive wire, the 4-gauge black ground wire, and the 14-gauge red ACC wire. For each splicer, remove the protective caps from the splicer, back out the securing screw, insert the cable, and tighten the securing screw to secure the cable.



4. Place the terminal in the appropriate location on the vehicle. Refer to *700-00141 Kymeta u8 terminal vehicle mount kit* for detailed instructions on installing the u8 onto a vehicle.

4.2 Route the wires

1. Open the engine compartment of your vehicle and access the car battery. Disconnect the ground terminal from the battery to avoid accidental electric discharge.
2. Remove the two 4 AWG wires and the 18-gauge ACC wire from your kit, and route them from the u8 flying leads, down the A-pillar, and into the engine bay.
3. Determine the best location in either the engine bay or the chassis to ground the antenna, and then determine a location for the circuit breaker near the battery. Trim the wires so they are long enough to reach the ground and circuit breaker locations. Keep the excess trimmed wires.
4. Remove the black braided nylon wire shielding from the packaging, and then trim it in half.
5. Starting from the end near the terminal, work the wire shielding over the 4 AWG ground wire so that it protects the wire as it runs along the windshield. Using electrical tape, tape the ends of the braided sleeve to the wire to prevent slippage.
6. Starting from the end near the terminal, work the wire shielding over the other 4 AWG power wire and the 18-gauge ACC wire so that it protects the wire as it runs along the windshield. It may help to tape the ends of the 4 AWG wire and the 18-gauge wire together before attempting to insert them into the braided sleeve. Using electrical tape, tape the ends of the braided sleeve to the wires to prevent slippage.



7. Place evenly spaced cable tie mounts along the wire run up the A-pillar and on the roof of the vehicle toward the back of the u8.

8. Use cable ties to bind the wires to the cable tie mounts. Trim the excess cable tie ends.



9. Strip the end of the wires near the terminal, and then connect them to the 2-to-14 AWG in-line splice connectors attached to the u8 flying leads as follows:
 - a. Connect the 4 AWG ground wire to the u8 4 AWG black ground wire.
 - b. Connect one 4 AWG wire to the u8 4 AWG red DC positive wire.
 - c. Connect the 18-gauge ACC wire to the u8 14 AWG red ACC wire.



4.3 Connect the power and ground wires

1. Strip about a ½ in. to 1 in. of housing from the end of the 4 AWG ground wire that's in the engine bay, and then attach a ring terminal. Crimp the ring terminal to the wire to ensure a snug connection.



2. Connect the ring terminal to your selected grounding location.



3. Open the provided 100 A circuit breaker and mount it in a suitable location near the battery.
4. If necessary, measure the distance of the 4 AWG power wire to the breaker, and then trim the wire to length. Keep the excess wire.
5. Strip about ½ in. to 1 in. of 4 AWG power wire housing, and then attach a ring terminal. Crimp the ring terminal to the wire to ensure a snug connection.

6. Attach the 4 AWG power wire to the input of the 100 A circuit breaker.

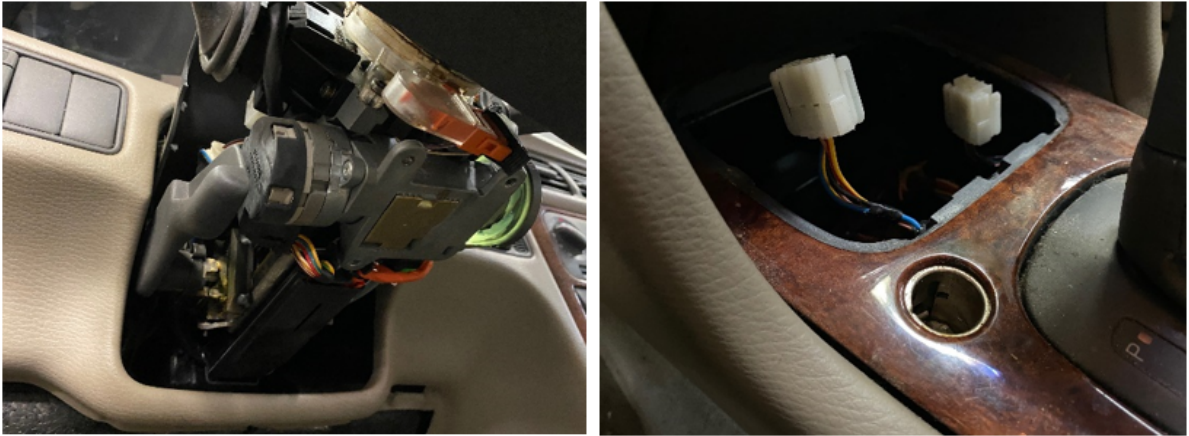


7. Using some of the excess trimmed wire, measure the distance from the positive battery terminal to the breaker, and then trim the wire to length. Attach one ring terminal to each end of the wire.
8. Use the double-ended ring terminal wire to connect the wiring from the output of the circuit breaker to the positive battery terminal.
9. Secure the circuit breaker to your mounting location with a cable tie.

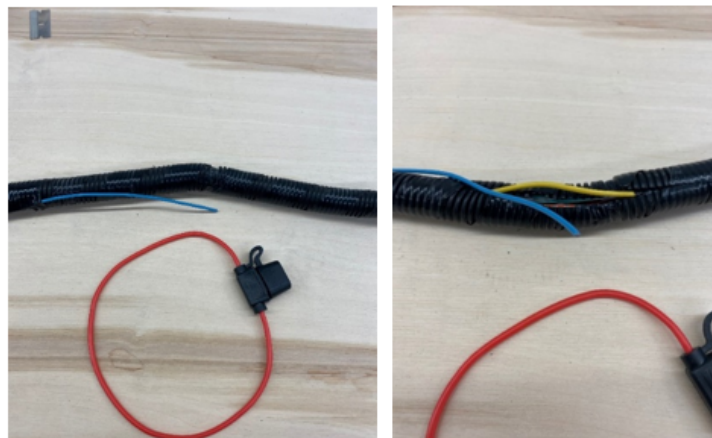
4.4 Connect the ACC wire

Before starting this section, consult your vehicle manual and find an acceptable location to connect your ACC line. This connection should provide 12 volts of current when the car is turned on.

1. Route the ACC wire into the vehicle through an OEM grommet. You may have to drill a hole. Always use a grommet in a metal hole.
2. Select an OEM ACC wire to tap into. It could be at the ignition switch or an OEM 12 V accessory location.



3. Using the 5 A mini automotive fuse, tap into the OEM wiring:
 - a. Cut open the wire housing.



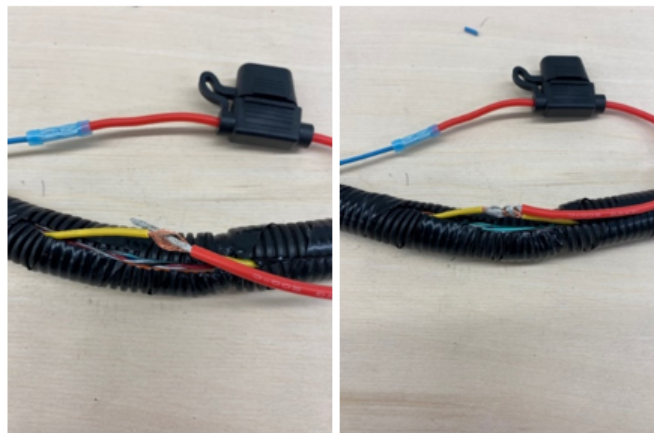
- b. Using a wire stripper, cut through the wire casing in two locations about ½ in. to 1 in. apart.



- c. Using a razorblade, cut a vertical line between the cuts, and then remove the casing.
d. Create a hole in the wire.



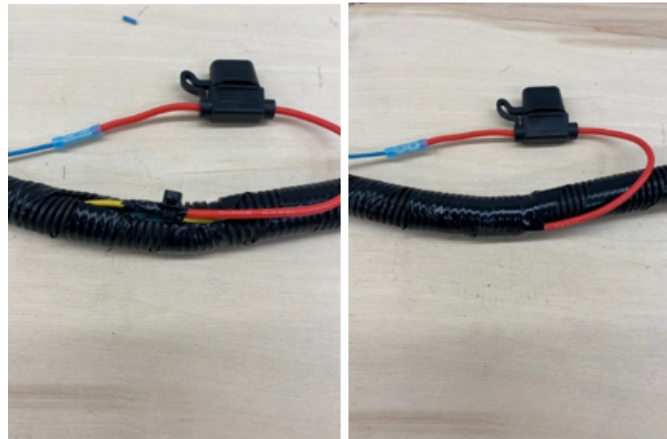
- e. Insert the ACC wire into the hole and wrap the wires around each other to create a firm bind. Do not solder the wires together. The solder creates an inflexible junction, which has a potential to cause a break.



- f. Insulate the splice joint with electrical tape.



- g. Embed the spliced wire into the wire protector and bind it with electrical tape.



4. If necessary, reconnect the OEM wire and replace any removed OEM upholstery/parts.
5. Switch on the circuit breaker in the engine compartment to arm the terminal, reconnect the battery ground, replace the cover, and close the hood.
6. Finalize all the wire retention up to the terminal and ensure everything is secure and safe for highway driving.

When you turn on your car, the u8 terminal will automatically power on and come online.

4.5 Alternate methods for routing wires up the A-pillar

The following are two alternative methods for routing wires up the A-pillar.

Alternate method A: Route the wiring inside PCV pipe and use a heat gun to mold to the pipe to the shape of the vehicle. Double stick the pipe to the A-pillar.



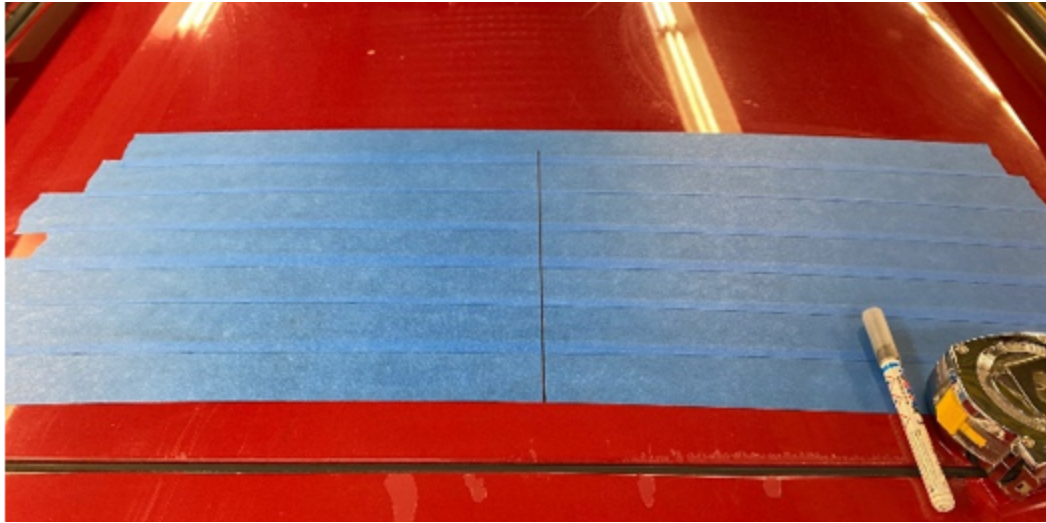
Alternate method B: Use foam to create a plug that blends with the OEM trim layout and create a fiberglass channel to route the wires up the A-pillar.



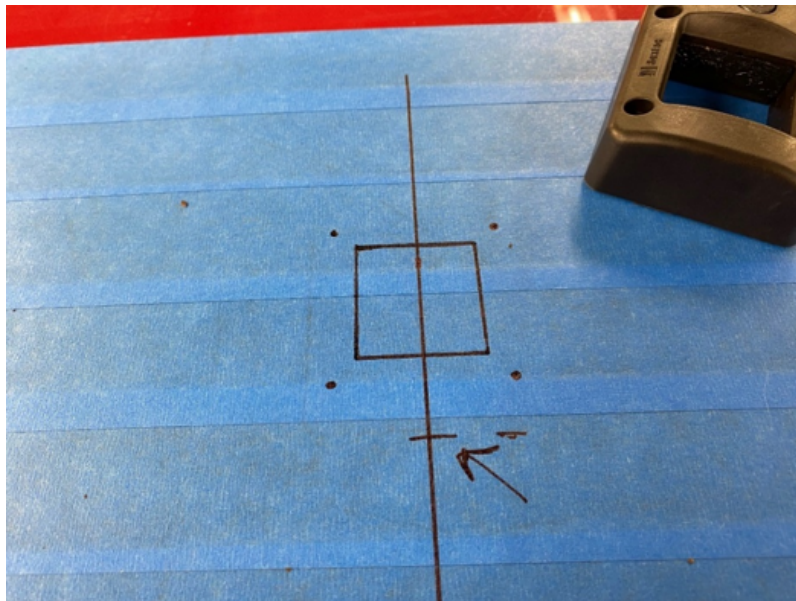
5 Install power kit by penetrating vehicle roof

To install the power kit by penetrating the roof of your vehicle, do the following.

1. Source a weatherproof cable gland capable of at least three wires. Kymeta recommends Roxtec EZEntry 4/4.
2. Lay out potential keep-out areas to avoid drilling into any critical structural or electrical components.



3. Trace an area to drill/cut for placing the waterproof cable gland.



4. Install the cable gland and shield the exterior wiring.



5. Find a location inside the vehicle to ground the terminal. Scrape the paint off before grounding to ensure metal-to-metal contact.



6. Route the power wire through the vehicle as needed. Follow wire connection procedures described in section *Install power kit without penetrating vehicle roof.*

6 Revision history

Revision	Change
01	Initial release
A	Initial Production version.

7 Copyright and trademark information

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