39530

STEALTH™

The MOST Versatile and Easiest To Use Towed Vehicle Braking System available!™

INSTALLATION MANUAL

NEED HELP? CALL - 1-800-470-2287

WARNING

Read all instructions before installing or operating the Stealth.

Failure to understand how to install or operate Stealth could result in property damage, personal injury or even death.

Hopkins Manufacturing Corporation | 428 Peyton St. Emporia, KS 66801 | www.BrakeBuddy.com

STEP 1: IDENTIFY ALL COMPONENTS AND TOOLS NEEDED

All components have been marked on the bag with A-E. Remove all components from the box and go through each bag separately to ensure all components are accounted for.

NOTE: If you have any questions while installing the Stealth, please call 800-470-2287 and we will answer all your questions.

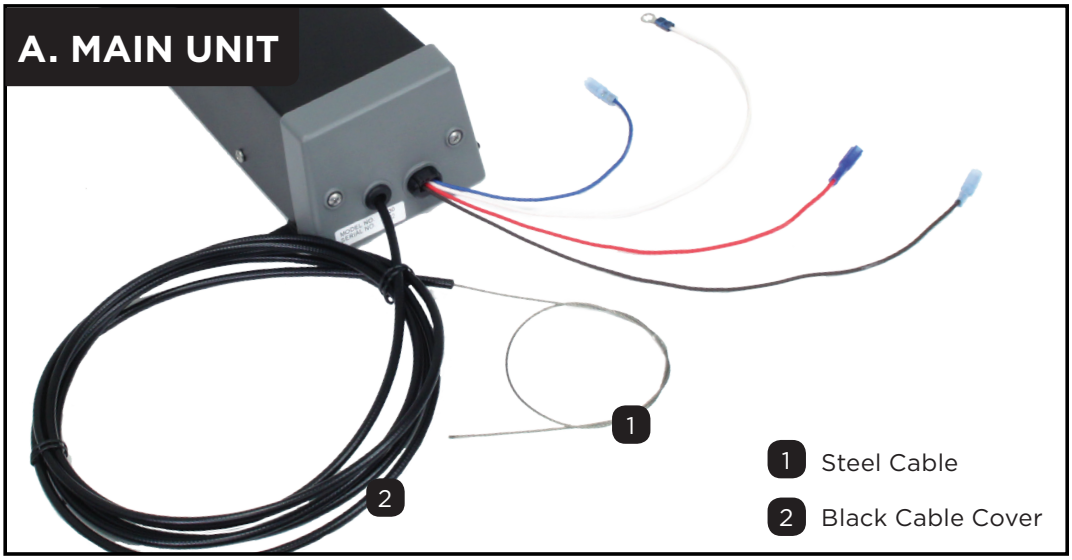
COMPONENTS

(A) Main Unit
(B) Pulley System
(C) All-in-One Adapter
(D) Vacuum Pump
(E) Dual Controller

TOOLS NEEDED

Power Drill
Cable Cutter
5/16" Hex Driver for Drill
2 - 7/16" Wrenches
Flat Blade Screw Driver

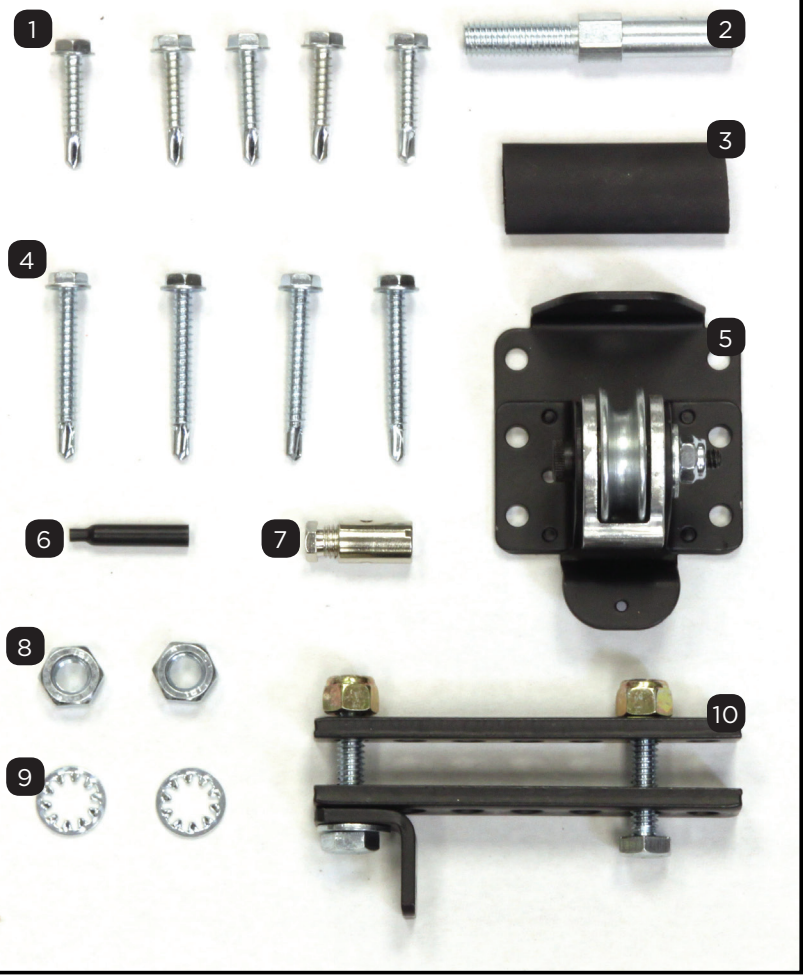
A. MAIN UNIT



1 Steel Cable
2 Black Cable Cover

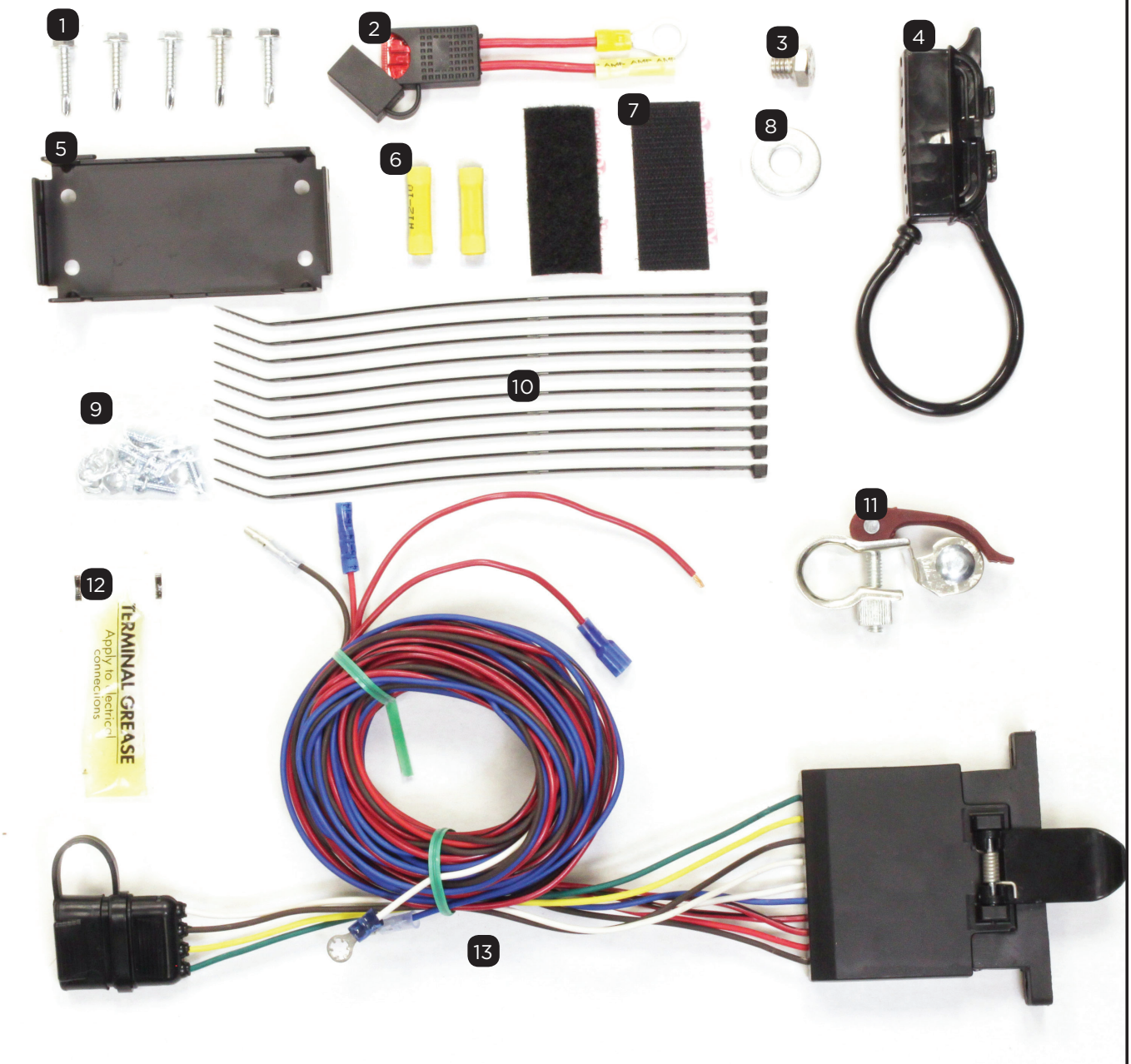
B. PULLEY SYSTEM

1 5 - 1.0" Self-Tapping Screws
2 Cable Connector
3 Large Heat Shrink
4 4 - 1.5" Self-Tapping Screws
5 Pulley
6 Heat Shrink Cap
7 Cable Clamp
8 2 - 5/16" Nuts
9 2 - 5/16" Lock Washer
10 Brake Pedal Clamp



© 2013 Hopkins Manufacturing Corporation

C. ALL-IN-ONE ADAPTER

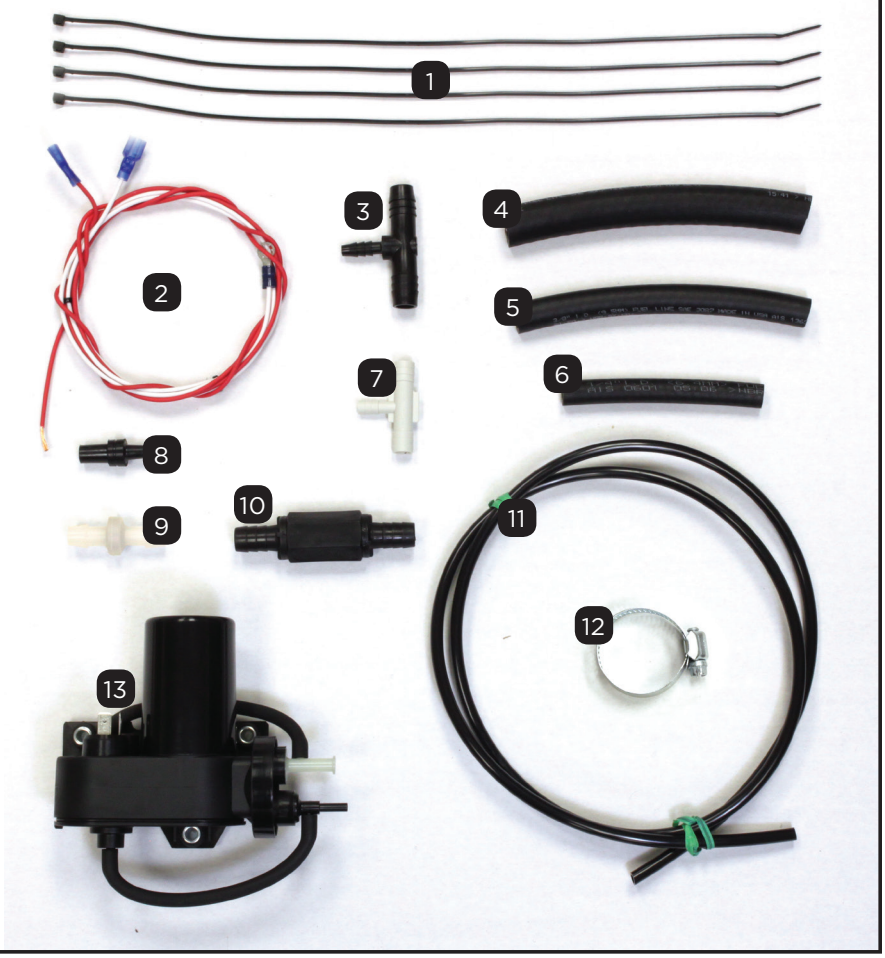


1. 5 - 1.0” self Tapping Screws
2. 10 AMP Fuse Holder
3. 3/8” Bolt
4. Dust Cover
5. Mounting Bracket
6. 2 - Splices
7. Hook and Loop Strips
8. 3/8” Washer
9. Break Away Mounting Hardware
10. 10 - Cable Ties
11. Battery Post Clamp
12. Grease Packet
13. Break Away Harness

© 2013 Hopkins Manufacturing Corporation

D. VACUUM PUMP

1. 4 - Cable Ties
2. Vacuum Pump Harness
3. 1/2” x 1/2” x 1/4” Tee
4. 1/2” Vacuum Hose
5. 3/8” Vacuum Hose
6. 1/4” Vacuum Hose
7. 3/8” x 3/8” x 1/4” Tee
8. 1/4” Adapter
9. 1/2” Check Valve
10. 3/8” Check Valve
11. Vacuum Line (48” Long)
12. Hose Clamp
13. Vacuum Pump



E. DUAL CONTROLLER

1. Dual Controller
2. 1 - Splice Connector
3. 2 - 10/12 Gauge Splices
4. 1 - 14/16 Gauge Splice
5. Mounting Bracket
6. 4 - 1/2” Self Tapping Screws
7. 2 - 3/8” Self Tapping Screws

© 2013 Hopkins Manufacturing Corporation

STEP 2: POSITION MAIN UNIT (A)

1. Take main unit and position in the most convenient, out of sight place in the towed vehicle. Below are some suggested mounting locations.

UNDER THE SEAT

IN THE TRUNK

NOTE
May want to check with RV'er to see where they would like it placed.

WARNING
Main Unit is not designed to be installed outside the towed vehicle or within the engine area

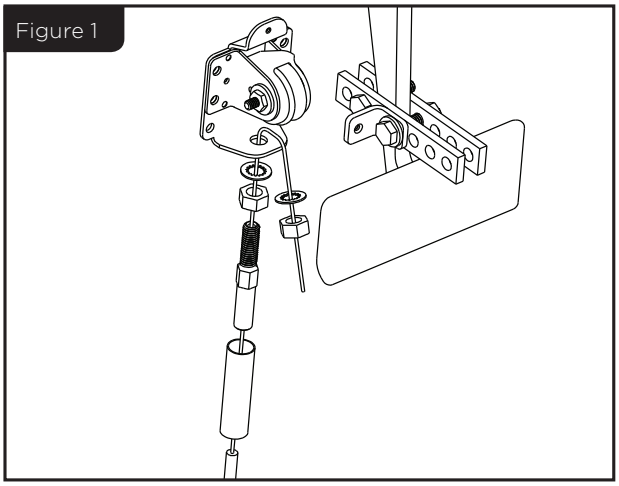
2. Ensure there is an optimal way to route the cable from the main unit to the brake pedal. A 90° bend is allowable with minimum radius of 6 inches.

3. Route cable to brake pedal. Allow enough cable to be able to hide under thresholds and floor mats. DO NOT attach the main unit at this time or cut cable to length.

STEP 3: MOUNTING LOCATION FOR PULLEY AND BRAKE PEDAL CLAMP (B)

1. Position brake pedal clamp above the brake pedal as shown in (Figure 1). The brake pedal clamp is attached with bolts in the pre-drilled holes on the brake pedal clamp. Ensure bolts are placed as close to the brake pedal arm on each side.

Figure 1



STEP 4: MOUNT PULLEY TO FLOOR BEHIND BRAKE PEDAL (B)

1. Position pulley with large hole downward as shown in (Figure 1).

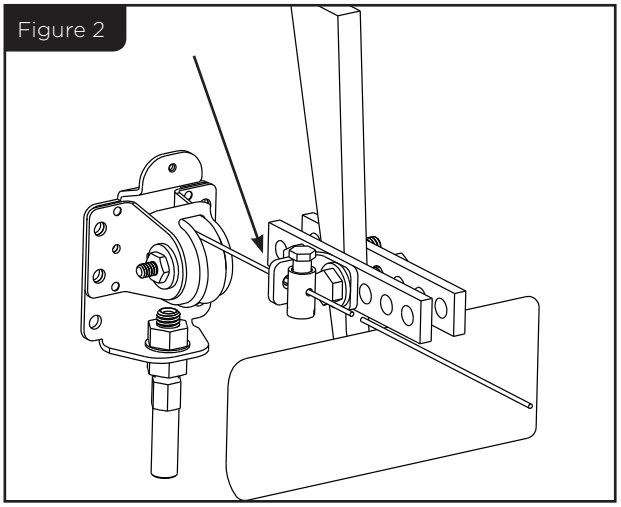
NOTE
Ensure the pulley is directly in-line with the hole in the angle on the brake pedal clamp as shown in (Figure 2).

2. Mount pulley to floor of towed vehicle with the 4, 1.5" self tapping screws provided.

WARNING
Make sure the exit side of the screws will not damage components on the other side of the firewall.

WARNING
Verify the brake pedal clamp does not interfere with the total downward movement of the braking action.

Figure 2



© 2013 Hopkins Manufacturing Corporation

STEP 5: CUT CABLE TO LENGTH ON MAIN UNIT (A)

1. Mark the outside of the black cable cover (reference picture of main unit on page 3) to the desired length Do not cut at this time.
2. Measure from the end of the metal steel cable to the position marked for cut off on the black cable cover.

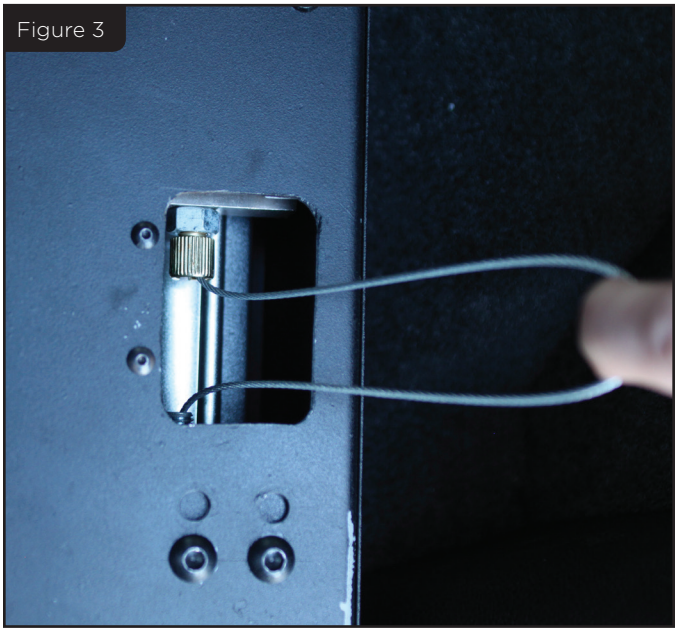
NOTE
Remember this measurement

3. Look on the bottom of the main in (Figure 3) for the opening where the steel cable is connected.
4. Grab steel cable and pull out 1/2 of the length measured in Step 2 and add 6". Example: If you measured 20" to cut, you only need to pull out 10" from the bottom of the main unit + 6" = 16" total). Leave the steel cable pulled out.

WARNING
Be careful not to kink the steel cable.

5. Cut at the mark made earlier on the black cable cover.
6. Go back to the main unit and push the steel cable back into the black cable cover.
7. Bolt main unit to the floor of the towed vehicle with 4, 1" self tapping screws provided with pulley system (B).

Figure 3



STEP 6: ROUTE AND INSTALL CABLE THROUGH PULLEY SYSTEM (B)

1. Slide cable connector onto cable. The cable connector will stop on the newly cut end. (Figure 4)
2. Heat shrink the tubing onto the cable connector and black cable cover. The heat shrink will maintain the position on the end of the cable.
3. Thread steel cable through pulley and tighten cable assembly onto bracket with 2, 5/16" nuts and 2, 5/16" washers as shown in (Figure 4). Should look like (Figure 5) once completed.
4. Pull Steel cable through pulley and angle hole. Slip cable clamp over steel inner cable and slide down cable till it is against the angle hole. Pull steel cable tight and tighten cable clamp onto steel cable (Figure 5).
5. Cut steel cable 1" from clamp (Figure 5).
6. Install heat shrink cap on end of steel cable (Figure 6).

Figure 4

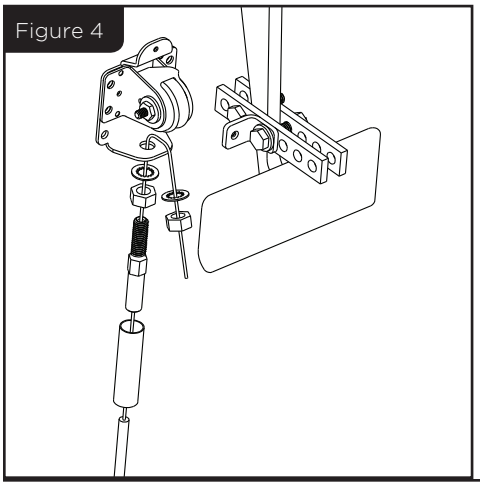


Figure 5

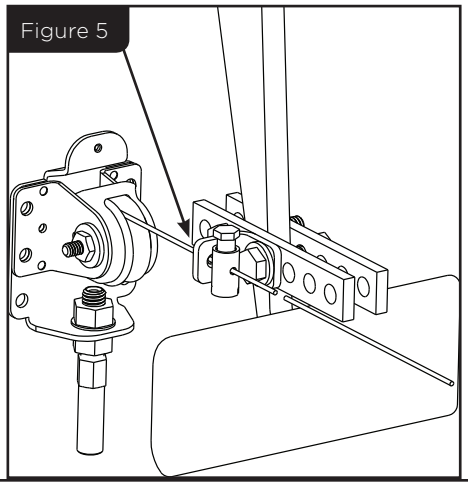
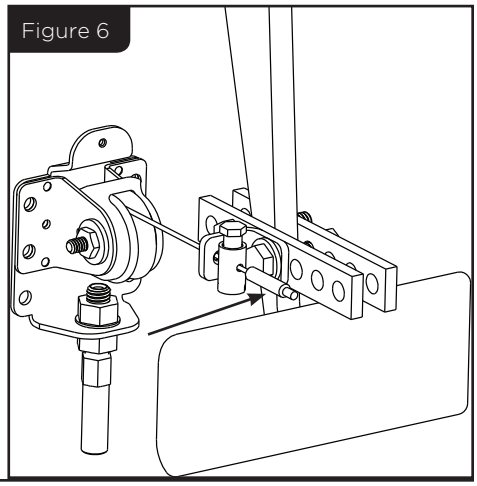


Figure 6



© 2013 Hopkins Manufacturing Corporation

STEP 7: INSTALL ALL-IN-ONE ADAPTER ON THE TOWED VEHICLE (C)

1. Find a position on the front of the towed vehicle to mount the All-in-One Adapter and install mounting bracket with 4 self tapping screws provided in (C).

NOTE
This can be mounted in the grille, bottom of the bumper or wherever convenient for your particular vehicle to make routing wires easy.

2. Attach Break-Away harness into mounting bracket with Break-Away mounting hardware provided.
3. Attach dust cover to side of mounting bracket. See (Figure 7).

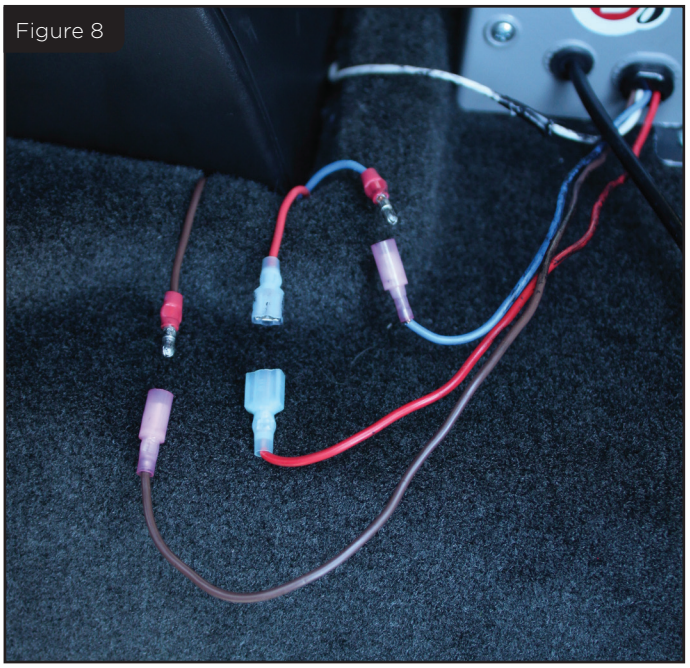
IMPORTANT
When not towing, the dust cover needs to be inserted into harness. The connection of the magnet in dust cover and Break-Away Harness will prevent the vehicle from going into Break-Away mode. If dust cover is not inserted, break-way mode and dinghy brakes will be activated for 15 minutes.

Figure 7

STEP 8: RUN WIRES FROM BREAK-AWAY HARNESS TO MAIN UNIT (C)

1. Route blue, brown and red wires from Break-Away Harness to main unit.
2. Find an opening or drill a hole to allow wires access into the towed vehicle from the main unit.
3. Attach blue wire from Break-Away Harness to blue wire coming from main unit. Repeat this step for the red and brown wires. See (Figure 8).
4. Ground the white wire coming from the main unit.

Figure 8



STEP 9: RUN WIRES FROM BREAK-AWAY HARNESS TO BATTERY (C)

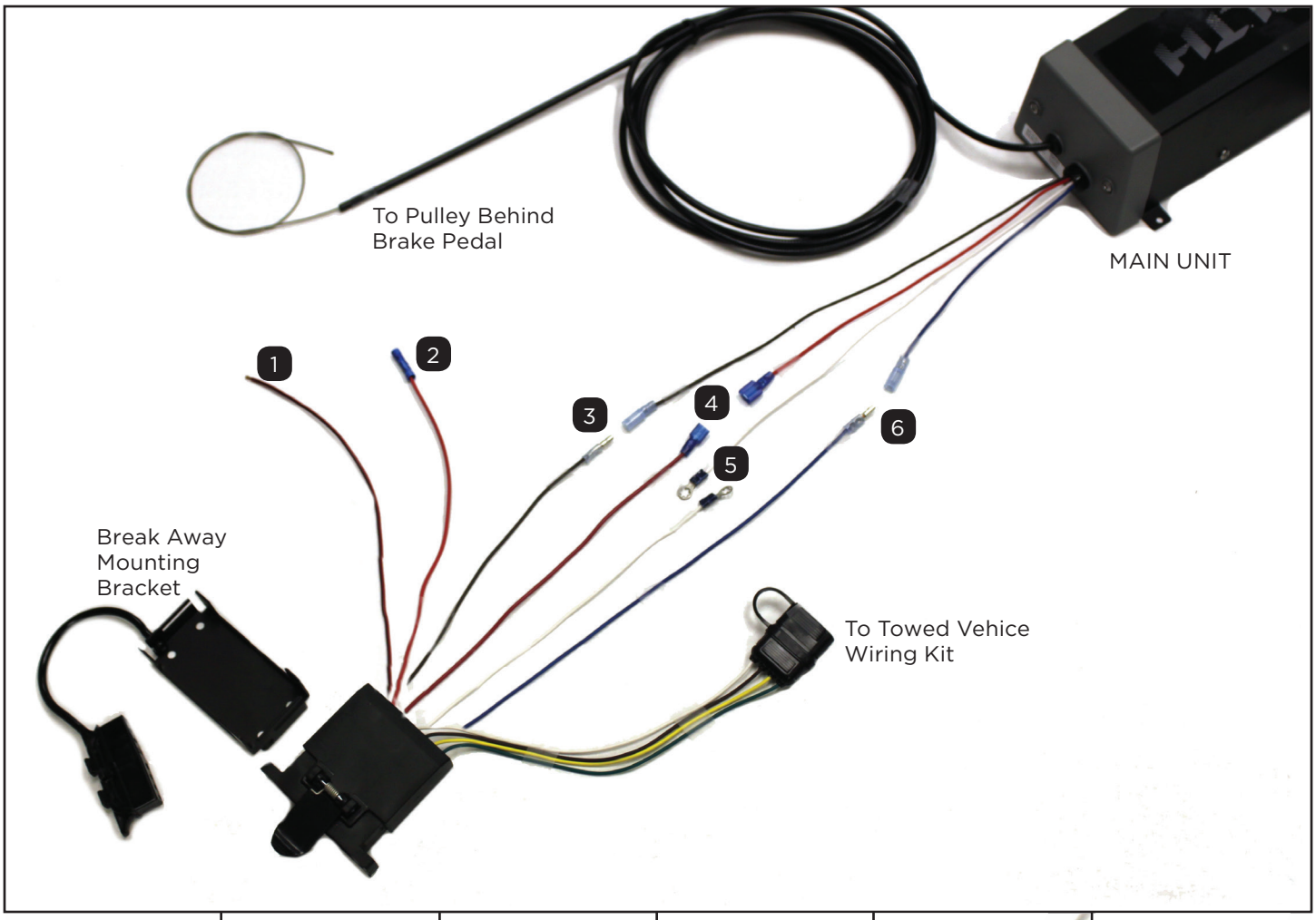
1. Route Red/Black Wire from Break-Away Harness to Battery and attach to positive (+) terminal.

© 2013 Hopkins Manufacturing Corporation

STEP 10: CONNECT TOWED VEHICLE WIRING KIT TO 4-FLAT FROM BREAK-AWAY HARNESS (OPTIONAL)

1. The Break-Away Harness comes equipped with a towed vehicle connector for activating turn/ brake / taillights. This connector is Plug-in Simple!® to a Hopkins/BrakeBuddy Towed vehicle wiring kit. Reference diagram below.

Wiring Diagram of BrakeBuddy Stealth



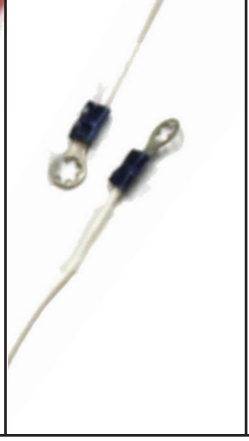
1 Red/Black Wire - To Battery

2 Red Wire + Splice - To Vacuum Pump

3 Black Wire - To Main Unit

4 Red Wire - To Main Unit

5 White Wire - Ground



6 Blue Wire - To Main Unit

© 2013 Hopkins Manufacturing Corporation

STEP 11: INSTALL VACUUM PUMP (D)

1. Install Vacuum Pump under the hood by the brake booster using wire ties. Make sure the vacuum pump is mounted away from high heat areas and moving parts.
2. Route Red Wire from Break-Away Harness to Vacuum Pump Wire Harness Red Wire supplied in (D).
3. Connect Red Wire from Vacuum Pump Wire Harness to positive (+) terminal on vacuum pump.
4. Take White wire from Vacuum Pump Harness, connect to negative (-) terminal on vacuum pump and ground other end on vehicle frame.
5. Determine the size of vacuum line coming out of the brake booster system. 1⁄4", 1⁄2" and 3⁄8" vacuum line and check valves are supplied with (D).
6. Select position for check valve. Check valve goes between the vacuum boost and engine.
7. Cut vacuum line and insert check valve with the left side of the check valve going to the towed vehicle vacuum line and the right side going into the brake booster line.
8. Insert vacuum line provided in (D) into the bottom on the check valve and then connect to vacuum pump.

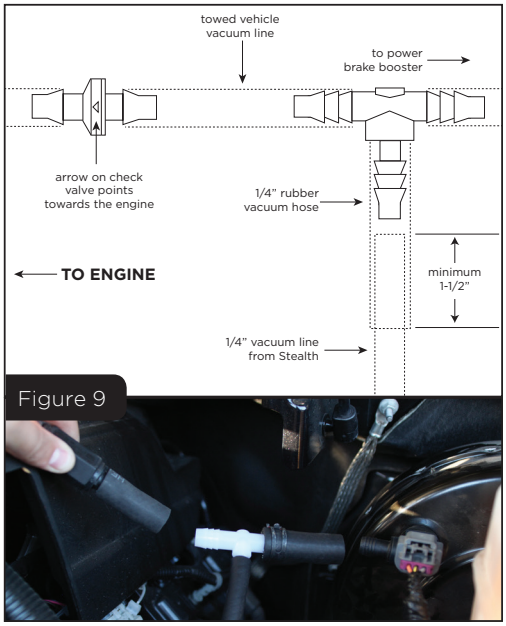


Figure 9

STEP 12: INSTALL DUAL CONTROLLER IN MOTORHOME (E)

1. Take Mounting Bracket from (E) and select a secure mounting location in the motorhome. Please ensure there is enough space to access all buttons on Dual Controller.
2. Attach Dual Controller to mounting bracket using hex screws provided.
3. Adjustment Dual Controller to desired angle and tighten screws until snug.

WARNING
Using large or longer screws may damage unit

4. Connect wires from Dual Controller to Motorhome wiring under dash as follows:

   White Wire = Ground

   Blue Wire = Trailer Electric Brakes

   Black Wire = Positive/Battery

   Red Wire = Brake Light

WARNING
Wires may vary by manufacturer, please wire by function only.

5. Connect white wire directly to the negative post on the vehicle battery. Grounding to any other location may cause intermittent controller operation or failure.
6. Attach 20 amp circuit breaker or in-line fuse to the positive terminal on the motorhome's battery. Route black wire from the brake control to the fuse or breaker.
7. Splice the red wire into the cold side of the motorhomes stop lamp switch located by the brake pedal. Find the wire by using a circuit tester and probing for the wire that powers the motorhomes stop lamps when the brake pedal is pressed.
8. Route the blue wire from the dual controller to the motorhome side towing connector at the rear of the motorhome.

© 2013 Hopkins Manufacturing Corporation