As illustrated below, this kit contains:

- Winch Mountable Bumper Qty: 1
- Winch Motor & Spool Qty: 1
- Hand Held Winch Controller Qty: 1
- Winch Hook Qty: 1
- Hook Strap Qty: 1
- Fairlead Qty: 1
- Fairlead Bracket Qty: 1
- Winch / Fairlead bolts & nuts Qty: 5
- Terminal Covers Qty: 4

TOOLS REQUIRED

<table>
<thead>
<tr>
<th>Tool</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratchet</td>
<td>1</td>
</tr>
<tr>
<td>16mm Socket</td>
<td>1</td>
</tr>
<tr>
<td>8mm Socket</td>
<td>1</td>
</tr>
<tr>
<td>10mm Socket</td>
<td>1</td>
</tr>
<tr>
<td>½” Socket</td>
<td>1</td>
</tr>
<tr>
<td>17mm Wrench</td>
<td>1</td>
</tr>
<tr>
<td>5/16 - 18 x 1” bolt</td>
<td>3</td>
</tr>
<tr>
<td>1” Flat Drill Bit</td>
<td>1</td>
</tr>
<tr>
<td>Phillips Screwdriver</td>
<td>1</td>
</tr>
<tr>
<td>5mm wrench</td>
<td>1</td>
</tr>
<tr>
<td>Jack Stands or Auto Ramps</td>
<td>1</td>
</tr>
</tbody>
</table>

Procedure:

1. **Bumper Removal - if necessary** (figure 1)
   - Remove the (4) nuts / bolts used to attach the bumper.
   - Remove old bumper and set aside.
   - Save the (4) bolts and nuts for re-use on the new winch bumper.

2. **Winch Bumper Installation** (figure 3)
   - There are two styles of winch bumpers. Review yours to see if there is a flat plate with two holes already welded vertically to the front of the bumper as shown in figure 2. If so, you do not need to use the supplied fairlead bracket. If your bumper does not have that plate, you must use the supplied fairlead bracket. Pass the (3) 5/16-18 x 1” long bolts through the winch, the roller fairlead mounting bracket (if needed), and the bumper. Install the nylon locking nuts and tighten to 18 lb ft. Once installed, the winch motor housing should be toward the right and the vertical face of the roller fairlead mounting bracket should be forward and pointing “up” (as viewed from the driver’s seat). Pass the (2) M10 x 25mm long bolts through the roller fairlead and the roller fairlead bracket’s vertical face whether it is welded or bolted variety. Install the flat washer, lock washer, and nut. Tighten.

**WARNING**

Wear proper eye protection through the entire process to avoid potential eye injuries.

**WARNING**

RISK OF SERIOUS INJURY OR DEATH
- Use wheel chock and set parking brake with unit raised
- Always use properly rated ramps or jack stands when working under a raised vehicle. Never work under a vehicle supported only by a jack
Winch Wiring Preparation (figures 4 & 5)

- Using the 3/8” Drill and 1” Flat Bit, (2) 1” holes will need to be drilled on the unit in order to install the winch.
- **Hole #1** is to be drilled on the seat tub surround towards the center and near the floor. This hole will allow the winch controller to be mounted on the surround and allow the excess wire to be stored inside the storage tub.
- **Hole #2** is to be drilled on the rear backsplash just above the battery and will create access for the winch power from the battery.

Winch Wiring Installation (figures 3, 4 & 5)

- Lay out the wiring harness such that the leads can be easily identified by length prior to installation.
- Place unit on properly rated jackstands or automotive ramps to allow access to the underbody channel. Secure vehicle with wheel chock and parking brake before attempting to work under the unit.
- Feed all wires from the outside into the seat tub storage area thru Hole #1. Once installed, the winch control should be resting on the floor of the unit.
- Feed all wires from inside the seat tub storage area thru Hole #2 in the rear backsplash. This will allow wire access to the battery connection and forward feed to the front mounted winch (refer to figure 3).
- Carefully route the long black and red pair of wires through the underbody channel to the front of the vehicle (refer to figure 5).

Final Connections

- At the front mounted winch, connect the RED wire to the (+) terminal on the winch using. Ensure that the connection is tight and that the supplied protective rubber terminal cover is installed. Repeat this process with the BLACK wire and the (-) terminal on the winch.
- Remove any excess slack from the lead wires by shifting towards the rear of the vehicle within the underbody channel. Use care to ensure that insulation does not become damaged or pinched.
- At the back of the vehicle, connect the RED wire to the (+) battery terminal as indicated on the battery casing.
- Connect the BLACK wire to the (-) battery terminal as indicated on the battery casing.
- Slack left in the storage tub should be covered in factory loom, any excess wire outside of the loom should be pulled through Hole #2 and neatly tied to the frame using the supplied tie wraps.
- Using the supplied adhesive backed hook & loop material, attach winch control to seat tub.

Note

Use caution to ensure that the wire insulation does not become damaged when feeding through the channel. Bare wires will ground to the frame and cause shorting or possible damage to the battery.

- Leave approximately 16” of wire at the front of the vehicle to allow adequate slack for attachment to the winch.
6 Hook Installation

- Straighten the bent leg on the cotter pin on the winch hook and remove the cotter pin and clevis pin. Attach the winch hook to the wire rope loop as shown in figure 6. Replace the cotter pin and bend the cotter pin leg back to its original position.

- Do NOT use a recovery strap while winching. They are designed to stretch and can suddenly whip back towards the operator during a winching operation.

- Place a rug or carpet over the wire rope span (approx 6' from the hook) to help absorb the force released if the rope breaks (see figure 9).

- Move the Clutch Control Knob to the “Engaged” position.

Basic Operation

Check your vehicle:
- Check the battery level to ensure it is fully charged
- Examine the wire rope. Do not use the winch if the wire rope is frayed, kinked or damaged.
- Check the Winch electrical connections to ensure that they are tight and clean.
- Put the vehicle transmission in NEUTRAL.

Prepare the Winch:
- IF the vehicle with the winch is to remain in place during the winch operation, engage the parking brake and chock the wheels (chocks sold separately).
- Use the hook strap to pull out the wire rope by moving the Clutch Control Knob to the “Released” position by pulling it out and away from the winch then rotating it 90 degrees (see figure 6).

Attach Winch to the Object:
- Attach to the object by using a pulling point, tow strap or chain.

- Attachment point must be centered in the loop of hook and the safety clasp must be fully closed (see figure 8).

- DO NOT use a recovery strap while winching. They are designed to stretch and can suddenly whip back towards the operator during a winching operation.
- Place a rug or carpet over the wire rope span (approx 6’ from the hook) to help absorb the force released if the rope breaks (see figure 9).

- Move the Clutch Control Knob to the “Engaged” position.

WARNING

Leave at least 5 full turns of wire rope on the drum.
Overwinding the wire rope into the roller guides can jam the winch causing it to not release with the twist knob.

Additional Winch Information

- When finished pulling the load, add slack to the wire rope by reversing the direction which will release tension and allow easy disconnection from the hook.

**CAUTION**

- Duty Cycle: 5% - This winch is designed for intermittent use. The duty cycle is the amount of time the winch can operate at its maximum capacity for a 15 minute period of time.
  - 45 Seconds at max rated load
  - 14 minute rest between winching at rated load
- Double line rigging can be utilized to reduce the winch load. Appropriate pulley block (sold separately) is required for this technique.

**WARNING**

- Wire Rope may slip or break causing serious injury or death

Briefly operate the control to ensure that the winch works properly.
- **IN** - button should retract the winch cable
- **OUT** - button should extend the winch cable
- If operation is reversed, the power connections to the winch may be connected backwards. Correct the wiring before continuing with operation.
- Standing aside the vehicle, retract the wire rope and winch the item as desired.

**CAUTION**

- Do not retract the hook all the way back into the winch roller guides as this will damage the roller and could lodge the hook in the winch.

**CAUTION**

- Constant duty loading of the winch will overheat the winch motor and may cause damage to both the winch and the battery.

Contact American Sportworks Customer Service for questions or problems that may arise with the assembly and starting of this unit at 800-643-7332 or at amsportworks.com.