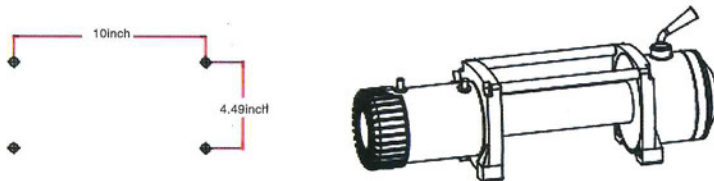
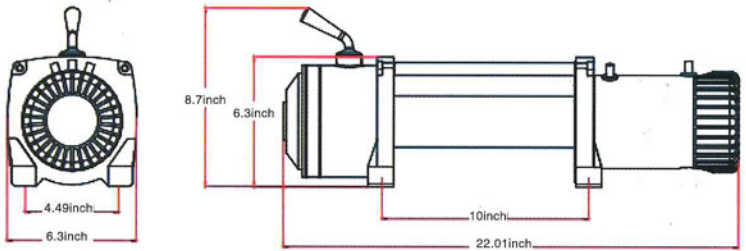


# VIPER MAX 13000lb RECOVERY WINCH

*For Full-Size 4x4 Vehicles*

## PARTS LIST&ASSEMBLY DIAGRAM

Part	Description	Quality	Part	Description	Quality
1	Motor assy	1	16	Sun gear	1
2	Drum support breaket(left)	1	17	Internal gear	1
3	Braking assy	1	18	End cover	1
4	Bushing	2	19	4-way roller fairlead	1
5	Drum	1	20	Steel cable	1
6	The rod	2	21	HOOK	1
7	Drive shaft	1	22	Strap	1
8	Drum support breaket(right)	1	23	Fix strip	1
9	Paper washer	2	24	Contator and solenoid plate	1
10	clutch bar	1	25	Solenoid box	1
11	Outer cylinder	1	26	Wire romote assy	1
12	Drive gear ring	1	27	Sealing ring	1
13	The third stage planetary gear assy	1			
14	The second stage planetary gear assy	1			
15	The first stage planetary gear assy	1			



*Installation and Operator's Manual*

# I. SAFETY PRECAUTIONS

## WARNING!

Observe safety precautions for personal safety and the safety of others. Improper equipment operation may cause personal injury or equipment damage. Read the following carefully before attempting to operate your winch, and keep instructions for future reference:

### 1. Dress Properly

- a. Don't wear loose clothing or jewelry. They can be caught in moving parts.
- b. Wear leather gloves (provided with kit) when handling the winch cable. Do not handle cable with bare hands as broken/frayed cables can cause injuries.
- c. Non-skid footwear is highly recommended.

### 2. Keep a Safe Distance

- a. Ensure that all persons stand well clear of winch cable and load during winch operation – at least 1.5 times the length of cable away is recommended. If a cable pulls loose or breaks under load, it can lash back and cause personal injury or death.
- b. Do not step over the cable.
- c. All visitors and onlookers should be kept away from the work area.
- d. Keep proper balance and footing at all times.

### 3. Don't Abuse the Electrical Cords

- a. Never carry your winch by the cord or yank it to disconnect it from the receptacle.
- b. Keep the cord away from heat, oil, and sharp edges.

### 4. Don't Overwork the Winch

- a. If the motor becomes uncomfortably hot to touch, stop and let it cool for a few minutes. Winches should be "power-cycled" where they pull for up to one minute and then are left to rest for a minute.
- b. Don't maintain power to the winch if the motor stalls.
- c. Don't exceed the maximum pull ratings as shown in tables. Shock loads must not exceed these ratings.

### 5. Avoid Unintentional Starting

- a. Winch clutch should be disengaged when not in use and fully engaged when in use. Make sure clutch is in proper position before pulling.

### 6. Check Damaged Parts

- a. Before using, you should inspect your winch carefully. Any part that is damaged, including a frayed cable, should be properly repaired or replaced. Please use only Motoalliance parts to repair your winch, or you will void your warranty.

### 7. Rewind the Cable Under Load Before First Use

- a. Winch cables are factory wound while not under load. This means there is flex in the line – less flex for our synthetic lines, more for our steel lines.
- b. Before first use, please unspool the cable fully, attach hook to a minimum load of 300lbs, and rewind back in to remove flex from line.
- c. Failure to "take the flex out" will likely result in "bird-nesting" where your cable when not spool in properly.

### 8. Shock Load When Winching are Dangerous!

- a. A shock load occurs when an increase in force is suddenly applied to the cable. A vehicle rolling back on a slack cable may induce a damaging shock load.

# II. OPERATING YOUR WINCH

## GENERAL TIPS

Read the following carefully as help for operating your winch in the field.

1. Sometimes, while rewinding, the cable will load unevenly and pile up on one end of the drum. If this happens, reverse the winch to relieve the load (you will not be able to pull it by hand), and move your anchor part further to the center of the vehicle. After the job is done, you can unspool and rewind for a neat layer of cable.
2. Store your remote control switches (both cabled and wireless) inside your vehicle where they cannot be damaged. If you need to replace your wireless unit, you will need both the remote and the wireless box as they are uniquely paired together. These can be purchased through Motoalliance.
3. Do not engage or disengage clutch with the motor running. This can strip the gears or cause injury.
4. Never connect the hook back to the cable. This causes cable damage. Always use a sling or chain of suitable strength.



5. Observe your winch at all times while using. Stop the winching process every minute to all for a “power cycle” and to observe the spooling process. Failure to do this will result in overheating, motor damage, and/or cable breaking.
  6. Do NOT attempt to tow your vehicle with the winch. The interior braking mechanism is not meant for towing.
  7. Do NOT use the winch to hoist or lift object. The interior braking mechanism is not meant for hoisting or lifting.
  8. Do NOT leave the corded remote switch plugged in when not in use.
  9. DO use the winch at least once a month to make sure it remains properly lubricated.
  10. Do NOT use the winch if the cable is kinked, frayed, or damaged.
11. Ensure your vehicle is secure by applying parking brake or chocking the wheels before anchoring your winch. Disengage freespool clutch and pull out desired length of cable. Connect to anchor point. Engage freespool clutch, start vehicle engine, select neutral in transmission and maintain engine speed at idle. Make sure brakes are off and you are not in PARK. Operate winch with corded or wireless remote by using the “IN” and “OUT” switch.

### USING ACCESSORIES

1. Your greatest pulling power will come from the innermost layer of the winch.
  - a. You must always leave at least five wraps of cable on the spool. Failure to do this may pull cable from drum.
  - b. The included **snatch block** can double your pulling power. When using snatch block for double loading, the winch hook should be attached to the chassis of your vehicle.
2. Using the enclosed **dampener blanket** by draping it over the winch cable while in use will dampen any backlash should a failure occur.
3. You can and should use **“D” or bow shackles** with a tree trunk protector (not included) to provide a safe anchor point. Make sure any shackles integrated into your vehicle bumper can handle the full load.

4. You may consider upgrading to our synthetic line, the patented and USA made **AMSTEEL-BLUE®**.

5. Please cover you winch with the included **waterproof winch cover** when not in use to extend the life of your winch.

## III. INSTALLATION

### GENERAL TIPS

There is no “right way” to find the location to install your winch. It depends on your needs, usage habits, and what type of bumper you have.

1. The VIPER MAX Series is meant for maximum flexibility in installation. You can mount the wireless receiver on top of the tie rods or in some other location on your vehicle. Care should be taken to mount the wireless box in the highest and driest location possible.
2. Always use all four mounting points and install on suitable steel mounting frame. It is very important the winch is mounted on a flat surface so motor, cable drum, and gear housing is aligned and parallel to the ground.
3. Your winch, if installed in front, may affect the triggering of SRS air bags. Check that your mounting system has been tested and approved for winch fitment in an airbag-equipped vehicle.

### LUBRICATION

All moving parts in the VIPER MAX are permanently lubricated with high temperature lithium grease at the time of assembly. Lubricate steel cable periodically using light penetrating oil.

### ELETRICAL

For normal self-recovery work, your existing electrical system is adequate. A fully charged battery and proper connections are essential. Run the vehicle during winching operations to keep battery charged.

## Performance Specification

### MX13000 Technical Specifications

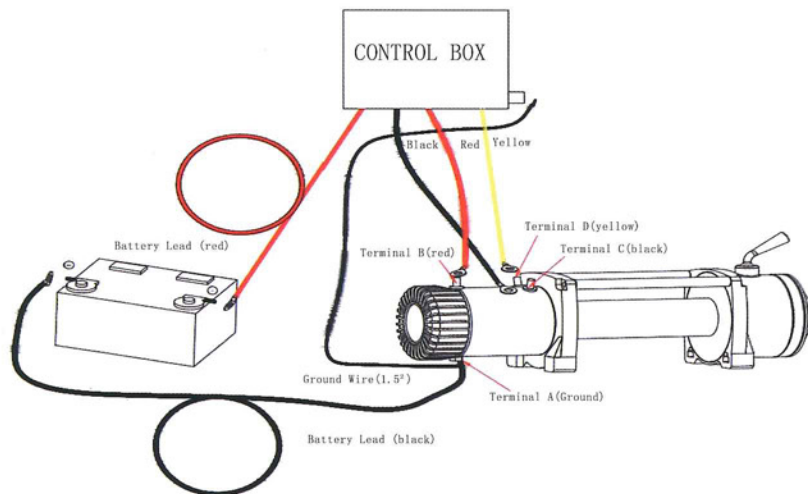
<b>Power</b> 650 CC Amps Battery	<b>Motor</b> 6.0 HP Series Wound	<b>Gear Ratio</b> 265.1	<b>Gear Train</b> SEALBD 3 Stage Planetary	<b>Max Amp Draw</b> 390	<b>Clutch</b> Sliding Ring Gear	<b>Brake</b> Automatic -lock with Motor	<b>Weight</b> 88lbs
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6.3 inch  
21.4 inch  
Mounting Specs  
-4 bolts  
-4.5"x10"

**linespeed – ampdraw**

13,000 lbs Line Speed & Amp Draw (1st Layer)									
Pull	Lbs	No lead	2000	4000	6000	8000	10000	12000	13000
Line Speed	ft/min	21.3	11.5	9.4	7.9	6.5	5.8	4.4	3.7
Current	amps	31	70	106	141	175	224	245	256

## Wiring Diagram



**Cord Control**



**Snatch Block**



**Wireless kits**



**Gloves**

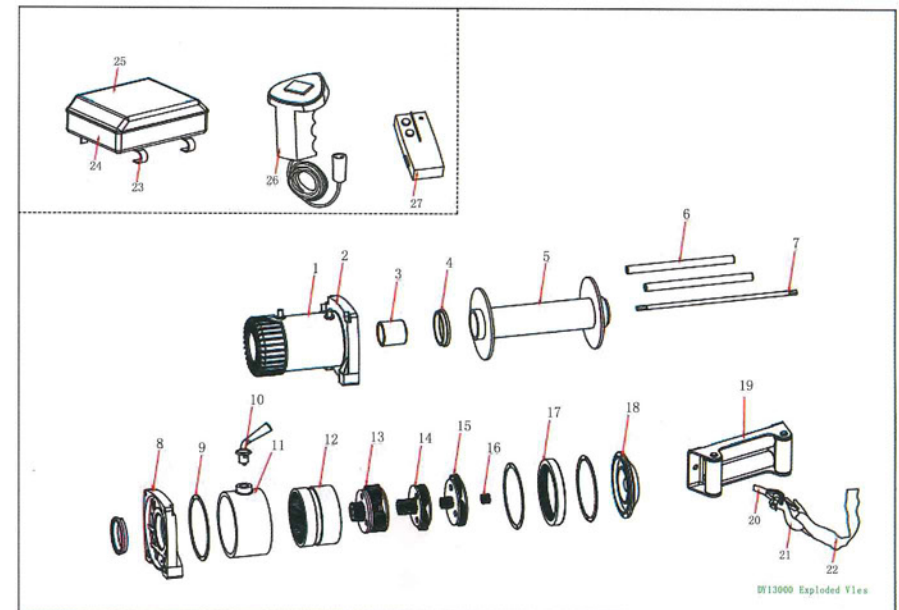


**Winch Cover**



**4-way roller fairlead**

## Exploded View of 13000lb winch



## Performance Specification

MX13000 Technical Specifications							
Power 650 CC Amps Battery	Motor 6.0 HP Series Wound	Gear Ratio 265.1	Gear Train SEALBD 3 Stage Planetary	Max Amp Draw 390	Clutch Sliding Ring Gear	Brake Automatic -lock with Motor	Weight 88lbs

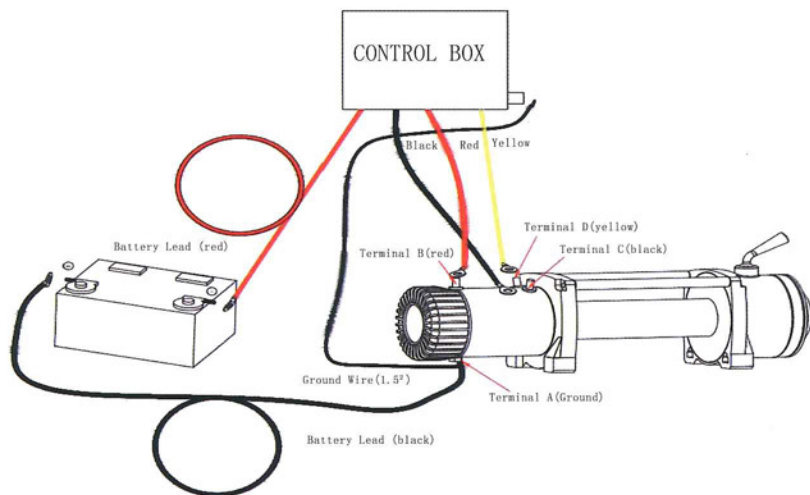
6.3 inch  
21.4 inch  
Mounting Specs  
-4 bolts  
-4.5"x10"



linespeed – ampdraw

13,000 lbs Line Speed & Amp Draw (1st Layer)									
Pull	Lbs	No lead	2000	4000	6000	8000	10000	12000	13000
Line Speed	ft/min	21.3	11.5	9.4	7.9	6.5	5.8	4.4	3.7
Current	amps	31	70	106	141	175	224	245	258

## Wiring Diagram



Cord Control



Snatch Block



Wireless kits



Gloves

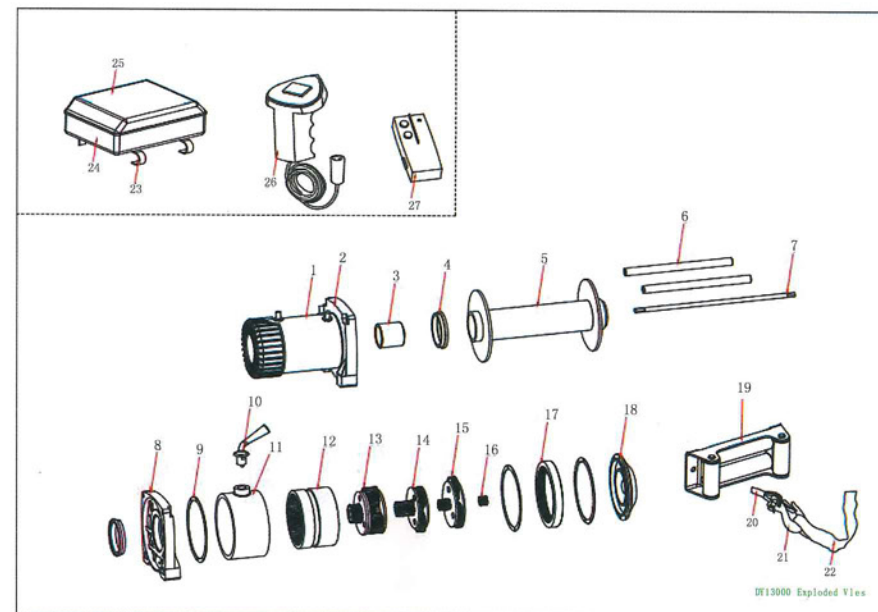


Winch Cover



4-way roller fairlead

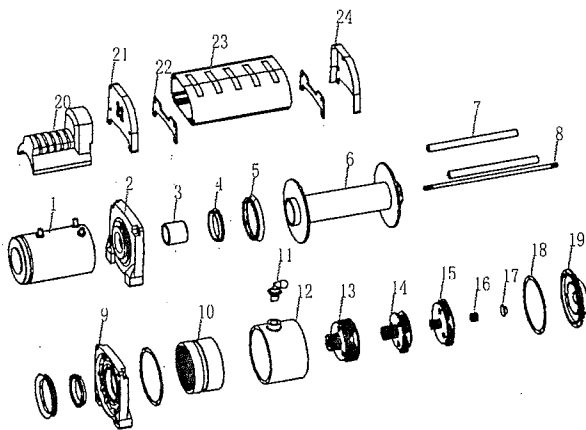
## Exploded View of 13000lb winch



**PARTS LIST&ASSEMBLY DIAGRAM**

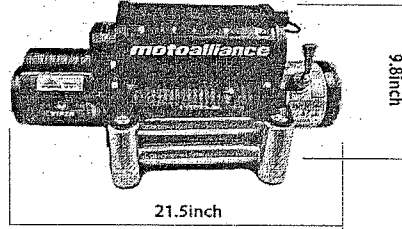
Part	Description	Quality
1	Motor assy	1
2	Drum support breaket (left)	1
3	Braking assy	1
4	Bushing	2
5	Waterproof ring	2
6	Drum	1
7	Tie rod	2
8	Drive shaft	1
9	Drum support breaket (right)	1
10	Drive gear ring	1
11	Clutch bar	1
12	Outer cylinder	1
13	The third stage planetary gear assy	1
14	The second stage planetary gear assy	1
15	The first stage planetary gear assy	1

Part	Description	Quality
16	Sun gear	1
17	Steel plate for sun gear	1
18	Paper washer	2
19	End cover	1
20	cover	1
21	cover plate(left)	1
22	Connecting plate	2
23	Solenoid box	1
24	cover plate(right)	1
25		
26		
27		
28		
29		
30		



**12000 12000 12000 12000 12000 12000 12000 12000 12000 12000**

Power	Motor	Gear Ratio	Gear Train	Max. Amp Draw	Clutch	Brake	Weight
650 CC Amps Battery	5.8HP Series Wound	265:1	SEALBD 3 Stage Planetary	390	Sliding Ring Gear	Automatic -lock with Motor	72lbs



Mounting Specs  
-4 bolts  
-4.5"x10"

linespeed – ampdraw

12,000 lbs Line Speed & Amp Draw (1st Layer)								
Pull	Lbs	No lead	2000	4000	6000	8000	10000	12000
Line Speed	ft/min	21.3	11.5	9.4	7.9	6.5	5.8	4.4
Current	amps	31	70	106	141	175	224	245

