



MISSION SERIES

Installation & Operator's Manual

MS12

12,000 lbs.

78-53251 (SYNTHETIC ROPE)

MS10

10,000 lbs.

78-53246 (SYNTHETIC ROPE)

MS8

8,000 lbs.

78-53141 (SYNTHETIC ROPE)

SAFETY WARNINGS

1. **LEARN TO USE YOUR MILE MARKER WINCH:** After winch has been installed, take some time and practice using it so you will be familiar with all operations. Periodically check the winch installation to ensure that all bolts are tight. To ensure proper operation, carefully inspect for any damaged parts before operating the winch.
2. **KEEP WINCHING AREA CLEAR:** Do not allow people to remain in the area during winching operations. Do not step over a taut steel cable/synthetic rope or allow anyone else to do so. Due to the possibility of steel cable/synthetic rope failure stand clear of any possible pathway. A snapped steel cable/synthetic rope could cause winch failure, injury or death. Keep proper footing and balance at all times. Do not reach over or across the winch and/or pulling steel cable/synthetic rope while the winch is in operation.
3. **INSPECT STEEL CABLE/SYNTHETIC ROPE AND EQUIPMENT FREQUENTLY:** The steel cable/synthetic rope should be inspected for damage that could reduce it's breaking strength. A frayed steel cable/synthetic rope with broken strands should be replaced immediately. Always replace the steel cable/synthetic rope with a steel cable/synthetic rope that is rated to sustain the load that the winch is capable of pulling. Any substitute must be IDENTICAL in strength, quality, lay and stranding to the Mile Marker steel cable/synthetic rope originally supplied.
4. **WORKING AREA CONDITIONS:** Keep the working area well lit. Do not use this winch in the presence of flammable gases or liquids.
5. **KEEP CHILDREN AWAY:** Keep children away from working area. Never let children operate the winch.
6. **DRESS PROPERLY:** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear is the only type of clothing you should be using when operating the winch. Wear restrictive hair covering to contain long hair.
7. **USE HEAVY GLOVES:** When handling or rewinding steel cable/synthetic rope always use hand protection to eliminate the possibility of cuts caused by burrs & slivers from broken strands.
8. **DRUM:** Always make sure that there are at least 10 complete turns of synthetic rope (5 of steel cable) left on the drum before winching.
9. **KEEP HANDS AND FINGERS CLEAR OF STEEL CABLE/SYNTHETIC ROPE AND HOOK WHEN OPERATING WINCH:** Do not put your finger through the hook when reeling in the last few feet. If your finger should become trapped in the hook, you could lose your finger. Do not guide a steel cable/synthetic rope under tension onto the drum with your hand.
10. **DO NOT HOOK THE STEEL CABLE/SYNTHETIC ROPE BACK ONTO ITSELF:** Hooking the steel cable/synthetic rope back onto itself creates an excessive strain that could break individual strands; this weakens the entire steel cable/synthetic rope.
11. **KEEP PULLING DURATIONS AS SHORT AS POSSIBLE:** The winch is designed for intermittent use and cannot be used in constant duty applications. Do not pull more than one minute at or near rated load. If the motor becomes too hot to touch, stop and let it cool off for a few minutes. If the motor stalls, cut off the power immediately.
12. **DO NOT OVERLOAD:** For your safety and efficient performance, always use this winch at or under its rated capacity for your safety and for better performance. Do not use inappropriate attachments in an attempt to exceed its rated capacity.
13. **AVOID CONTINUOUS PULLS FROM EXTREME ANGLES:** This will cause the steel cable/synthetic rope to pile up at one end of the drum. The steel cable/synthetic rope should be as straight as possible to the direction of the object.
14. **DO NOT OPERATE THE WINCH WITHOUT THE FAIRLEAD FITTED:** Operator injury or winch damage can result if a fairlead is not installed.
15. **STAY ALERT:** Watch what you are doing. Use your common sense. Do not use this winch when you are tired, stressed or WHEN UNDER THE INFLUENCE OF DRUGS, ALCOHOL OR MEDICATION.
16. **DISCONNECT SWITCH:** Unplug switch when not in use.
17. **REPLACEMENT PARTS & ACCESSORIES:** When servicing, use only identical replacement parts. Usage of any other parts will void the warranty. Approved accessories are available from your local Mile Marker distributor, or from WWW.MILEMARKER.COM.
18. **DO NOT force clutch.** Rotate drum to align gears for free spool.

PRECAUTIONS

1. Keeps hands and body away from roller or hawse fairlead (steel cable/synthetic rope intake slot) when operating.
2. Secure vehicle in position before using winch.
3. Do not exceed winch load weight capacity.
4. Be certain winch is properly bolted to a structure (or vehicle) that can hold the winch load.
5. Always use proper couplings when connecting winch steel cable/synthetic rope hook to load.
6. Do not lift items vertically. The winch was designed for horizontal use only.
7. Do not overload the winch. It will do the job better at the load it was intended.
8. Do not use inappropriate attachments to extend the length of the steel cable/synthetic rope.
9. Do not lift people or hoist loads over people.
10. Do not come in between the winch and the load when operating.
11. Do not apply load to winch when steel cable/synthetic rope is fully extended. Keep at least 5 wraps of steel cable and 10 wraps of synthetic rope on the drum.
12. After moving an item with the winch, secure the item. Do not rely on the winch to hold it for an extended period.
13. Examine winch before using. Components may be affected by exposure to everyday weathering, chemicals, salts, and rust.
14. Do not fully extend steel cable/synthetic rope while under load. Keep 5 wraps of steel cable and 10 wraps of synthetic rope around the winch drum.
15. When loading a boat into a trailer without reel or side hull rollers, make sure the trailer is submerged in the water when the boat is loaded by the winch. Attempting to drag the boat on to the trailer while on land can cause winch failure and possible injury.
16. Do not operate winch if steel cable/synthetic rope shows any signs of weakening, is knotted or kinked.
17. Winch does not have a locking mechanism. Secure load after moving.
18. Do not cross over or under the steel cable/synthetic rope while it is in process of loading.
19. Do not move vehicle with steel cable/synthetic rope extended and attached to load to pull it. The steel cable/synthetic rope could snap.
20. Apply blocks (such as a wheel chock) to vehicle when parked on an incline.
21. Respool steel cable/synthetic rope properly.

GETTING STARTED

Winch Mounting

NOTE: Mile Marker recommends the use of its Mile Marker mounting systems for proper winch installation and optimum winch performance. However, if not using a Mile Marker mounting system, make sure the mounting platform being used is strong enough to meet the maximum rated load of the winch. Mile Marker recommends steel plates with a thickness of at least 0.25”.

Your winch should be aligned and secured to a solid part of the vehicle (front or rear) where the full rated load will be evenly distributed.

CAUTION: It is essential that the mounting surface be flat and that the winch is mounted so the three major sections (gear housing end, drum, and motor end) are in proper alignment.

1. If necessary, drill four mounting holes (10mm in dia.), in a 10” x 4.5” pattern; Mile Marker can furnish you with a drilling template.
2. Fasten the winch body to the mounting platform using the four screws, washers and spring washers (see parts breakdown & assembly for each winch) provided
3. Torque the capscrews to about 35 ft-lb (47.5 N-m)
4. All Mile Marker mounting systems come pre-drilled with fairlead holes. If you are using any other mounting platform, drill two holes for the roller fairlead installation. Position the holes so the fairlead opening hole stretches from the circumference of the drum to the end of the maximum permissible layers on the drum in the direction cable is being rolled.

CAUTION: When replacing the cap screws or when longer bolts are required, make sure you use bolts grade 5 or greater.

WIRING INSTRUCTIONS

Wiring the Control Box

1. Slip the boots onto pertinent cables and make electrical connection in accordance with the schematic on following page. Slide the boots onto all the electrical connections made (Fig. 2-12 through 2-14).
2. Run battery power cables carefully under hood of vehicle, avoiding interference with moving parts and abrasion points which could potentially cause electrical short.
3. Attach BLACK Cable to NEGATIVE Battery Terminal (-), followed by RED Cable to POSITIVE Battery Terminal (+) (Fig. 2-14). Refer to Winch Operation on page 8 of this manual for proper functioning; if drum rotates in the incorrect direction when "IN" button is pressed, green and yellow motor cables need to be switched.

CAUTION: Cover all exposed electrical connections with insulation boots to avoid electrical short. Battery cables should not be drawn taut; leave some slack for cable movement. Ensure all connections are routed properly and do not interfere with the vehicular components, as this could damage cable or cause electrical short. Long battery cable runs may have significant voltage drops that may cause the winch motor to not operate.

DO NOT CONNECT POWER CABLES TO BATTERY UNTIL FINAL STEP OF INSTALLATION

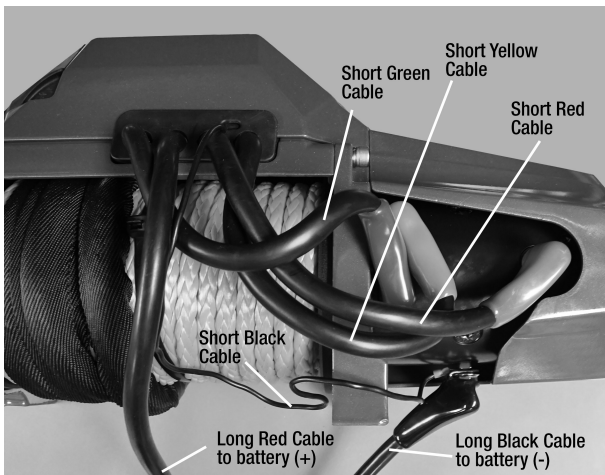


Fig. 2-12

Fig. 2-13

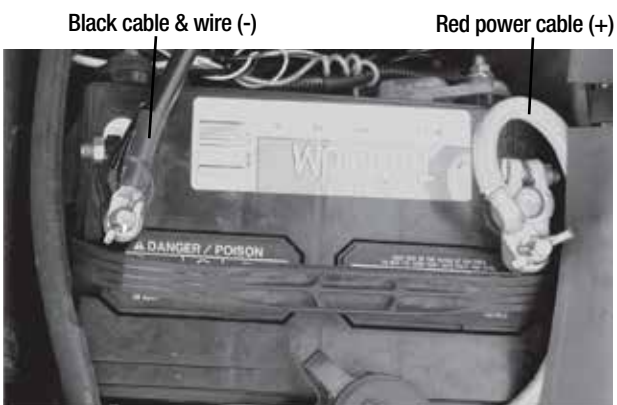
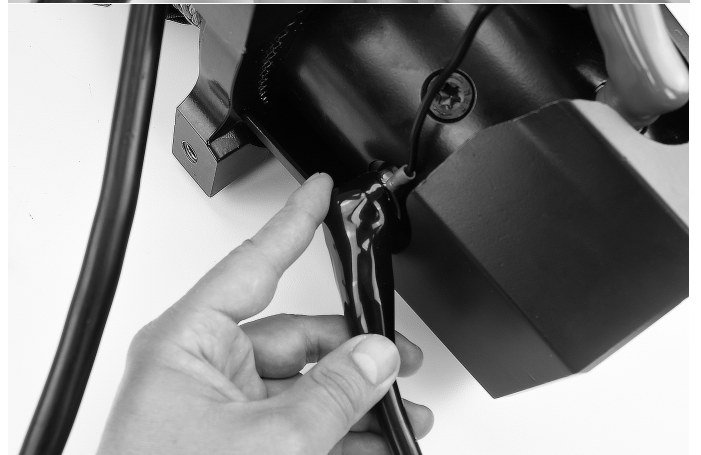


Fig. 2-14

WINCH OPERATION

Operational Instructions

1. Disengage the clutch by moving the Clutch Lever to Disengage Position (or free spool mode) (Fig. 3-1)
2. Free spool the cable and connect to the desired anchor point (self recovery) or vehicle being recovered
3. Fully engage the clutch by moving the Clutch Lever to Engage Position (Fig. 3-1)
4. Lift the protective boot covering the hand control plug-in. Insert the hand control plug
5. Rotate the red Kill Switch from the "OFF" position, to the "ON" position (Figs. 3-2 & 3-3)
6. Start winching IN (Fig. 3-2) to remove the slack on the cable, ensuring that the cable is winding onto the drum properly (with out any overlapping or gaps). Never disengage the clutch while the cable is under load.
7. When finished winching, let off the load by winching OUT (Fig. 3-2). With adequate slack created, unhook the cable and rewind the cable onto the drum.

NOTE: Mile Marker recommends a fully charged, 12V battery with a minimum of 650 cold-cranking amperes. Recommended: keep engine running during winch operation to continuously charge battery.

NOTE: All Mile Marker winches are equipped with a clutch lever that engages/disengages the clutch. When engaged, the clutch will couple the gear train and the winch drum to lock the winch. When disengaged, the clutch de-couples the gear train from the winch drum, enabling the drum to rotate independently or free spool.

CAUTION: Before using your new Mile Marker electric winch, rewind the entire steel cable/synthetic rope on the drum under a load of at least 500 lbs (227 kg) starting with at least 5 wraps of steel cable, or 10 wraps of synthetic rope on the initial layer. Failure to do so will result in the outer wraps pressing against the inner wraps, damaging the steel cable/synthetic rope. Always have at least 5 wraps of steel cable, or 10 wraps of synthetic rope on the winch drum BEFORE winching and make sure the clutch is fully engaged or fully disengaged to avoid any injuries or damages. Electric winches are for intermittent use only. Never run the winch for more than 1 minute at maximum rated load and wait until the motor cools down before resuming winch operations. To reduce the load on a winch motor, the use of a snatch block is recommended (see pages 9 and 10, Winching Tips & Techniques for snatch block usage). This winch model also features an automatic load holding brake, so never run the winch against the brake ("OUT" on the hand control) for more than 10 seconds. Failure to do so might result in damage to the brake and motor. Always stay clear of the loaded winch steel cable/synthetic rope.

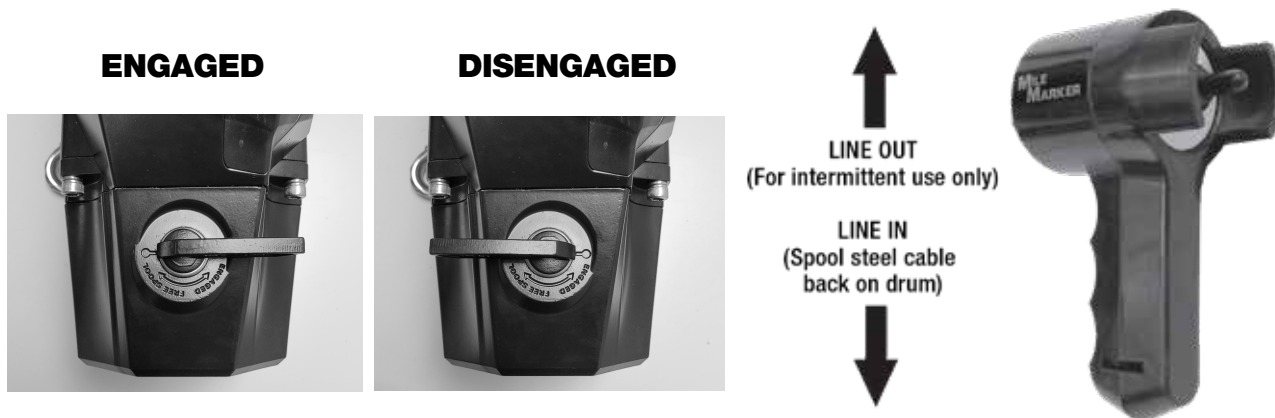


Fig. 3-1

Fig. 3-2

WINCHING TIPS & TECHNIQUES

Winching Tips and Use of a Snatch Block

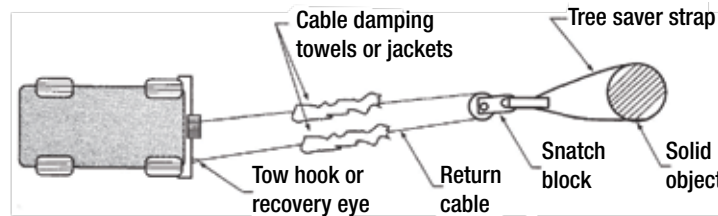
- Use tow hooks, recovery eyes or a clevis mount for attachment of a tow strap or winch steel cable/synthetic rope.

Warning: Do not use a ball and/or ball mount as an anchor point for tow strap or winch steel cable/synthetic rope. Severe personal injury or death could occur.

- Always heed all winch manufacturer's recommendations, cautions, and warnings.

- Attach return steel cable/synthetic rope to tow hook or recovery eye when using a snatch block. Always use a clevis to secure snatch block to strap, or severe damage could occur to persons and vehicle.

CAUTION: Do not attach return steel cable/synthetic rope to winch mount. This may overload winch mount and/or front receiver.

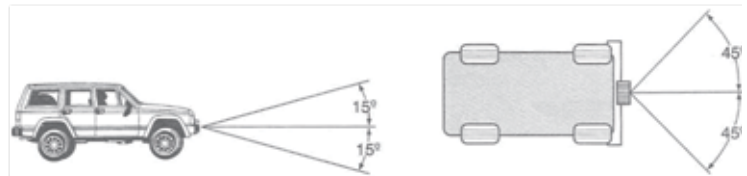


Rating

For maximum line pull rating, winch cable direction must not exceed:

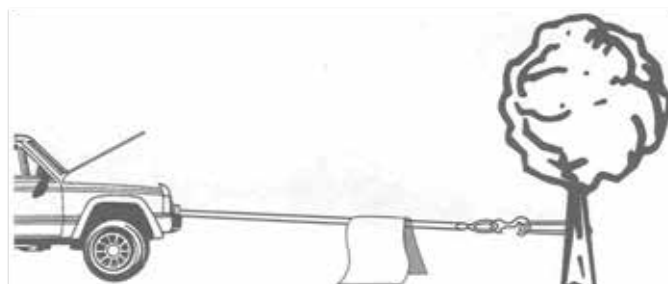
1. 15° angle up or down from horizontal (see image to right)
2. 45° angle left or right from straight ahead (see image to right)

Caution: Exceeding the maximum line pull rating may overload winch, winch mount, and/or front mounted receiver.



Safety Tips

- DO NOT DISENGAGE CLUTCH LEVER WHEN THERE IS A LOAD ON THE WINCH. Mile Marker electric winches utilize an automatic load holding brake, therefore no adjustment to clutch is needed to maintain load.
- Store the remote control cord in a safe place when not in use to prevent use by children or other unauthorized persons who could injure themselves or others or damage the controls.
- Do not operate winch while tired or fatigued, under the influence of drugs, alcohol, or medication.
- Isolate winch before putting hands in or around the roller/hawse fairlead or drum.
- DO NOT OVERLOAD YOUR WINCH. Do not maintain power to the winch if the drum stops. Overloads can damage the vehicle, winch or winch steel cable/synthetic rope and create unstable operating conditions.
- It is recommended to lay a dampener over the steel cable/synthetic rope about halfway along to the hook attachment. If a steel cable/synthetic rope failure should occur, the weight of the dampener will help prevent the broken steel cable/synthetic rope from whipping. Remember to move the dampener as winching proceeds, but halt winching when doing so. Partially raising the hood of the vehicle will also give a measure of protection to its occupants from broken steel cable/synthetic rope, consistent with sufficient forward visibility for the operator.

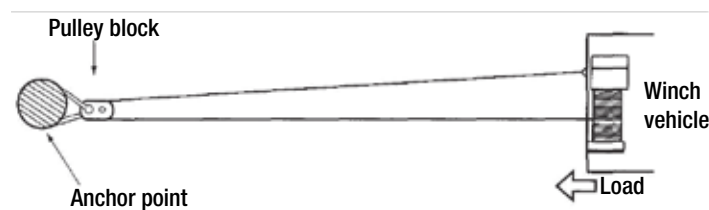


Self Recovery

1. Always attempt to get the steel cable/synthetic rope as straight as possible to the direction of the vehicle. It is acceptable to start a pull at an angle if it is obvious that the vehicle will turn towards the hook anchoring point. Turning the steering wheel will assist the process. It is recommended that the driver is in the vehicle.
2. Make sure hand brake and foot brake are free and that the transmission is in neutral.
3. When the driver's attempt to regain vehicle traction is successful, he or she should be careful not to overrun the cable and risk the possibility of it being trapped under the vehicle.
4. DO NOT move your vehicle in reverse to assist the winch. The combination of the winch and vehicle pulling together could overload the cable and winch itself.
5. DO NOT connect steel cable/synthetic rope or hook back to winch mount.

Use of a Pulley Block or Snatch Block

Vehicle self recovery using the pulley block attached to the anchor point for direct pull. In this instance the vehicle becomes the "load" and the actual pulling power on the vehicle will be double at half winch steel cable/synthetic rope speed. Do not connect steel cable/synthetic rope or hook back to winch mount.

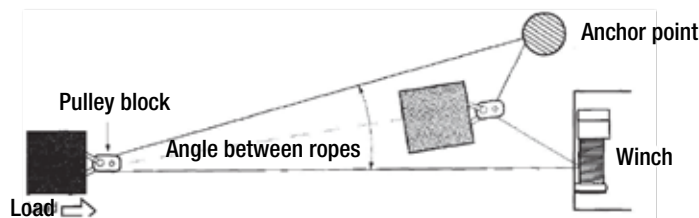


Direct pull on load using the winch vehicles as the anchor with pulley block attached to the load. The most important aid to successful winching is the pulley block, which can be used to increase the pulling power of the winch or for indirect pulls. Pulley blocks can be used in two modes. First mode is attached to the load and second is secured to an anchor point.



Indirect pull necessitated by obstructions or soft ground. Attach pulley block to load using a suitable anchor point.

NOTE: The angled direction taken by the load and subsequent angle of steel cable/synthetic rope feed back on the winch drum (extreme example shown). There may be unavoidable circumstances requiring this mode, though in general it is not recommended unless applied in stages by moving the anchor point or vehicle to avoid the sharp angled rewind on the winch drum. The actual load pulling power and steel cable/synthetic rope speed will depreciate with any increased angle between the steel cables/synthetic ropes. The anchor point, when used must be secure, using a tree, another vehicle or any firm structure to which a pulley block can be used to your advantage.



Use of a Nylon Sling and Shackle

The safe working load of the nylon sling is based on the use of both eye ends. Do not use the cable or hook to connect directly to the nylon sling. A shackle should always be used when attaching winch hooks to nylon slings. NOTE: The shackle must pass through both eyes of the sling.

WINCH MAINTENANCE

- All internal moving parts within the electric winch have been lubricated using high temperature lithium grease at the factory. No further internal lubrication is required for the life of the winch.
- If using steel cable, lubricate the steel cable periodically using light penetrating oil.
- Electrical connections may corrode over a period of time due to environmental changes. This may result in reduced performance of the winch or even possible electrical shorting. Hence, always clean the electrical connections before and after using the winch.
- After every use of the winch, inspect the steel cable/synthetic rope for damages such as kinks, broken strands etc. When damaged, replace the cable immediately.

TROUBLESHOOTING

Symptom	Possible Cause	Suggested Remedy
Motor does not turn on	Switch assembly not connected properly	Insert switch assembly firmly to the connector
	Loose battery cable	Tighten nuts on cable connectors
	- Connection - Solenoid malfunctioning	Tap solenoid to free contact, applying 12 volts to coil terminal directly. An audible clicking will occur when activating.
	Defective switch assembly	Replace switch assembly
	Defective motor	Check for voltage at armature port with switch pressed. If voltage is present, replace motor.
	Water has entered motor	Drain and dry. Run in short bursts without load until completely dry.
Motor runs too hot	Long period of operation	Let winch cool down periodically
Motor runs slowly or without normal power	Battery runs down	Recharge battery by running vehicle engine
	Insufficient current or voltage	Clean, tighten or replace the connector
Motor runs but cable drum does not turn	Clutch not engaged	Turn clutch gear to IN/ENGAGED position - if that does not work, ask a qualified technician to check and repair
Motor runs in one direction only	Defective or stuck solenoid	Tap solenoid to free contacts. Repair or replace solenoid.
	Defective switch assembly	Replace switch assembly

WINCH FEATURES & SPECS

MISSION SERIES 12k



Synthetic Rope 78-53251

MISSION SERIES 10k



Synthetic Rope 78-53246

SPECIFICATIONS (12K):

Rated Line Pull	12000 lbs (5443 kg)
Gear Train	3 Stage planetary
Gear Ratio	294:1
Motor	Series wound, 4.9 hp (3.6 kw), 12 Volt, 24 Volt available
Remote	Power in, Power out with 12' cable (3.7 m)
Dimensions (LxWxH)	21.1" X 6.34" X 10.1" (535 mm X 161 mm X 255 mm)
Bolt Pattern	4 Bolt pattern, 4.5" x 10" (114.3 mm X 254 mm)
Synthetic Rope	3/8" X 92' (9.5 mm X 28 m) (18,078 lb. breaking strength)
Drum Size Diameter X Length	2.64" X 8.35" (67 mm X 212mm)
Net Weight Synthetic Rope	57.8 lbs (26.2 kg)

SPECIFICATIONS (10K):

Rated Line Pull	10000 lbs (4536 kg)
Gear Train	3 Stage planetary
Gear Ratio	210:1
Motor	Series wound, 4.9 hp (3.6 kw), 12 Volt, 24 Volt available
Remote	Power in, Power out with 12' cable (3.7 m)
Dimensions (LxWxH)	21.1" X 6.34" X 10.1" (535 mm X 161 mm X 255 mm)
Bolt Pattern	4 Bolt pattern, 4.5" x 10" (114.3 mm X 254 mm)
Synthetic Rope	3/8" X 92' (9.5 mm X 28 m) (18,078 lb. breaking strength)
Drum Size Diameter X Length	2.64" X 8.35" (67 mm X 212mm)
Net Weight Synthetic Rope	57.8 lbs (26.2 kg)

PERFORMANCE (12K):

Line Pull	Line Speed	Motor Current		
lb	kg	fpm	mpm	amps @ 12 V
0	0	16.4	5	85
4000	1816	8.9	2.7	176
6000	2724	6.9	2.1	212
8000	3632	5.2	1.6	247
10000	4540	4.9	1.5	281
12000	5443	4.3	1.3	340

PERFORMANCE (10K):

Line Pull	Line Speed	Motor Current		
lb	kg	fpm	mpm	amps @ 12 V
0	0	21	6.4	86
2000	908	11	3.4	150
4000	1816	11.5	3.5	195
6000	2724	9.2	2.8	247
8000	3632	6.9	2.1	300
10000	4536	5.2	1.6	365

WINCH FEATURES & SPECS

MISSION SERIES 8k



Synthetic Rope 78-53141

FEATURES:

- Modern and customizable look (over 10 OEM colors and 4 other designs!)
- Available in 8, 10, and 12K capacities
- Fully Submersible
- Automatic load holding/ low friction brake
- Rugged heavy-duty solenoid
- 92' synthetic rope
- Aluminum hawse fairlead
- Military grade drum
- Future smart phone app compatible
- Wireless remote kit available
- Durable corrosion resistant stainless accents

SPECIFICATIONS (8K):

Rated Line Pull	8000 lbs (3629 kg)
Gear Train	3 Stage planetary
Gear Ratio	210:1
Motor	Series wound, 4.9 hp (3.6 kw), 12 V 24 Volt available
Remote	Power in, Power out with 12' cable (3.7 m)
Dimensions (LxWxH)	21.1" X 6.34" X 10.1" (535 mm X 161 mm X 255 mm)
Bolt Pattern	4 bolt pattern, 4.5" x 10" (114.3 mm X 254 mm)
Synthetic Rope	5/16" X 92' (7.94 mm X 28 m) (13,228lb. breaking strength)
Drum Size Diameter X length	2.48" X 8.35" (63 mm X 212 mm)
Net Weight Synthetic Rope	57.3 lbs (25.9 kg)

PERFORMANCE: (8K)

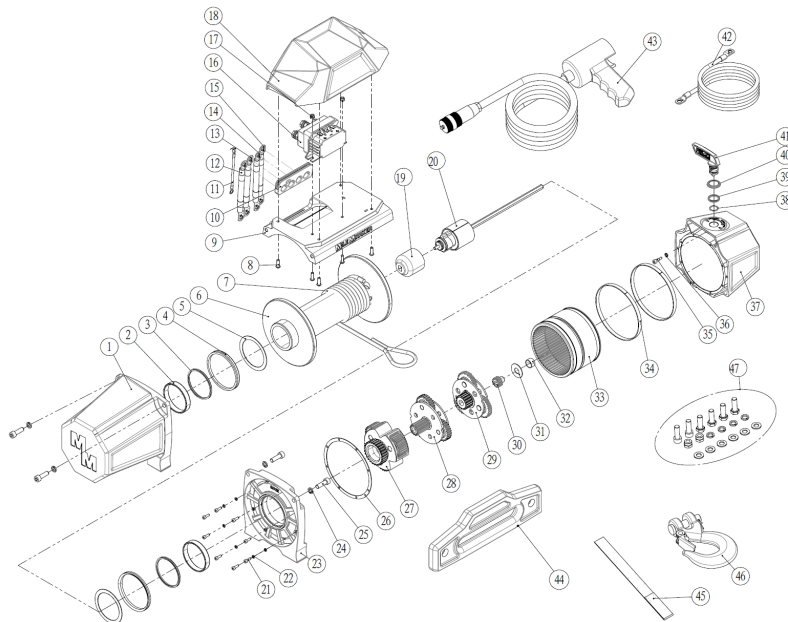
Line Pull		Line Speed		Motor Current
lb	kg	fpm	mpm	amps @ 12 V
0	0	38.1	11.6	70
2000	908	14.1	4.3	136
4000	1816	11.5	3.5	185
6000	2724	8.7	2.7	243
8000	3629	6.9	2.1	300

PARTS BREAKDOWN & ASSEMBLY

MISSION
SERIES
12k

Mission winch 12K Parts List Winch Kit 78-53251			
ITEM		DESCRIPTION	QTY
1	78-50141-01	Motor	1
2	78-50141-02	Dry Bearing	2
3	78-50141-03	X-ring	2
4	78-50141-04	Seal	2
5	78-50141-05	Gasket	2
6	78-50246-06	Drum Assembly	1
7	78-50141-07	Synthetic Rope	1
8	78-50141-08	Screw M5×16	6
9	78-50141-09	Solenoid base plate	1
10	78-50141-10	Battery wire set plate	1
11	78-50141-11	Black cable	1
12	78-50141-12	Short yellow cable	1
13	78-50141-13	Short red cable	1
14	78-50141-14	Long red cable	1
15	78-50141-15	Short green cable	1
16	78-50141-16	Solenoid	1
17	78-50141-17	Screw M5	2
18	78-50141-18	Solenoid Assembly (Top cover)	1
19	78-50141-19	Coupling	1
20	78-50141-20	Brake Assembly	1
21	78-50141-21	Screw M4×12	8
22	78-50141-22	Spring Washer	8
23	78-50141-23	End Bearing	1
24	78-50141-24	Spring Washer	4

25	78-50141-25	Screw M8×25	4
26	78-50141-26	Gasket	1
27	78-50251-27	Gear Carrier Assembly output	1
28	78-50251-28	Gear Carrier Assembly intermediate	1
29	78-50251-29	Gear Carrier Assembly input	1
30	78-50251-30	Gear input sun	1
31	78-50141-31	Washer	1
32	78-50141-32	Gear Bushing	1
33	78-50141-33	Gear Ring input/intermediate	1
34	78-50141-34	Wear-resistant strip	2
35	78-50141-35	Screw	1
36	78-50141-36	Spring Washer	1
37	78-50141-37	Gear box	1
38	78-50141-38	O-ring	1
39	78-50141-39	X seal ring	1
40	78-50141-40	Seal ring cover	1
41	78-50141-41	Clutch Handle	1
42	78-50141-42	Long black cable	1
43	78-50141-43	Switch Assembly	1
44	78-50141-44	Hawse Fairlead	1
45	78-50141-45	Hand strap	1
46	78-50141-46	Safety Hook	1
47		Screw M10×30	4
		Spring Washer	4
		Flat washer	6
		Screw	2
		Screw M10×30	2

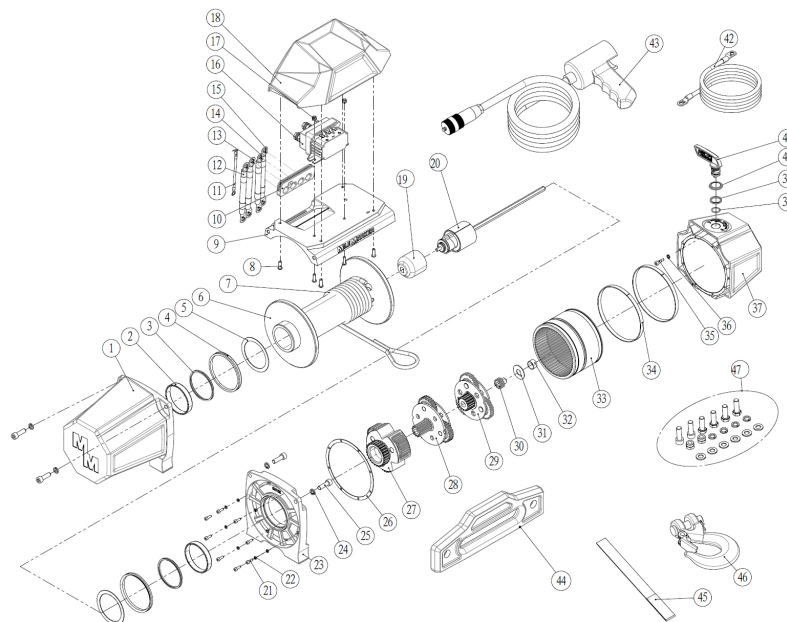


PARTS BREAKDOWN & ASSEMBLY

MISSION SERIES 10K

Mission winch 10K Parts Winch Kit 78-53246

ITEM		DESCRIPTION	QTY
1	78-50141-01	Motor	1
2	78-50141-02	Dry Bearing	2
3	78-50141-03	X-ring	2
4	78-50141-04	Seal	2
5	78-50141-05	Gasket	2
6	78-50246-06	Drum Assembly	1
7	78-50141-07	Synthetic Rope	1
8	78-50141-08	Screw M5×16	6
9	78-50141-09	Solenoid base plate	1
10	78-50141-10	Battery wire set plate	1
11	78-50141-11	Black cable	1
12	78-50141-12	Short yellow cable	1
13	78-50141-13	Short red cable	1
14	78-50141-14	Long red cable	1
15	78-50141-15	Short green cable	1
16	78-50141-16	Solenoid	1
17	78-50141-17	Screw M5	2
18	78-50141-18	Solenoid Assembly (Top cover)	1
19	78-50141-19	Coupling	1
20	78-50141-20	Brake Assembly	1
21	78-50141-21	Screw M4×12	8
22	78-50141-22	Spring Washer	8
23	78-50141-23	End Bearing	1
24	78-50141-24	Spring Washer	4
25	78-50141-25	Screw M8×25	4
26	78-50141-26	Gasket	1
27	78-50246-27	Gear Carrier Assembly output	1
28	78-50246-28	Gear Carrier Assembly intermediate	1
29	78-50246-29	Gear Carrier Assembly input	1
30	78-50246-30	Gear input sun	1
31	78-50141-31	Washer	1
32	78-50141-32	Gear Bushing	1
33	78-50141-33	Gear Ring input/intermediate	1
34	78-50141-34	Wear-resistant strip	2
35	78-50141-35	Screw	1
36	78-50141-36	Spring Washer	1
37	78-50141-37	Gear box	1
38	78-50141-38	O-ring	1
39	78-50141-39	X seal ring	1
40	78-50141-40	Seal ring cover	1
41	78-50141-41	Clutch Handle	1
42	78-50141-42	Long black cable	1
43	78-50141-43	Switch Assembly	1
44	78-50141-44	Hawse Fairlead	1
45	78-50141-45	Hand strap	1
46	78-50141-46	Safety Hook	1
47		Screw M10×30	4
		Spring Washer	4
	78-50141-47	Flat washer	6
		Screw	2
		Screw M10×30	2



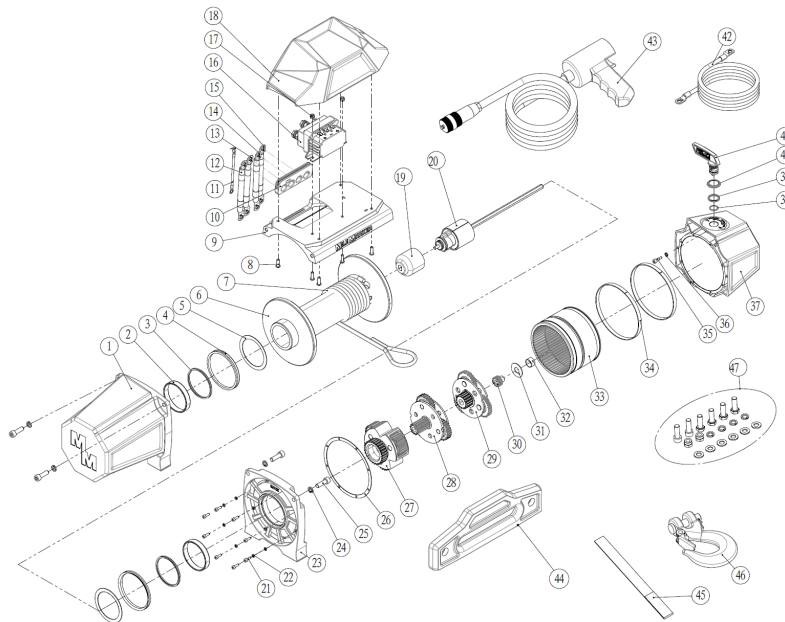
PARTS BREAKDOWN & ASSEMBLY



Mission winch 8K Parts List Winch Kit 78-53141

ITEM		DESCRIPTION	QTY
1	78-50141-01	Motor	1
2	78-50141-02	Dry Bearing	2
3	78-50141-03	X-ring	2
4	78-50141-04	Seal	2
5	78-50141-05	Gasket	2
6	78-50141-06	Drum Assembly	1
7	78-50141-07	Synthetic Rope	1
8	78-50141-08	Screw M5×16	6
9	78-50141-09	Solenoid base plate	1
10	78-50141-10	Battery wire set plate	1
11	78-50141-11	Black cable	1
12	78-50141-12	Short yellow cable	1
13	78-50141-13	Short red cable	1
14	78-50141-14	Long red cable	1
15	78-50141-15	Short green cable	1
16	78-50141-16	Solenoid	1
17	78-50141-17	Screw M5	2
18	78-50141-18	Solenoid Assembly (Top cover)	1
19	78-50141-19	Coupling	1
20	78-50141-20	Brake Assembly	1
21	78-50141-21	Screw M4×12	8
22	78-50141-22	Spring Washer	8
23	78-50141-23	End Bearing	1
24	78-50141-24	Spring Washer	4

25	78-50141-25	Screw M8×25	4
26	78-50141-26	Gasket	1
27	78-50141-27	Gear Carrier Assembly output	1
28	78-50141-28	Gear Carrier Assembly intermediate	1
29	78-50141-29	Gear Carrier Assembly input	1
30	78-50141-30	Gear input sun	1
31	78-50141-31	Washer	1
32	78-50141-32	Gear Bushing	1
33	78-50141-33	Gear Ring input/intermediate	1
34	78-50141-34	Wear-resistant strip	2
35	78-50141-35	Screw	1
36	78-50141-36	Spring Washer	1
37	78-50141-37	Gear box	1
38	78-50141-38	O-ring	1
39	78-50141-39	X seal ring	1
40	78-50141-40	Seal ring cover	1
41	78-50141-41	Clutch Handle	1
42	78-50141-42	Long black cable	1
43	78-50141-43	Switch Assembly	1
44	78-50141-44	Hawse Fairlead	1
45	78-50141-45	Hand strap	1
46	78-50141-46	Safety Hook	1
47		Screw M10×30	4
		Spring Washer	4
	78-50141-47	Flat washer	6
		Screw	2
		Screw M10×30	2



WARRANTY

Warranty registration must be submitted at MileMarker.com/warranty within 30 days of purchase by the end user. If you discover a hidden defect, Mile Marker Industries, Inc. will, as its option, repair or replace the product or necessary replacement parts at no charge to you, if you return it prepaid to Mile Marker Industries, Inc. at 2121 Blount Road Pompano Beach, FL 33069. If the product was purchased in the United States, the owner must contact our warranty department to get a Return Goods Authorization (RGA) number before returning the product. If the product was purchased outside the United States, the owner must return the product to the original place of purchase.

Mile Marker Industries, Inc. Electric Winch Limited Two Year Warranty

Mile Marker Industries offers a limited two year warranty to the original retail purchaser for each new Mile Marker electric winch, used as a recreational recovery winch only, against manufacturing defects in workmanship and materials on all mechanical components. Electrical components consisting of motors, solenoids, wiring, wire connectors and associated parts have a limited one year warranty. New cable assemblies are warranted against defects in workmanship and materials when received by the retail purchaser. There is no applicable warranty for cable assemblies after initial use. Excluded from this warranty are the finish of the winch and any condition Mile Marker determines to have been caused by misuse or abnormal use. Warranty registration must be submitted at milemarker.com/warranty within thirty days by the end user. Warranty submissions must reference winch serial number to be valid. Warranty will only be valid for the original purchaser of the winch and installed on the vehicle for which it was originally registered. The owner will be responsible for removing the winch and returning it to Mile Marker freight prepaid unless a determination is made that replacement parts can be sent out which will remedy the problem. Mile Marker will repair or replace any or all winch parts, which after inspection determines to be defective. If the product was purchased in the United States, the owner must contact our warranty department to get a Return Goods Authorization (RGA) number before returning the product. If the product was purchased outside the United States, the owner must return the product to the original place of purchase.

For full warranty and general warranty policies and procedures, please visit MileMarker.com/warranty.



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