

OWNERS GUIDE



12V / 24V DC ELECTRIC WINCH.

12,000lb (6124kg)

TWO SPEED

VERY IMPORTANT

**IT IS ESSENTIAL THAT YOU READ AND UNDERSTAND THIS GUIDE BEFORE INSTALLING
AND OPERATING YOUR WINCH**

WINCHMAX UK

WWW.WINCHMAX.CO.UK

Thank you for buying a WINCHMAX brand winch. By using this product within its limitations and in accordance with the instructions provided you can expect many years of trouble free service.

IMPORTANT

PLEASE READ AND UNDERSTAND THIS ENTIRE MANUAL BEFORE INSTALLING AND OPERATING THIS PRODUCT – FAILURE TO DO SO COULD RESULT IN DAMAGE TO PROPERTY, SERIOUS INJURY OR DEATH. UNDERTAKE A FULL SAFETY CHECK AND RISK ASSESSMENT PRIOR TO EACH USE.

Whilst we have attempted to provide comprehensive guidance for the safe operation of this winch it remains the operator's responsibility to evaluate and minimise the potential risk prior to and during each and every operation.

1. WARNINGS AND GENERAL SAFETY INFORMATION

- No loose clothing or jewellery should be worn to prevent entanglement in moving parts.
- Good quality overalls, non-slip protective footwear, thick leather gloves and eye protection should be worn.
- It is the operator's responsibility to ensure he/she and all spectators remain at a safe distance. For spectators this should be at least 1.5 times the rope length being used. Never stand between the winch and the load.
- Check your winch thoroughly, including all electrical connections before use. Any damaged parts should be replaced, using only genuine parts.
- If a wire rope breaks or pulls loose under load it can lash back with significant force. We recommend using a heavy winch blanket / damper draped over the rope towards the hook end to reduce whiplash in the event of rope failure. (The vehicle bonnet can also be raised to provide additional protection when operating from inside a vehicle)
- Protect the winch from shock loads - do not allow the winch rope to be yanked by a rolling load or moving vehicle. Never drive your vehicle to assist the winch in any way.
- Do not use to tow vehicles
- Do not submerge winch
- Do not use winch if rope is frayed or damaged.
- Never handle the hook directly, always use hand saver tab and protective gloves.
- Never hook the winch rope back on itself.
- Always electrically isolate the winch when not in use.

- Do not use the winch as a hoist or for overhead lifting. Do not use winch to lift, support or move personnel.
- Always ensure winch rope re-spools in tight and even wraps on the drum, do not allow cable bunching.
- Never attempt to use synthetic rope with a roller fairlead designed for wire rope.
- Never approach the winch, hook or cable if someone else is at the controls.
- Always be certain the anchor point can withstand the load and will not slip.
- Protect the wireless remote from any possibility of accidental operation.
- Never leave the wander lead connected when not in use, protect the wander lead cable from damage or entrapment in the cable drum.

2 PHYSICAL INSTALLATION:

WARNING: correct installation of your winch is vital for correct and safe operation

When unpacking, make sure that the item is intact and undamaged. If any part are missing or damaged, please contact your supplier immediately.

- a) Install a suitable mounting bumper or mounting plate in the required position (For the purpose of these instructions we are describing installation using a WINCHMAX mounting plate sold separately and illustrated in FIG A.) NOTE: The winch must be mounted with the direction of pull perpendicular to the mounting bolt fixings and the mounting point on the vehicle must be capable of withstanding the maximum rated pull of the winch.
- b) Mount the fairlead (rollers if the winch is fitted with steel wire rope, or aluminium hawse if the winch is fitted with Dyneema synthetic rope) to the upstand of the mounting plate using supplied bolts, nuts and washers.

Item	Description	QTY
1	WINCH BODY	1
2	MOUNTING PLATE (OPTIONAL)	1
3	SQUARE NUT M10	4
4	WASHER M12	2
5	SPRING WASHER M12	2
6	HIGH TENSILE HEX BOLT M12 (8.8)	2
7	ROLLER FAIRLEAD (OR HAWSE FAIRLEAD)	1
8	HIGH TENSILE HEX BOLT M10 (8.8)	4
9	WASHER M10	4
10	SPRING WASHER M10	4
11	HEX NUT M12	2

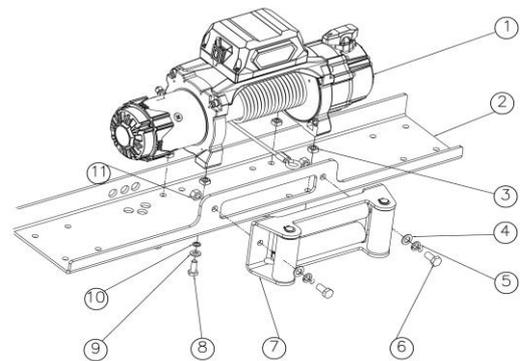
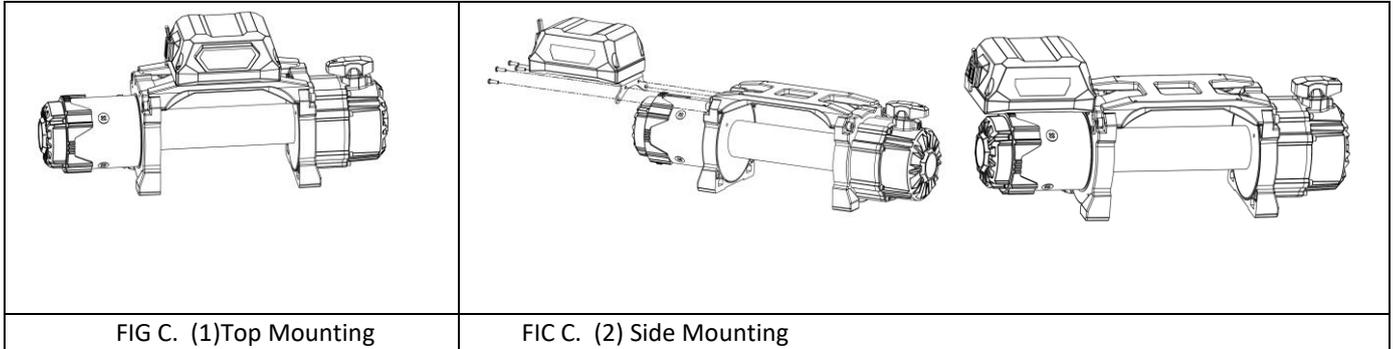


Fig A.

- c) Mount the winch to the mounting plate using supplied bolts, square nuts and washers, tighten the mounting bolts to a torque of 60Nm (45ft lb).
- d) The supplied bolts are the correct length for installation on a 5-7mm plate. Other thicknesses may require bolts of a different length. The required criteria are that the bolts are at least 8.8 grade high tensile, the thread length should be sufficiently long to fully engage the square nut but must not bottom out on the top of the pocket in the winch frame.
- e) Feed the hook end of the wire rope from the drum through rollers to the front and attach the clevis hook OR if installing with a synthetic rope with fixed competition hook, feed the drum end of the synthetic rope through the hawse from the front and attach to the drum using the Allen head cap screw finger tight only, ready for spooling onto the drum.

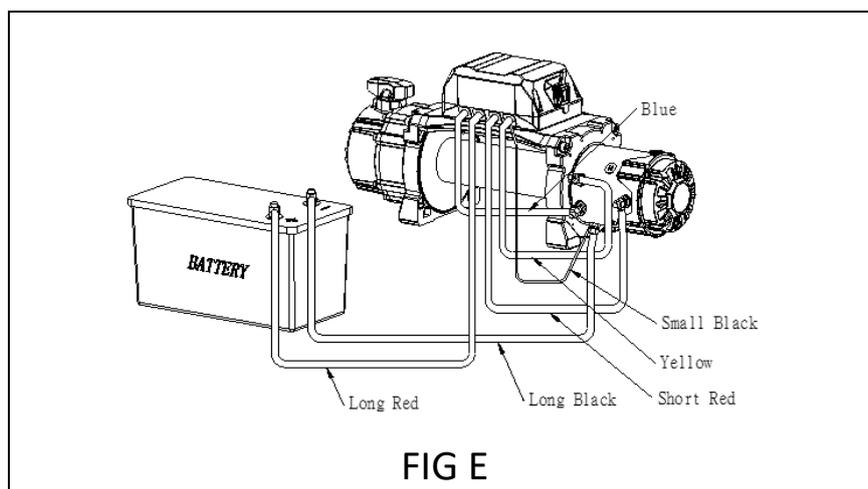
2.3 Mounting the control box (recommended before fitting winch to vehicle)

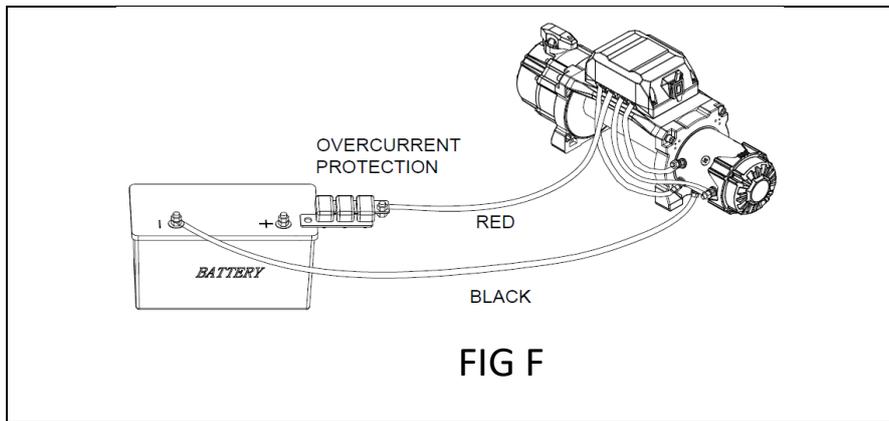
- When mounting on a 4x4 with a possibility of deep water wading it is good practice to remote mount the control box up under the bonnet to protect the electrics from water (longer cables may be required).
- **The control box can be mounted in two positions on the winch: (FIG C).**



3 ELECTRICAL INSTALLATION

- Ensure your battery is in good condition and can provide a minimum of 650 CCA.
- Route the supplied battery leads (long red lead from control box = Positive / separate long black lead = Negative) directly to the battery location, ensure that the cable is protected throughout its run from heat and abrasion against sharp components. Do not connect at this stage.
- Connect the negative battery lead to the winch motor earth terminal (never use a chassis earth).
- Connect the remaining cables from the control box to the motor observing the colour coded boots on the cable and corresponding colour coded collars on the motor terminals.
- Ensure that the small earth wire from the control box (this is the earth supply to the contactor) is connected to the main battery fed earth terminal on the underside of the motor (do not attempt to use a chassis earth).
- When you are satisfied that all other connections are correctly installed connect the battery leads to the battery (via a isolator switch and overload cut (see FIG F) out if being used).
- Please refer to Fig E in conjunction with the above.





Notes

- If you need to extend the cables, use minimum 40mm² flexible welding cables.
- Always fit a battery isolator switch to the positive supply line to allow for emergency stop and to prevent unintentional starting and to protect the winch if vehicle is jump started.
- All earth connections must be fed from the battery, never attempt to use a chassis earth.
- Check all connections are secure and protect from corrosion with petroleum jelly or similar.
- If there is an overload circuit breaker supplied please mount this in line with the positive supply (fix one end to battery terminal, and connect the positive supply lead to the winch on the other).
- In corrosive or damp conditions use petroleum jelly or silicone sealant to protect all connections from corrosion.

Remote Control

- The remote control is a combined wired / wireless unit in one with a removable lead.
- Once the winch has been set-up then the remote hand control can be operated either in the WIRED OR WIRELESS mode.
- It is recommended that for the initial set-up of the winch (prior to applying any load) that the winch be operated in the WIRED mode.
- Take care when inserting the wireless remote plug into the control box socket, you must line up the socket end (Fig. G) with the groove in the socket (Fig. H).
- To use the remote hand controller in the WIRELESS mode remove the control cable from the control box, unplug the remote hand controller from the control cable and press the MODE button on the remote hand controller until the green light marked WIRELESS is illuminated.
- Make sure winch remote indicator light is in correct mode before using.
- Use the thumb switch to operate the winch 'IN' or 'OUT'.



FIG G



FIG H



4 SPOOLING THE ROPE

- We recommend the use of an assistant when spooling the rope.
- Spooling should be undertaken on a large open and level area.
- First lay out the rope in front of the vehicle ensuring there are no twists or kinks.
- With the winch clutch disengaged, feed the drum terminal through the front of the roller / hawse fairlead and connect to the drum using the button head Allen screw provided, this should be finger tight only so that the ring terminal can rotate if necessary.
- Attach the hook end to a suitable anchor point and position the vehicle so there is at least 3m of slack on the rope. Apply the vehicle hand brake.
- Holding the rope with gloved hands and at least 5m back from the winch apply as much pressure as you can by leaning your body weight against the rope and walking towards the winch whilst using the wired remote to wind in. Ensure that each wrap lays tightly next to the other until the rope tensions against the anchor point. There should be at least 6 wraps around the drum.
- The rope must be wound onto the drum from the bottom of the drum.
- Using the wired remote and whilst gently applying the vehicle foot brake to maintain tension, use the winch to pull the vehicle towards the anchor point.
- During the operation, regularly stop the winch, apply the handbrake to maintain tension and check the rope is spooling on evenly to the winch.
- If you have an assistant, they should remain in the vehicle to operate the brake, whilst you maintain control of the winch from outside the vehicle and using the wired remote.
- When the rope is all but approx. 3m spooled in, using the hand save to hold the hook, reverse the winch slightly to allow the hook to be released.
- Maintaining tension on the rope, pulse the remote to take in the remaining rope and then anchor the hook onto a suitable mounting point on the vehicle.

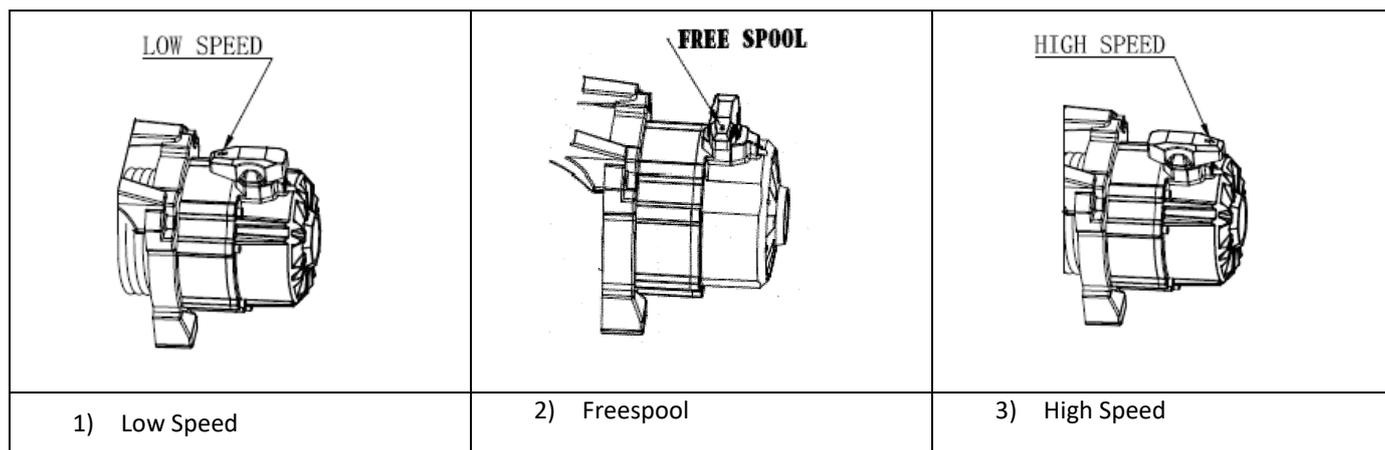
Notes

- It is important to understand that it is the first 6-8 tight wraps around the drum and NOT the drum terminal fixing point that allow the wire or synthetic rope to grip onto the drum.

- The drum terminal crimped onto the cable and its fixing onto the drum are not load bearing, it is just designed to allow the cable to be wound on under sufficient load for it to wrap tightly onto the drum.
- When wire rope is new it is greasy and springy and can easily unwind on the drum if tension is ever released.
- If the outer wraps of a wire rope do 'unwind' then you must pull the whole rope out and re-spool under tension. Failure to observe this will result in failure of the drum fixing.

5 WINCH OPERATION

- Ensure vehicle is secure by applying parking brake or chocking wheels.
- Power out (for short distance) or free-spool the cable out and connect to a suitable anchor point
- Re-check all cable rigging before commencing.
- Plug in the winch hand controller and switch on the battery isolator if fitted. Feed the hand controller around the front of the vehicle and through the driver's window.
- To commence winching, start the vehicle engine and with the transmission in neutral operate the winch whilst guiding the path of the winch with the vehicle steering until free.
- You must ensure that the cable winds evenly onto the drum. Acute angle winching can result in rope bunching on the drum which could break out the winch cross bars.
- When the operation has been completed, the rope should be pulled out and re-spoiled neatly under tension for next use.
- The gearbox handle has two three positions (see diagrams below). 1) 'Low Speed' - for all winching operations under load. 2) - 'Disengaged' / 'Freespool' for free pulling of the winch cable. 3) - 'High Speed' for rapid deployment and recovery of the winch cable under LOW LOAD ONLY (< 2000lb).



Notes

- Your winch is not designed to be used continuously but instead to provide the high load short duration pulls required to recover an off road vehicle from difficulty. Duty cycle is 5% (50 sec Max load, 15min rest)
- Never allow the winch motor to stall.

- Whenever you work your winch it will generate heat in the motor, high loading and/or long or repeated operation can cause the motor to overheat. Always monitor motor temperature; if the motor becomes too hot to comfortably hold your bare hand on stop operation immediately and allow to cool before further use.
- Do not exceed the maximum rated load of your winch.
- We recommend the use of a snatch block and double line technique for any loads exceeding 50% of winch rating. Always anchor hook back to suitable chassis fixing not the winch mounting plate.
- Keep the vehicle engine running while winching to maintain battery charge.
- A minimum of 6 tight wraps on the drum must be maintained to prevent failure of drum fixing. Do not pull wire rope out past the red marking.
- Do not disengage the clutch while under load.
- Do not re-engage clutch while winch is running.
- Never drive your vehicle to assist the winch in any way.

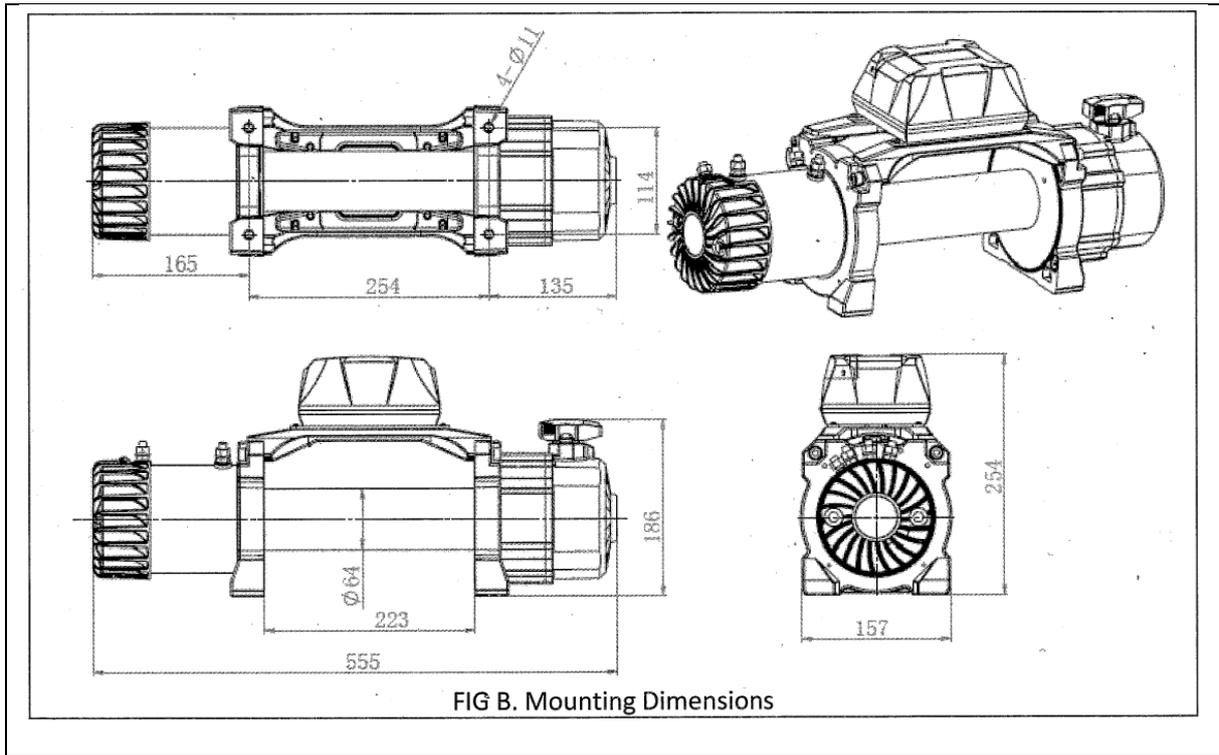
6 **MAINTAINING YOUR WINCH**

- The winch should be operated at least once a month: Power out approx. 10m of cable, free spool 5m, then power back in under minimum 100kg load.
- Replace remote control batteries every 12 months or when exhausted.
- Keep protective cover in place when not in use.
- All moving parts are permanently lubricated with grease and with normal use do not need greasing for the life of the winch.
- Clean your winch after use, use only low pressure water and a brush to rinse off any dirt.
- Once dry you should use a light spray oil to coat the winch and wire rope before installing the winch cover.
- Winch should not be immersed in dirty water.
- Replace damaged steel rope or any damaged components before next use.

7 **MAINTAINING SYNTHETIC ROPE**

- Do not allow rope to contact sharp or abrasive objects
- Winch should not be immersed in dirty water.
- Do not expose to strong detergents, fuels, oils or anti-freeze solutions.
- After use; pull out rope, wash, dry and carefully re-spool onto drum.

SPECIFICATION



Waterproof:	IP67 Rating for winch body	Fairlead:	4-Way Roller
Rated Max Line Pull:	12,000Lbs(5455kgs) single-line	Remote Control:	Integrated wireless and wired remote Included
Motor:	6.6hp Series Wound	Recommended Battery:	650CCA Minimum for Winching
Control:	Remote Switch, 12' (3.7m) lead	Battery Leads:	25mm ² x 72" (1.83m)
Gear Train:	3-Stage Planetary	Finish:	Textured Orange
Gear Ratio:	230:1 Low Speed 115:1 High Speed	Weight:	92.0Lbs (42.0Kgs)
Clutch:	Freespooling Sliding Ring Gear	Mounting Bolt Pattern:	10.0" (254mm) x 4.50" (114mm)
Brake:	Automatic Full Load Holding (no drum heating)	Overall Dimension	L 555 x W 157 x H 254 mm
Drum Size:	Diameter 2.5" (63mm) Length 8.8" (223mm)	Cable:	78' (24m) x 3/8" (9.5mm) Diameter

Performance Data at Low Speed (Gear Ratio: 230.4:1)

Line Pull,lbs(kgs)	Line Speed,ft(m)	Motor(Amps)
0	33.7 (10.3)	79
3000 (1362)	11.5 (3.5)	177
6000 (2724)	8.0 (2.4)	259
9000 (4086)	5.8 (1.8)	330
12000 (5448)	3.9 (1.2)	425

Performance Data at High Speed (Gear Ratio: 115.2:1)

Line Pull,lbs(kgs)	Line Speed,ft(m)	Motor(Amps)
0	64.2 (19.6)	80

Above performance specs are based on first layer of drum

Layer	Rated Line Pull,lbs(kgs)	Total Rope On Drum,ft(m)
1	12000 (5455)	17.6 (5.4)
2	9530 (4332)	37 (11.4)
3	7920 (3600)	63 (19.4)
4	6770 (3077)	88 (26.8)