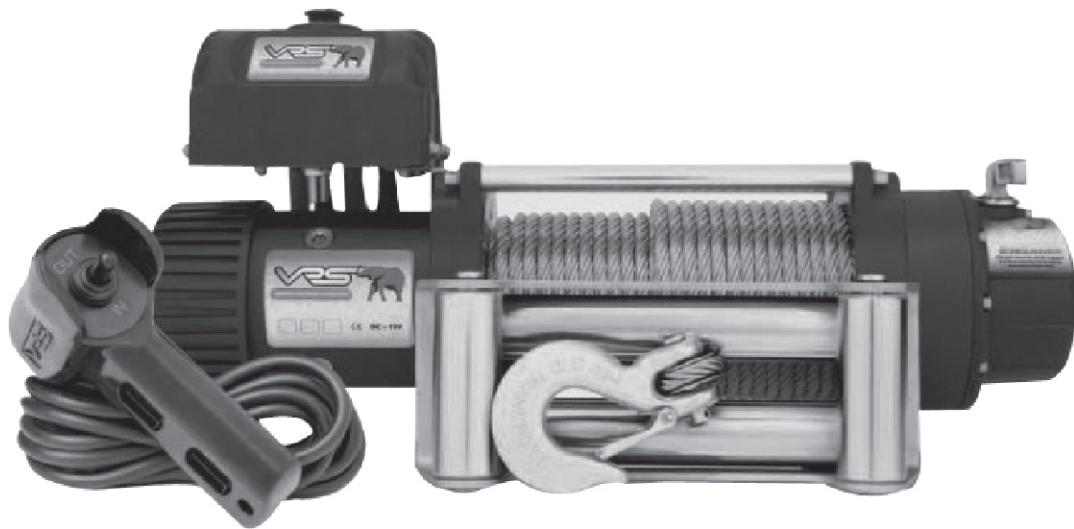




- **STRONG**
- **POWERFUL**
- **RELIABLE**

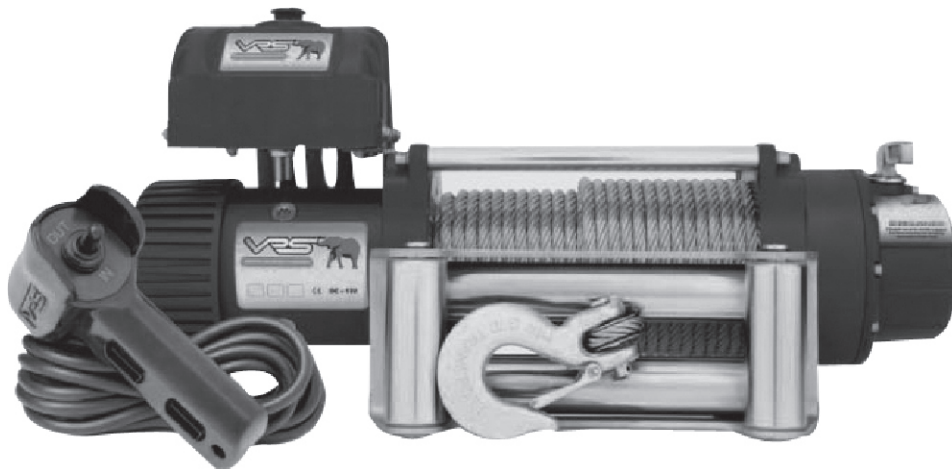
For V9500/V9500S & V12500/V12500S



VRS WINCH COMPANY OWNER'S MANUAL

Thank you for choosing a VRS Winch. Please read this manual carefully to obtain ideas on how to operate your winch safely and effectively.

Safe installation and operation of this winch is your responsibility. Careless operation can result in serious injury or property damage.



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⚠ CAUTION

Safe installation and operation of this winch is your responsibility.
Use caution at all times.

SPECIFICATIONS

V9500 (9500lb)

RATED LINE PULL:	9500lbs(4310kgs) single line
MOTOR	Series wound 5.3hp/3.9kw,12V DC
GEAR TRAIN	3 stage planetary
GEAR RATIO	216:1
CLUTCH	Sliding ring gear
BRAKING ACTION	Automatic in the drum
BATTERY	Recommended 650 CCA minimum for winching
BATTERY LEAD	25mm, 72" (1.83m) length
FAIRLEAD	4-Way Roller fairlead/offset Aluminum Hawse Fairlead*
WIRE ROPE	5/16" X 100' (8.3mmX30m)
SYNTHETIC ROPE*	3/8"X100' (9.5mmX30m)
DRUM SIZE	2.5"X 8.8" (64mmX224mm)
DIMENSIONS	22"X6.6" X 7.6" (558mmX168mmX192mm)
MOUNTING BOLT PATTERN	10"X4.5" (254mmX114.3mm)
N.W.(Wire Rope Version)	86 lb (39 kg)
N.W.(Synthetic Rope Version)	68 lb (31 kg)

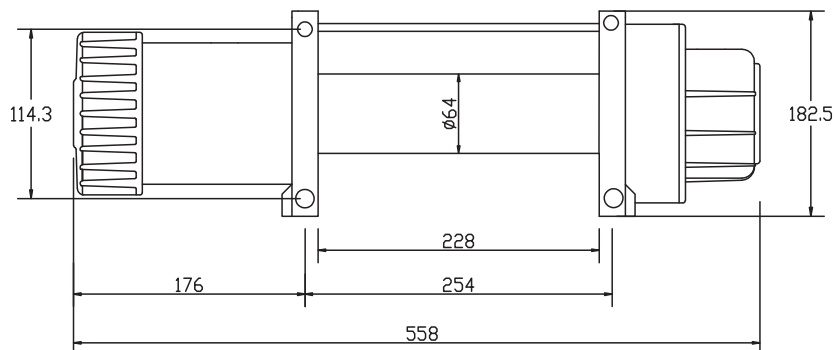
*Specifications for winches with synthetic ropes

PULL, SPEED, AMPS

Line Pull Lbs.(kgs)	Line Speed Ft./min.(m/min.)	Current A
0	35.4(10.8)	80
2000(907)	14.76(4.5)	160
4000(1814)	12.14(3.7)	220
6000(2722)	9.79(2.98)	280
8000(3629)	8.53(2.6)	320
9500(4310)	7.2(2.2)	360

LINE PULL AND ROPE CAPACITY IN LAYER (Wire Rope Version)

Layer	Rated Line Pull lb(kg)	Total Rope on Drum ft(m)
1	9500(4310)	19.6(6)
2	8000(3629)	43(13.2)
3	7200(3266)	72(22)
4	6000(2994)	100(30)





V12500 (12500lb)

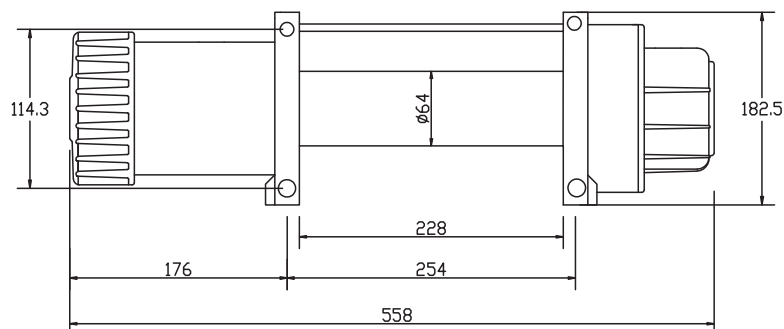
RATED LINE PULL	12500lbs(5670kgs) single line
MOTOR	Series wound 5.3hp/3.9kw, 12VDC
GEAR TRAIN	3 stage planetary
GEAR RATIO	273:1
CLUTCH	Sliding ring gear
BRAKING ACTION	Automatic in the drum
BATTERY	Recommended 650CCA minimum for winching
BATTERY LEAD	25mm, 72"(1.83m)length
FAIRLEAD	4-Way Roller fairlead/offset Aluminum Hawse Fairlead*
WIRE ROPE	3/8" X 85' (9.5mmX26m)
SYNTHETIC ROPE*	7/16" X 79' (11mmX24m)
DRUM SIZE	2.5"X8.8"(64mmX224mm)
DIMENSIONS	22"X6.6"X7.6" (558mmX168mmX192mm)
MOUNTING BOLT PATTERN	10"X4.5"(254mmX114.3mm)
N.W. (Wire Rope Version)	90 lb (41kg)
N.W. (Synthetic Rope Version)	75 lb (34kg)

PULL, SPEED, AMPS

Line Pull Lbs.(kgs)	Line Speed Ft./min.(m/min.)	Current A
0	35.4(10.8)	80
4000(1814)	9.19(2.8)	180
6000(2722)	7.55(2.3)	210
8000(3629)	6.89(2.1)	250
10000(4536)	6.23(1.9)	290
12500(5670)	5.58(1.7)	340

Line pull and cable capacity (wire rope version)

Layer of cable	Rated Line Pull per layer lb(kg)	Cable capacity per layer ft(m)
1	12500(5670)	17.6(5.4)
2	10000(4536)	37(11.4)
3	8600(3629)	63(19.4)
4	7500(3402)	85(26)





SAFETY INFORMATION

CAUTION

Safe installation and operation of this winch is your responsibility. Use caution at all times.

CAUTION

This winch has very high line speeds. Use extreme caution during spooling operations.

WARNING

Read, study and understand this manual before installing or operating this winch.

Do not exceed maximum line pull ratings.

Never allow shock loads to be applied to the winch or wire rope. A shock load can occur when an increased force is suddenly applied to the wire rope.

Keep winching area clear of objects and persons. Stand clear of wire rope, hook and fairlead opening during operation.

Do not step over or near a wire rope under load.

To hold the rated load, a minimum of (5) wraps of wire rope around the drum barrel is necessary. The wire rope clamp IS NOT designed to hold the load.

NEVER touch wire rope or hook while in tension.

NEVER put your finger through the hook. This can cause serious injury if trapped.

NEVER guide the wire rope onto the drum with your hand.

ALWAYS use heavy leather gloves when working with wire rope to protect hands from burrs. Do not let wire rope slide through your hands, even when wearing gloves.

Dress properly. Don't wear loose clothing or jewelry that could get caught in moving parts. Non-skid footwear is recommended.

Use supplied hook strap when handling hook during spooling operation.

LET THE WINCH DO THE WORK ! Do not move the vehicle to help pull a load on the wire rope. This could break the wire rope or damage the winch.

Use wheel blocks when vehicle is on an incline.

The winch wire rope has a painted red warning indicator on the barrel end of the rope. This warns you that the wire rope has less than 5 turns remaining. No recovery should be attempted beyond red paint marking. The red paint may wear during normal use. If this occurs, repaint area to maintain this important safety feature.

Winch clutch should be disengaged when winch is not in use and fully engaged when in use. NEVER release the winch clutch when there is a load on the winch.

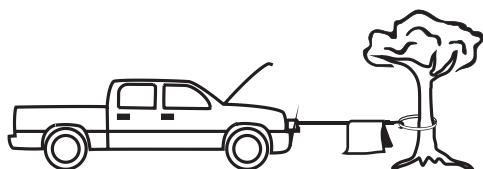
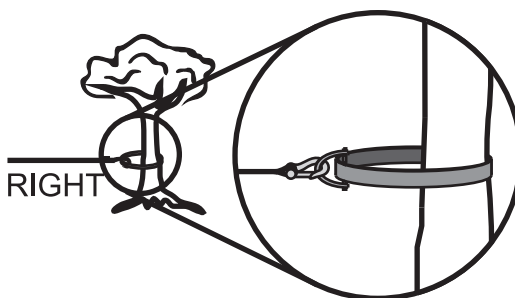
Inspect the winch installation and wire rope frequently. If wire rope is frayed, replace immediately. Use only VRS replacement parts. (See replacement parts list). The use of another manufacturer's part could cause damage and/or injury and could void the warranty.

SAFETY INFORMATION CONT'D

⚠ WARNING

Altering or modifying the winch (ie. machining or welding) in any way, will void the warranty.

NEVER hook the wire rope back onto itself. This could damage the wire rope. A tree saver is recommended.



⚠ WARNING

Ensure rated "Bow Shackle" is used in conjunction with approved tree saver to provide a safe connection and anchor point.

When pulling heavy loads, put a damper, blanket or other heavy material over the wire rope near the hook end. If the wire rope should fail for any reason, there will be a barrier to help the rope from whipping and causing injury. Raise the hood of the vehicle for extra protection.

⚠ WARNING

Electric winches are for intermittent use only. They should not be used in constant duty applications. Keep the duration of your pulls to no more than one minute in length at or near rated load. The shorter the pull, the better. If motor becomes hot to the touch, shut off and let cool down for 10 minutes. Do not maintain power to the winch if the motor stalls.

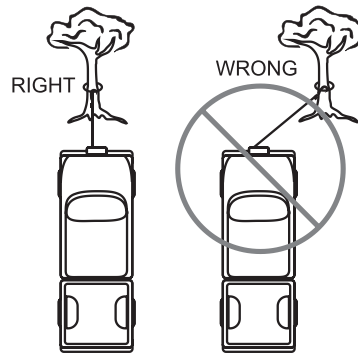
For loads over 1/2 rated capacity, use a pulley block to double line the wire rope. This will reduce the load on the winch and up to 50% of the strain on the wire rope. Attach to the frame or other load bearing part.



SAFETY INFORMATION CONT'D

Keep your vehicle engine running during winch operation. This will maximise winch power and speed and help eliminate drain on the battery.

Avoid continuous pulls from extreme angles. This can cause the wire rope to bunch at one end of the drum resulting in damage to the wire rope or winch.



Any additional equipment used in the operation of your winch, such as straps, hooks, pulley blocks, etc., should be the proper size and capacity for the job. They should also be frequently inspected for damage or wear.

Always store the remote control assembly in a safe, dry place away from children to avoid unauthorised use and potential injury.

If working near the fairlead or winch drum, always unplug the remote control. This ensures that the winch cannot be started accidentally.

WARNING

To move a load, set vehicle in neutral, set parking brake and chock all wheels.
Slowly take up the wire rope slack until taut.
Stop and recheck all connections such as hooks and nylon slings.
Do not use the winch to hold a load in place.
To secure a load properly, use of tie down straps is recommended.
Either incorrect connection could result in winch burnout or fatal shock.
NEVER operate a winch when under the influence of alcohol, drugs or medication.



WINCH INSTALLATION

⚠ WARNING

Improper mounting can cause personal injury. It can also damage your winch and void the warranty.

⚠ CAUTION

Batteries with 650 cold-cranking amperes capacity are the minimum recommended power sources.

⚠ CAUTION

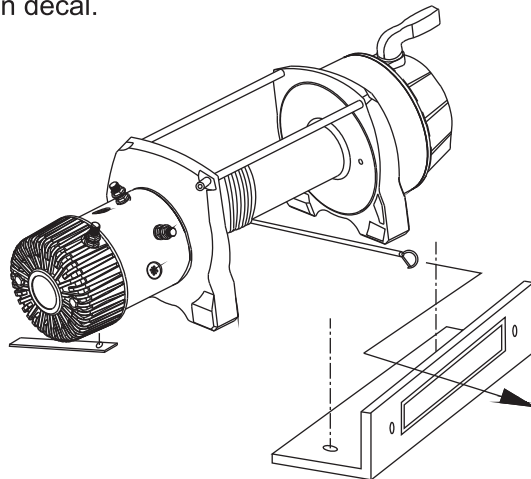
The winch electrical system should always be isolated when the winch is not in use.

Mounting Your Winch

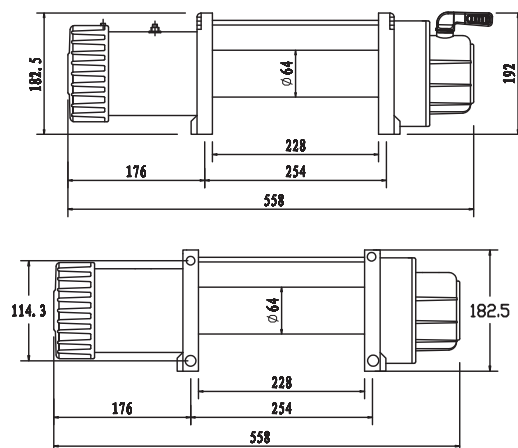
The winch in this manual is exclusively designed to be mounted on a vehicle for non-industrial applications. Any other applications will void the warranty.

Choose a location to mount the winch that is strong enough to withstand the loads you intend to winch. It must be mounted on a flat surface so the motor end, drum and gear housing end are properly aligned.

The diagram below shows proper orientation for safe winching. The wire rope must always spool onto the drum as shown on the drum rotation decal.



1. Install the mounting kit or structural support for the winch.
2. The dimensions below will assist you in creating a safe mounting plate. A poorly designed mount may void the warranty.
3. The mounting plate should be a minimum of ¼" thick (6.3mm). The ends of the mounting bolts must not bottom out on the winch frame.



WINCH INSTALLATION CONT'D

! WARNING

Use protective eyewear during installation.

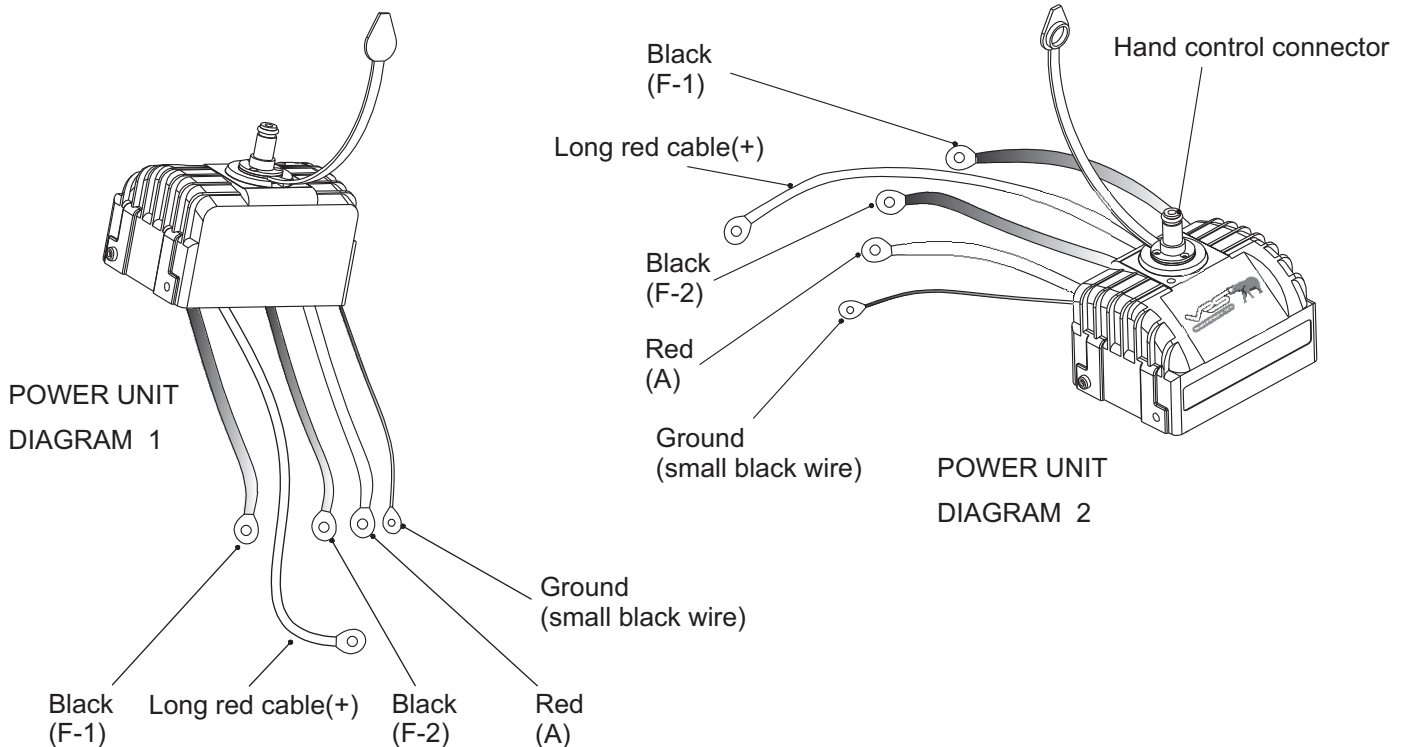
! CAUTION

Do not substitute any strength grade hardware weaker than SAE Grade 8.

! CAUTION

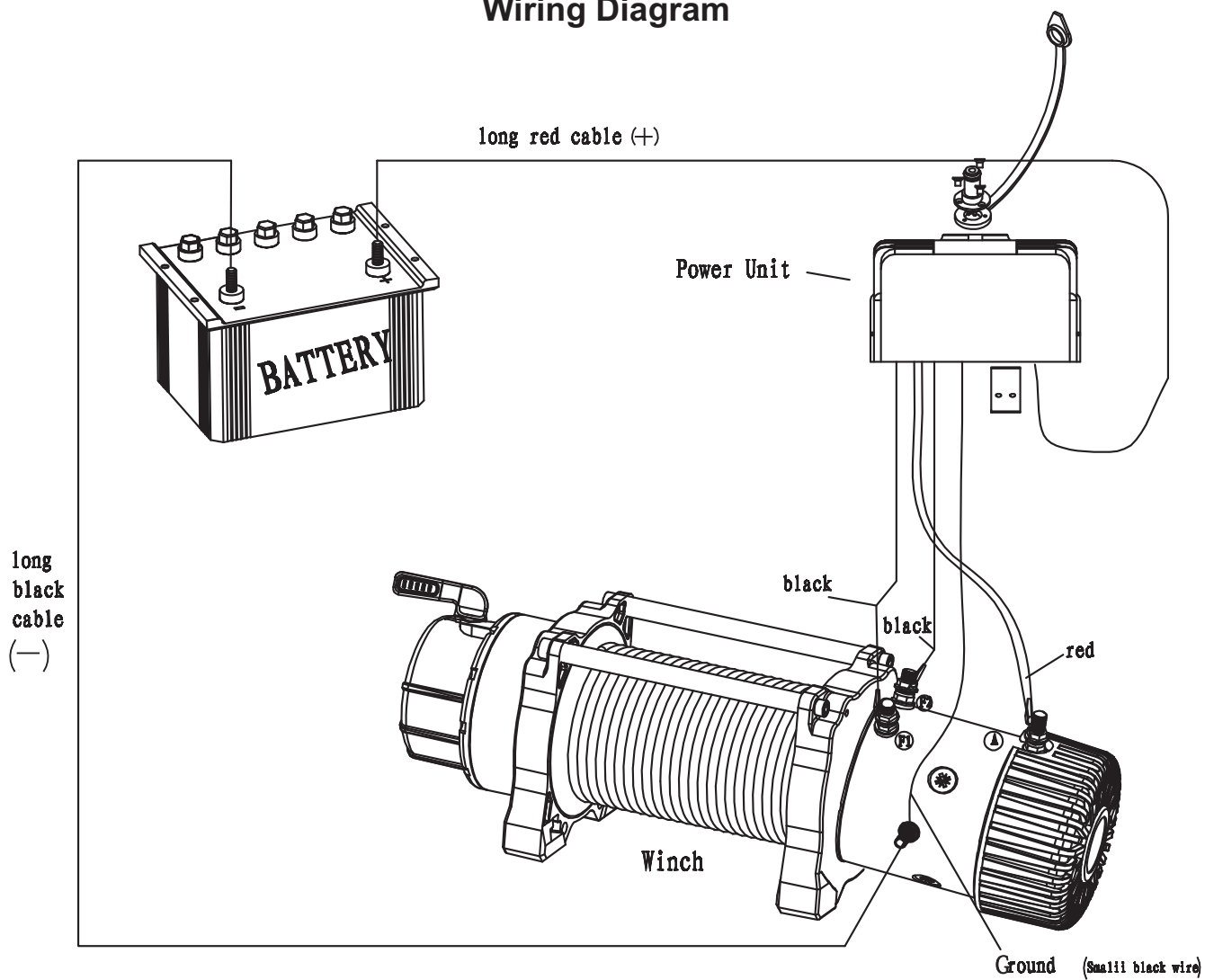
To prevent vibration during operation, use provided bolt and lock washer combinations and make sure they are secure.

4. Attach fairlead to base plate / mounting channel, using two 12mm x 40mm bolts, two 12mm nuts, two 12mm flat and lock washers. Note! Place bolt heads on winch side of plate. Clearances may be tight.
5. Attach the winch to the base plate. Place square 10mm nuts inside slot on feet of winch. Thread 10mm x 35mm bolts with 10mm lock and flat washers through mounting holes and into nuts.
6. Put end of wire rope through fairlead and attach clevis hook. Use clevis pin and cotter pin to secure.



WIRING

Wiring Diagram





WIRING CONT'D

1. Connect small black wire from Power Unit and large black wires to bottom on motor. Connect opposite end of large black wire to negative (-) terminal on battery.
2. Connect red A wire to A terminal on motor. Do not over tighten!
3. Connect F-1 and F-2 wires to corresponding terminals on motor. Do not over-tighten!
4. Connect long red wire to positive (+) battery terminal.

OPERATING INSTRUCTIONS

Remote Control

Plug the remote control into the socket on the top of the power unit. Check directions by running winch forward and reverse. Make sure that the motor has stopped fully before changing directions.

Always unplug the remote control when winch is not in use.

Clutch

The clutch shifter is located on the gear housing end of the winch. The clutch has two positions. "OUT" or disengaged and "IN" engaged.

In the "OUT" position, the clutch is disengaged and wire rope may now be freespooled off the drum easily for hooking onto the load or anchor point.

In the "IN" position, the clutch is engaged and the winch is now ready for pulling.



Winch

Make a few test runs with your winch before you actually need to use it. Watch and listen to your winch. Learn the sound of a light steady pull, a heavy pull and the sound of a load jerking or shifting. Gaining confidence will come with practice.

1. Ensure the vehicle is secured by applying the parking brake or chocking the wheels.
2. Put the clutch on the winch in the "OUT" position and pull out the wire rope to desired length and connect to anchor point.
3. Check all rigging before proceeding.
4. Plug in the remote control to the power unit assembly.
5. To begin, start engine, put vehicle in neutral position.
6. Operate the remote control until the vehicle has been retrieved.
7. Only use intermittent short bursts. Check on a regular basis that the wire rope is winding onto the drum evenly.



! CAUTION

**NEVER WINCH WITH YOUR
VEHICLE IN GEAR OR IN PARK.
THIS COULD DAMAGE YOUR
VEHICLE'S TRANSMISSION.**

Respooling

It is necessary to keep a slight load on the wire rope to respool correctly. With heavy gloves, hold the remote control in one hand and the wire rope in the other. Being as far away from the winch as possible and as much in the centre as you can, power the winch up and start walking toward it, keeping a slight load on the wire rope. Do not allow the wire rope to slip through your hands. Do not approach the winch too closely.

Turn off the winch and repeat until all the wire rope is spooled except a few feet. Disconnect the remote control switch and spool remaining wire rope by rotating the drum by hand with the clutch disengaged or "OUT".

For hidden winches, spool in wire rope under power using the supplied hook strap.

SAFE OPERATING POSITIONS

Always operate the winch in a safe position while pulling a load.

Safe areas include:

- a perpendicular position to the wire rope
- in the vehicle with the hood up (if winch is mounted on front of vehicle)

Operate the winch:

- at the end of the remote control cable or at least 10' (3m) from the winch in operation

This will prevent the wire rope from becoming entangled with the fairlead and keep the operator out of danger during pulling.

! DANGER

Stay clear of wire rope under load.



STRETCHING WIRE ROPE



The use and care of the wire rope will directly affect its lifespan. When using the wire rope for the first time, spool out the wire rope to the last 5 wraps on the drum. Under a load of 550 lbs (230kg) or more, reel in the rest of the wire rope under power. This will provide a good wire wrap around the drum, making it less likely to bind and cause damage to the wire rope.

WIRE ROPE REPLACEMENT PROCEDURES

If wire rope replacement is needed, follow these instructions using VRS authorized replacement part. (See attached replacement parts list)

1. Make sure there is **NO** power to the winch.
2. Unwind wire rope along the ground to avoid kinking.
3. Remove old wire rope, noting how it's attached to the drum flange.
4. Wrap the drum end of the new wire rope with electrical tape to prevent fraying.
5. With no power to the winch, reverse the removal process to attach the wire rope and wire rope clamp to the drum. Use Loctite ® 222 to prevent loosening of the clamp screw.
6. Wind 5 wraps of wire rope onto the drum. Wind the rest of the wire rope by pulling a light load. This will ensure a constant tension. (Follow "Stretching Wire Rope" section)

BATTERY RECOMMENDATIONS

A fully charged battery and proper connections are needed to effectively operate your winch. The minimum requirement for a 12 volt DC battery is 650 Cold Cranking Amperes.

MAINTENANCE

Your winch has been lubricated at the time of assembly. No additional lubrication is required. Occasionally you may want to lubricate the wire rope with penetrating oil for smoother operation.

Inspect the wire rope frequently. If it shows signs of wear or damage, such as broken strands, replace immediately. (See Replacement Parts List)

Periodically check the tightness of mounting bolts to ensure smooth operation.

Corrosion on electrical components can reduce your winch's performance. Check battery cables and all electrical connections monthly, making sure they are tight and clean. A silicone sealer can be used for extra protection.

Corrosion of internal motor components may occur due to condensation. To minimise this, power the winch occasionally to generate heat to help dissipate any moisture build-up.



TROUBLESHOOTING GUIDE

Issues	Possible Causes	Actions
MOTOR RUNS IN ONE DIRECTION ONLY	Defective contactor	Replace contactor, Contact VRS Customer Service.
	Defective remote control	Replace remote control. Contact VRS Customer Service.
MOTOR RUNS EXTREMELY HOT	Too long period of operation	Cool off for 10 minutes and try again. (Winch is for intermittent use only)
	Insufficient battery	Check battery terminal voltage under load. If voltage is 10 volts or less, replace or parallel another battery to it.
MOTOR RUNS, BUT INSUFFICIENT POWER, OR LOW LINE SPEED	Bad connection	Check battery cable for corrosion. Clean and grease.
MOTOR RUNS, BUT DRUM DOES NOT TURN	Clutch not engaged	If clutch engaged but symptom still exists, contact VRS Customer Service.
MOTOR DOES NOT OPERATE	Loose connections	Clean and tighten all connections Especially grounds.
	Defective contactor	Apply power, listen for a clicking noise when energised. Contact VRS Customer Service.
	Defective remote control	Contact VRS Customer Service.
	Defective motor	If contactors operate, check for voltage at terminal A of the motor. If voltage is okay, contact VRS Customer Service.
MOTOR WATER DAMAGED	Disconnect from battery	Remove ground bolt on bottom of motor and drain.
	Water from a high pressure car wash or submerging in water	Allow to drain and dry completely. Run motor without load in short bursts to dry windings.



WARRANTY INFORMATION

VRS Limited Warranty

Warrants the original purchaser that the mechanical components will be free of defects in material and workmanship for a period of two (2) years from the original date of purchase and the electrical components will be free of defects in material and workmanship from a period of one (1) year from the original date of purchase. This Warranty only applies to the original purchaser of the winch. To obtain warranty service you must provide VRS with proof of purchase such as a copy of your purchase receipt with a date of purchase acceptable to VRS. This warranty does not cover removal or reinstallation of the winch.

VRS will, at its option, repair, replace, or refund the purchase price of a defective winch or component, provided you return the defective winch or component during the warranty period, transportation charges prepaid, to VRS Winch Service Department or a Factory Authorised Service Centre. Attach your name, address, telephone number, a description of the problem, and a copy of your receipt showing the VRS part #, serial # and the date of purchase.

This warranty does not apply to 1) finish 2) wire rope 3) if the winch has been damaged by abuse, accident, misuse, overloading, collision, modification, misapplication, improper installation, or improper service 4) if used in commercial or industrial applications 5) if used as a hoist.

This warranty is void if any VRS serial number has been removed, defaced, or altered.

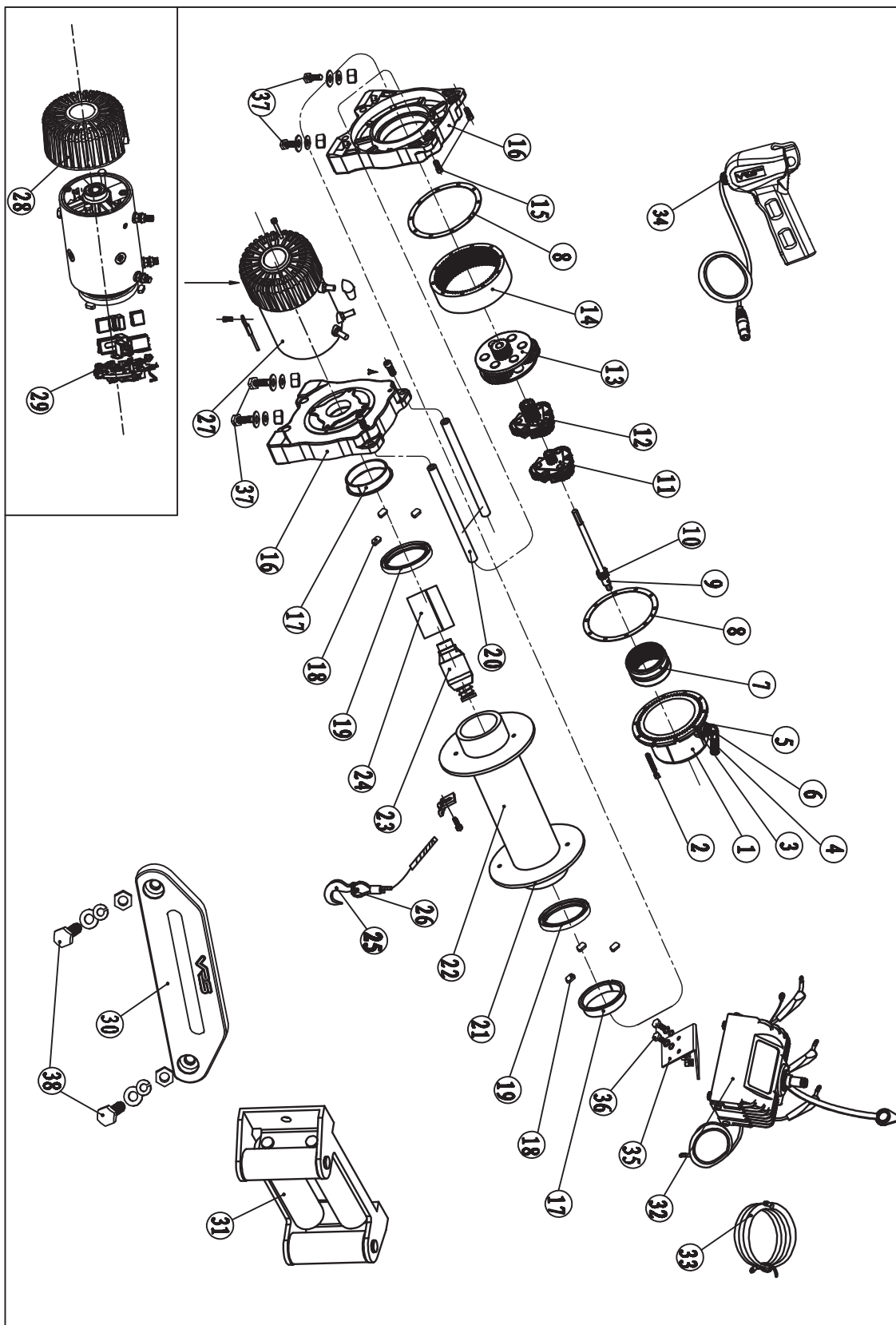
THE WARRANTY SET FORTH ABOVE IS THE ONLY WARRANTY. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

ANY IMPLIED WARRANTY WHICH BY LAW MAY NOT BE EXCLUDED IS LIMITED IN DURATION TO TWO (2) YEARS FROM THE DATE OF ORIGINAL RETAIL PURCHASE OF THE PRODUCT.

No VRS dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

VRS SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, DOWN TIME OR LOSS OF USE) UNDER ANY LEGAL THEORY, EVEN IF VRS WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

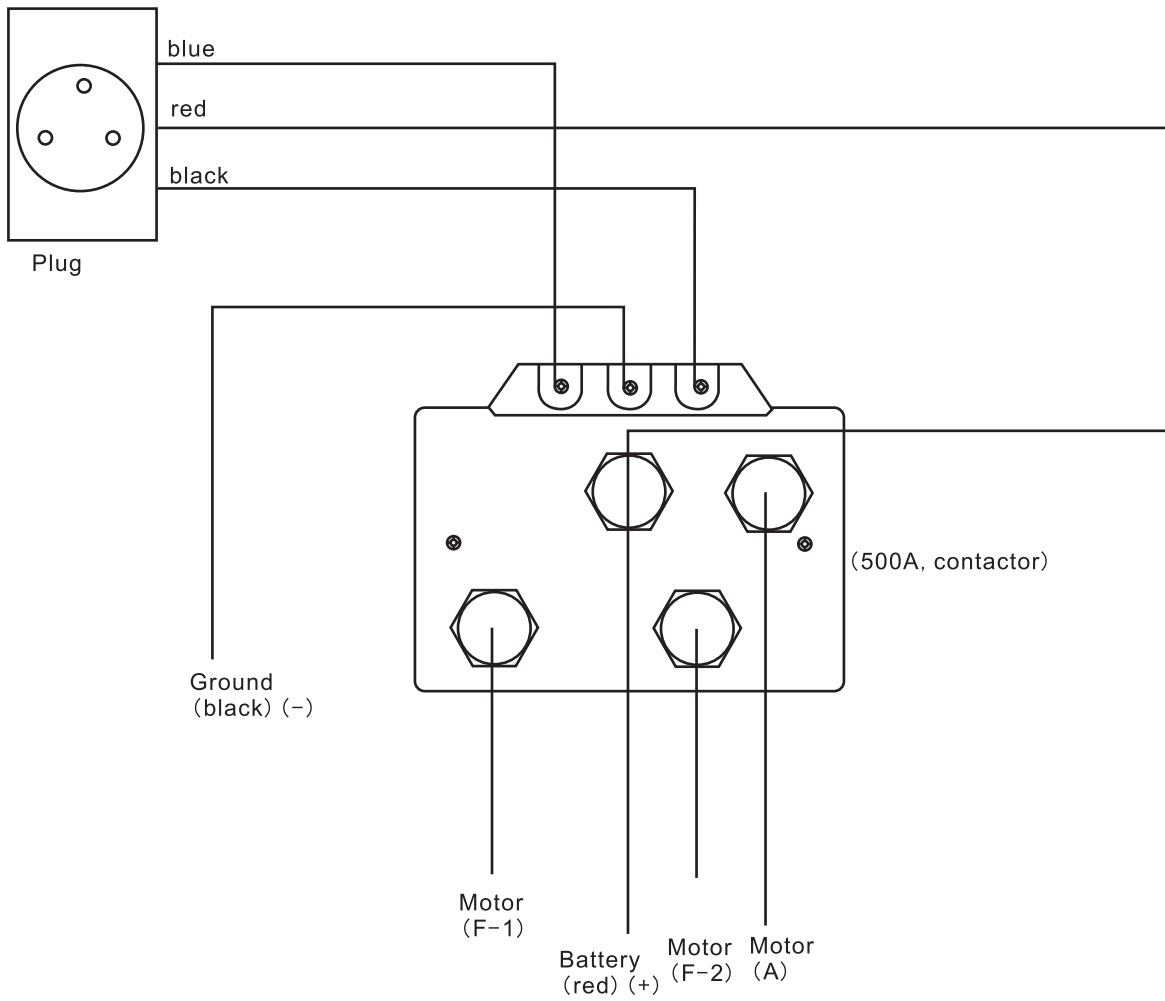
VRS reserves the right to change product design without notice. In situations which VRS has changed a product design, VRS shall have no obligation to upgrade or otherwise modify previously manufactured products.



PARTS LIST

ITEM	QTY	NAME
1	1	End Housing Assembly, Gear Train
2	10	Socket Head Cap Screws
3	1	Detent Screw
4	1	Rubber Gasket, Clutch Lever
5	1	Metal Cover, Clutch Lever
6	1	Clutch Lever
7	1	Ring Gear
8	2	Gaskets
9	1	Hex Shaft
10	1	Sun Gear
11	1	Carrier Assembly Stage 1
12	1	Carrier Assembly Stage 2
13	1	Carrier Assembly Stage 3
14	1	Ring Gear
15	4	Flange Head Cap Screws
16	1	Drum Support, Gear Train
16A	1	Drum Support, Motor
17	2	Drum Bushings
18	6	Antifriction Pads
19	2	Oil Seals, Water Resistant
20	2	Tie Bars
21	1	Drum Assembly
22	1	Wire Rope Attaching Kit
23	1	Brake Assembly
24	3	Brake Pads
25	1	Hook
26	1	Wire Rope/Synthetic Rope
27	1	Motor Assembly
28	1	Motor End Cover
29	1	Motor Carbon Brush Assembly
30	1	Hawse Fairlead (for synthetic rope model)
31	1	Roller Fairlead (for steel wire cable model)
32	1	Control Box Assembly
33	1	Cable Assembly, Electric Ground
34	1	Remote Control
35	1	Mounting Bracket (for Control Box)
36	1	Mounting Screws Kit for Control Box Bracket
37	1	Mounting Screws Kit for Winch
38	1	Mounting Screws Kit for Fairlead

WIRING DIAGRAM – CONTACTOR, SWITCH, HAND CONTROL PLUG





Yale Australia Pty Ltd

12 Horizon View

Macleod, Vic 3085

Website: www.vrswinch.com