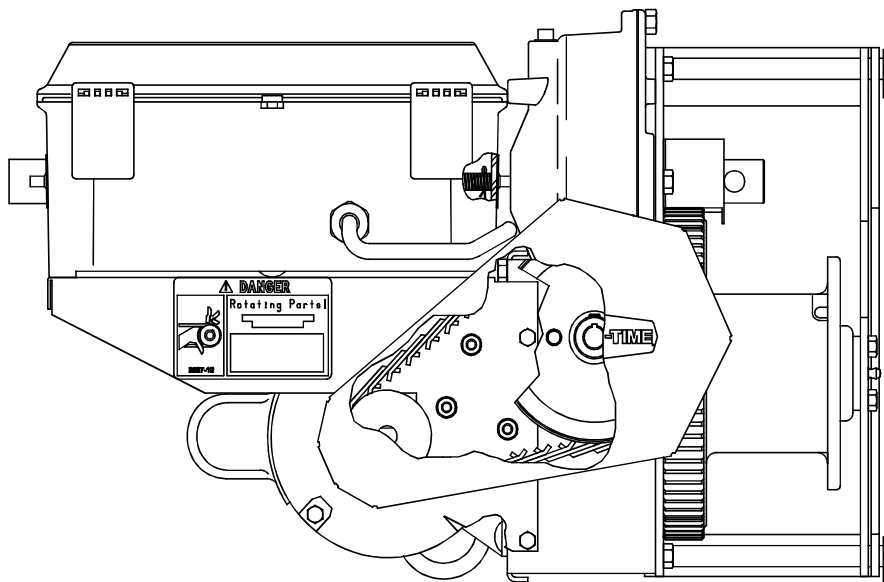


Super Lift™ Winch

Installation Manual



MV1653-001

Chore-Time Warranty

Chore-Time Equipment (“Chore-Time”) warrants each new Chore-Time product manufactured by it to be free from defects in material or workmanship for one year from and after the date of initial installation by or for the original purchaser. If such a defect is found by the Manufacturer to exist within the one-year period, the Manufacturer will, at its option, (a) repair or replace such product free of charge, F.O.B. the factory of manufacture, or (b) refund to the original purchaser the original purchase price, in lieu of such repair or replacement. Labor costs associated with the replacement or repair of the product are not covered by the Manufacturer.

Conditions and Limitations

1. The product must be installed by and operated in accordance with the instructions published by the **Manufacturer or Warranty will be void.**
2. Warranty is void if **all components** of the system are not original equipment supplied by the **Manufacturer.**
3. This product must be purchased from and installed by an authorized distributor or certified representative thereof or the Warranty will be void.
4. Malfunctions or failure resulting from misuse, abuse, negligence, alteration, accident, or lack of proper maintenance shall not be considered defects under the Warranty.
5. This Warranty applies only to systems for the care of poultry and livestock. Other applications in industry or commerce are not covered by this Warranty.

The **Manufacturer** shall not be liable for any **Consequential or Special Damage** which any purchaser may suffer or claim to suffer as a result of any defect in the product. **“Consequential” or “Special Damages” as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.**

THIS WARRANTY CONSTITUTES THE MANUFACTURER’S ENTIRE AND SOLE WARRANTY AND THIS MANUFACTURER EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

Chore-Time Distributors are not authorized to modify or extend the terms and conditions of this Warranty in any manner or to offer or grant any other warranties for Chore-Time products in addition to those terms expressly stated above. An officer of CTB, Inc. must authorize any exceptions to this Warranty in writing. The Manufacturer reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

Effective: **November 2000**

Chore-Time Equipment
A Division of CTB, Inc.
P.O. Box 2000 • Milford, Indiana 46542-2000 • U.S.A.
Phone (219) 658-4101 • Fax (877) 730-8825
Email: ctb@ctbinc.com • Internet: <http://www.ctbinc.com>

Thank You

The employees of Chore-Time Equipment would like to thank you for your recent Chore-Time purchase. If a problem should arise, your Chore-Time distributor can supply the necessary information to help you.

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General

Support Information

The Chore-Time SUPER-LIFT™ Winch is designed to open and close curtains, baffles, etc. in livestock housing applications. Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury.

This manual is designed to provide comprehensive planning, installation, safety, operation, and parts listing information. The Table of Contents provides a convenient overview of the information in this manual. The Table of Contents also specifies which pages contain information for the sales personnel, installer, and consumer (end user).

Distributor and Installer Information

Please fill in the following information about your Product.
Keep this manual in a clean, dry place for future reference.

Distributor's Name _____

Distributor's Address _____

Distributor's Phone _____ **Date of Purchase** _____

Installer's Name _____

Installer's Address _____

Installer's Phone _____ **Date of Installation** _____

System Specifications _____

About This Manual

The intent of this manual is to help you in two ways. One is to follow step-by-step in the order of assembly of your product. The other way is for easy reference if you have questions in a particular area.

Important ! Read ALL instructions carefully before starting construction.

Important ! Pay particular attention to all SAFETY information.

- *Metric measurements are shown in millimeters and in brackets, unless otherwise specified. “ ” equals inches and “ ’ ” equals feet in English measurements.*

Examples:

1" [25.4]

4' [1 219]

- Optional equipment contains necessary instructions for assembly or operation.
- Major changes from the last printing will be listed on the back cover.
- This Planning Symbol is used in areas where planning needs to take place before construction continues.
- Very small numbers near an illustration (*i.e.*, 1257-48) are identification of the graphic, not a part number.



Safety Information

Caution, Warning and Danger Decals have been placed on the equipment to warn of potentially dangerous situations. Care should be taken to keep this information intact and easy to read at all times. Replace missing or damaged safety decals immediately.

Using the equipment for purposes other than specified in this manual may cause personal injury and/or damage to the equipment.



Safety–Alert Symbol

This is a safety–alert symbol. When you see this symbol on your equipment, be alert to the potential for personal injury. This equipment is designed to be installed and operated as safely as possible...however, hazards do exist.

Understanding Signal Words

Signal words are used in conjunction with the safety–alert symbol to identify the severity of the warning.



DANGER indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



CAUTION indicates a hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.

Safety Information

Follow Safety Instructions

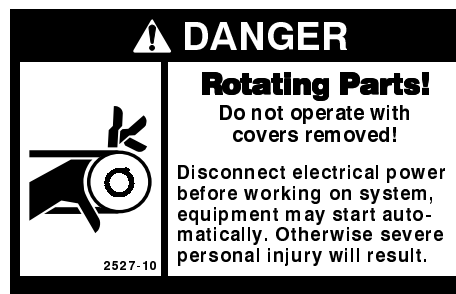
Carefully read all safety messages in this manual and on your equipment safety signs. Follow recommended precautions and safe operating practices.

Keep safety signs in good condition. Replace missing or damaged safety signs.

Decal Descriptions

DANGER: Rotating Parts

Severe personal injury will result, if the equipment is operated without covers properly installed.



DANGER: Electrical Hazard

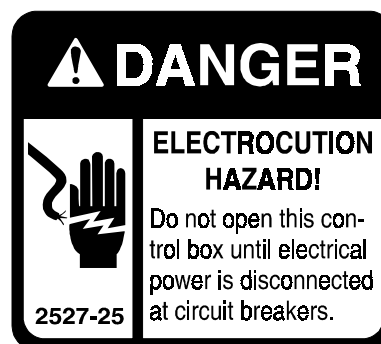
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

All electrical wiring must be done by a qualified electrician in accordance with local and national electric codes.

Ground all non-current carrying metal parts to guard against electrical shock.

With the exception of motor overload protection, electrical disconnects and over current protection are not supplied with the equipment.



Introduction

The SUPER-LIFT Winch is designed to raise and lower 6 feet (1.83 m) of side wall curtain for both sides of a 500 foot (152 m) building.

When properly installed, the SUPER-LIFT Winch may be used to drive up to 2,000 lbs (907 kg).

The SUPER-LIFT winch operates at a rate of 12" (127 cm) per minute.

The winch may be used for single or double sided curtain applications and may be installed on the ceiling or the inside or outside walls.

The winch must be mounted out of reach of the livestock.

Installation

Chore-Time strongly recommends securing the winch to the ceiling or wall using bolts and locknuts. However, lag screws may be used in applications where a bolt and locknut cannot be installed.

The winch should be installed so that the drum shaft is in the horizontal position to prevent the cable(s) from becoming entangled in the gears. **See Figure 1.**

However, if the winch must be installed with the drum shaft vertical to the ground; a) the cable must be routed on pulleys to ensure that cable wrap and/or interference will not be a problem, and b) the vent plug and the pipe plug may have to be switched to prevent oil leakage through the vent plug.

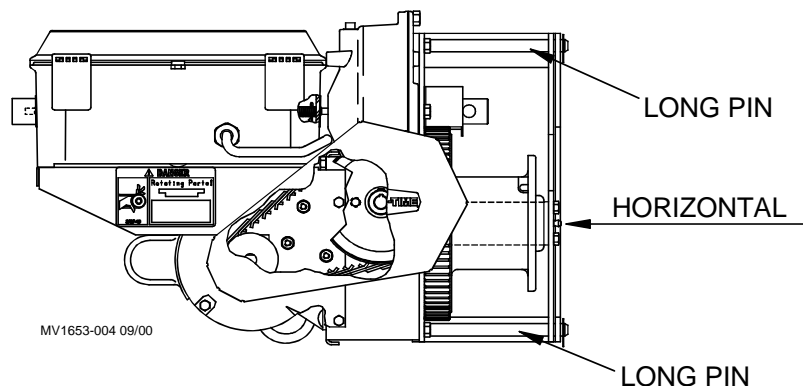


Figure 1. Winch Drum should be horizontal.

The Winch may be installed in a variety of locations, such as open trusses (See Figure 3), on drop ceiling (see Figure 4), on a side wall (see Figure 5), on an end wall-inside or outside (see Figure 5).

Winch Mounting Procedure:

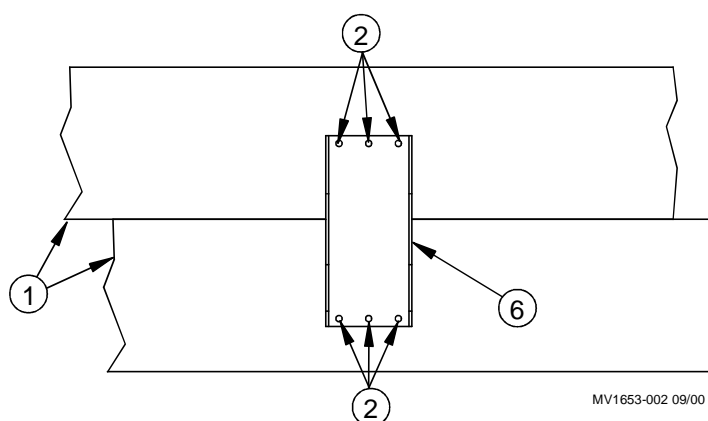
The installation procedure is basically the same for each type of installation. The Winch must be secured to (2) 2" X 10" [50 x 250 mm] boards that will span at least two trusses on 5' centers, or 3 trusses if on 4 foot centers. If possible, the winch should be located near the center of the boards.

Remove the Base Plate from the Winch Assembly by removing the long pins.

Position the Base Plate on the boards. Mark and drill 3/8" holes in the boards using the Base Plate as a template to determine hole locations.

Secure the Base Plate to the boards.

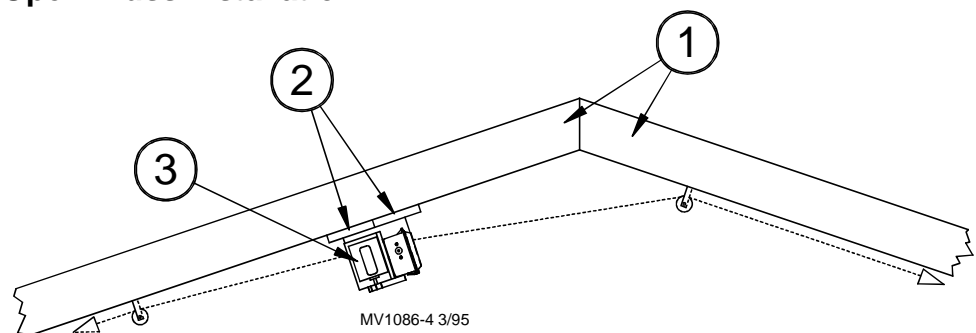
Refer to the appropriate section below depending on where your Winch is to be installed.



Key	Description
1	2" x 10" [20 x 250 mm] Boards
2	Install lag bolts in these locations to secure the Base Plate to the boards.
3	Base Plate (46211)

Figure 2. Base Plate Mounting

Open Truss Installation



Key	Description
1	Trusses
2	2" x 10" Winch mounting Boards
3	Super-Lift Winch

Figure 3. Open Truss Mounting

Secure the (2) 2" X 10" (50 x 250 mm) boards with Base Plate to the trusses, as shown in **Figure 3**.

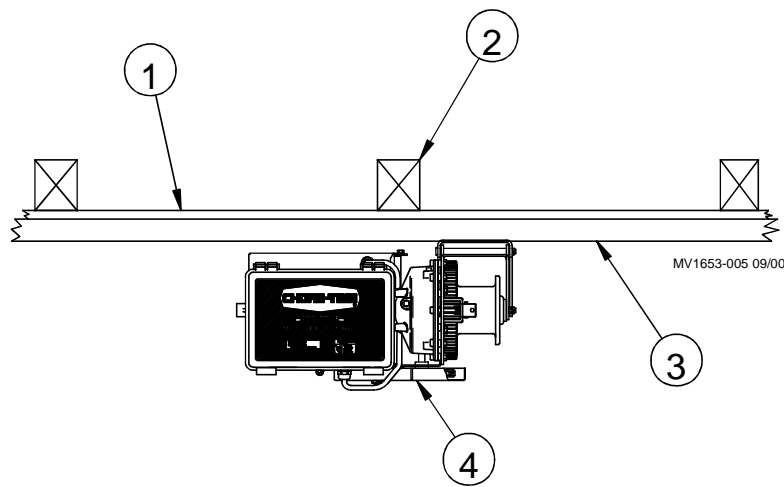
Important ! The winch should not be mounted to a roof pitch greater than 4/12.

Place the unit on the Base Plate and insert the long pin. **See Figure 1.**

Insert (2) bolts through the top (2) holes in the unit and Base Plate. Secure with lock nuts. **See Figure 3.**

Refer to the appropriate cable installation information on **page 13**.

Ceiling Mount Installation



Key	Description
1	Ceiling
2	Trusses
3	2" x 10" Winch mounting Boards
4	Super-Lift Winch

Figure 4. Ceiling Mount Installations

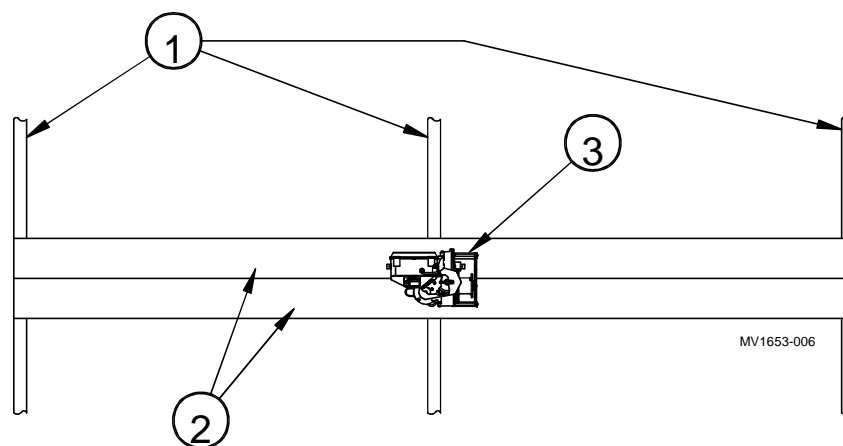
Secure the (2) 2" X 10" [50 x 250 mm] boards with Base Plate to the trusses, as shown in **Figure 3**. The boards should span at least (3) trusses.

Place the unit on the Base Plate and insert the long pin. **See Figure 1.**

Insert (2) bolts through the top (2) holes in the unit and Base Plate. Secure with lock nuts.

Refer to the appropriate cable installation information on **page 13**.

Side Wall Installation



Key	Description
1	Trusses
2	2" x 10" Winch mounting Boards
3	Super-Lift Winch

Figure 5. Side Wall Installation

For double or single sided curtain installations, the winch may be located on the outside wall near the center of the building or at the end of the building.

The winch must be mounted low enough to provide sufficient cable travel.

Secure the (2) 2" X 10" [50 x 250 mm] boards with Base Plate to the trusses, as shown in Figure 5. The boards should span at least (3) studs and the winch should be located within 2 feet [61 cm] of a stud.

Place the unit on the Base Plate and insert the long pins.

Refer to the appropriate cable installation information on **pages 11 - 16**.

Cable Installation

1. Determine the amount of cable required to route from the winch to the curtain(s). Allow approximately 5 feet (1.5 m) extra.

2. Turn the winch drum so that the tab (on the drum) is opposite the ceiling or wall.

3. Make a small loop in the center of the cable measured in step 1, above.

Place the loop over the tab on the winch drum. Figure 6A shows the cable wrap for side wall & end wall mount installations. Figure 6B shows the cable wrap for ceiling mount installations.

4. Tighten the set screw to secure the cable to the Winch Drum.

Important ! The Cable must not be allowed to wrap back on its self as the drum is turned.

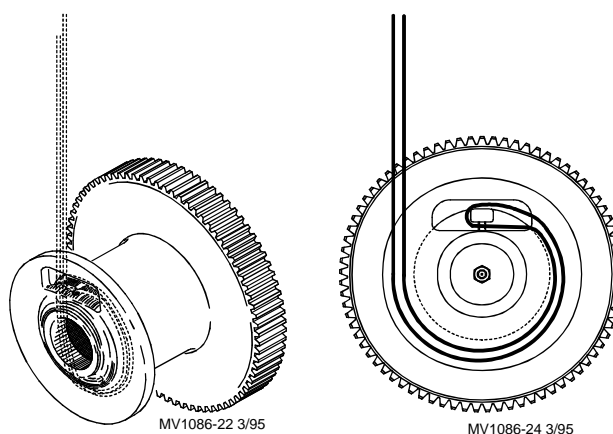


Figure 6A. Side & end wall mount installations.

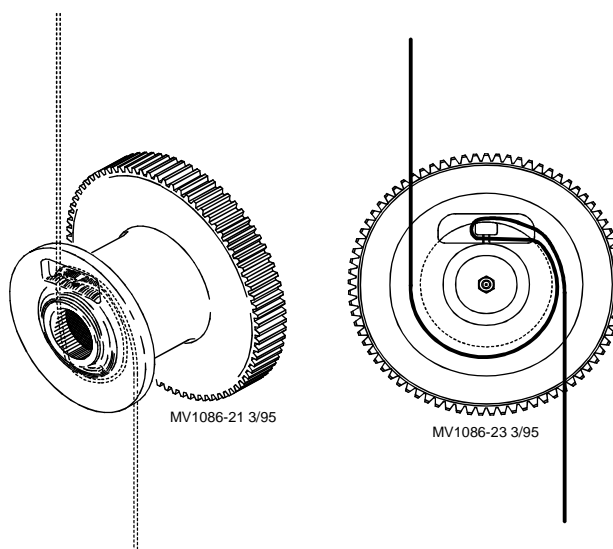


Figure 6B. Ceiling mount installations.

Cable Routing:

Cable routing will vary with the winch location, other equipment in building, building styles, etc.

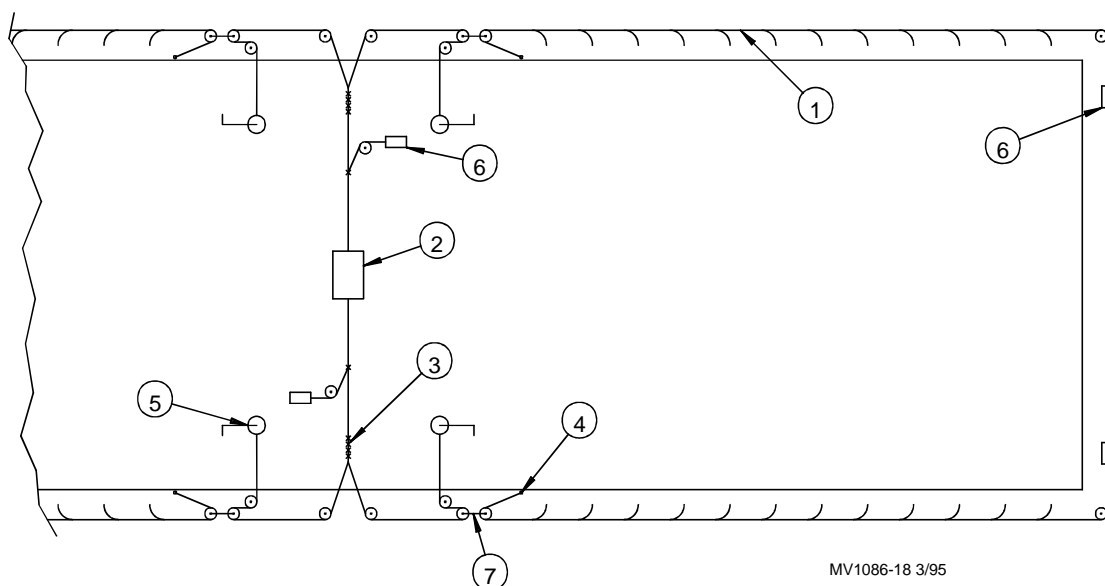
Figures 7 through 12 provide guidelines for cable routing and component locations. Primary components are noted on each individual application layout drawing.

Refer to the appropriate section, as determined by your winch location.

Center Ceiling Mounted Applications

Ceiling Mounted installations may have the winch located at the end of the house or near the center, as shown in **Figure 7**.

Note ! Always allow adequate space for cable clamps to travel without interfering with the winch and/or pulleys. The cable clamps should not be allowed to wrap on the winch drum.



Key	Description
1	Main Curtain Cable
2	SUPER-Lift Winch
3	Use (3) cable clamps here
4	Tie Down
5	Hand Winch
6	50 lbs. weight
7	2-Pulley Assembly

Figure 7. Center ceiling mounted application layout drawing.

Single Winch Side Wall Mounted Applications

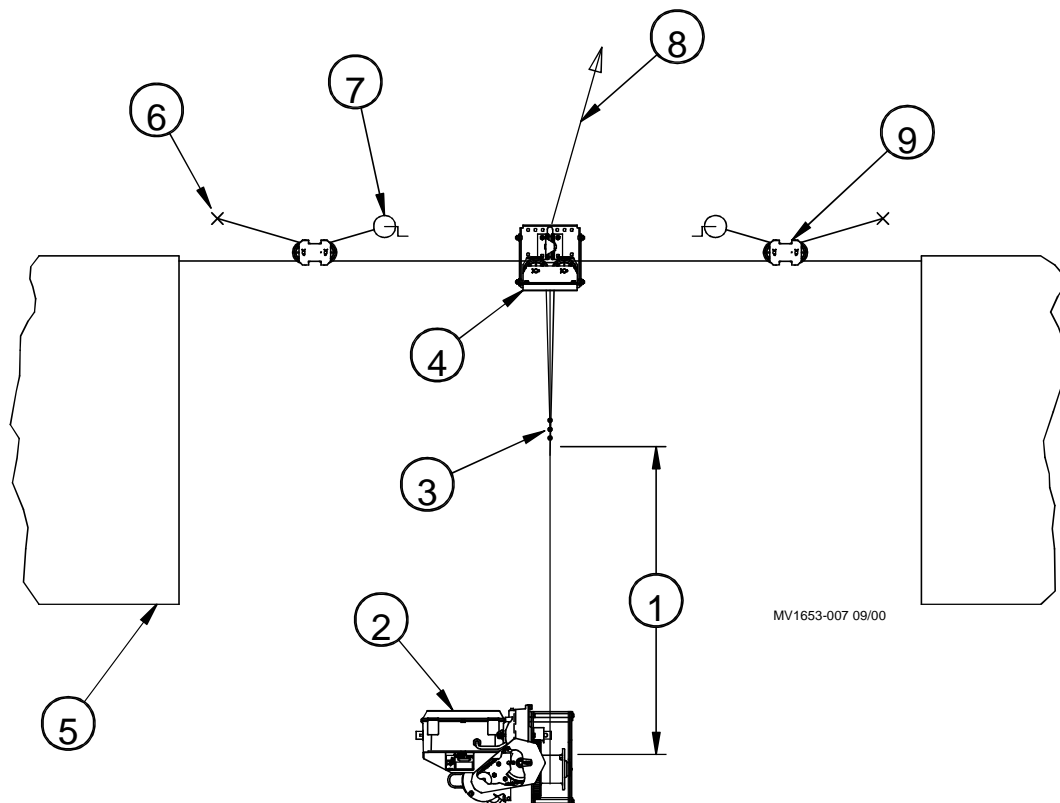
Side Wall mounted installations may have the winch located at the end of the house or near the center.

Figure 8 provides a side view of the winch and associated components.

Figure 9 provides an overview for additional clarity.

Mount the 3-Pulley Assembly directly above the winch, as shown in **Figure 8**. Use at least (3) cable clamps to secure the cables together.

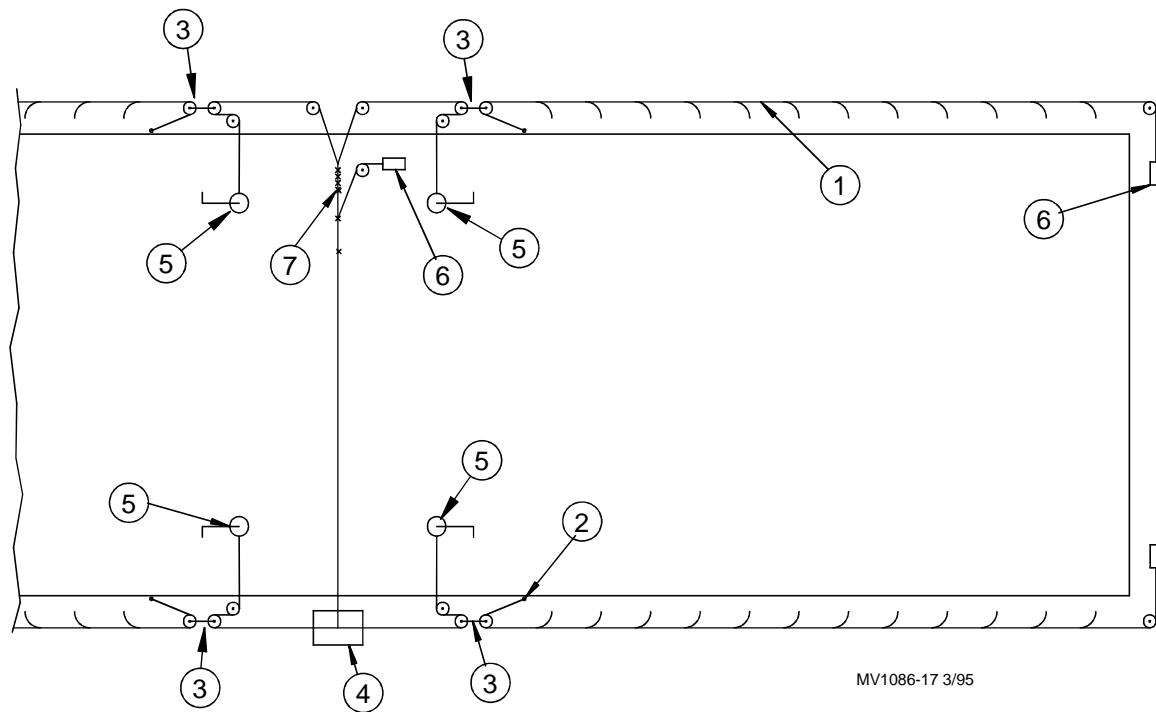
Note ! Always allow adequate space for cable clamps to travel without interfering with the winch and/or pulleys. The cable clamps should not be allowed to wrap on the winch drum.



Key	Description
1	This distance must be greater than the Curtain Height
2	SUPER-Lift Winch
3	Use (3) cable clamps here
4	Three Pulley Assembly
5	Side Wall Curtain
6	Tie Down
7	Hand Winch
8	Route this cable to other side of building.
9	Two-Pulley Assembly

Figure 8. Single Winch side wall mounted application layout drawing.

Single Winch Side Wall Mounted Applications Continued....



Key	Description
1	Main Curtain Cable
2	Tie Down
3	2-Pulley Assembly
4	SUPER-Lift Winch Assembly
5	Hand Winch
6	50 lbs. weight
7	Use 3 Clamps here

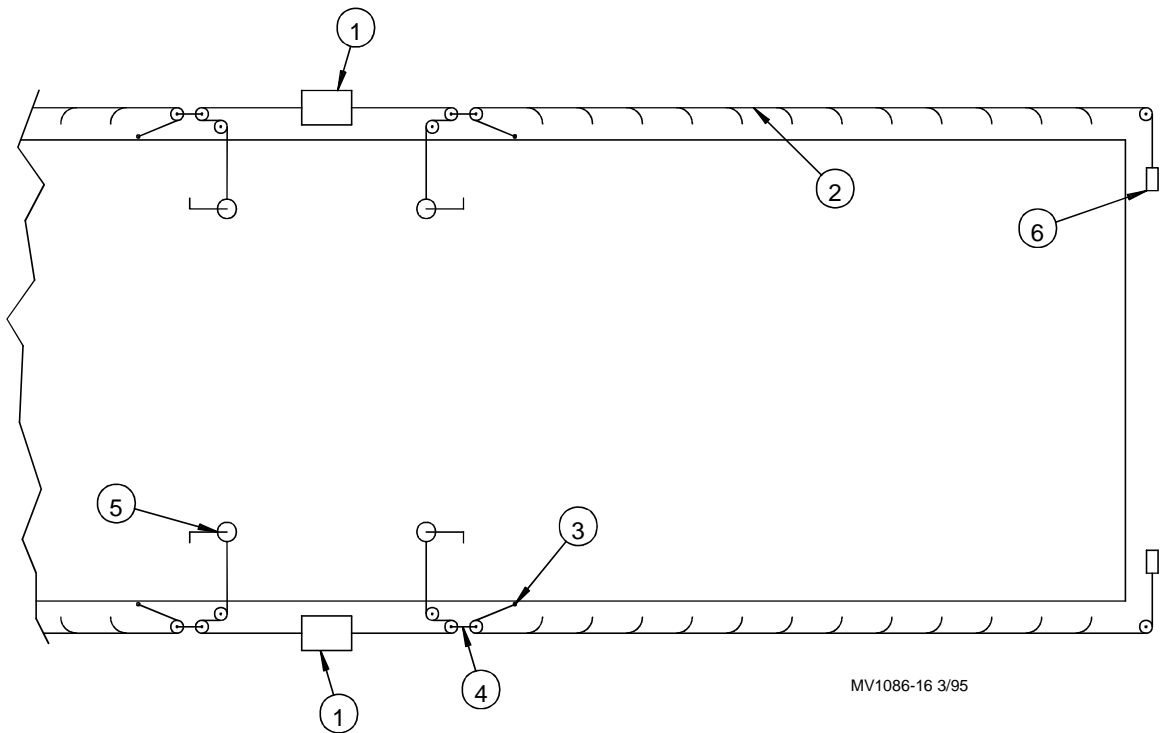
Figure 9. Single Winch side wall mounted application layout drawing.

Dual Winch Side Wall Mounted Applications

Side Wall mounted installations may have the winch located at the end of the house or near the center.

Figure 10 provides an overview of the winch location and associated components.

Note ! Always allow adequate space for cable clamps to travel without interfering with the winch and/or pulleys. The cable clamps should not be allowed to wrap on the winch drum.



Key	Description
1	SUPER-Lift Winch Assembly
2	Main Curtain Assembly
3	Tie Down
4	2-Pulley Assembly
5	Hand Winch
6	50 lbs. weight

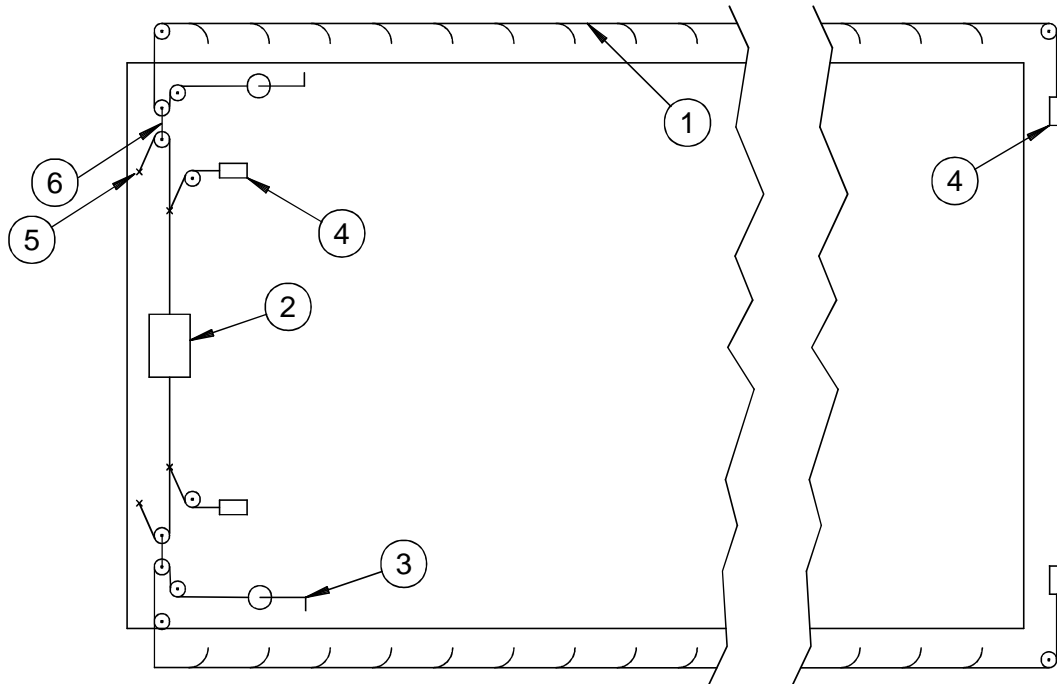
Figure 10. Single Winch side wall mounted application layout drawing.

End Wall Mounted Applications

Ceiling Mounted installations may have the winch located at the end of the house or near the center.

Figure 11 provides an overview of the winch location and associated components.

Note ! Always allow adequate space for cable clamps to travel without interfering with the winch and/or pulleys. The cable clamps should not be allowed to wrap on the winch drum.



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Key	Description
1	Main Curtain Cable
2	SUPER-Lift Winch
3	Hand Winch
4	50 lbs. Weight
5	Tie Down
6	2-Pulley Assembly

Figure 11. Single Winch side wall mounted application layout drawing.

Limit Switch Adjustment

The UP and DOWN Limit Switches for the curtain travel are located inside the Winch Control Box. **See Figure 12** for component locations.

To set the limits for the curtain travel, set the curtain at the completely open position.

Remove the cotter-pin at the gearbox end of the plastic screw.

Rotate the screw to move the red block until the down limit switch clicks.

Replace the cotter-pin.

Run the winch until the curtain is in the desired closed position.

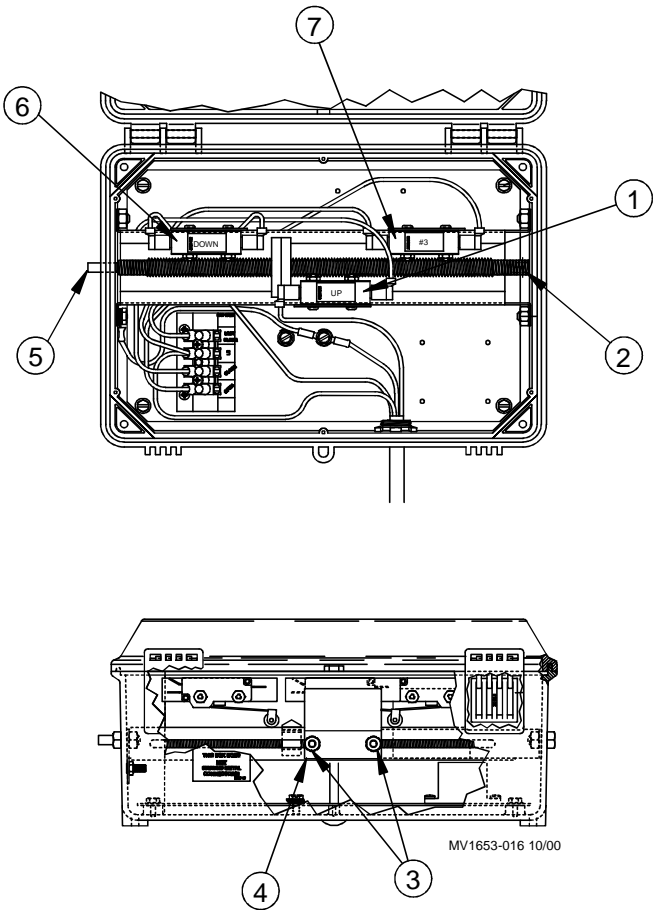
To adjust the closed position limit switch, loosen the nuts under the up limit switch.

Slide the switch to the block on the plastic screw until the switch clicks and retighten the nuts. Fine adjustment of the closed limit position should be done with the hand winches.

The 3rd switch in the Super Lift is adjusted similar to the up and down limit switches. See the Super Selector Manual (Mv1041) for Switch and Control function details.

Key	Description
1	UP Limit Switch
2	Cotter Pin Location
3	Loosen this hardware to allow switch adjustment. Retighten after switch is set.
4	Winch Limit Switch Bracket
5	Use pliers or vise-grips to turn plastic screw from this end.
6	DOWN Limit Switch
7	#3 Limit Switch (for use w/ SUPER-SELECTOR only).

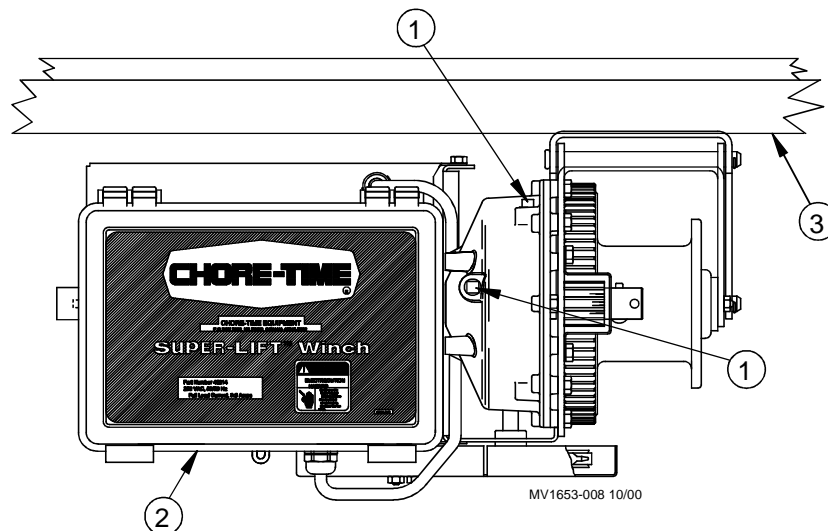
Figure 12. Switch Adjustment Procedure.



Preventive Maintenance

Before installing the SUPER-LIFT Winch, be sure the gearbox has been filled at the factory with the appropriate type and amount of lubricant.

Also, depending on the winch installation location, make sure the vent plug and pipe plugs are installed in the appropriate openings. **See Figure 14.** The Vent Plug must be installed in the up-most plug location.



Key	Description
1	Potential Vent Plug Locations
2	SUPER-Lift Winch Assembly
3	Mounting Boards

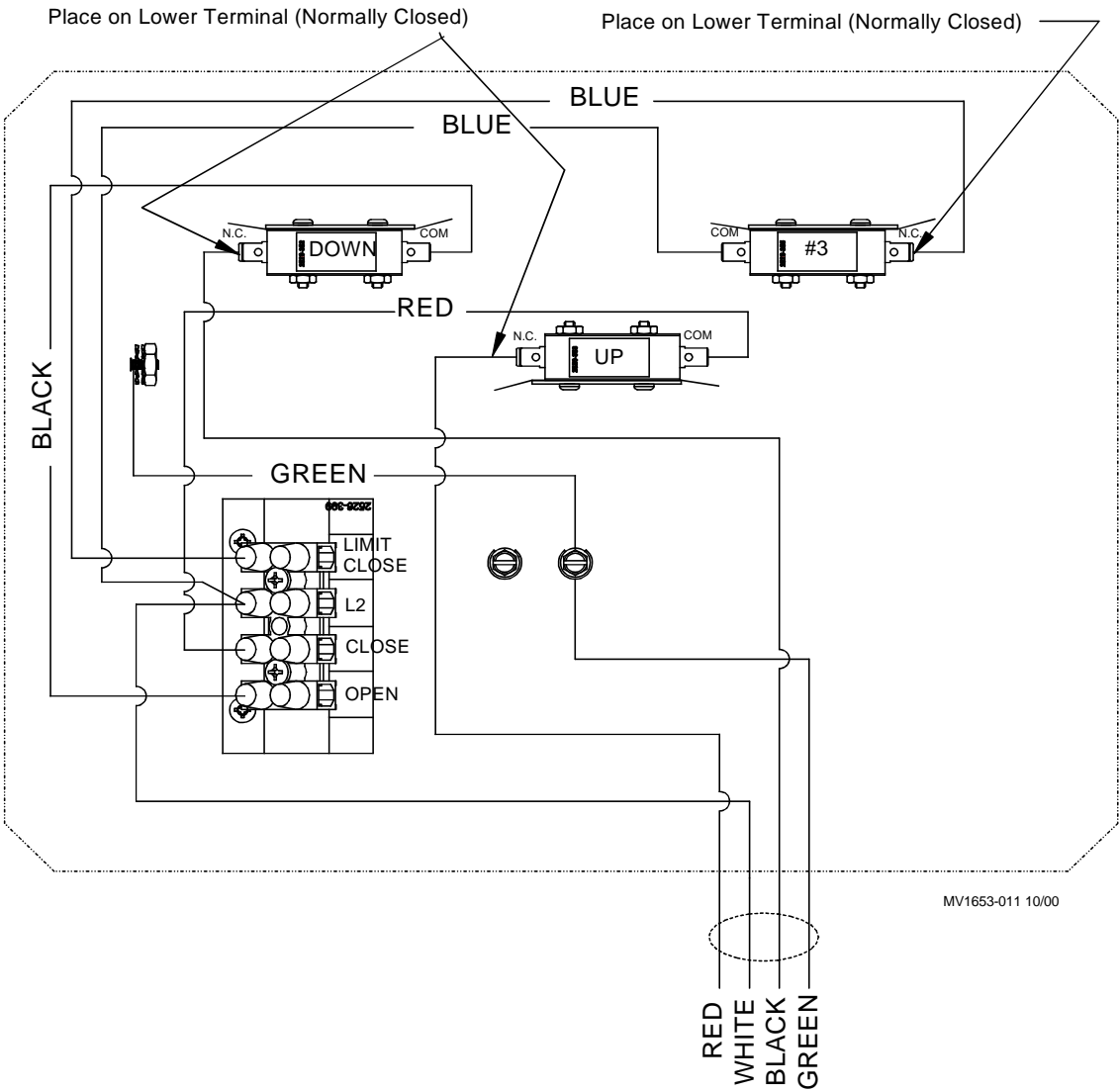
Figure 14. Vent Plug Installation

Check the oil every 6 months. The oil level should be approximately 1" [2.5 cm] below the filler (pipe or vent) plug. Use a clean piece of wire as a measuring device to check the oil level.

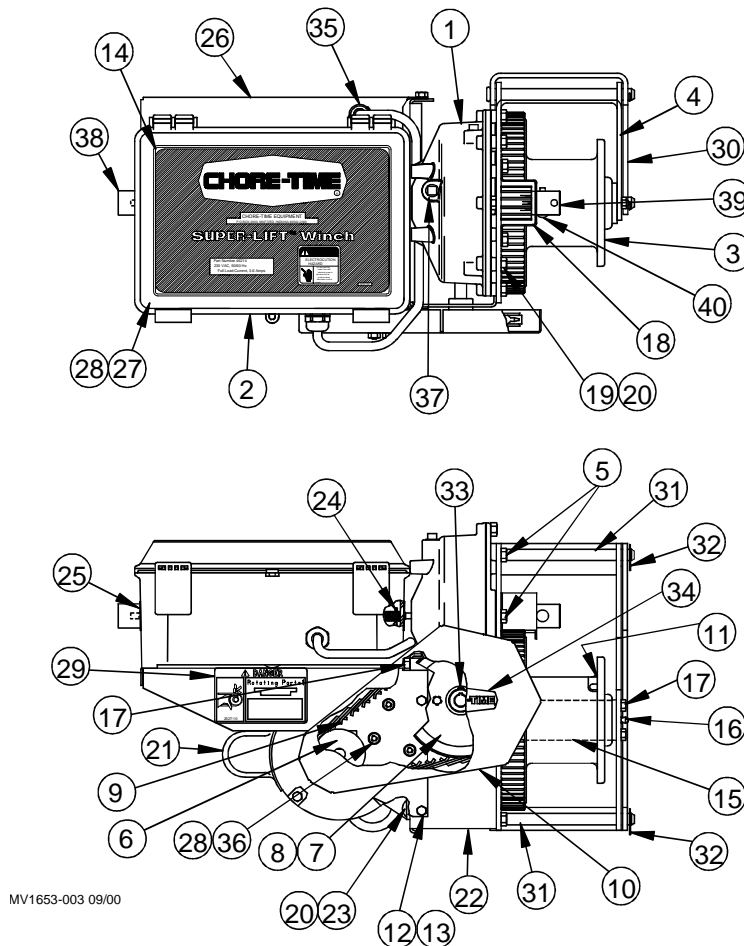
The oil should be changed every 12 months to insure adequate lubrication of the gears. The SUPER-LIFT Winch has a capacity of 1 quart (.95 l). Use an ISO 460EP oil.

The drum shaft on the winch should be lubricated at least once during each flock. A grease fitting is provided on the end of the drum shaft. Use an automotive or industrial type grease. Fill the shaft with enough grease that it begins to exit out around the hub. Severe squealing and winch damage may be expected if the winch is allowed to run dry.

SUPER-LIFT Winch Assembly Internal Wiring



SUPER-LIFT Winch Assembly Parts P/N 46213



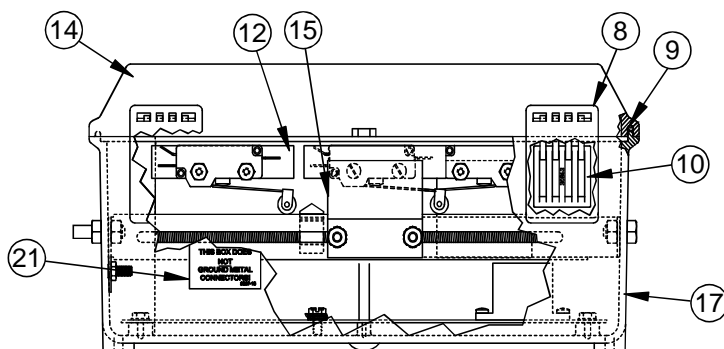
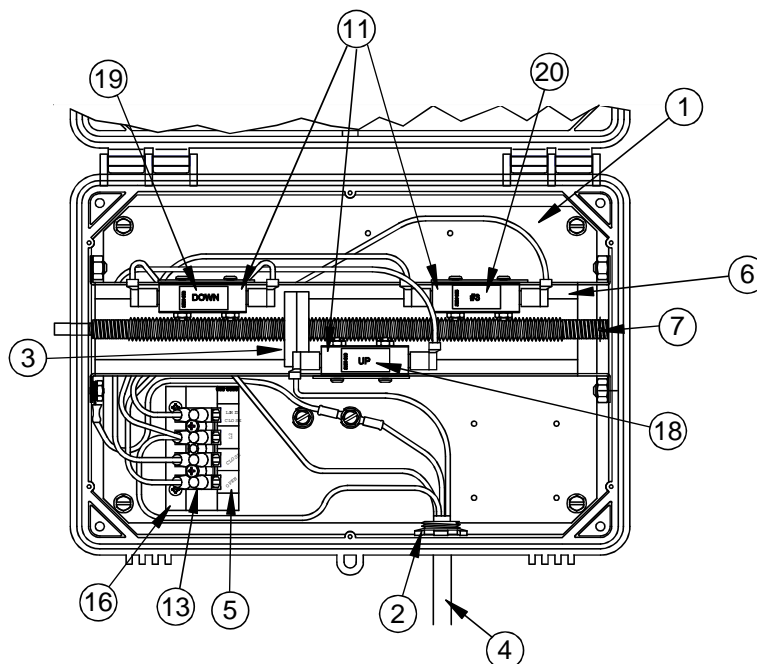
MV1653-003 09/00

Key	Description	Part No.	Key	Description	Part No.
1	Winch Gearhead Assembly	34710	23	5/16-18 x .625 C/Z Carriage Bolt	8282
2**	Super Lift Winch Control	46214	24	1/16 x 1 Cotter Pin	34886
3	Winch Drum	3723	25	1/4 x .20 x .03 Seal	34698
4	Drum & Gearbox Mounting Bracket	46210	26	Winch Control Box Bracket	36906
5	5/16-18 x 1HH Bolt	4412-7	27	10-24 x .625 C/Z Hex WH Screw	1876
6	Sheave 2" Pitch x 1/2" Bore	34703	28	10-24 Kepnut	27725
7	Sheave 5" Pitch x 1/2" Bore	34704	29	Danger Decal	2527-10
8	1/8" x .75 Square Key	13598-1	30	Winch Bracket	46211
9	Link Belt	29969	31	Pivot Pin	30423
10	V-Belt Shield	36904	32	Hair Pin	2664
11	1/4-20 x 1/4 Set Screw	603	33	5/16-18 x 3/8 Socket Set Screw	1174
12	1/4-20 x .375 HH5 C/Z Bolt	4404-1	34	Chore-geTime Decal	2525-2
13	1/4-20 C/Z Hex Nut	751	35	Bushing	3326
14	Superlift Winch Decal	2529-746	36	Spacer	35666
15	Winch Drum Shaft	30419	37	1/4" Pipe Plug	3516
16	Grease Fitting	24499	38	3/4" PVC Pipe	29107-8
17	5/16-18 x .63 HH5 C/Z Bolt	4412-1	39*	Winch Drive Pinion Gear	34556
18	Winch Gear Shield	33826	40*	1/4" x 1-1/4" Semi-Tubular Rivet	34724
19	5/16-18 x .50 C/Z Carriage Bolt	34885			
20	5/16-18 C/Z Hex Nut	2145			
21	230V 50/60HZ Winch Motor	34695			
22	Winch Motor Mount Bracket	36905			

*Items #39 & #40 are components of #1.

**See individual parts listing in this instruction.

SUPER-LIFT Winch Control P/N 46214

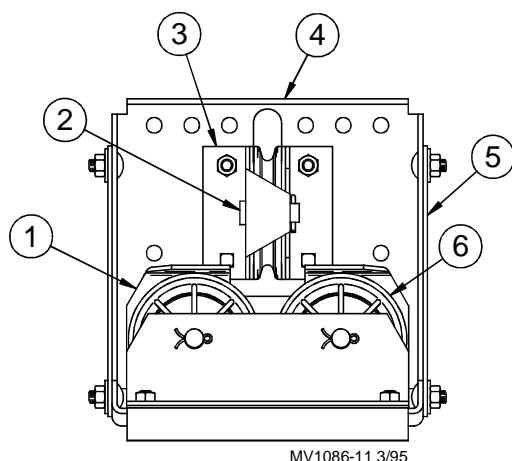


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Key	Description	Part No.
1	Winch Control Mounting Plate	33765
2	1/2" Conduit Locknut	3357
3	Winch Limit Switch Actuator	38428
4	Cord Assembly	4999-93
5	Terminal Strip Decal	2526-399
6	Threaded Winch Shaft Channel	35645
7	Threaded Winch Actuator Shaft	30430
8	Control Box Latch	30862
9	Seal	34767
10	Control Box Latch Pivot	30863
11	Switch	4604

Key	Description	Part No.
12	Switch Insulation	1907-5
13	Terminal Strip	34925-4
14	Plain Control Box Lid	30859-2
15	Winch Limit Switch Brkt.	35276
16	Terminal Mount Bracket	46217
17	Winch Control Box (Machined)	34696
18	Switch Identifier Decal	2526-353
19	Switch Identifier Decal	2526-352
20	Switch Identifier Decal	2526-355
21	Warning Decal	2527-15

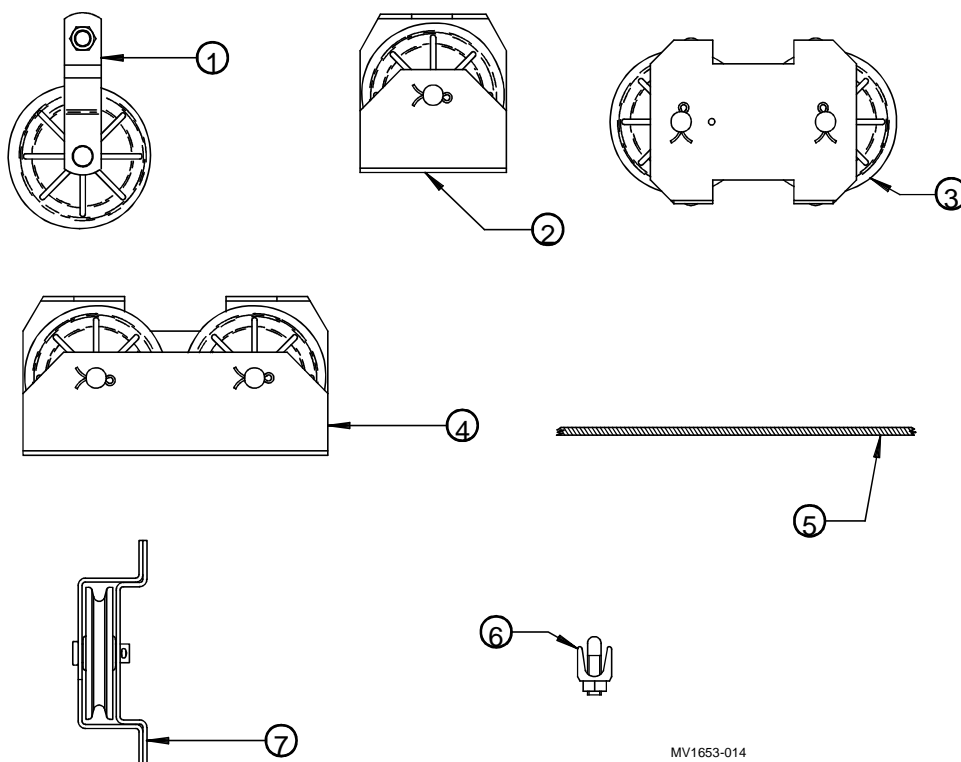
3 Pulley Assembly P/N 34651



Key	Description	Part No.
1*	Double Pulley Weldment	27308
2	1/2" Clevis Pin	2498-1
3*	Single Pulley Weldment	27305
4	3-Pulley Frame	34650
5	3-Pulley Support	34649
6	Pulley Wheel	2503

*Items #1 & #3 are available as assemblies, including pulley(s), clevis pin(s), and hair pin(s). The single Pulley Assembly may be ordered under Chore-Time part No. 27301. the Double Pulley Assembly may be ordered under Chore-Time part No. 27302.

Miscellaneous Components



Key	Description	Part No.
1	Pulley Assembly	2500
2	Pulley Kit	27301
3	2-Pulley Assembly	27772
4	Center Pulley Assembly	27302
5	3/16" Cable (150')	13976
	3/32" Cable (galvanized)	4973
6	Cable Clamp	732
7	Pulley Assembly	24918

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**Made to work.
Built to last.**

Revisions to this Manual

Page No.	Description of Change
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Contact your nearby Chore-Time distributor or representative for additional parts and information.

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