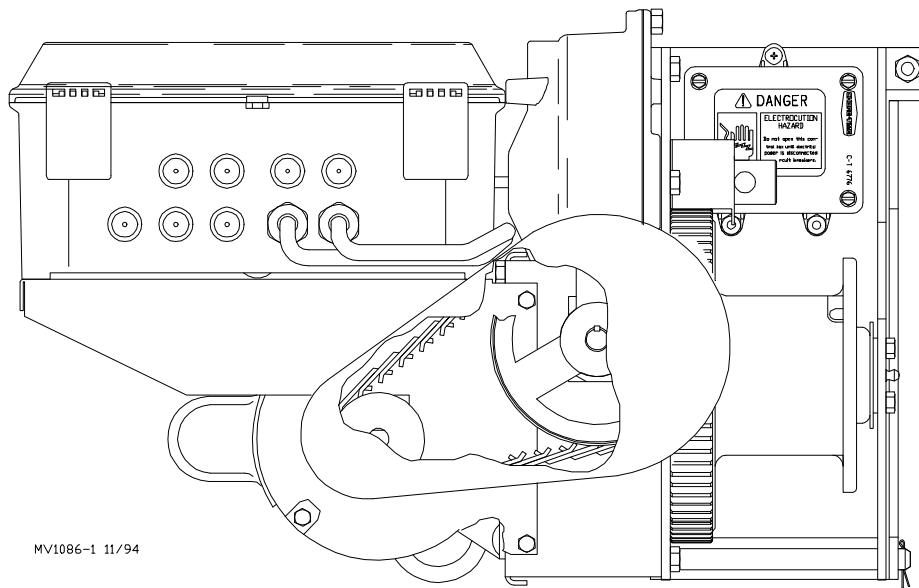


SUPER-LIFT™ Winch Installation Manual



MV1086-1 11/94

Warranty Information

Chore-Time Equipment warrants each new product manufactured by it to be free from defects in material or workmanship for one year from the date of initial installation by the original purchaser. If such a defect is found by Chore-Time to exist within the one year period, Chore-Time 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.

Additional extended warranties are herewith provided to the original purchaser as follows:

1. RLX Fans, less motors, for three years from date of installation.
- *2. Poultry feeder pans that become unusable within five years from date of installation. Warranty prorated after three years usage.
3. MEAL-TIME® Hog Feeder pans that become unusable within five years of installation.
4. Rotating centerless augers, excluding applications involving High Moisture Corn (exceeding 18%), for ten years from date of installation. Note: MULTIFLO® and applications involving High Moisture Corn are subject to a one year warranty.
5. Chore-Time manufactured roll-formed steel auger tubes for ten years from date of installation.
- *6. Laying cages that become unusable within ten years. Warranty prorated after three years usage.
- *7. ULTRAFLO® Auger and ULTRAFLO® Feed Trough (except ULTRAFLO® Trough Liners) are warranted for a period of five (5) years from date of original purchase against repeated breakage of the auger or wear-through of the feed trough.

Conditions and limitations:

1. The product must be installed and operated in accordance with instructions published by Chore-Time or warranty will be void.
2. Warranty is void if all components of a system are not supplied by Chore-Time.
3. This product must be purchased from and installed by an authorized Chore-Time dealer 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 this 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.

Chore-Time shall not be liable for any consequential or special damage which any purchaser may suffer or claim to have suffered 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 CHORE-TIME'S ENTIRE AND SOLE WARRANTY AND CHORE-TIME EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

Any exceptions to this warranty must be authorized in writing by an officer of the company. Chore-Time reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

*See separate "WARRANTY ADDITION" as to these products

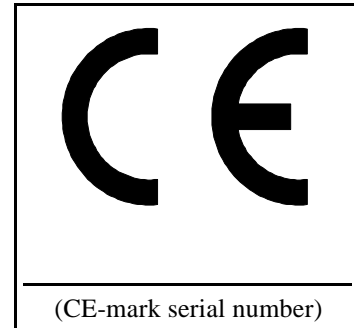
CTB, Inc.
P.O. Box 2000, Milford, Indiana 46542-2000 U.S.A.

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 and/or death.

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

Chore-Time Equipment recognizes CE Mark and pursues compliance in all applicable products. Please fill in the CE-Mark serial number in the blank space provided for future reference.



Please fill in the following information about your SUPER-LIFT Winch. 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 _____

Table of Contents

<u>TOPIC</u>	<u>PAGE</u>	<u>USER*</u>
Warranty Information - - - - -	2	C, D
Support Information - - - - -	3	C, D
Safety Information - - - - -	4	C, D, I
Introduction, Winch Installation - - - - -	5	C, D, I
Winch Mounting Procedure - - - - -	5 - 8	I
Cable Installation - - - - -	9	I
Cable Routing - - - - -	10 - 14	I
Limit Switch Adjustment - - - - -	15	I, C
Torque Limit Switch Adjustment - - - - -	16	I, C
Preventative Maintenance - - - - -	17	I, C
SUPER-LIFT Winch Assembly Wiring Diagram - - - - -	18	I
SUPER-LIFT Winch Assembly Internal Wiring Diagram - - - - -	19	I
34468 SUPER-LIFT Winch Assembly - - - - -	20	I, D
34716 SUPER-LIFT Winch Control - - - - -	21	I, D
34651 3-Pulley Assembly, Miscellaneous Components - - - - -	22	I, D

*Legend: C = Customer (end user), D = Distributor (sales), I = Installer

SAFETY INFORMATION

CHORE-TIME is concerned about the safety of its customers. 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 signs.

The equipment is designed to be used as specified in this instruction manual. Unreasonable or non-recommended use may result in personal injury 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.



Signal Words

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

DANGER identifies immediate hazards which WILL result in severe personal injury or death.

WARNING identifies hazards or unsafe practices which COULD result in severe personal injury or death.

CAUTION identifies hazards or unsafe practices which COULD result in minor personal injury or product or property damage.



DANGER



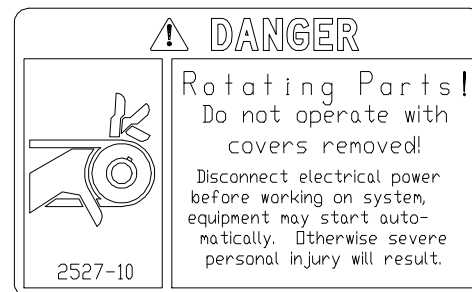
WARNING



CAUTION

DANGER--ROTATING PARTS

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



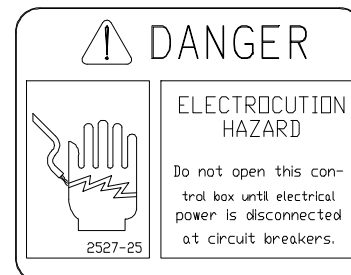
DANGER--ELECTRICAL HAZARD

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.



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.

Winch 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 perpendicular 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.

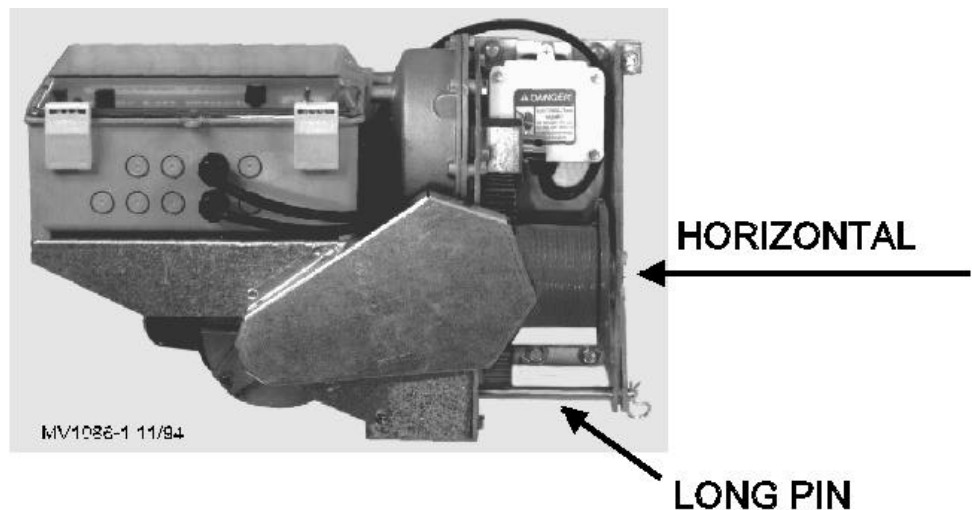


Figure 1. Winch Drum should be horizontal.

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:

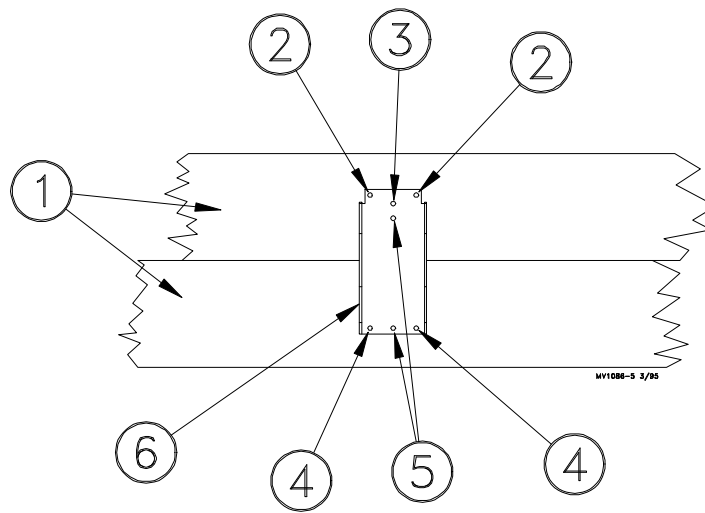
The installation procedure is basically the same for each type of installation. The Winch must be secured to (2) 2" X 10" (50 x 250 mm) boards that will span at least three trusses. If possible, the winch should be located near the center of the boards.

Remove the Base Plate from the Winch Assembly by removing the long pin and factory installed keeper bolt.

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. Do not install the bolts in the upper left and right corners until the Winch has been mounted on the Base Plate. See Figure 2.

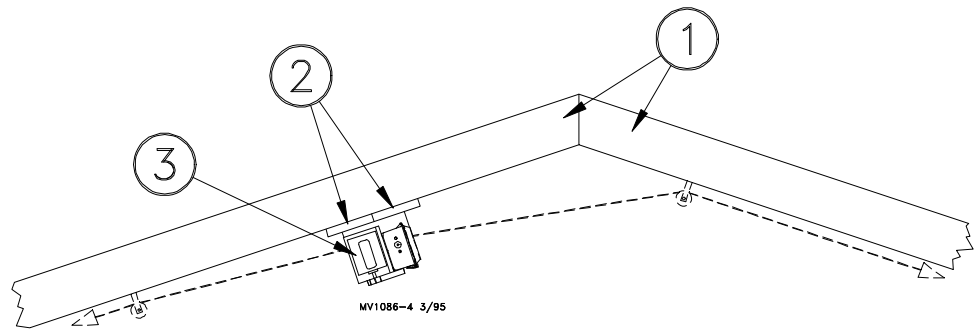
Refer to the appropriate section below depending on where your Winch is to be installed.



Key	Description
1	2" x 10" (20 x 250 mm) Boards
2	Do not install bolts in these holes until the Winch Assembly is being secured to the Base Plate.
3	This is a clearance hole required when the unit is secured to the Base Plate. Do not install a lag bolt here.
4	Install lag bolts in these locations to secure the Base Plate to the boards.
5	These holes are provided to hold the Base Plate in place while installing lag bolts.
6	Base Plate

Figure 2. Base Plate Mounting

Open Truss Installations



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.

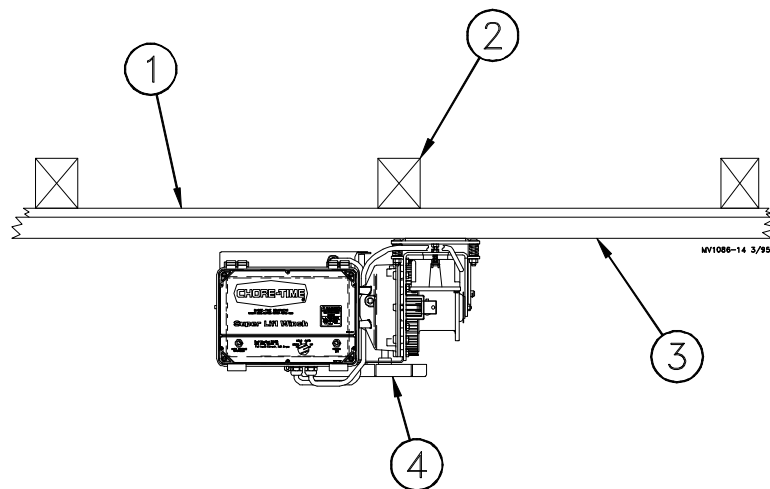
Important: The winch should not be mounted to a roof pitch greater than 4/12.

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 10.

Ceiling Mount Installations



Key	Description
1	Ceiling
2	Trusses
3	2" X 10" Winch mounting boards
4	Super-Lift Winch

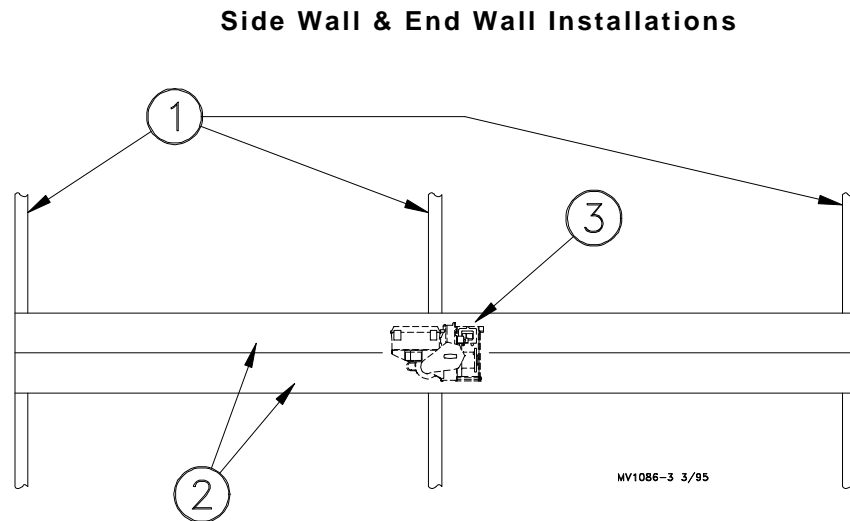
Figure 4. Ceiling Mount Installations 7

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 10.



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 pin.

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

Refer to the appropriate cable installation information on page 11 - 14.

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

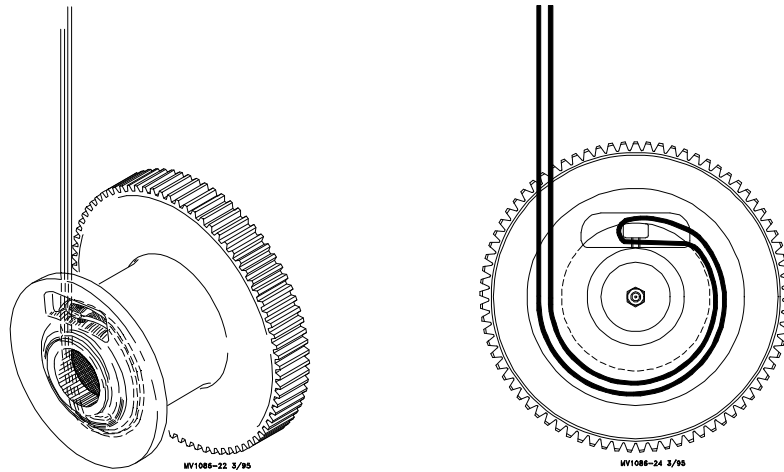


Figure 6A. Side & end wall mount installations.

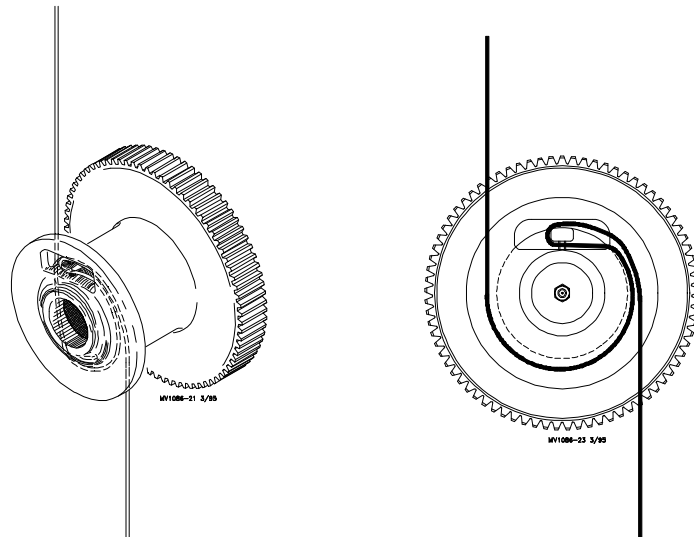


Figure 6B. Ceiling mount installations.

Cable Routing:

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

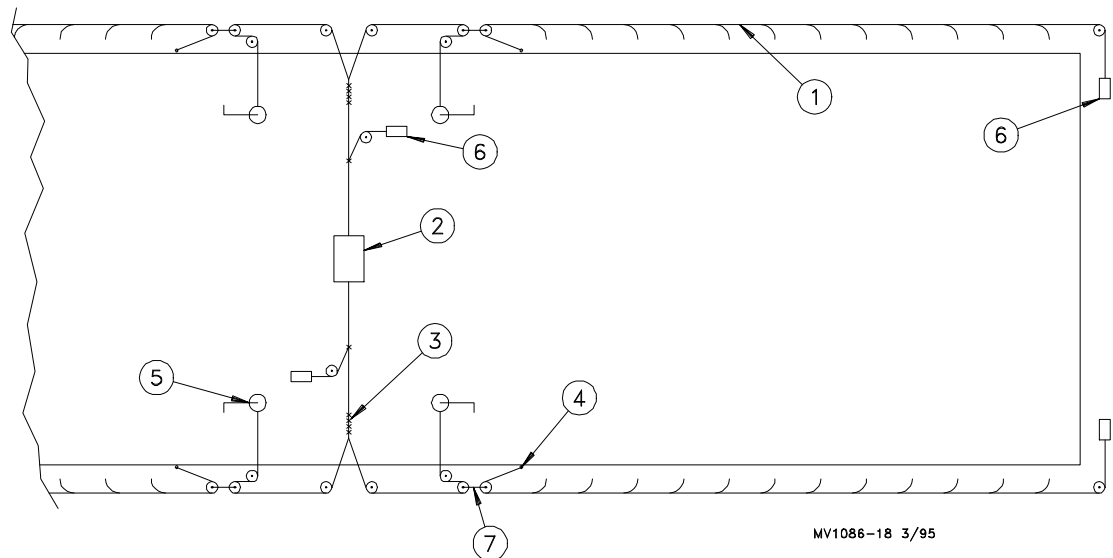
Figures 7 through 12 provide guidelines for cable routing and component locations. Primary components are noted on each individual application layout drawing.

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.



MV1086-18 3/95

Key	Description
1	Main Curtain Cable
2	SUPER-Lift Winch
3	Use (2) cable clamps here.
4	Tie down
5	Hand winch
6	50 lbs. (22 kg) weight
7	2-Pulley Assembly

Figure 7. Center ceiling mounted application layout drawing.

Single Winch Side Wall Mounted Applications

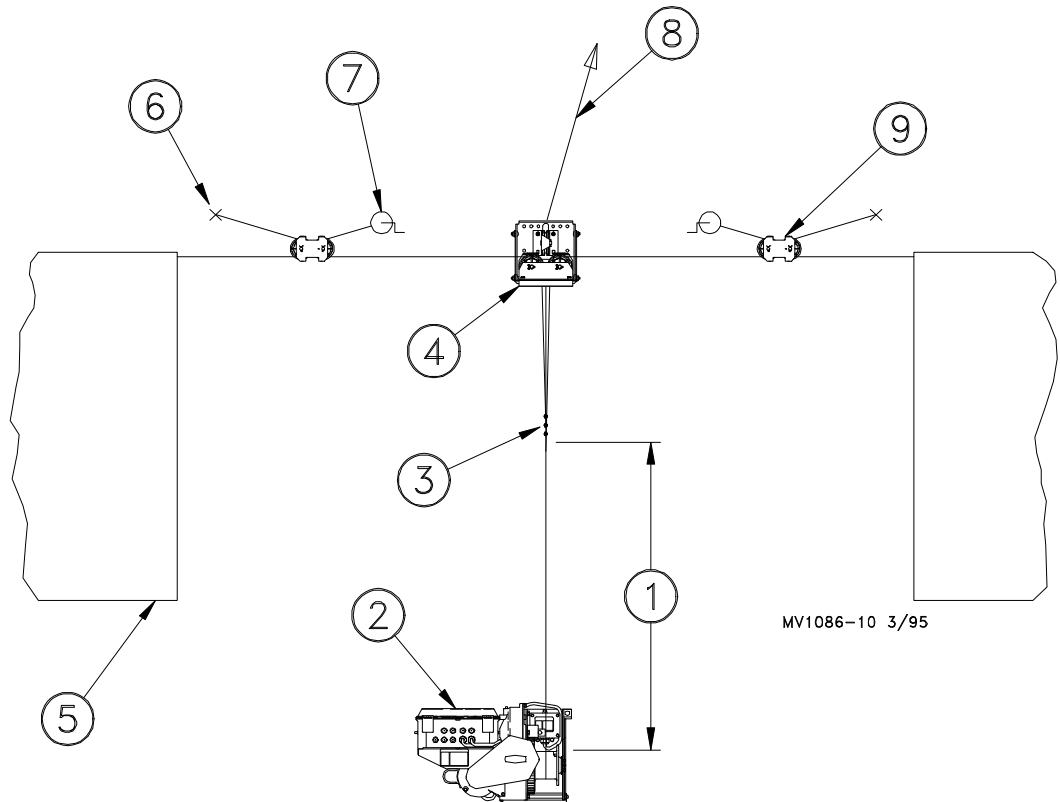
Side Wall mounted installations may have the winch located at the end of the house or near the center.

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

Figure 9 provides an overview for additional clarity.

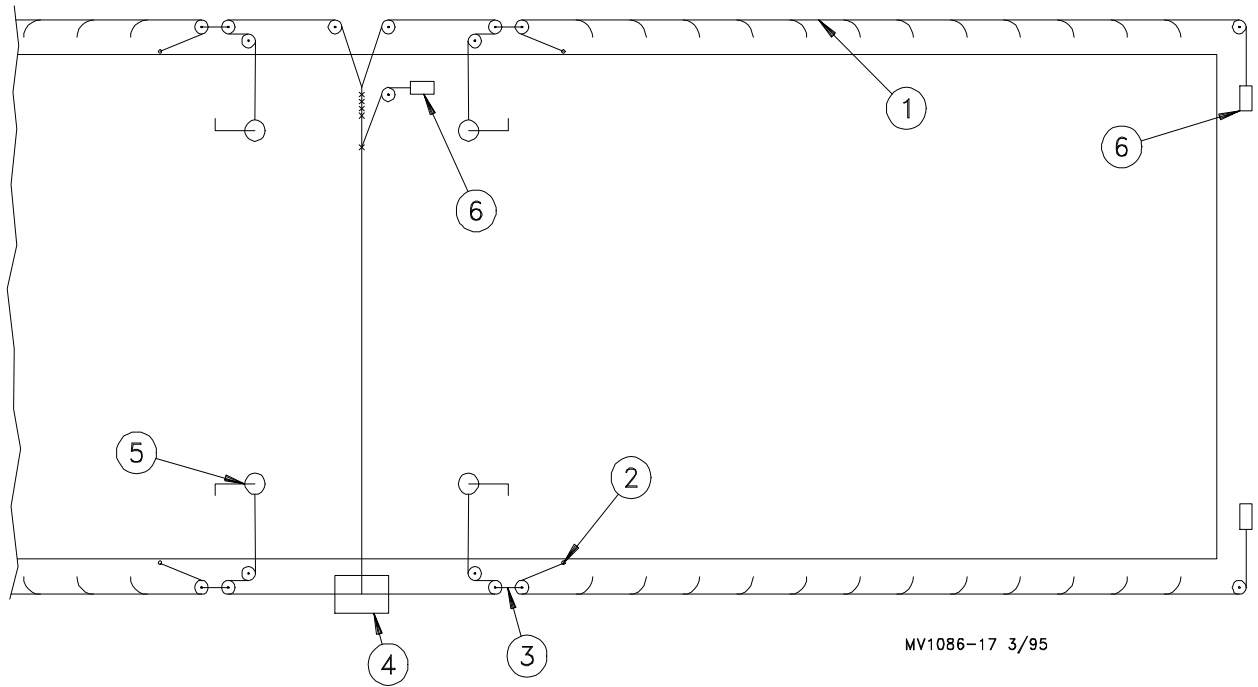
Mount the 3-Pulley Assembly directly above the winch, as shown in Figure 8. Use at least (3) cable clamps to secure the cables together.

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 curtain travel.
2	SUPER-LIFT Winch Assembly
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.



Key	Description
1	Main Curtain Cable
2	Tie down
3	2-Pulley Assembly
4	SUPER-LIFT Winch Assembly
5	Hand Winch
6	50 lbs. (22 kg) weight

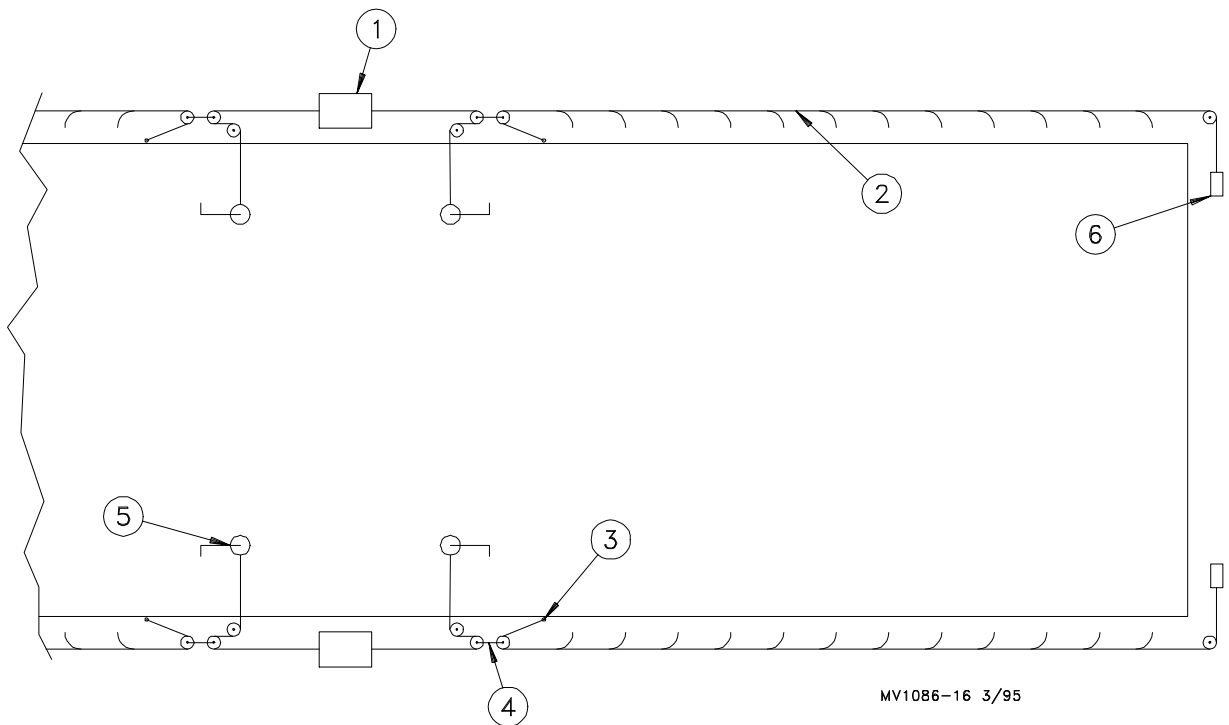
Figure 9. Single Winch side wall mounted application layout drawing.

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 Cable
3	Tie down
4	Two-Pulley Assembly
5	Hand winch
6	50 lbs. (22 kg.) weight

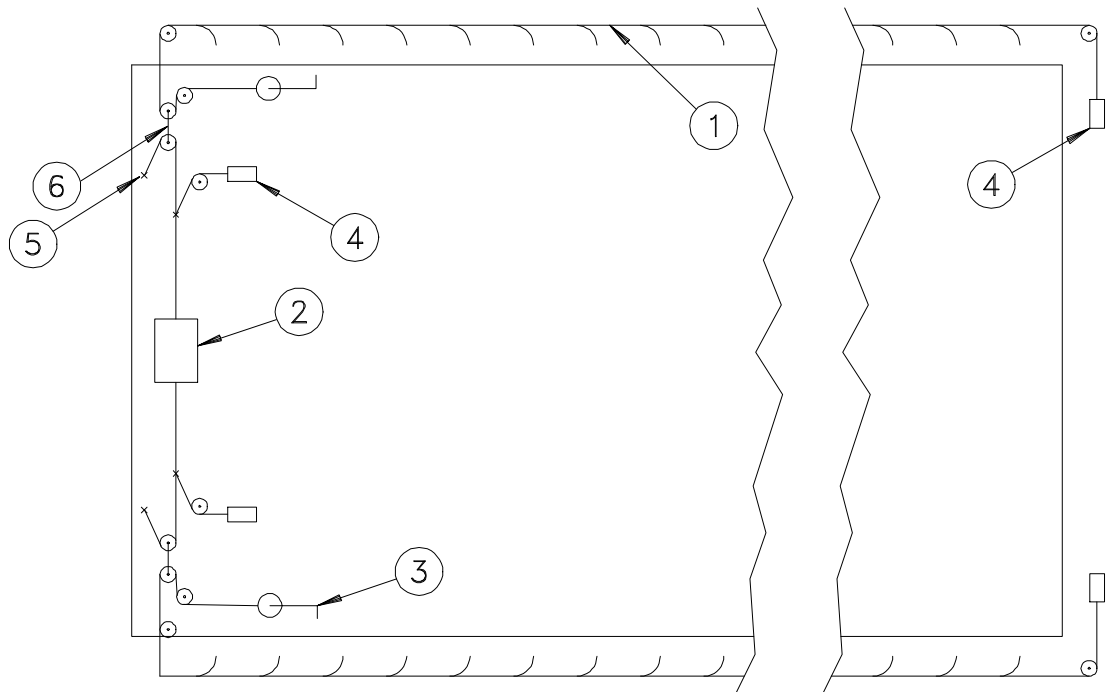
Figure 10. Single Winch side wall mounted application layout drawing.

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.



MV1086-19 3/95

Key	Description
1	Main Curtain Cable
2	SUPER-Lift Winch
3	Hand winch
4	50 lbs. (22 kg) 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.

Remove the Control Box Cover Screws to access the switches.

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.

For the Limit Switch #3 adjustment, see the SUPER-SELECTOR Manual (MV1041).

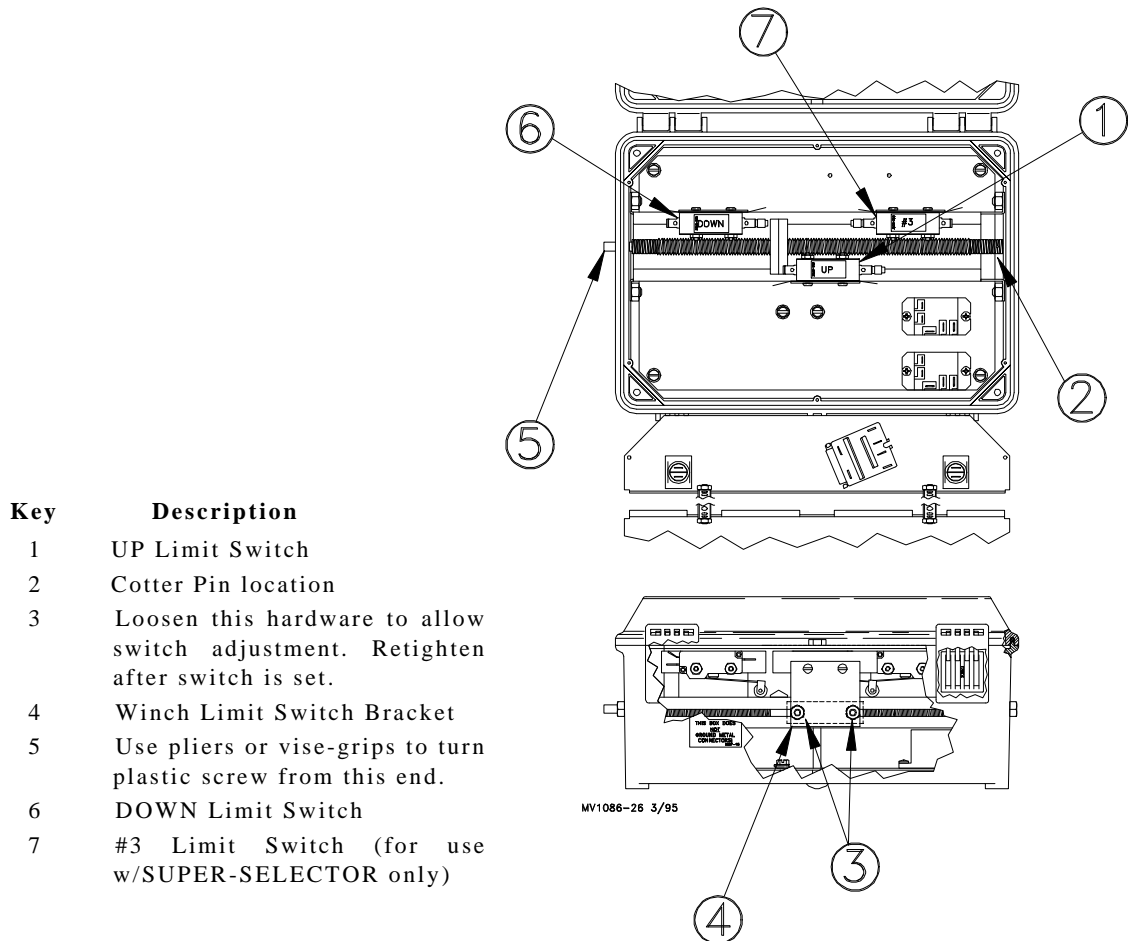


Figure 12. Switch Adjustment Procedure.

Torque Limit Switch Adjustment

The Torque Limit Switch is adjusted at the factory to be actuated at 2000 lbs. total cable load on the drum. If unexpected torquing occurs check the Torque Limit Switch setting as follows:

1. Remove the tension from the cable.
2. Place the 1/8" shim (included) between the nut and the steel plate on the spring loaded bolt. See Figure 13.



Figure 13. Shim installation

3. With the shim in place, turn the spring loaded bolt clockwise until it clicks. This will set the torque limit to approximately 2000 lbs. total cable load on the drum.

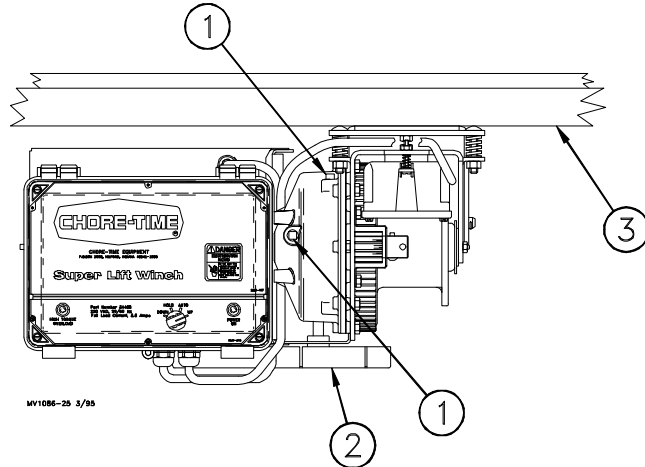
IMPORTANT

Do not set the Torque Limit Switch over 2000 lbs. If the Torque Limit Switch is set too high, damage may occur to the winch, building, and/or curtain.

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

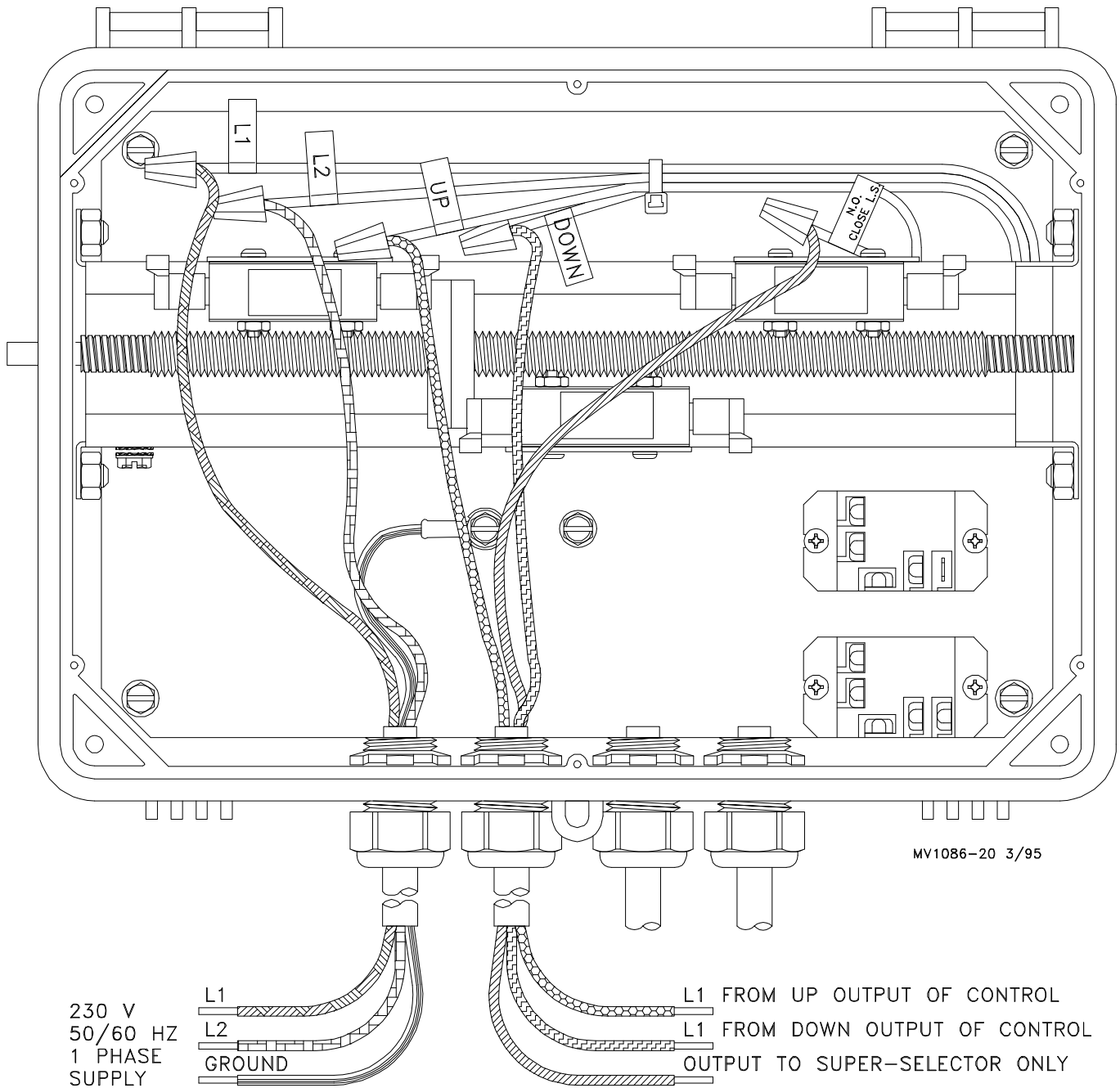
Figure 14. Vent Plug Installation

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.

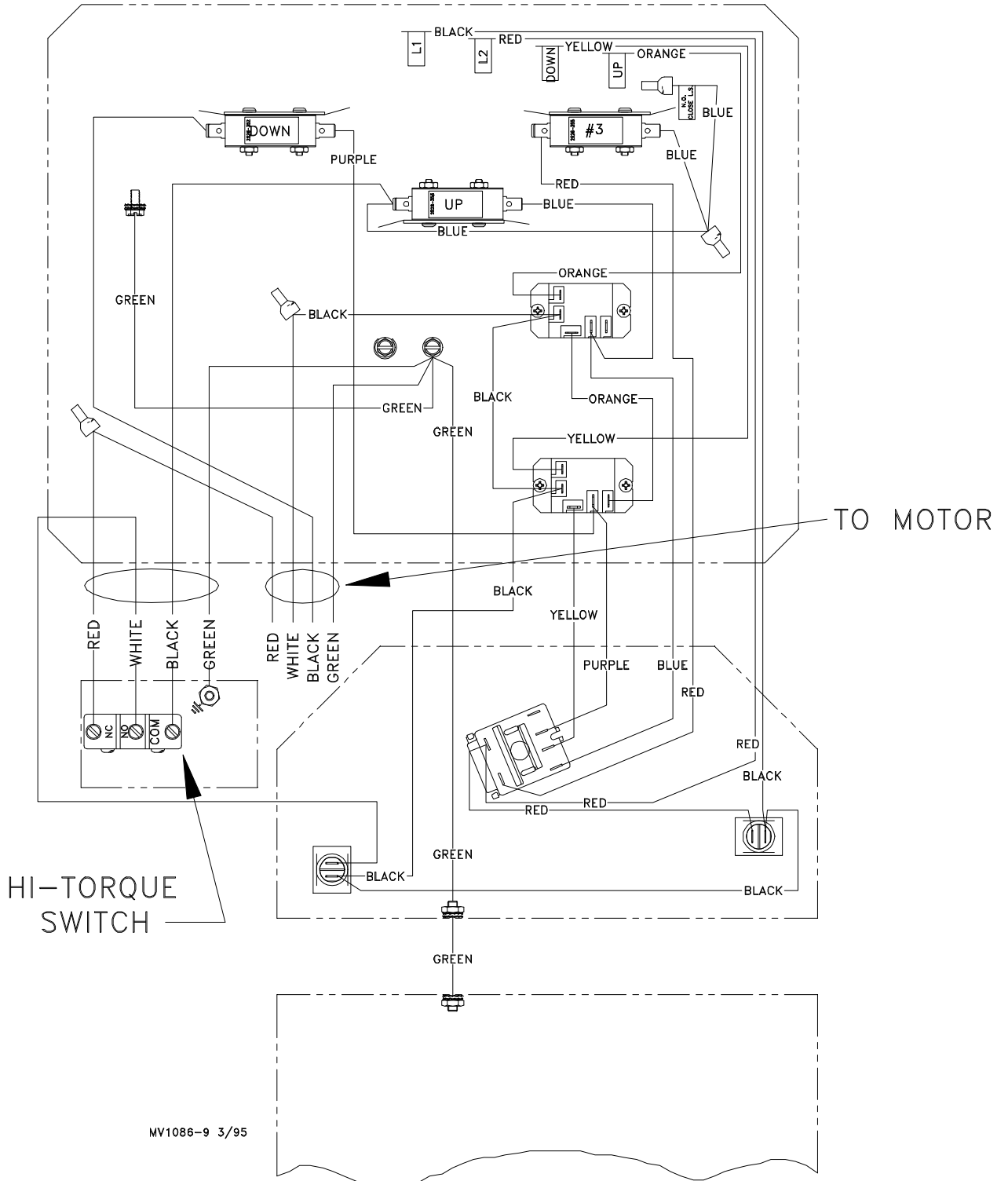
The oil should be changed every 12 months to insure adequate lubrication of the gears. The SUPER-LIFT Winch has a capacity of 1 quart (.95 l). Use an ISO 460EP oil.

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.

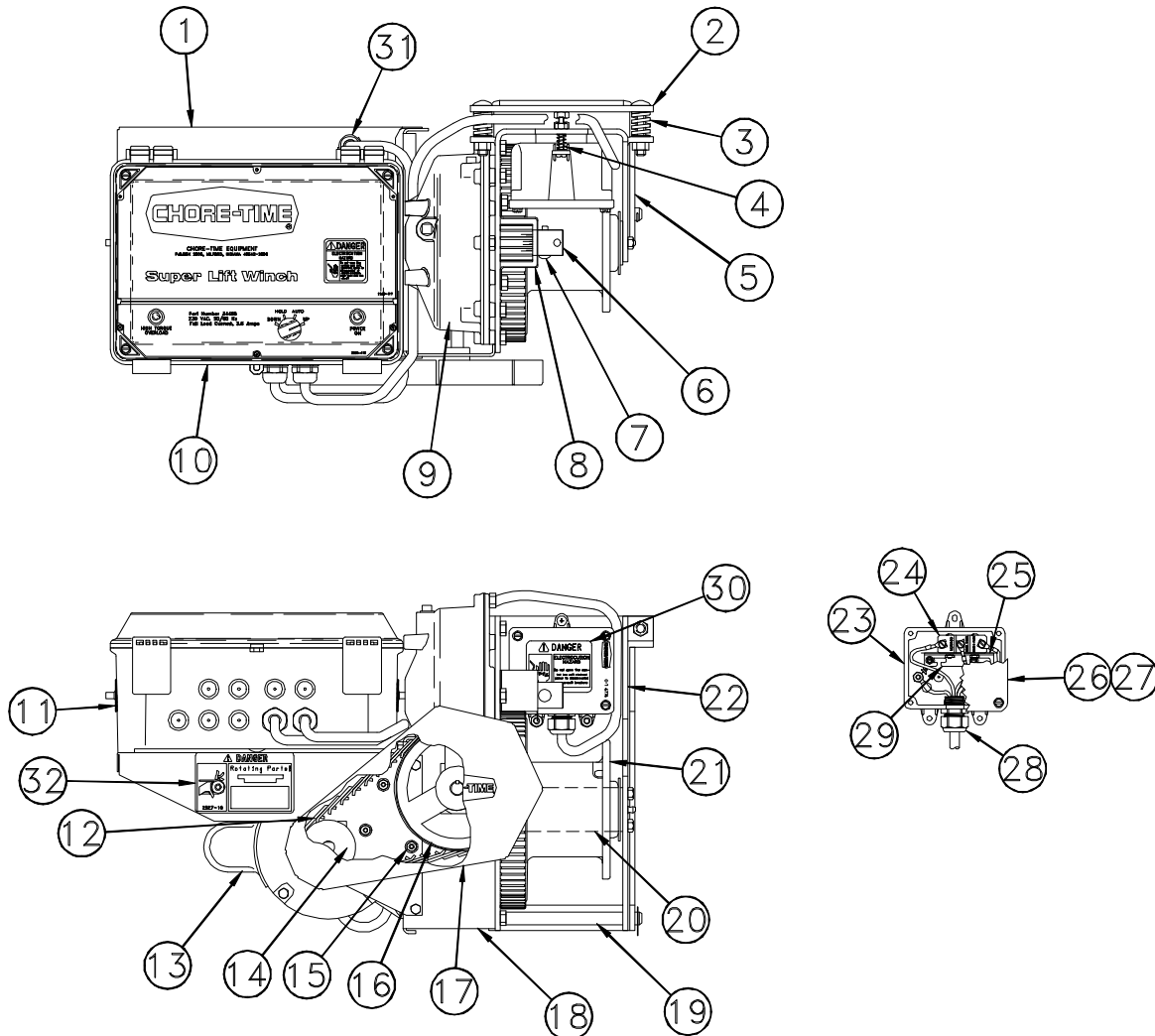
SUPER-LIFT Winch Assembly Wiring Diagram



SUPER-LIFT Winch Assembly Internal Wiring



34468 SUPER-LIFT Winch Assembly



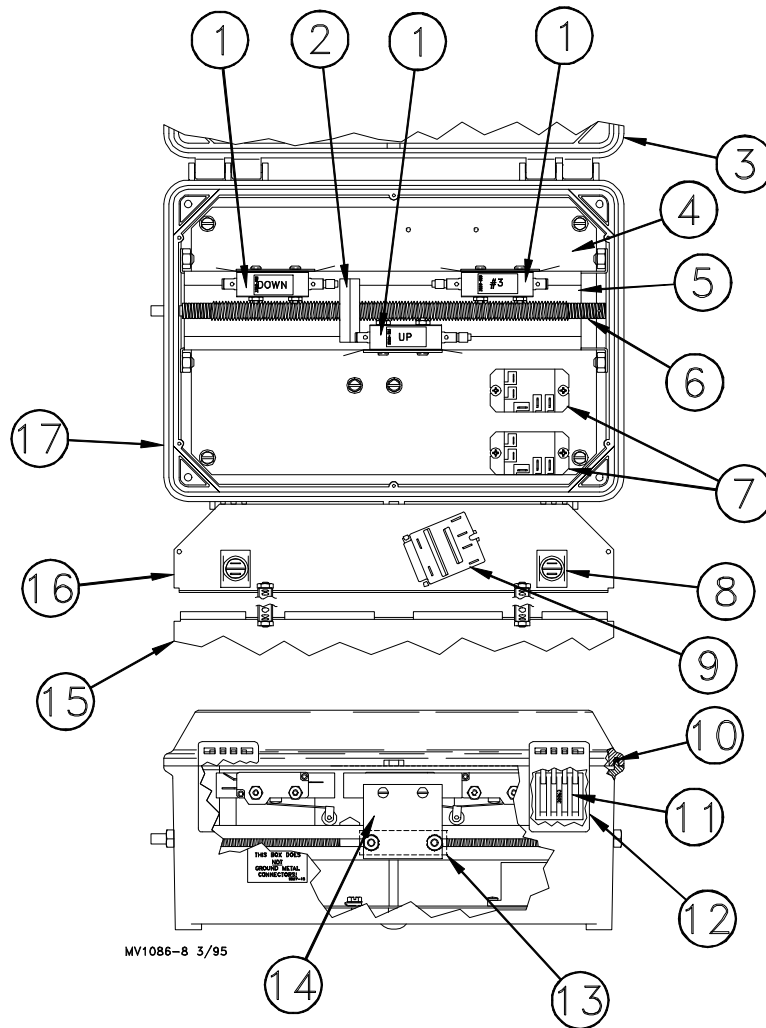
MV1086-6 3/95

<u>Key</u>	<u>Description</u>	<u>Part No.</u>	<u>Key</u>	<u>Description</u>	<u>Part No.</u>
1	Winch Control Box Mounting Brkt.	33819	19	Pivot Pin	30423
2	Spring Reaction Plate	33817	20	Winch Drum Shaft	30419
3	Torque Limit Spring	34691	21	Winch Drum	3723
4	Compression Spring	6972	22	Drum & Gearbox Mounting Bracket	33815
5	Winch Mounting Bracket	33816	23	Switch Box	34824
6*	Winch Drive Pinion Gear	34556	24	SPDT Actuator Switch	7114
7*	1\4" x 1-1\4" Semi-Tubular Rivet	34724	25	Switch Insulation	1907-5
8	Winch Gear Shield	33826	26	Switch Box Cover	6776
9	Winch Gearhead Assembly	34710	27	Gasket	6777
10§	Super-Lift Winch Control	34716	28	Liquid Tight Connector	23779
11	Seal	34698	29	Switch Bracket	7068
12	Link Belt	29969	30	Danger Decal	2527-25
13	Winch Motor (230V, 50/60 Hz.)	34695	31	Bushing	3326
14	Pulley	34703	32	Danger Decal	2527-10
15	Spacer	35666			
16	Pulley	34704			
17	Belt Shield	33818			
18	Winch Motor Mount Bracket	33820			

*Items #6 & #7 are components of item #9 Winch Gearhead Assembly.

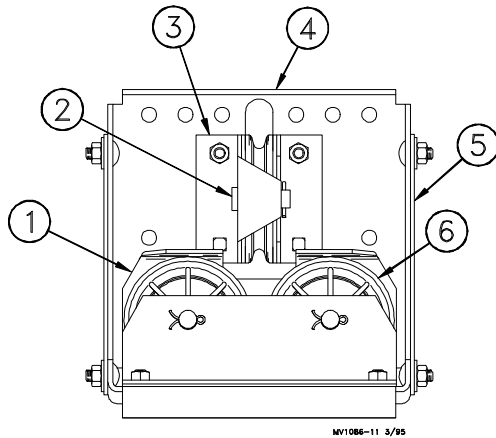
§See individual parts listing in this instruction.

34716 SUPER-LIFT Winch Control



Key	Description	Part No.
1	Switch	4604
2	Winch Limit Switch Actuator	30428
3	Control Box Lid	30859-1
4	Winch Control Mounting Plate	33765
5	Winch Threaded Shaft Channel	35645
6	Winch Threaded Actuator Shaft	30430
7	SPDT 230V Relay	34702
8	Pilot Light Assembly	7044
9	Rotary Switch	8005
10	Seal	34767
11	Control Box Latch	30862
12	Control Box Latch Pivot	30863
13	Stud Assembly	35277
14	Winch Limit Switch Bracket	35276
15	Upper Front Cover Panel	34659
16	Lower Front Switch Panel	34658
17	Winch Control Box	34696

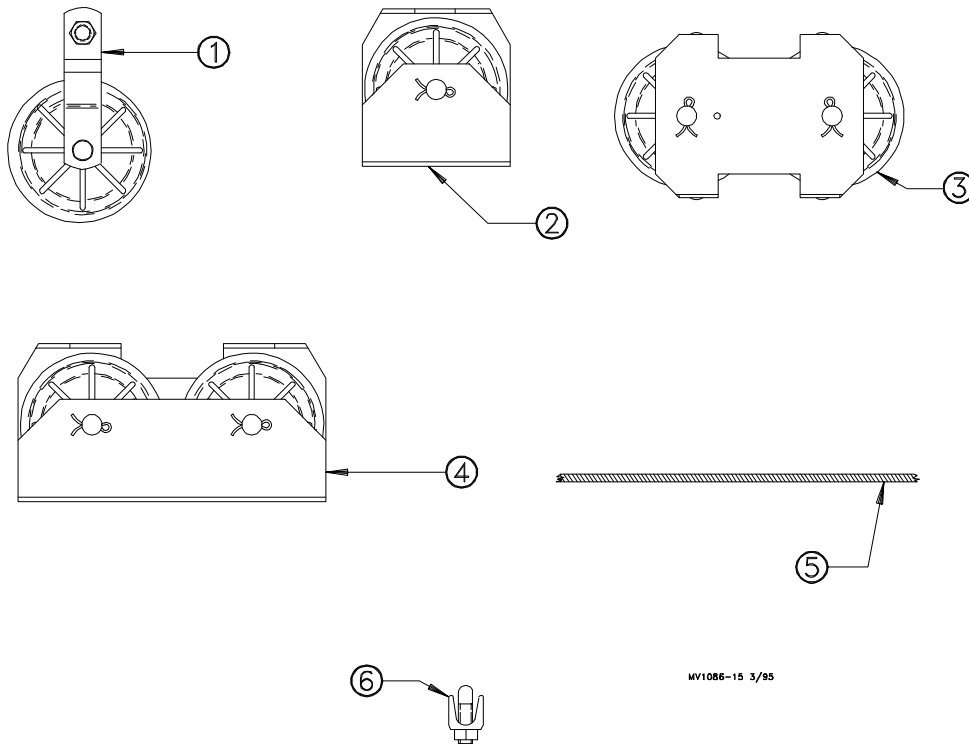
34651 3-Pulley Assembly



<u>Key</u>	<u>Description</u>	<u>Part No.</u>
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 and #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



<u>Key</u>	<u>Description</u>	<u>Part No.</u>
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

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Contact your nearby Chore-Time distributor or representative for additional parts and information.
Chore-Time Equipment, A Division of CTB, Inc.
P.O. Box 2000, Milford, Indiana 46542-2000 U.S.A.

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