

KRAMBLE INDUSTRIES INC.

Remote Control reliaBELT Swing Belt Mover Installation and Operating Manual



Installation Instructions

Mechanical Installation

Figure 1 Mechanical Assembly Drawing



The Swing Belt Mover motor kit is designed to bolt directly onto the swing belt mounting plate provided by Meridian. Begin by removing the wheel from the motor shaft. Install the motor onto the Meridian mover mounting plate and reinstall the wheel & cross bolt. Repeat these steps for the opposite drive.

Think Safety!

Do no install or operate where damage to persons or property may occur

Kramble Industries Inc. is not responsible or liable for indirect, special, or consequential damages arising out of or in connection with the use or performance of the product or other damage with respect to any economic loss, loss of property, loss of revenue or profit, or costs of removal, installation, or reinstallation.

Electrical Installation

The Swing Belt Mover is provided with pre-cut wire lengths with color-coded connectors attached. See the complete diagram at the back of the manual (30-SBM-800). The polarity must be correct as follows: +12v on the RED STRIPE wire on the POWER CABLES FROM THE TRACTOR TO THE CONTROL CONSOLE. The RED /BLACK connector shells MUST MATCH.

WARNING: DO NOT ATTEMPT TO POWER THE CONSOLE OR DRIVE FROM A BATTERY CHARGER ALONE AS DAMAGE MAY OCCUR. CONNECT TO A PROPERLY MAINTAINED BATTERY SYSTEM ONLY.

Figure 5 Console Cable Hook-up

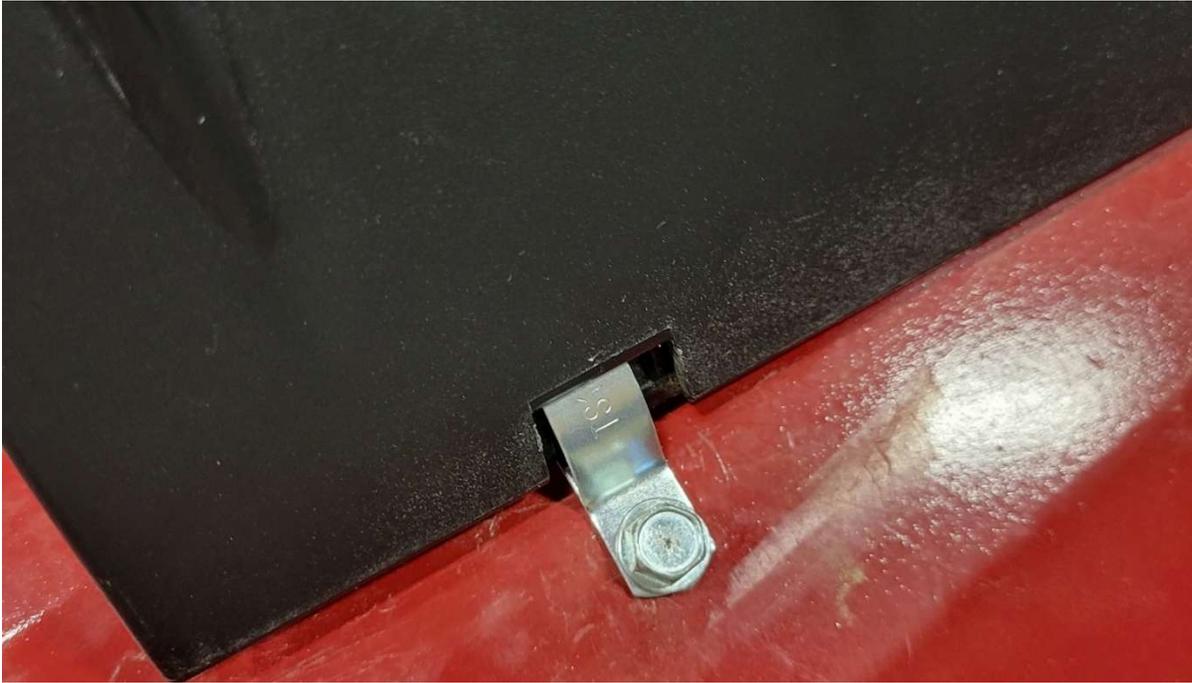


SWING terminals provide power to the wheel motors at 12VDC 18-20 amps unloaded, 80 amps max.

WINCH terminals provide 12VDC 80-amp signal to the winch power cable. Test output voltage using ground terminal and either output terminal A or B while pressing a button

POWER terminals are 12VDC input terminals. DO NOT REVERSE POLARITY. This will damage the main printed circuit board. SERIAL NUMBER is a 4- or 5-digit number on the white sticker. Radio Module in used is a GFCS916 916 The polarity for the Swing A/B and the Winch A/B terminals will reverse during normal operation. If the Wheel Drive is running in the wrong direction when operated, exchange the Swing A and B wires. Similarly, if the Winch is running in the wrong direction when operated, exchange the Winch A and B wires.

Secure Control Console to the Swing Belt tube using the supplied gear type clamps as shown.



Secure cables to the Swing Belt tube using the supplied $\frac{3}{4}$ " insulated clamps with drill point screws.



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Figure 6 Console Diagram



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General Operation

Control Console

The Control Console contains the radio Receiver and power control circuits. The Control Console is equipped with a Master Power On/Off switch on the outside of the case. When the switch is ON, the Red LED should be lit indicating normal operation. Press and release to turn On and Off.

Each of the Swing Belt Drive and Winch may be operated independently from the Control Console by pressing the desired momentary switch. The Green "Output" LED will come on and the selected device will operate.

The Control Console also has built-in fault status indicators. For ease of troubleshooting, if a "low voltage" status occurs to the Control Console, the green Fault States Indicator will blink approximately twice per second. Check all connections to ensure they are clean and tight. Make sure that the tractor battery is fully charged, and the engine is running. If a "control circuit high temperature" status occurs the green Fault States Indicator will flash rapidly, blinking approximately four times per second. Allow the unit to cool before resuming operation.

Each Swing Belt Mover has its own RF receiver located in the control console, which is channel selectable to operate in multi-component environments e.g. remote-control trailer chutes on Channels 1 & 2, and the Swing Belt Mover on Channel 3. The user can select the desired channel using the 2-position dipswitch. All Swing Belt Movers are set to Channel 1 at the factory.

Auxiliary Output (Option):

The Control Console Auxiliary Output provides a remote-control power output capable of delivering 10A (120 watts). This feature is intended for the operation of a remote-control light for illuminating the work area when approaching at night, or for operation of a camera or other device. The output can be activated and deactivated from the transmitter by pressing the center button on the RF transmitter (marked AUX), or from the Control Console by pressing the two "Aux" control buttons on the face of the Control Console simultaneously. The auxiliary output is protected by a thermal fuse that automatically resets when cooled. The auxiliary output is automatically shut off when the fuse trips to prevent a repeating cycle of the fuse tripping and resetting and must be reactivated using the transmitter or Console controls.

The Auxiliary output option includes a 5-foot length cable to connect the Control Console to the 12V device. The polarity is as follows: +12V on the WHITE wire, and GROUND on the BLACK wire.

The auxiliary output connector is factory installed at the bottom center of the console case.

Transmitter/Receiver Matching

The Receiver is matched to a Transmitter by “learning” the transmitter’s unique security code so that the receiver will accept commands from that transmitter. A factory default system already has its transmitter matched to the receiver.

To match a transmitter to a receiver, first turn the receiver power switch OFF. Hold the button marked LEARN on the receiver and press the receiver power ON, then release the two buttons. The Receive/LEARN light is then lit to indicate that the receiver is waiting for a signal from the transmitter to be learned. Press any button on the transmitter to send a signal and the receiver will read the transmitter’s security code and store it in memory. The Receive/LEARN light will flash three times to indicate that the transmitter has been successfully learned, and the Receive/LEARN light will turn off and receiver will then enter normal operating mode. Up to eight transmitters can be learned by a receiver. If eight unique transmitters have already been learned by a receiver and it is instructed to learn another transmitter, the oldest learned transmitter’s security code will be overwritten and forgotten. The Full Bin Alarm buzzer and light are disabled for ten seconds after learning a sensor probe’s security code to prevent unwanted activation of the alarm.

To erase all stored security codes, turn the receiver power ON while holding the LEARN button, and continue holding the button until the Receive/LEARN light begins to rapidly flash. Release the button, and the light will flash more slowly for three seconds, then turn off to indicate that the erased operation has succeeded. If the LEARN button is pressed while the Receive/LEARN light is slowly flashing, the erase operation is aborted, and the receiver retains the stored transmitter security codes.

The Receiver is equipped with a two-position switch to enable or disable the learn and erase functions. To enable or disable a function, open the case and locate the switch as illustrated below. The switches and their positions are labeled on the circuit board. Factory default systems are set by default so that the Learn function is Enabled and the Erase function is Disabled.

Channel Select Settings

The Swing Belt Mover comes with a 2-position DIP Switch to match the Drive to the desired transmitter channel. In multi-component environments, be sure that each drive is set to a different channel so that devices do not operate simultaneously. Select the switch settings as follows:

	Switch 1	Switch 2
Channel 1	OFF	OFF
Channel 2	ON	OFF
Channel 3	OFF	ON
Channel 4	ON	ON

The Swing Belt Mover and Winch can be operated using the Transmitter, or alternatively, by operating the UP/DOWN momentary switches on the Control Console. Whenever the Swing Belt Mover drive or Winch is operated by remote control the Yellow "Receive Data" LED will be lit along with the Green LED indicating power output to the drive.

The Swing Belt Mover has two automatically resetting fuses. Fuse F1 (1 Amp) inside the control console is intended to protect the RF receiver and data circuitry, and Fuse F2 (80 Amp) at the battery is intended to protect against a short circuit in the cables. These fuses will automatically reset when cooled.

The Control Console power switch should be turned Off when not in use to prevent undesired operation.

Transmitter

The Transmitter is powered by a 9V battery which, when installed, should light the red "power" light when a switch is pressed. If the battery does not exceed 7 volts the Power light will not come On, indicating battery replacement is required.

The Transmitter is also equipped with an OFF/Standby switch to prevent accidental operation. In the OFF position the transmitter Red LED will not light, and the transmitter will not activate even when a function button is pressed. To operate, slide the switch to STANDBY. The transmitter remains off until a function button is pressed, at which time the Red LED will light, and the transmitter will emit signal. No battery power is used when simply in Standby mode with no function buttons pressed.

Each transmitter contains a unique identifying security code that is transmitted to the receiver during RF operation. Up to eight Transmitters can "talk" to the same Receiver as long as the receiver has learned the transmitters' security codes. See page 9 for Security Code Matching Instructions.

To access the battery, remove the 4 screws in the back of the Transmitter case and open the case.

Transport Winch (option)

The Transport Winch is provided for ease of lifting of the swing auger and hopper to and from the transport position. This electric winch operates on 12VDC power provided by the tractor battery and is controlled by manual switch on the Console, or by remote control.

The customer can decide the optimum mounting location and utilization for each application. The electric winch may be employed to replace the existing hand-crank winch or alternatively, to operate in addition to the hand-crank winch.

To install the winch on the mounting plate provided, the customer should unwind the cable to get access to the two mounting holes, which are located underneath the drum. Unwind the cable until you have enough space to drop a bolt through each hole then screw the nuts on from the bottom.

The Transport Winch option uses a 4500lb 12VDC electric winch.

It is imperative to follow all winching instructions as contained in the Owner's Manual. See wiring diagram provided for proper connections.



Think Safety!

**STAND CLEAR WHILE OPERATING AND ALWAYS USE SAFETY CHAIN
WHEN RAISED**

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FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada

This device complies with Industry Canada license exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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Limited Warranty

Customer satisfaction is a fundamental policy at Kramble Industries Inc. All customers can rely upon and expect to receive prompt, efficient and courteous service on all Kramble Industries Inc. manufactured equipment from each employee of the organization.

Kramble Industries Inc. with its office at 20-3924 Brodsky Ave, Saskatoon, SK warrants:

To the Original Purchaser/User, each product manufactured by Kramble Industries Inc. to be free from defective material and workmanship, under normal use and service, for a period of 12 months subject to conditions outlined below. The obligation under this warranty is limited to repair, or replacement with a similar genuine company part, for any part of the product of the company's manufacture that is found to be defective.

Warranty period begins on the day of purchase. During the first (1st) through the twelfth (12th) month, Kramble will furnish without charge, F.O.B. its plant, a similar genuine part to replace any part of a product of the company's manufacture which proves to be defective, in normal use and service, during this time. Labor to install or repair such parts will be absorbed by Kramble Industries Inc. If this work is to be done other than Kramble personnel, prior approval must be given by Kramble Industries Inc. as to rate and time.

This warranty shall bind the company only as follows:

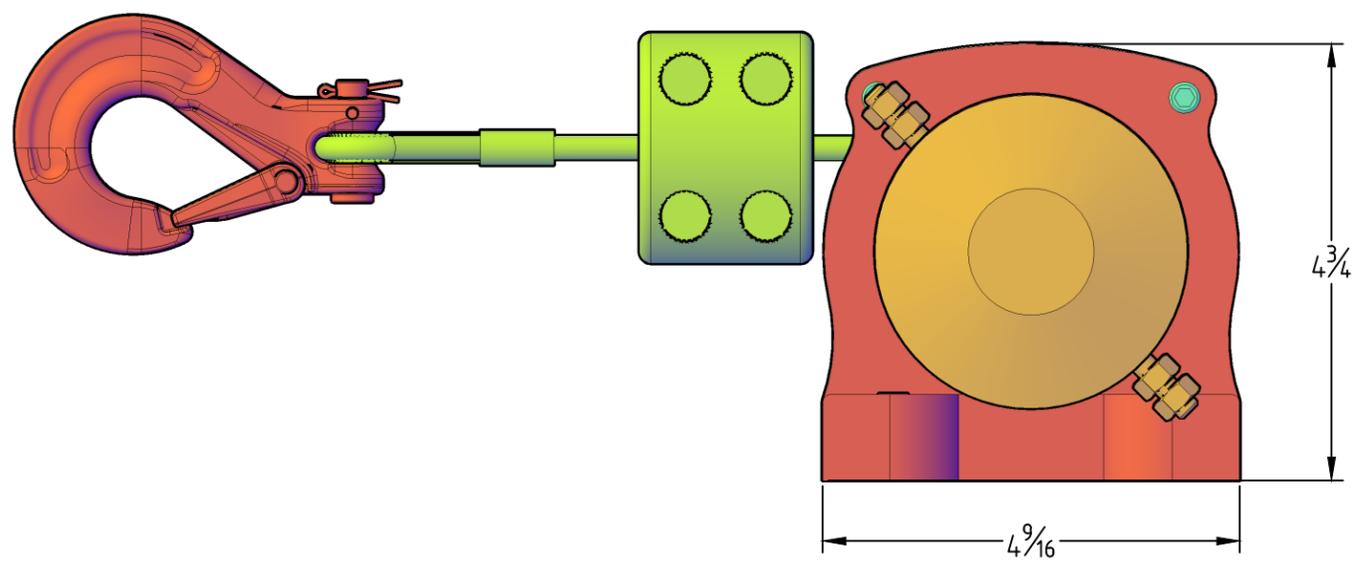
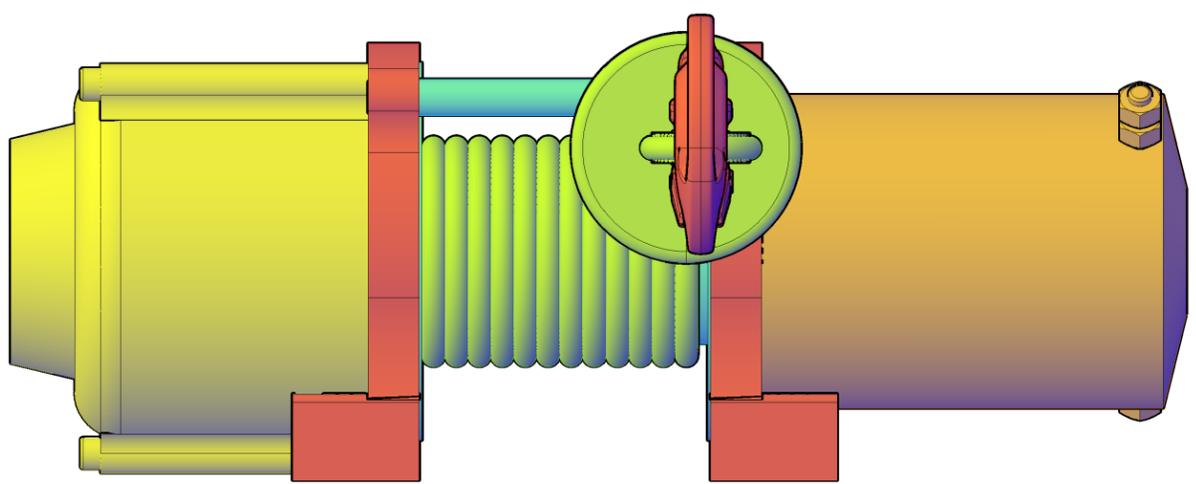
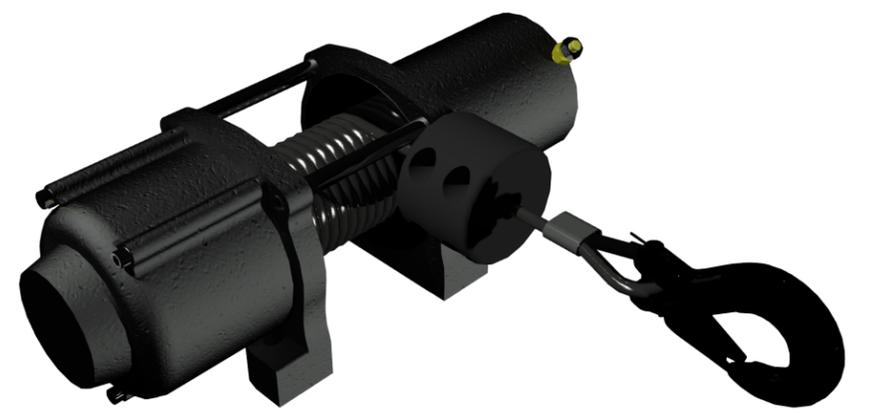
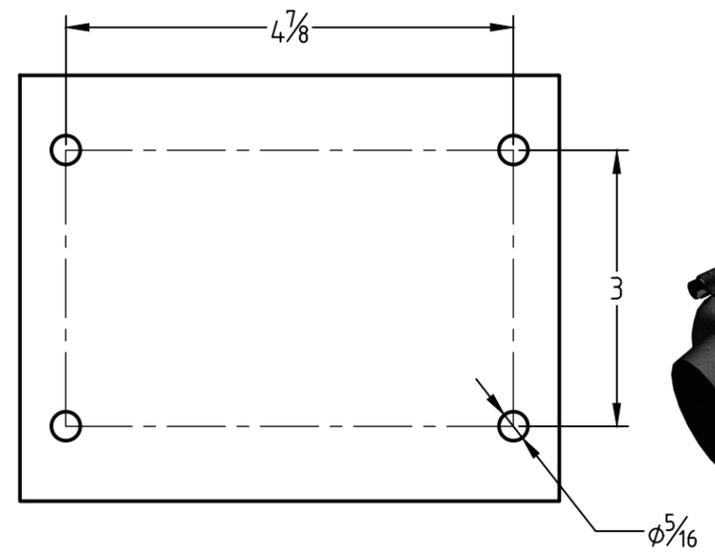
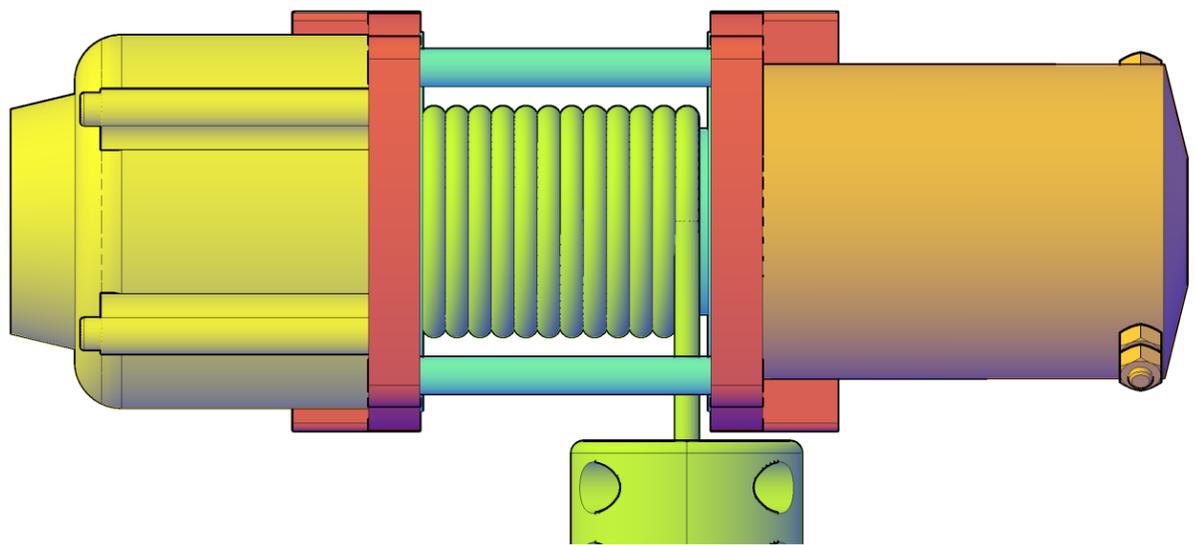
1. The warranty shall be limited to the repair or replacement of defective parts, all other damage, loss, cost or obligation and claim whatsoever, statutory or otherwise, are hereby waived by the original purchaser\user, and again, the warranty hereby given covers only those labor charges specifically authorized by the company in advance.
2. The warranty shall not apply to any failure or damage incurred through neglect, lack of maintenance, misuse, abuse, accident, improper installation, re-designing of assemblies, ignorance, or through any other cause beyond the control of the company.
3. The warranty does not cover products of other manufacturers beyond such warranty as may be made by such manufacturer.
4. The warranty shall not apply to normal maintenance services, or to deterioration of appearance of items due to normal use and exposure.
5. The warranty shall not apply when the original purchaser/user has allowed repair and/or service work to be conducted on the product without authorization from the company.

IMPORTANT NOTE:

Before any warranty work is done, contact Kramble Industries Inc. for authorization. Failure to do so may result in denial of warranty.

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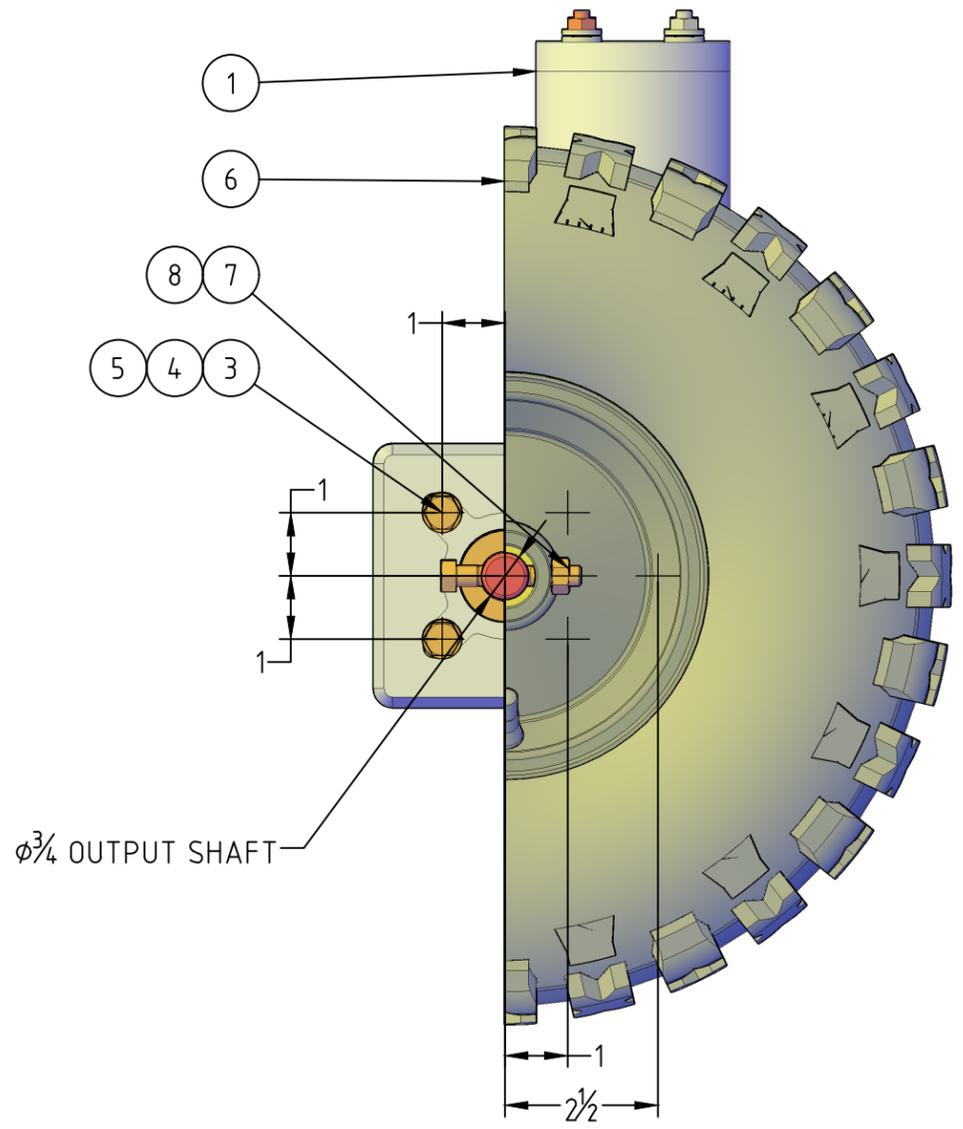
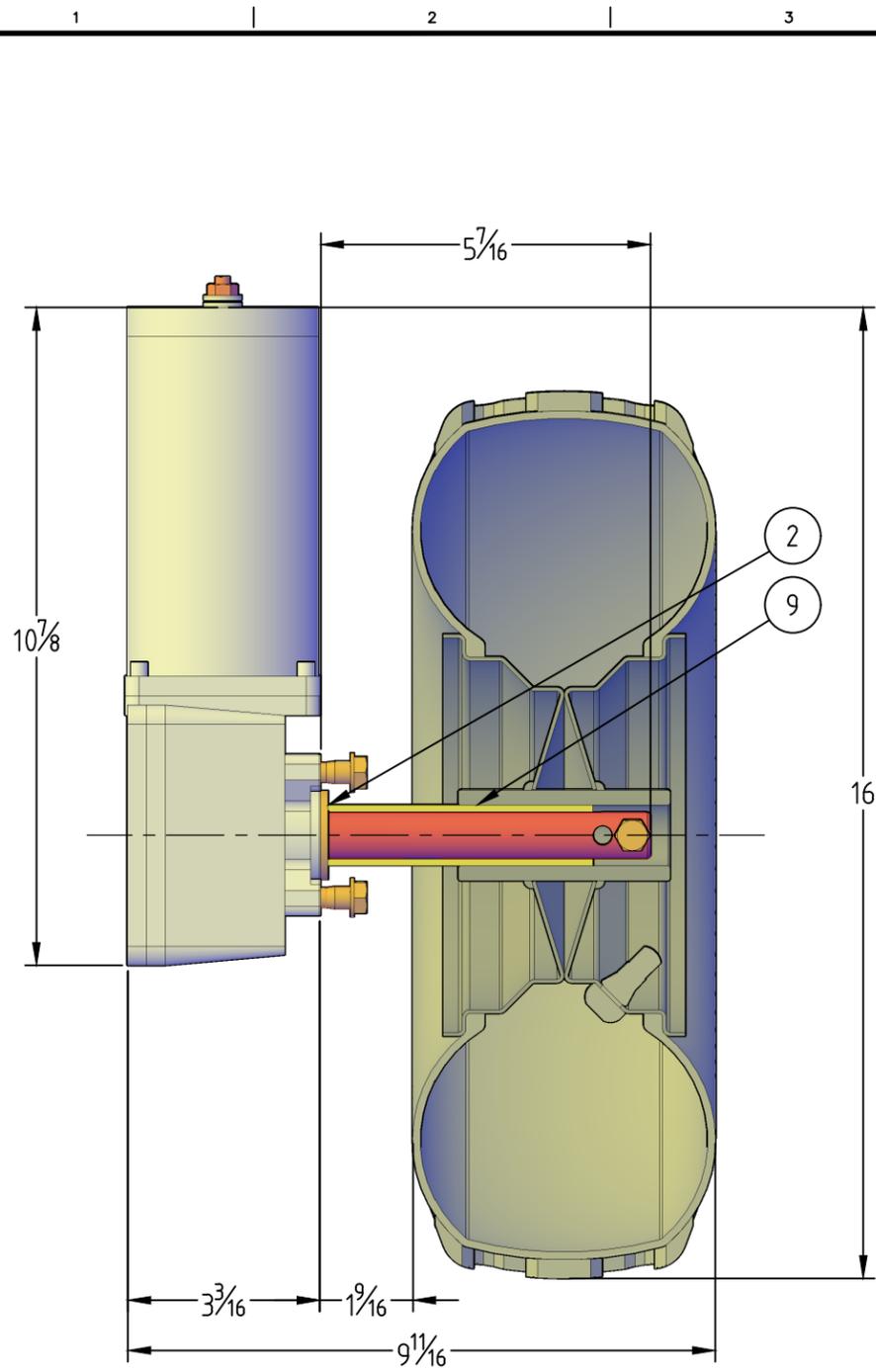
ITEM	DESCRIPTION	PART#	QTY
1	Winch, 4500lbs 12V (Steel Cable)	93038	1
		WEIGHT	10.6



REV.	DESCRIPTION	DATE	BY
0	ISSUED FOR USE	08APR25	A.REID

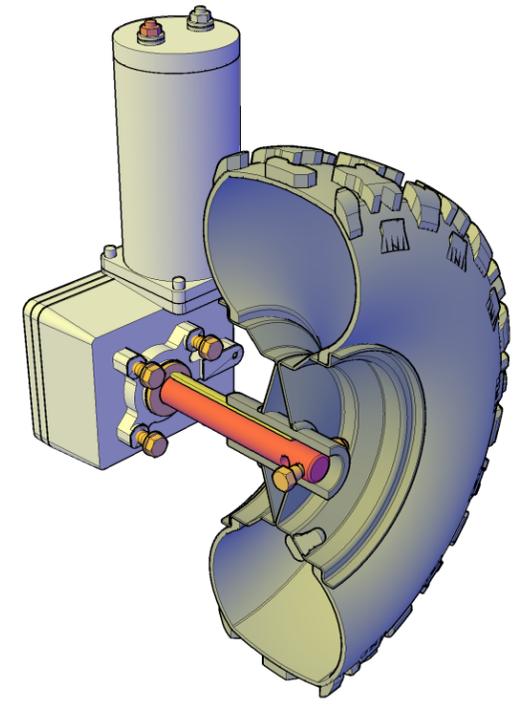
BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125"		3RD ANG. PROJ	STANDARD TOLERANCES		SECTION: ASSEMBLY	
THE INFORMATION ON THIS DRAWING IS THE SOLE PROPERTY OF KRAMBLE INDUSTRIES INC. REPRODUCTION IN WHOLE OR IN PART EITHER HARD COPY OR ELECTRONIC IS STRICTLY PROHIBITED WITHOUT OUR WRITTEN CONSENT			DIMENSION (IN)	TOLERANCE (IN)	SCALE: 1:2	
			XX.XXX	±0.005	DESIGN BY: A.REID	08APR25
			XX.XX	±0.020	DRAWN BY: A.REID	08APR25
			XX.X	±0.040	APP. BY:	
			FRAC.: ±1/16	ANGULAR: ±1°		

KRAMBLE INDUSTRIES	
WINCH 4500#	
DRAWING NUMBER	REV.
39845	0



ITEM	DESCRIPTION	PART#	QTY
1	Swing Belt Mover Worm Gear Motor	33550	1
2	Washer, 3/4" Flat F436	93039	1
3	Bolt, M8-1.25 x 20 Hex Head Cap Screw Full Thread	92466	5
4	Washer, M8 Flat	92467	5
5	Washer, M8 Split Lock	92468	5
6	Tire & Wheel Assembly - 15x5.00-6 Polar Trac	33530	1
7	Bolt, 5/16-18 x 2 Hex Cap	90172	1
8	Nut, 5/16-18 Hex Nylock	90195	1
9	CDSM 1.00"O.D.X 0.782" I.D. 0.12"WALL X 4-3/8"LG	93040	1
	WEIGHT		0.0

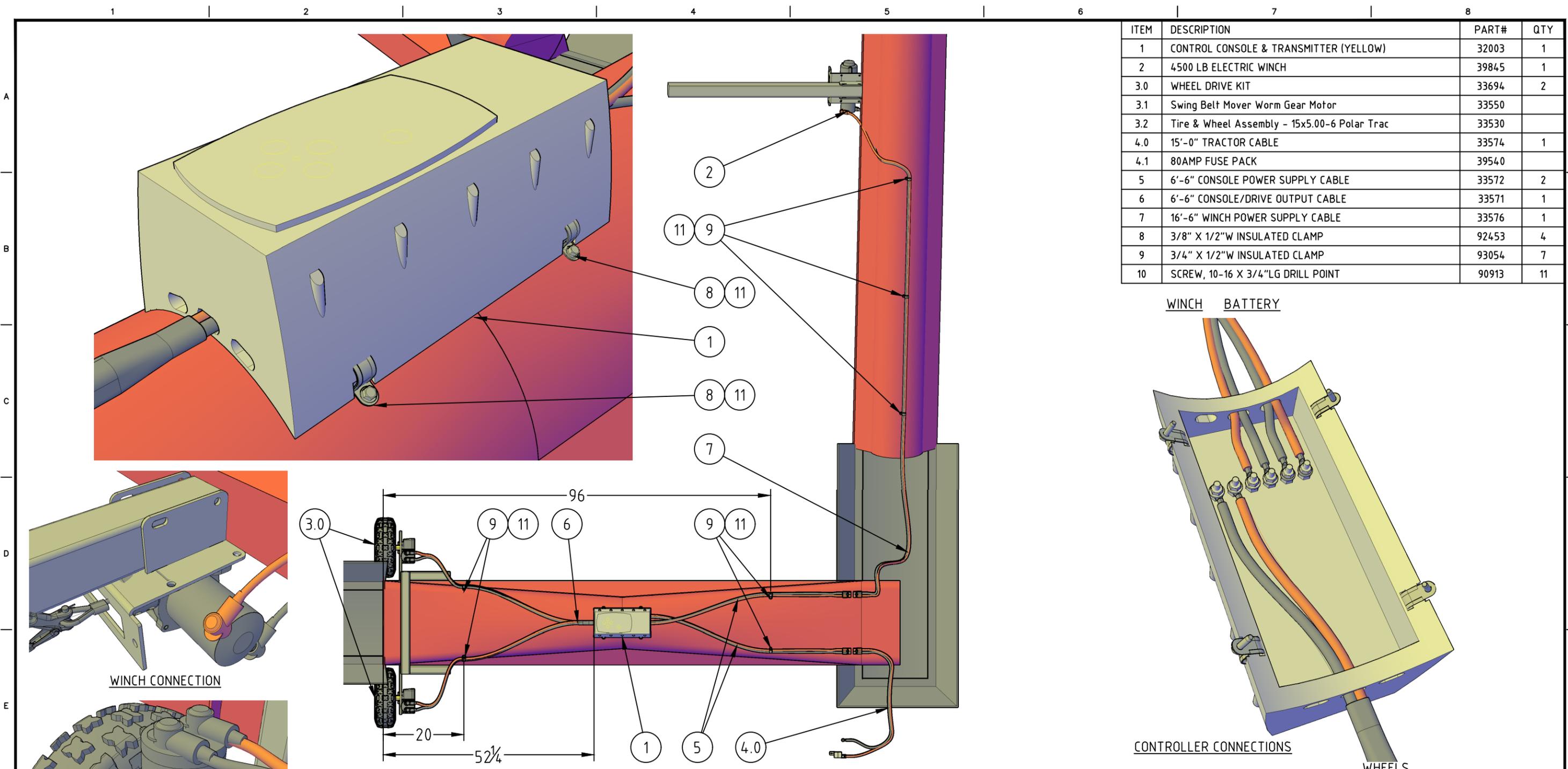
GENERAL NOTES:
 1. ALL DIMENSIONS ARE IN INCHES.
 2. ALL WEIGHTS ARE IN POUNDS.



REV.	DESCRIPTION	DATE	BY
2	REMOVED BRONZE BUSHING, LENGTHENED SLEEVE	08APR25	A.REID
1	REMOVED BOLT,		A.REID
0	ISSUED FOR USE	21NOV24	A.REID

BREAK ALL SHARP EDGES CHAMFERS 0.015" RAD. & FILLET 0.125"		3RD ANG. PROJ	STANDARD TOLERANCES		SECTION: ASSEMBLY		
XX.XXX	±0.005		DIMENSION (IN)		SCALE: 1:4		
XX.XX	±0.020		TOLERANCE (IN)		DESIGN BY: A.REID 21NOV24		
XX.X	±0.040	FRAC.: ±1/16		ANGULAR: ±1°		DRAWN BY: A.REID 21NOV24	
						APP. BY:	

KRAMBLE INDUSTRIES	
SWING BELT MOVER reliaBELT WHEEL KIT	
DRAWING NUMBER	REV.
33694	2



ITEM	DESCRIPTION	PART#	QTY
1	CONTROL CONSOLE & TRANSMITTER (YELLOW)	32003	1
2	4500 LB ELECTRIC WINCH	39845	1
3.0	WHEEL DRIVE KIT	33694	2
3.1	Swing Belt Mover Worm Gear Motor	33550	
3.2	Tire & Wheel Assembly - 15x5.00-6 Polar Trac	33530	
4.0	15'-0" TRACTOR CABLE	33574	1
4.1	80AMP FUSE PACK	39540	
5	6'-6" CONSOLE POWER SUPPLY CABLE	33572	2
6	6'-6" CONSOLE/DRIVE OUTPUT CABLE	33571	1
7	16'-6" WINCH POWER SUPPLY CABLE	33576	1
8	3/8" X 1/2"W INSULATED CLAMP	92453	4
9	3/4" X 1/2"W INSULATED CLAMP	93054	7
10	SCREW, 10-16 X 3/4"LG DRILL POINT	90913	11

REV.	DESCRIPTION	DATE	BY
6	UPDATED TO AS BUILT	05FEB26	A.REID
5	CHANGED CONTROLLER FROM 32001, UPDATED CABLES	04NOV25	A.REID
4	DWG# WAS 25-SBM-803-r3, WINCH WAS 39806, REMOVE 33560	17APR25	A.REID
3	REMOVED 33573, LENGTHENED 33576 6" & 33575 12"	26NOV24	A.REID
2	ADJUSTED FIT	20FEB19	A.REID
1	UPDATED TO AS BUILT	15FEB19	A.REID
0	ISSUED FOR USE	04FEB19	A.REID

STANDARD TOLERANCES		SECTION: INSTRUCTION	
DIMENSION (IN)	TOLERANCE (IN)	SCALE:	N.T.S
XX.XXX	±0.005	DESIGN. BY: A.REID	04FEB19
XX.XX	±0.020	DRAWN BY: A.REID	04FEB19
XX.X	±0.040	APP. BY:	
FRAC.: ±1/16	ANGULAR: ±1°		

KRAMBLE INDUSTRIES

**TRACTOR POWERED
reliaBELT ASSEMBLY
DIAGRAM**

DRAWING NUMBER	REV.
33051	6