



INSTALLATION MANUAL



INSTALLATION MANUAL

S-102

PN:1800000

Revision 04/06/2021

Refer to this manual during the upfit & installation of the Switch-N-Go® hoist system, and accessory component(s)

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General Warnings

Warning Labels & Indicators

⚠ DANGER

⚠ DANGER

Indicates a hazardous situation that, if not avoided, could result in serious injury or even death

⚠ WARNING

⚠ WARNING

Indicates to hazardous situations that, if not avoided, could result in minor to severe injury

⚠ DANGER

⚠ CAUTION

Indicates to hazardous situations that, if not avoided, could result in minor to moderate injury

⚠ NOTICE

⚠ NOTICE

Indicates information considered important, but not hazard-related



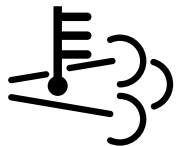
⚠ DANGER

Be sure to wear appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.



⚠ DANGER

Welding, oxygen-fuel cutting, or grinding sparks can cause fuel to ignite which in turn can lead to injury or death. Always take adequate steps to avoid ignition of fuel from fuel tanks when welding, oxygen-fuel cutting or grinding during equipment.



⚠ DANGER

Heat from the trucks' exhaust system can cause hydraulic component failure and may lead to a fire which could cause injury or death. Always install equipment in locations where heat from the exhaust will not damage any hydraulic component.



⚠ DANGER

Damage to the brake lines during equipment installation or installing equipment in such a way that a line will rub and become damaged, can lead to failure of the brakes, which can lead to severe injury or death. Always take adequate steps to prevent brake line damage during installation and isolate brake lines from installed equipment.



⚠ WARNING

Failure to install or operate the Switch-N-Go® hoist system as described in the Installation or Operation Manual may result in a faulty component or malfunction, may void vehicle or Switch-N-Go® warranty, and or may cause serious injury or death.

⚠ NOTICE

READ AND UNDERSTAND THE INSTALLATION MANUAL THOROUGHLY BEFORE INSTALLATION OF THE Switch-N-Go® HOIST SYSTEM.

ONLY AUTHORIZED TRAINED INSTALLERS OF TRUCK BODIES AND HOIST SYSTEMS, WHO ARE AWARE OF FEDERAL AND STATE D.O.T. REGULATIONS AND LOCAL REGULATIONS, SHOULD INSTALL THE Switch-N-Go® SYSTEM. THE SYSTEM MUST ABIDE BY THE NATIONAL TRUCK EQUIPMENT ASSOCIATION (NTEA) STANDARDS. AS TRAINED INSTALLERS, PLEASE USE SAFE PRACTICES TO ELIMINATE HAZARDS FROM ELECTRICAL, HYDRAULIC AND/OR MECHANICAL PARTS DURING INSTALLATION. THIS MANUAL IS WRITTEN ONLY FOR THOSE TRAINED IN THE KNOWLEDGE OF VEHICLE/TRUCK CHASSIS; DRILLING AND WELDING RESTRICTIONS, NEUTRALIZING VEHICLES FUEL SYSTEMS, AND UNDERSTANDING/KNOWLEDGE OF ELECTRICAL DIAGRAMS.

⚠ NOTICE

The Switch-N-Go® hydraulic system components are designed to be compatible with each other. If hydraulic components are substituted with incompatible components, all liability and warranty for the hoist system will be voided. It is the Installer's responsibility to recognize that incompatible hydraulic components may result in failure of the hoist system, which may result in damaging the vehicle, other property, or severe injury or death.

⚠ NOTICE

Installation of a Switch-N-Go® system on the chassis of a truck will change the center of gravity. Please refer to proper vehicle handling techniques when navigating turns and traveling on uneven ground.

⚠ NOTICE

Installation of the Switch-N-Go® hoist system is not complete until the installer was verified the safety decals are properly located and the system is fully tested. Once the system is working as intended, complete the installation completion checklist located in the back of this manual. Review Switch-N-Go® operator manual and vehicle manufacturer owner manual before using the system, as this may result in injury or damage to vehicle and/or system if not done correctly.

⚠ WARNING

During installation of a Switch-N-Go® system, DO NOT WELD TO THE CHASSIS. This may result in voiding the vehicle's warranty. Properly follow instructions during installation of a Switch-N-Go® hoist system.

⚠ DANGER

Modifying the connection between the hydraulic hoist system and hydraulic pump system to provide more pressure (psi) or flow (GPM) than recommended by the hoist system manufacturer can lead to damage, serious injury, or death.

⚠ NOTICE

Before Installation, ensure the Switch-N-Go® hoist system maintains a minimum of 2" (5.08cm) distance from the back of the vehicles cab/engine to prevent any contact with the cab, in accordance with NTEA standards.

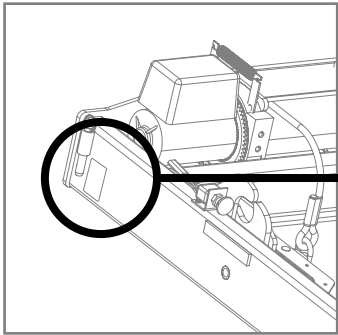
⚠ NOTICE

Before Installation, ensure the Switch-N-Go® hoist system length does not measure longer than the vehicles Cab to End of Frame (CEF) as this will require additional modifications to the vehicle chassis and may void vehicle's chassis warranty. Depending on the vehicle manufacturer, model or sub model, the chassis cab vehicle's CEF may be to shorter or longer than the hoist length. This will require modifications be made to the vehicle's chassis. If any modifications are required, ensure they abide by DOT regulations and follow NTEA safety standards. Reference vehicles manufacturer documentation for proper vehicle upfitting modifications as this may result in voiding vehicle warranty.

⚠ NOTICE

Before Installation, ensure the chassis cab vehicle frame width will accept the Switch-N-Go® hoist system. Vehicle frames wider or narrower may need additional spacers either along the hoist frame or along the chassis frame to properly fit.

Before installing the Switch-N-Go® System, please review and understand the hoist system. Identify the serial/model identification tag, located on the driver's side of the Switch-N-Go® top frame, near the front.



SERIAL NUMBER

This unique identification number or serial number is specific to each model, manufacturing date and is assigned to sales purchasing order. The Serial Number is used for any warranty claims or technical support.

SERIAL NUMBER

S 8 8 8 8

MODEL NAME

This model is a generic name and not unique to one model. This model name is 4-part identification code as show below.

PART NUMBER

This part is a number sequence is for product ordering.

HOIST SYSTEM LENGTH

The Switch-N-Go® model length is unitized by foot increments. The length is less than the cab to end of frame (CEF) of the vehicle chassis ranging from 9' (108") up to 14' (168"). Systems that are shorter or longer are acceptable but require additional modifications or accessories. For additional information see your vehicle manufacturer's up-fit documents. The standard Switch-N-Go® hoist system has an 18" overhang.

SCISSOR HOIST SERIES

The scissor hoist system is built by Rugby™ for Switch-N-Go® hoist systems. The series can be identified by the 4-digit number in the model name: 4016, 4020, or 5020.

HOIST SYSTEM | E-SERIES

The Switch-N-Go® E-series (electric series) is an electric-over-hydraulic system that has an Warn electric winch and a hydraulic hoist system. This system is designed for up to 6 fully loaded lifts per day. A fully loaded winch draw is equal to the rating of the winch, which is 15,000lbs. If you are loading 15,000lbs (body and payload), the system can pull six loads per day. If you are loading a lesser weight, the system will be able to pull more than six loads per day. This system utilizes a hydraulic scissor hoist system, allowing for unlimited dumping. The Switch-N-Go® full electric operation system is equipped with a pre-wired electric Warn winch and a separate on-board electric-powered hydraulic hoist system. The E-series offers a winch capacity of 15,000 lbs. as indicated as by the 15 in the model name followed by an "E" for electric. This is ideal for GVWR vehicles between 13,500 lbs. - 26,000 lbs. The E-series is supplied with a 600-amp fuse, power, and ground wires in the E-series installation kit.

HOIST SYSTEM | H-SERIES

The Switch-N-Go® H-series (hydraulic series) is a full hydraulic system that has a Warn hydraulic winch and a hydraulic hoist system. This system is designed to handle an unlimited number of winch draws and dumps per day. This system utilizes a hydraulic pump, supplied by either a "live" drive-style power take-off (PTO) or an under-hood clutch pump for both the winch and the hoist system. The H-series offers two combined hydraulic-powered winch/hoist system capacities: 15,000 lbs. or 18,000 lbs. as indicated as by a 15 or 18 in the model name followed by an "H" for hydraulic. This is ideal for GVWR vehicles between 16,000 lbs. - 33,000 lbs. The H-series requires more components to be installed onto the truck including a hydraulic pump, reservoir, filter, and additional hoses. These components are not provided with the H-series installation kit.

HOIST SYSTEM | S-MODEL

The Switch-N-Go® S-model hoist system has a shorter 6" overhang for easier access to the hitch under the truck body. This is shown in the model name by an "S" following the winch type indicator.

HOIST CAPACITY

The dumping capacity of the hoist system differs from the pulling capacity of the winch. The last alpha-numeric indicator in the model name refers to the hoist system capacity. For example, 10T would indicate the hoist system is capable of dumping 10 tons.

 E-SERIES MODEL Indicators —	11-4016-15E-10T			
	1	2	3	4
 H-SERIES MODEL Indicators —	14-5020-18H-10T			
	1	2	3	4

Indicators on the example are provide below with brief descriptions of how to understand your hoist model name.



Switch-N-Go® VEHICLE CERTIFICATIONS

THE Switch-N-Go® HOIST SYSTEM MUST BE INSTALLED TO NATIONAL TRUCK EQUIPMENT ASSOCIATION (NTEA). The Vehicle Certification Label must be completed by the installer after the installation is completed.

Visit Switch-N-Go® portal network to view links to the NTEA WorkTruckCert:
switchngo.com/label-certification

ALTERED VEHICLE CERTIFICATION

Altered Vehicle Certifications are used by manufacturers that alter a vehicle — prior to the first retail sale — that has been certified in the final stage. Examples of altering include all manufacturing operations performed that affect an applicable Federal Motor Vehicle Safety Standard (i.e., snowplow installation on a pickup, pickup box removal, etc.). A self-voiding feature eliminates the threat of unauthorized tampering. Labels provide for metric and English units of measure as required by CFR part 567.5

FINAL-STAGE CERTIFICATION

Final State Certifications are used by the final-stage manufacturer if the vehicle cannot be completed and certified within the guidance and limitations provided in the Incomplete Vehicle Document. The final-stage manufacturer is responsible for ensuring the completed vehicle conforms to any applicable Federal Motor Vehicle Safety Standards. Labels provide for metric and English units of measure as required by CFR part 567.5.

LOAD CARRYING CAPACITY MODIFICATION

If you are adding permanently attached equipment in excess of 1.5 percent times the gross vehicle weight rating or 100 pounds (whichever is less) to a vehicle — and not changing tires or wheels — the existing load carrying capacity of the vehicle placard must be updated. The Load Carrying Modification Label can be applied within 25 millimeters (approximately one inch) of the existing vehicle placard.



Installation

Hoist System Installation Kit

Your Switch-N-Go® Hoist System will come with an installation kit specific to the size and model. Vehicle-specific mounting kits are also available. All installation kits include the following, plus specific items listed below.

- Padded spacers
- Universal front and rear mounting brackets
- Bracket shim plates
- Installation spacer plates
- Winch cable with swivel hook
- Control pendant
- Hardware and fasteners
- Installation, operation, and quick start manuals

9' - 12' E-Series Installation Kit

Kit Number	Part Number	Qty	Description
4850000-1E	3790016-7	1	Winch Power Cable
	3790020	1	ANL Fuse Block
	3790019	1	600 Amp ANL Fuse
	3790016-8	1	Fuse Block Power Cable
	1720005-01	2	Ring Terminal
	1600021	4	Insulated Wire Cable Clamp
	1830131	6	Hex Head Drill Screw

13' - 14' E-series Installation Kit

Kit Number	Part Number	Qty	Description
4850000-2E	3790016-7	1	Winch Power Cable
	3790020	1	ANL Fuse Block
	3790019	1	600 Amp ANL Fuse
	3790016-8	1	Fuse Block Power Cable
	1720005-01	2	Ring Terminal
	1600021	4	Insulated Wire Cable Clamp
	1830131	6	Hex Head Drill Screw
	2720127-02	2	Front Mounting Bracket

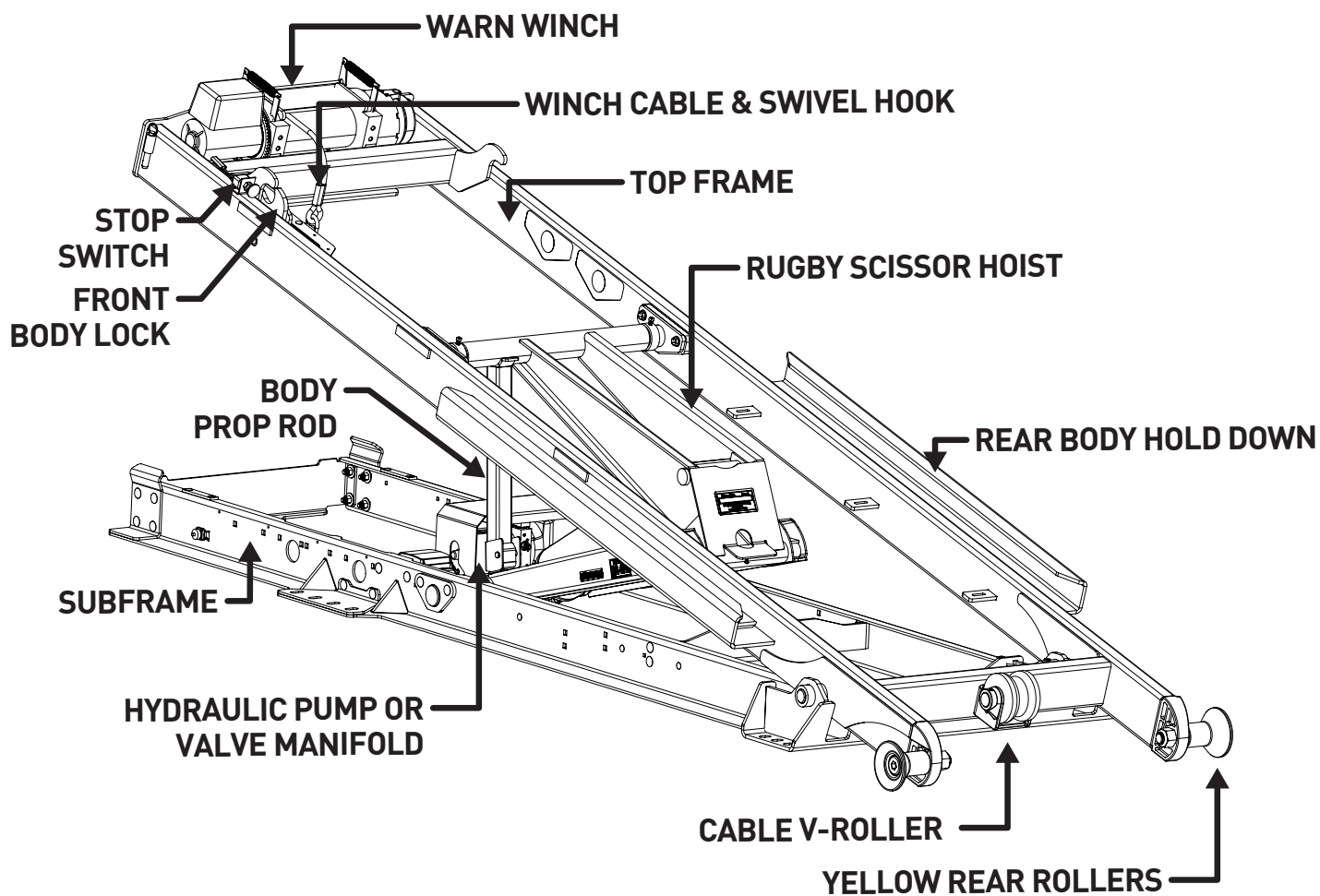
9' - 12' H-series Installation Kit

Kit Number	Part Number	Qty	Description
4850000-1H	3790018	1	Blade Fuse Holder
	3790017	1	25 Amp Blade Fuse
	1600023	2	Cable Splice Connector

13' - 14' H-series Installation Kit

Kit Number	Part Number	Qty	Description
4850000-2H	3790018	1	Blade Fuse Holder
	3790017	1	25 Amp Blade Fuse
	1600023	2	Cable Splice Connector
	2720127-02	2	Front Mounting Bracket

FIGURE 1.A



If installing a Switch-N-Go® Versa™ Bumper, do so first by referring to the bumper installation manual, S-0038.

⚠ NOTICE

Make sure the top of the vehicle chassis is obstruction-free from wires, hoses, cross members, fuel tanks, or other accessories, and that the vehicle chassis is flat and level.

Figure 2.A shows a typical 9'-12' Hoist System for reference.

FIGURE 2.A

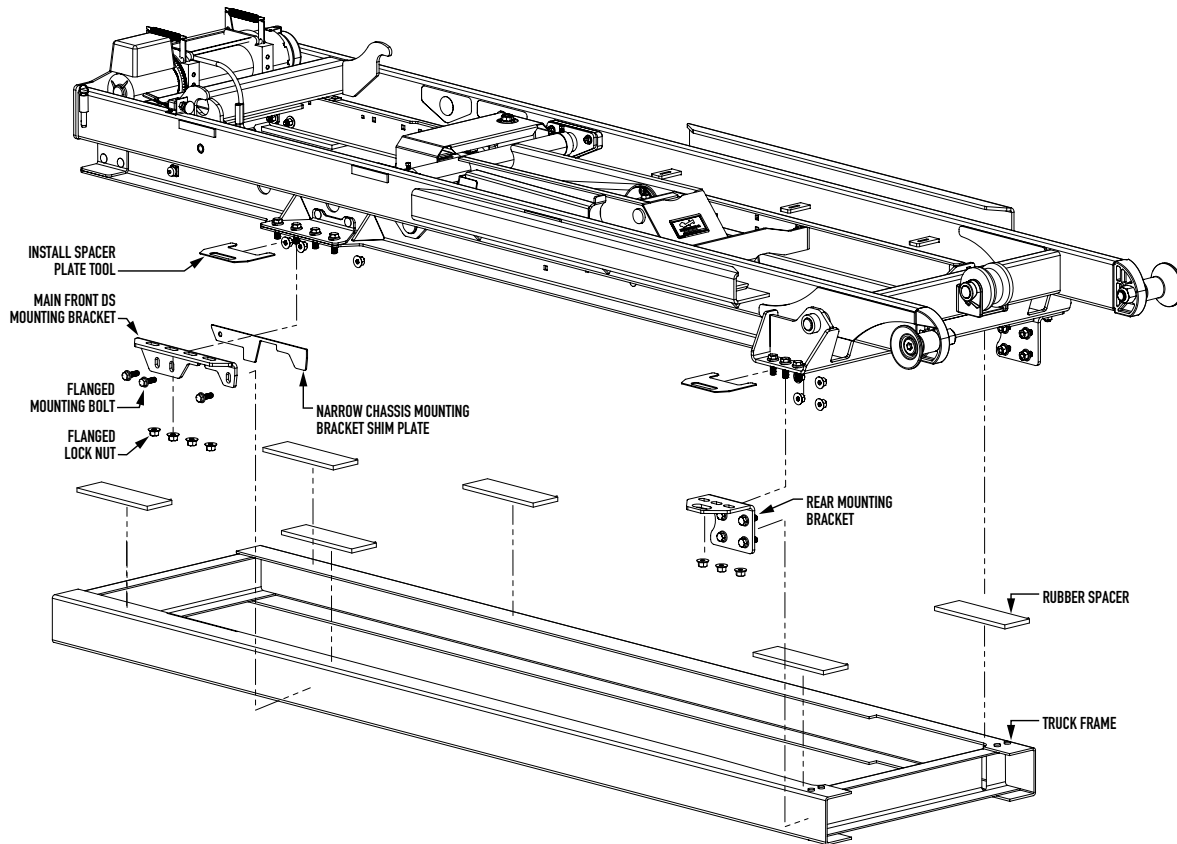
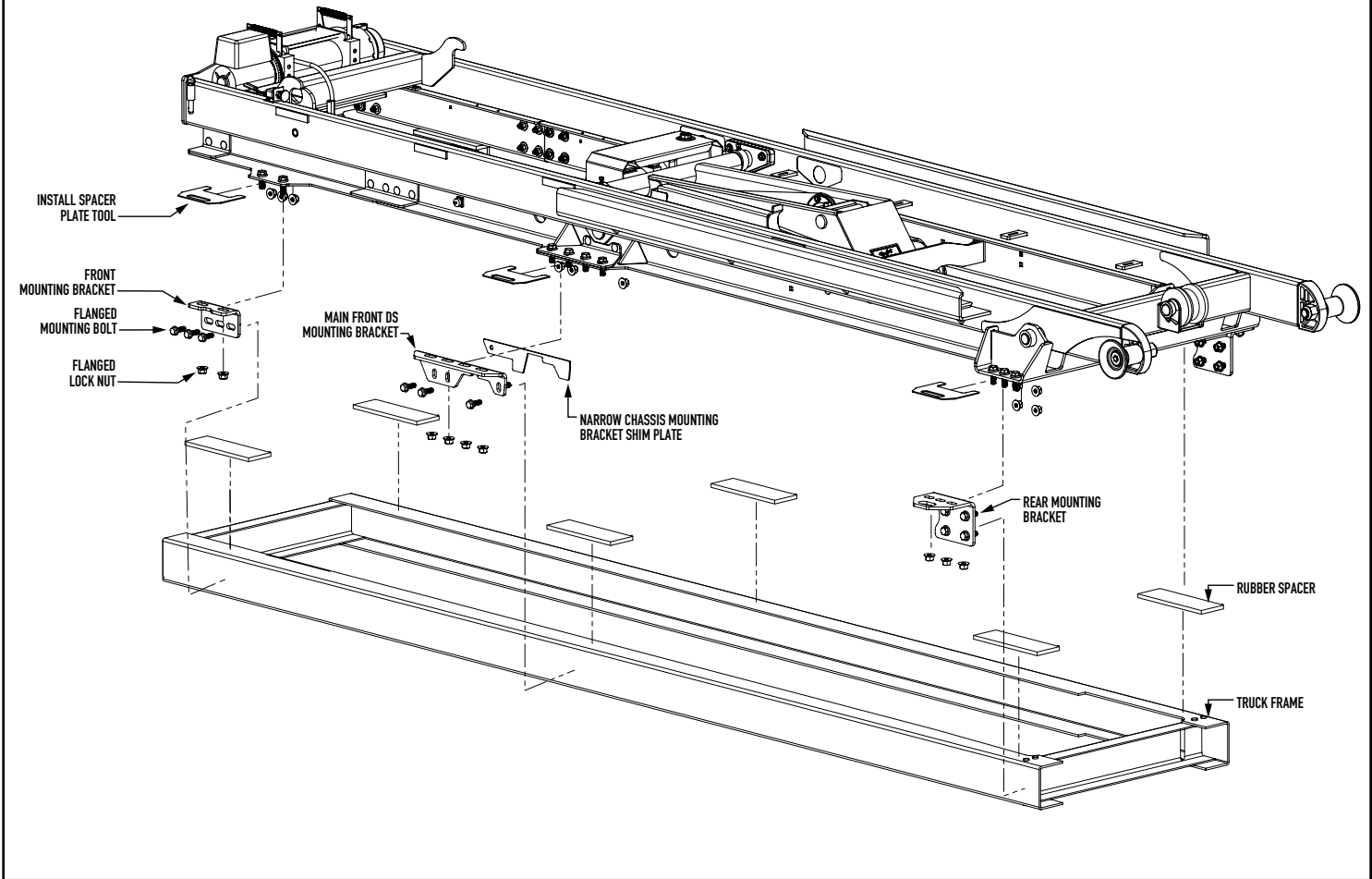


Figure 2.B shows a typical 13'-14' Hoist System for reference.

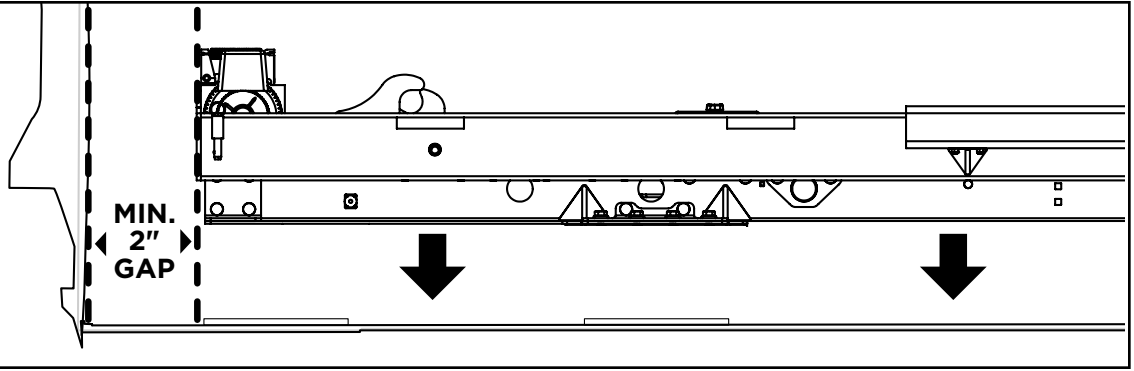
FIGURE 2.B



Installation Procedure

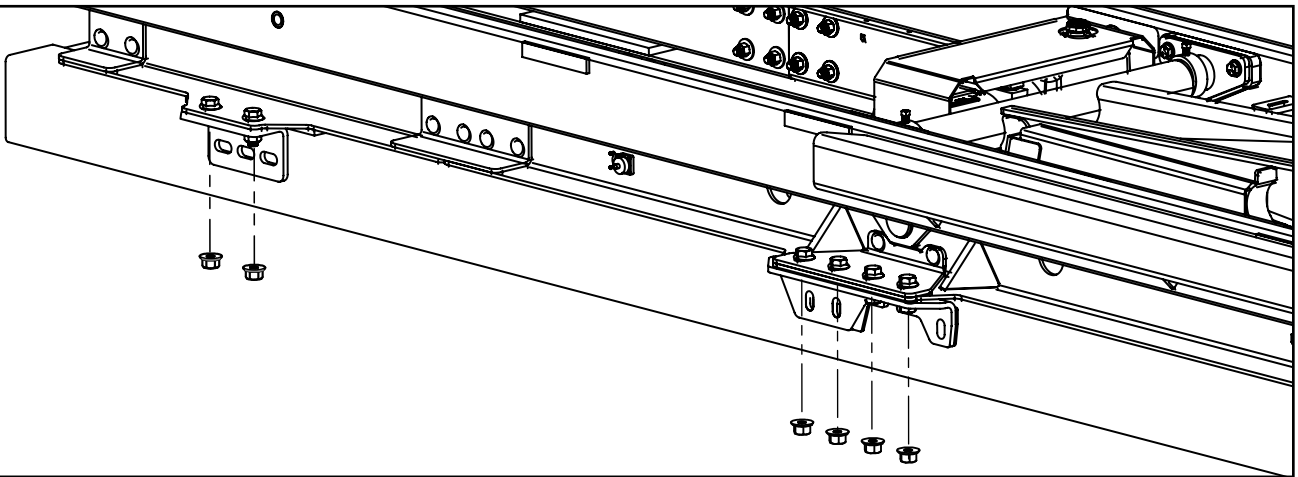
- Step 1—** Position the provided spacers, part number 1820000, as shown in figure above. The spacers are important to reduce vibrations and ensure hoist system is level on the chassis.
- Step 2—** Securely lift the hoist system above the vehicle chassis and position the hoist system so the end of the vehicle chassis is even with the rear pivot of the hoist system.
- Step 3—** Lower the hoist system onto the chassis. Check to make sure the rubber spacers are still in position.

FIGURE 2.C



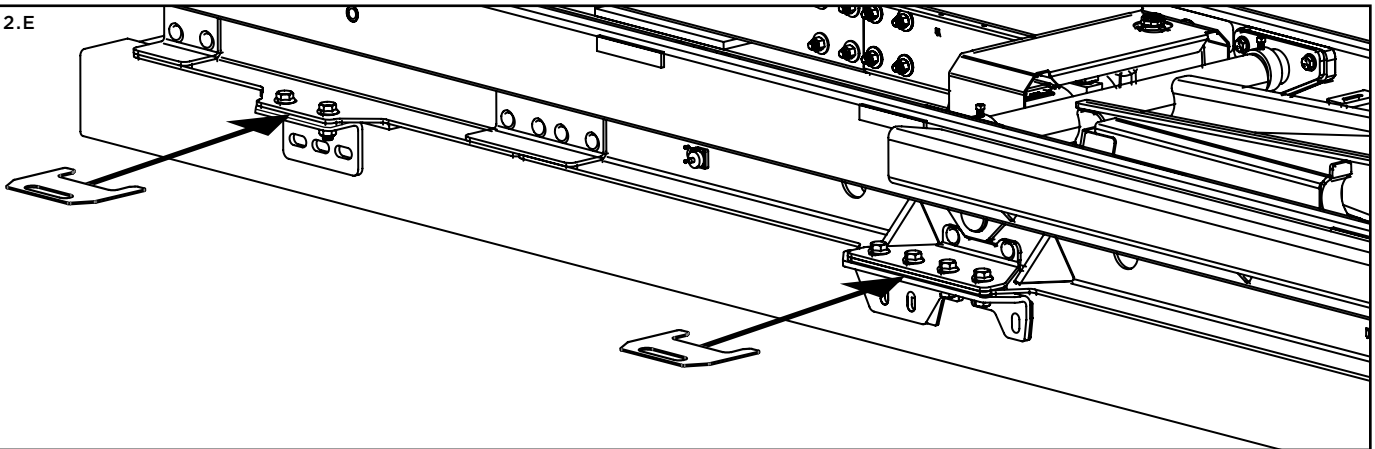
Step 4— Ensure there is a 2" (5.08 cm) minimum distance between the vehicle's cab and the hoist system. Refer to Figure 2.C.

FIGURE 2.D



Step 5— Using the supplied 5/8" bolts and serrated nuts, loosely attach main front mounting brackets and rear mounting brackets as shown in Figure 2.D. Align rear bracket mounting holes with holes in the Switch-N-Go® Versa™ Bumper. This will properly locate the hoist system front-to-back on the chassis.

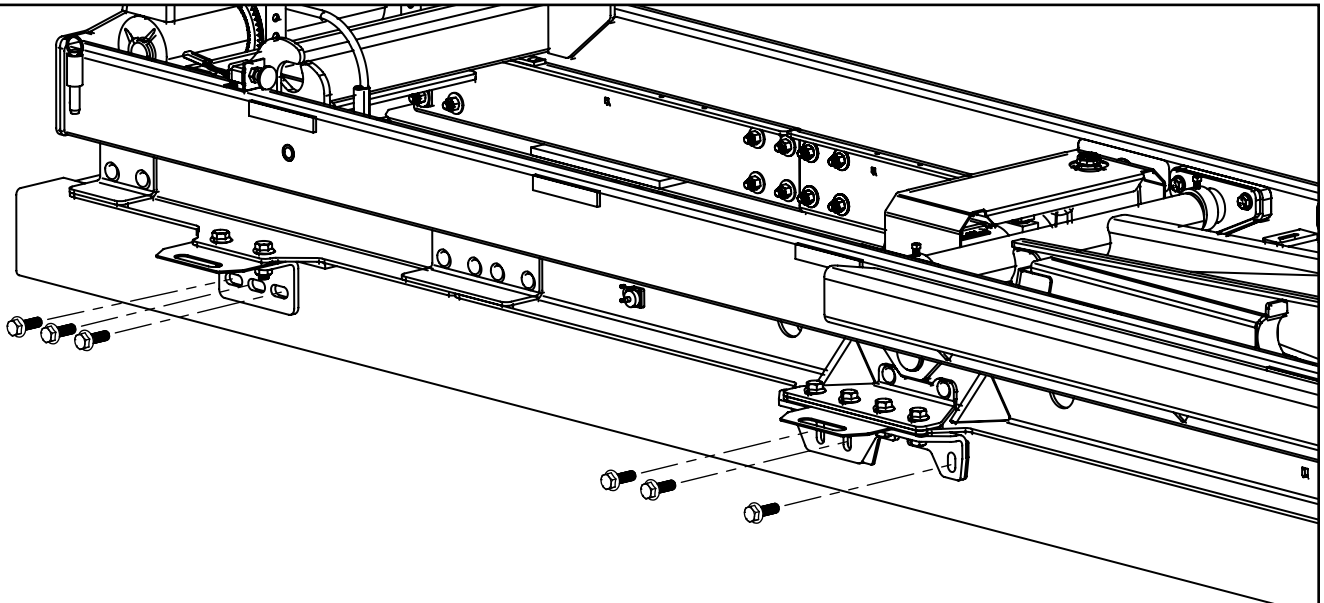
FIGURE 2.E



Step 6— Slide the supplied spacer plate tools between the hoist mounting plates and mounting brackets as shown in Figure 2.E.

- Step 7—** Ensure the hoist system's full weight is sitting on the vehicle chassis
- Step 8—** Lift the mounting bracket up by hand, so that it is tight against the spacer plate tool and tight against the side of the chassis.
- Step 9—** Drill (3) holes with a 21/32" drill bit into each side of the chassis using the mounting bracket holes as a guide, if needed.

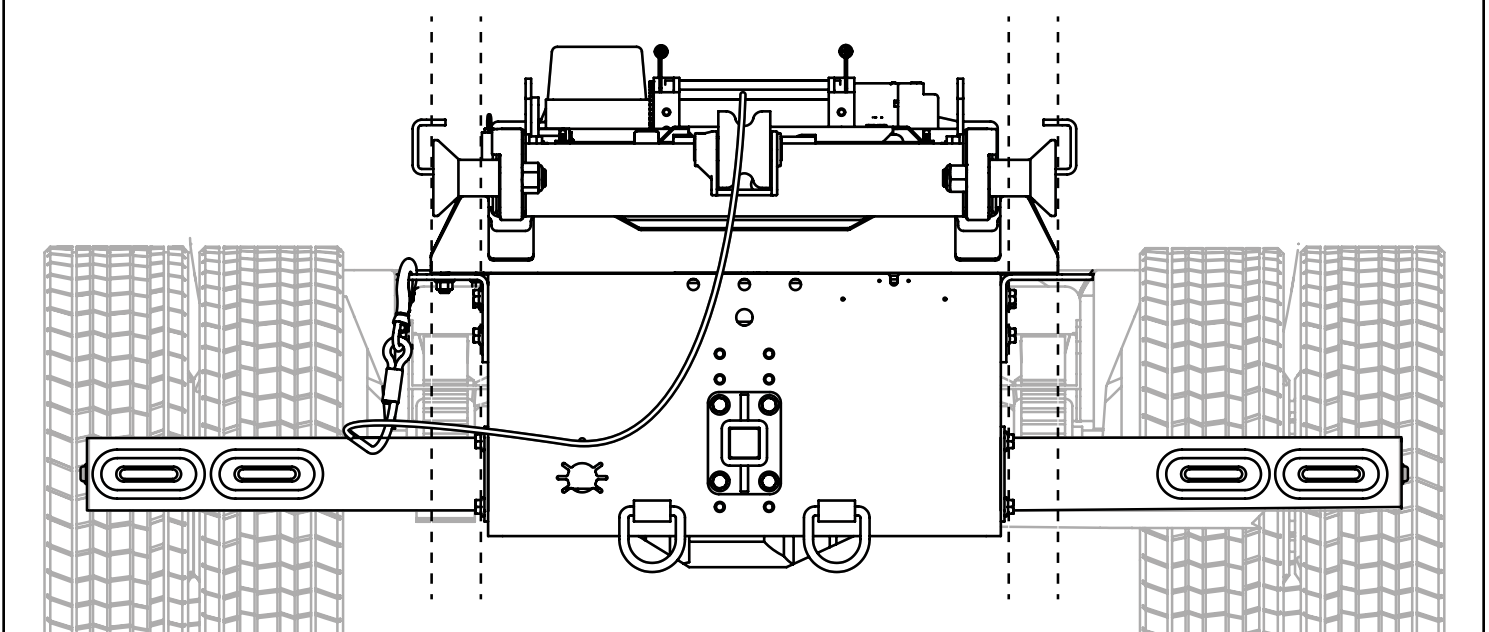
FIGURE 2.F



- Step 10—** Using the (3) supplied 5/8" bolts and serrated nuts, hand tighten the hoist system mounting brackets to the chassis.
- Step 11—** Mount the rear mounting brackets in a similar fashion. This may be a direct bolt on if used with a Switch-N-Go® Versa™ Bumper.

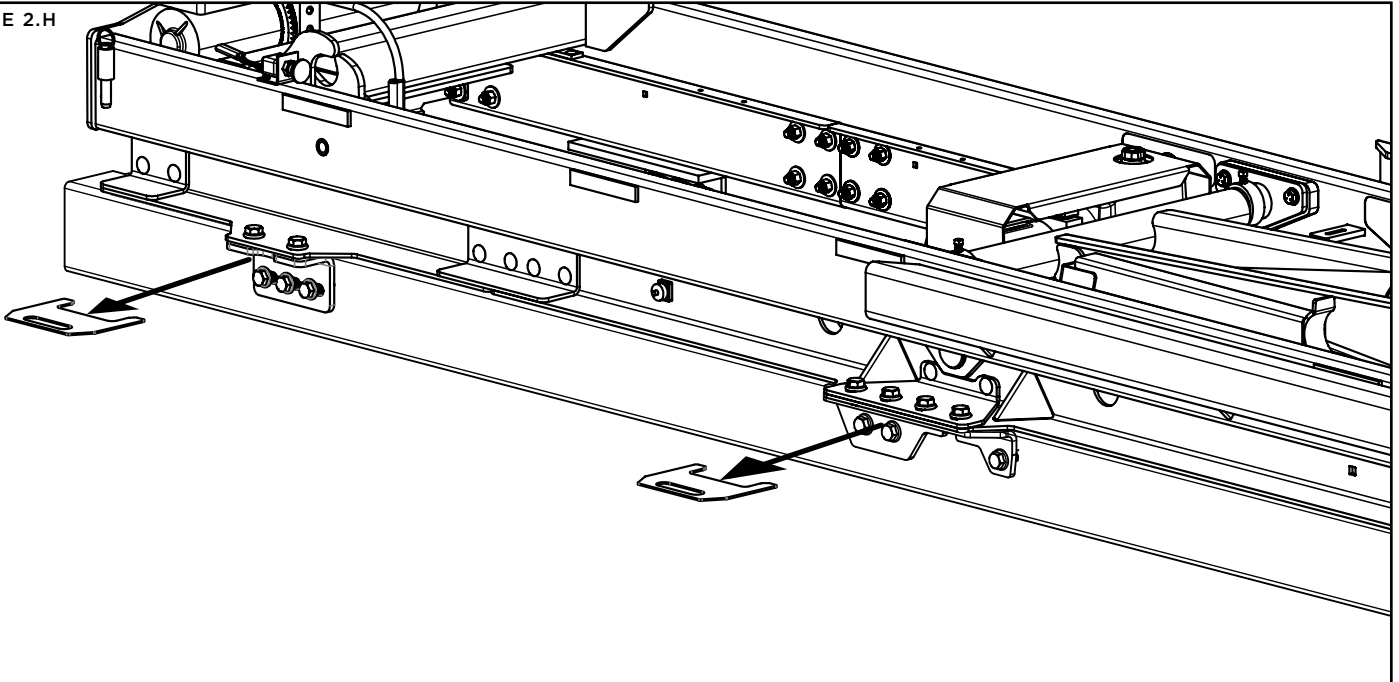
FIGURE 2.G

CENTER HOIST SYSTEM EVENLY ON THE CHASSIS FRAME



- Step 12—** While all bolts are loose, center the hoist system left-to-right by measuring each side at mounting location. Refer to Figure 2.G.
- Step 13—** Tighten all 5/8" bolts connecting the mounting brackets to the chassis. Torque to 160 ft.-lbf.

FIGURE 2.H



- Step 14—** Remove the spacer plate tools from between the hoist system frame and mounting brackets, then complete the installation by torquing all remaining 5/8" bolts to 160 ft.-lbf. Refer to Figure 2.H.

WIRING INSTALLATION

- Step 1—** Turn vehicle off.
- Step 2—** Disconnect the (-) cable at the battery terminal.
- Step 3—** Repeat this process for the additional battery.
- Step 4—** Disconnect the (+) cable at the battery terminal.
- Step 5—** Repeat this process for the additional battery.

⚠ DANGER

Do not allow battery terminals to come in contact with either truck components or vehicle chassis frame as this could cause a short circuit and result in fire, serious damage, injury or death.



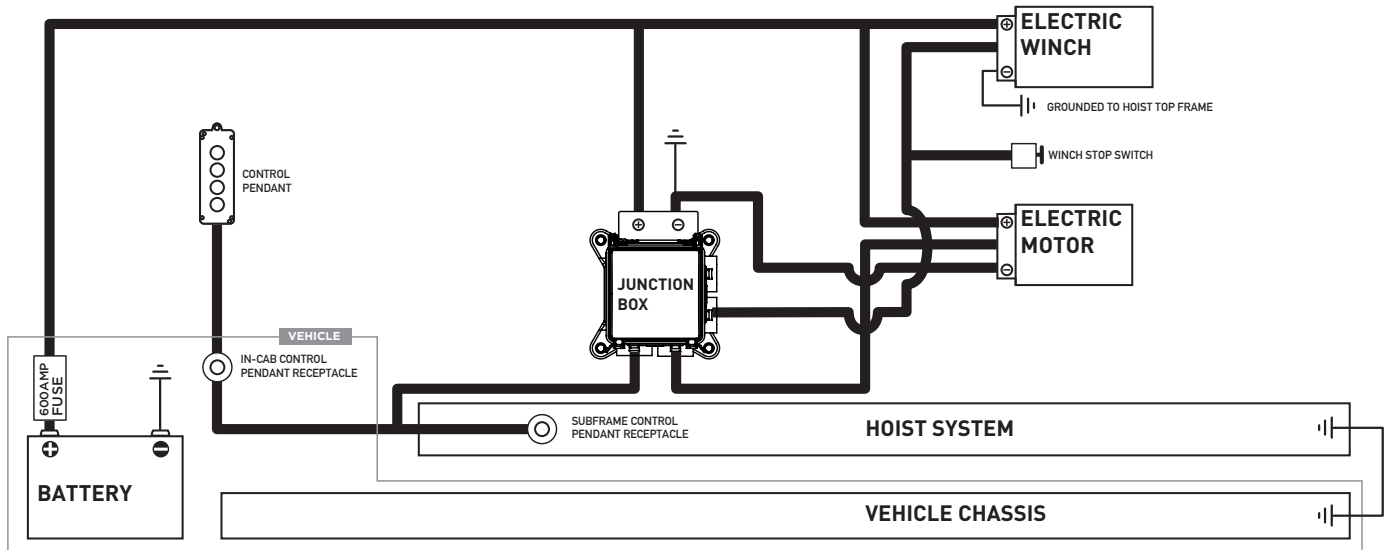
INSTALLATION OF IN-CAB CONTROL PENDANT RECEPTACLE

- Step 1—** Ensure the vehicle is turned off and batteries are disconnected.
- Step 2—** Determine a location for the in-cab receptacle with easy access from the driver seat and a position that does not interfere with any of the vehicle's systems. Reference your vehicle manufacturing documentation for information for adding in-cab harness & wiring.
- Step 3—** Drill a 3/4" hole to mount the in-cab receptacle. Check that you are not drilling into a bracket or other wiring.
- Step 4—** Remove the receptacle mounting plate from the wiring by unclipping the rear retaining ring.
- Step 5—** Route the receptacle through the hole and reattach the mounting plate and rear retaining ring.
- Step 6—** Attach the receptacle mounting plate with self-tapping screws.
- Step 7—** Route the wiring to the Switch-N-Go® hoist system's junction box so that it is out of the way of pinches, kinks, and sharp objects.
- Step 8—** Tie back all loose wiring to ensure it does not interfere with system or vehicle operation.

INSTALLATION OF GROUND WIRING

- Step 1—** Route the #2 gauge ground wire provided in the installation kit from the battery area to a clean and bare attachment point on the vehicle chassis using the supplied lug.
- Step 2—** Attach the other end of the ground wire to the battery (-) terminal connector using the supplied lug.
- Step 3—** Attach ground wire between the Switch-N-Go® hoist system's junction box (-) and a clean, bare point on the chassis.
- Step 4—** Attach loose end of ground wire at rear of the hoist system's top frame to a clean, bare point on the chassis.

FIGURE 2.1



⚠ CAUTION

Ensure the ground wire from the battery terminal to the chassis has been disconnected before beginning installation of the power wire onto hoist system.

POWER WIRE INSTALLATION

- Step 1—** Ensure the vehicle is turned off and batteries are disconnected before continuing steps to install the power wire.
- Step 2—** Route the supplied (20') #1/0 gauge power wire cable from the battery to the Switch-N-Go® hoist system junction box.
- Step 3—** Locate the junction box on the hoist system and connect the wire to the matching connector.
- Step 4—** Fasten the power wire cable along the vehicle chassis and hoist system' subframe, free from any pinch points that may result in a weak or non-functioning system.

FUSE & HOLDER INSTALLATION

- Step 1—**

⚠ NOTICE

The Switch-N-Go® hydraulic system is a full hydraulic system pre-installed with hoses to the hydraulic winch, control valve, and hydraulic hoist cylinder. The system is not supplied with a clutch pump or "live drive" style PTO, a hydraulic tank, or additional hoses. The installer is responsible for testing that the batteries, alternator, and hydraulic pump are functioning properly and meet the system requirements as stated below. Failure to meet these requirements may result in a weak or non-functioning system.

Required Items Not Supplied in Hydraulic Installation Kit:

- Either a clutch pump or "live drive" style PTO pump that is capable of producing 3000 PSI pressure at a flow rate of 12-15 GPM
- 15-20 gallon tank rated for hydraulic oil use with a basket strainer in the filler tube
- 1/2" Ø diameter pressure rated hose (for supply lines) and threaded crimp on fitting*
- 3/4" Ø diameter pressure rated hose (for return lines) and threaded crimp on fittings*
 - (*) Larger system lines may be needed if using additional equipment
- 18-23 gallons of hydraulic oil equivalent to Grade 32 (such as ATF-Dextron II or Mobile DTE 13)
- #14 gauge power wire for connection between battery and junction box of Switch-N-Go® hoist system

⚠ NOTICE

The Installer(s) are responsible for installation of wires and the fuses. The fuse system is required to safeguard the vehicle and/or system from damage or fire in the event of a short circuit.

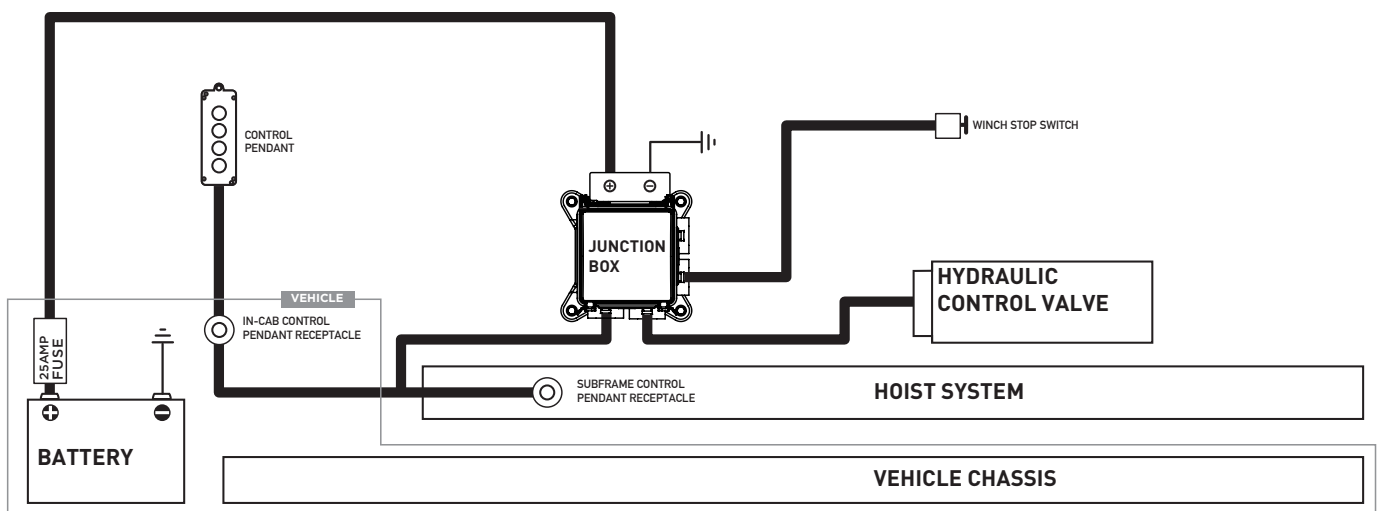
⚠ NOTICE

The Installer(s) are responsible for installation of the hydraulic pump and hoses in order to operate the hydraulic hoist system or winch.

⚠ NOTICE

Adjusting the settings from the system's preset pressure and flow rate specifications may result in premature wear or failure of the winch or hoist.

FIGURE 2.J





POWER WIRE INSTALLATION

- Step 1—** Ensure the vehicle is turned off and batteries are disconnected before continuing steps to install the power wire.
- Step 2—** Route the #14 gauge power wire cable from the battery to the Switch-N-Go® hoist system junction box.
- Step 3—** Locate the junction box on the hoist system and connect the wire to the matching connector.
- Step 4—** Fasten the power wire cable along the vehicle chassis and hoist system's subframe, free from any pinch points that may result in a weak or non-functioning system.

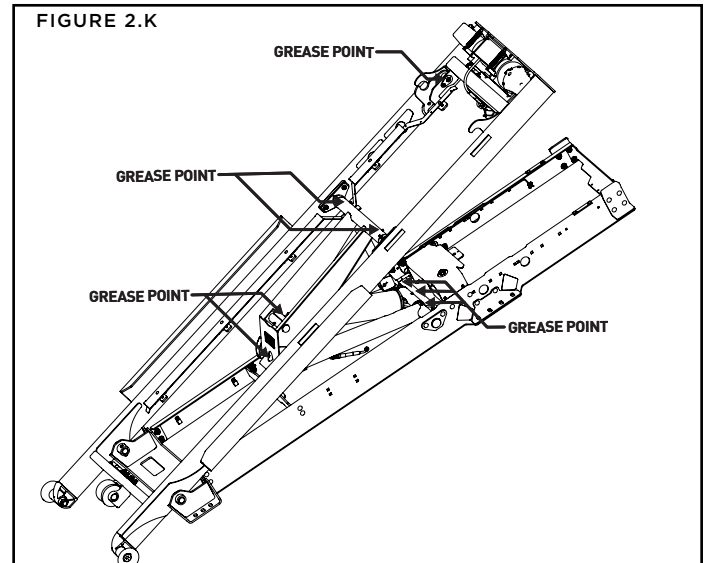
FUSE & HOLDER INSTALLATION

- Step 1—** Connect the inline blade fuse holder to the #14 gauge wire, preferably near the battery. DO NOT INSERT THE FUSE YET.
- Step 2—** Connect wires to battery terminals.
- Step 3—** Ensure other end of wire harness is connected to the hoist system's junction box.
- Step 4—** Reconnect power to vehicle battery.
- Step 5—** Insert 25AMP fuse into fuse holder. Continue to Final Preparation section on page 19.

LUBRICATE HOIST SYSTEM

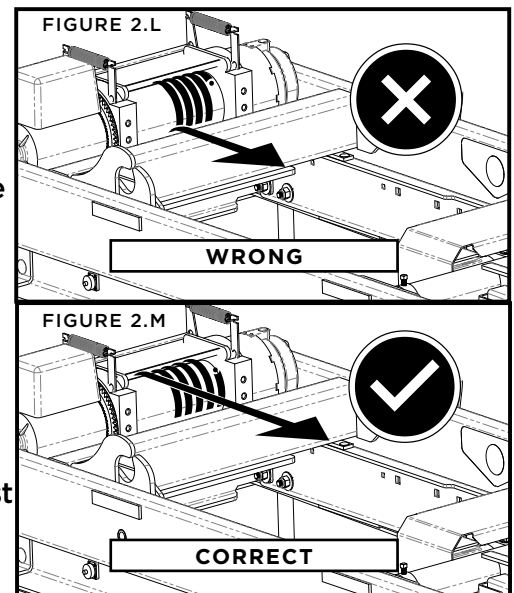
Lubrication is vital to preventing premature wear as this may result in the hoist system malfunction or system failure. Lubricate the following locations with either run-out or marine grease.

- (3) Grease fittings are located on the lower shaft of the scissor hoist.
- (2) Grease fittings are located on the middle pivots of the scissor hoist.
- (2) Grease fittings are located on the upper shaft of the scissor hoist.



WINCH CABLE INSTALLATION

- Step 1—** Wrap a 1" piece of masking tape around the end of the NEW wire winch cable to prevent fraying during installation.
- Step 2—** Insert the taped wire cable into the cable anchor hole located on the passenger side of winch drum. Tighten the set screw with an Allen wrench and torque to 12-15 ft-lbs. Ensure you do not over-tighten the set screw as this may result in a stripped or damaged screw.
- Step 3—** Wind the winch "IN", coiling the wire cable as it feeds onto the winch drum. Add slight tension to the cable by holding the end with protective gloves. The coil must always maintain a minimum of 5 wraps on winch drum.
- Step 4—** Clean any excessive lubrication with a dry cloth from hoist system/vehicle components once cable is fully coiled around the winch drum.





Installation Completion Checklist

The installation completion checklist must be filled out by the installer after the installation is completed. If hoist system is not operating correctly, see refer to Troubleshooting section within this manual.

- ☐ Check all nuts and bolts are properly torqued, using the torque chart in the Appendix.
- ☐ Check to make sure all electrical connections and wires are tight and free from all pinching or cutting hazards, as this may lead to malfunctions or damages.
- ☐ Check to make sure the body prop rod is installed and working properly.
- ☐ Check that all grease fittings are lubricated with either run-out or marine grease.
- ☐ Check that the winch cable is fastened tightly and spools evenly around the drum.
 - Ensure the winch cable has minimum of 5 spools around the drum remaining when cable is fully extended.
 - Ensure when retracting the winch cable that it evenly spools around the winch drum.
- ☐ Check that all hydraulic fittings are free of leaks. When checking for leaks wear protective eye wear and gloves.
 - Check all high-pressure hoses connected to the hoist system, vehicle, and hydraulic system.
- ☐ Check that all hydraulic fluids are properly filled to levels indicated.
- ☐ Check that the batteries and fuses have been reconnected and are working properly.
- ☐ Test the functions of the control pendant are working properly.
- ☐ Test the system to its maximum operating range by fully operating the winch cable in and out, and by raising and lowering the hoist system.
- ☐ Apply the final warning and danger decals provided in manual bag.

FINAL-STAGE CERTIFICATION

Before placing the Final Stage Certification indicated in the INSTALLATION section, make sure to complete the Installation Completion Checklist above

- ☐ Complete and adhere the final-stage certification
- ☐ Complete and adhere the load carrying capacity modification
- ☐ Using the hoist system identification tag, fill-in the hoist system serial number, model name, and part number below.
- ☐ Sign and initial that the vehicle is ready for operation. Please review operation manual with any new operator before allowing them to operate the Switch-N-Go® Hoist System.

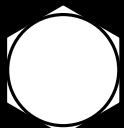


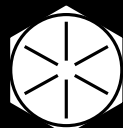
Hoist System Information	
Serial Number	
Model Name	
Part Number	

Installer Information	
Installer Company Name	
Installer Initials	
Install Date	



Appendix

Torque Table

Size	 Grade 2		 Grade 5		 Grade 8		 18-8 S/S	
	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
#4*	—	—	—	—	—	—	5.2	—
#6*	—	—	—	—	—	—	9.6	—
#8*	—	—	—	—	—	—	19.8	—
#10*	—	—	—	—	—	—	22.8	31.7
1/4"	4	4.7	6.3	7.3	9	10	6.3	7.8
5/16"	8	9	13	14	18	20	11	11.8
3/8"	15	17	23	26	33	37	20	22
7/16"	24	27	37	41	52	58	31	33
1/2"	37	41	57	64	80	90	43	45
9/16"	53	59	82	91	115	129	57	63
5/8"	73	83	112	128	159	180	93	104
3/4"	125	138	200	223	282	315	128	124
7/8"	129	144	322	355	454	501	194	193
1"	188	210	483	541	682	764	287	289

*Size from 4-10 are in lb-in
Size from 1/4 up are lb-ft

†Fine thread figures are 1-14
Grade 2,5 & 8 values are plated bolts

Switch-N-Go® hoist systems are pre-filled and tested at the factory.

⚠ WARNING

When performing maintenance on the hoist in the raised position, ensure the truck body is removed, and that the body prop rod is securely in place.

- Step 1—** This procedure requires there be no truck body on the hoist system. Unload the body by following the procedures on pages 29-31 of the Operator's Manual.
- Step 2—** Stow away the body prop rod and lower the hoist all the way down flat.
- Step 3—** Remove breather cap on hydraulic reservoir tank.
- Step 4—** Using a siphon pump, remove all the old fluid from the hydraulic tank.
- Step 5—** Completely fill the hydraulic tank with hydraulic oil equivalent to Grade 32 (such as ATF-Dextron II or Mobile DTE 13).
- Step 6—** Raise the hoist "UP" halfway to approximately 25° angle which reveals about 8" of the cylinder stroke.
- Step 7—** Rotate the prop rod counterclockwise until it is in a vertical position and engage it by lowering it into the pocket.
- Step 8—** Lower the hoist "DOWN" until the upper lift tube is nestled in the prop rod cup.
- Step 9—** Continue to fill the Hydraulic reservoir leaving 1/2" void from the top of the reservoir. Carefully loosen the feed line on the hydraulic hoist cylinder, until a small amount of hydraulic oil weeps out, removing any trapped air pockets.
- Step 10—** Ensure all feed and return lines are tight and not leaking.
- Step 11—** Cycle the hoist "UP" and "DOWN" and continue filling the reservoir tank leaving 1/2" from the top.
- Step 12—** Replace and tighten the breather cap on the reservoir tank.
- Step 13—** Lift the hoist "UP", disengage the prop rod and continue to lower the hoist "DOWN", checking the operation.

Warn E-Series Specifications

E-Series 15,000lbs Specifications		
Warn Electric Winch Specifications	(2) 750 CCA Batteries Minimum	All electrical connections must be clean and tight
Electrical Hardware	600 AMP ANL fuse required for E-series	

Warn H-Series Specifications

H-Series		15,000lbs Specifications			18,000lbs Specifications	
Warn Hydraulic Winch Specifications	Maximum System Pressure	Pressure at Maximum Rated Load	Maximum Rated Input Flow	Maximum System Pressure	Pressure at Maximum Rated Load	Maximum Rated Input Flow
	2200psi	2200 psi	15 GPM	2400psi	1816 psi	15 GPM
	152 BAR	152 BAR	57 LPM	166 BAR	125 BAR	57 LPM
	Control Valve Type: 3-Position, 4-way, closed center, spring return (cylinder spool)					
Electrical Hardware	25 AMP ATO/ATC blade fuse required for H-series					

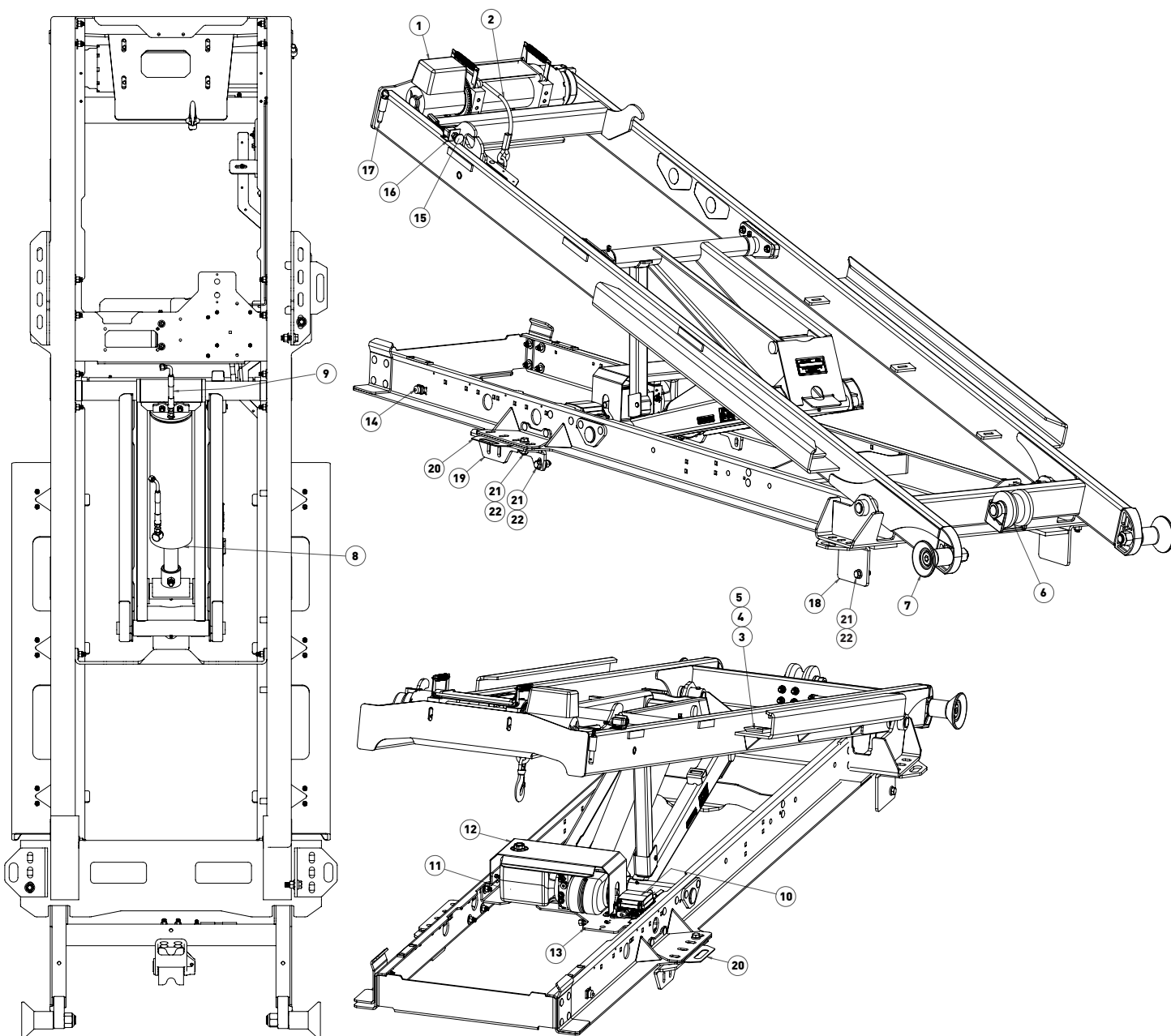
Rugby SR-Series Specifications

Rugby SR Hoist Specifications	Maximum Hydraulic Flow Rate	Maximum Pressure for Raising Portion of Dump Cycle	Maximum Pressure for Lowering Portion of Dump Cycle
SR-4016	6 GPM	3200 psi	1000 psi
SR-4020	6 GPM	3200 psi	1000 psi
SR-5020	9 GPM	3200 psi	1000 psi

Adjusting System Pressure

The hydraulic system included with your Switch-N-Go® hoist system has been preset and tested at the factory. Modification to this system should not be needed and doing so may void the factory warranty.

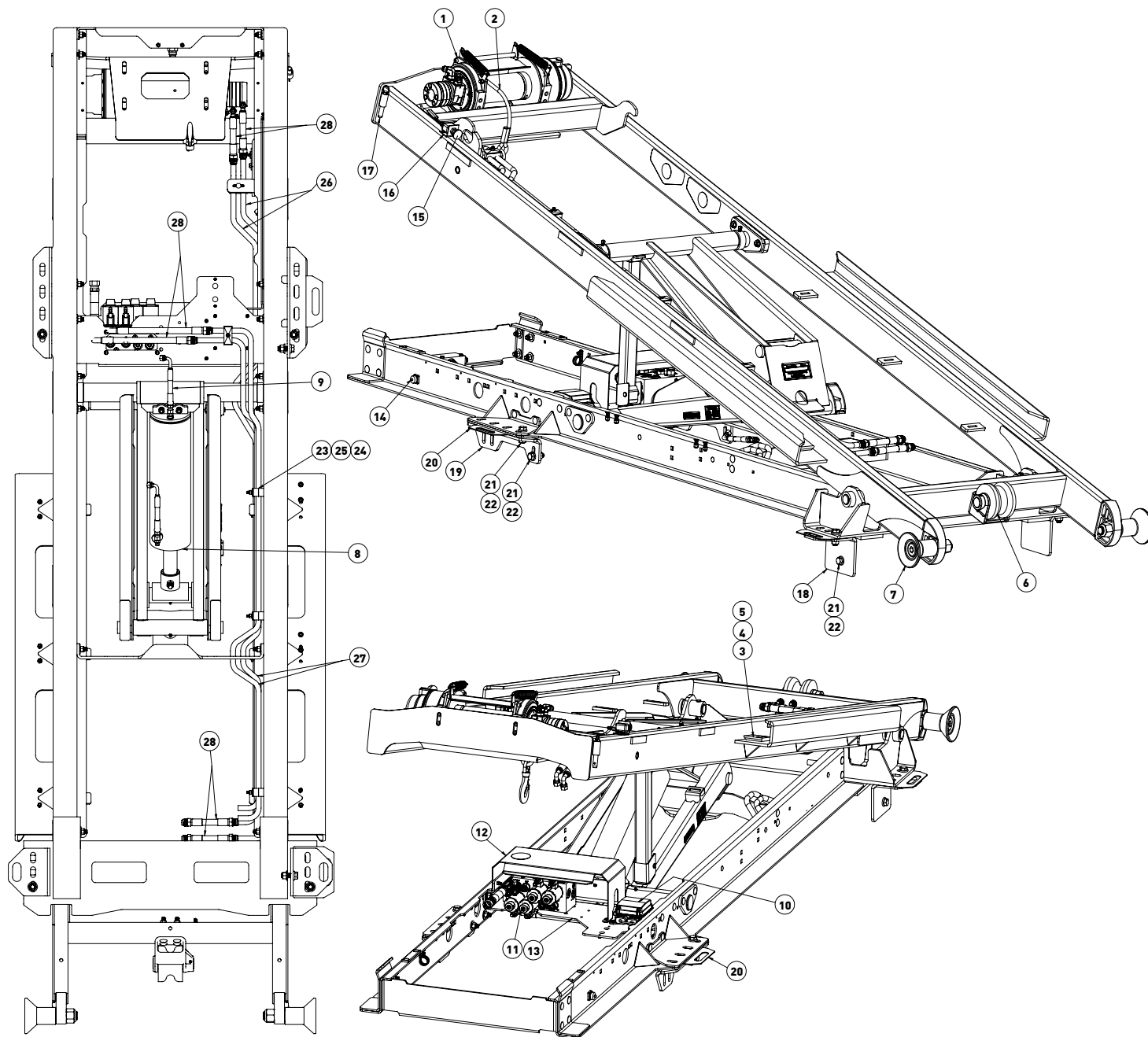
FIGURE 3.A





Item	Part Number	Description
1	3210132-1	15K Electric Winch Assembly
2	1600000	1/2" Cable (25') w/ Swivel Hook
3	1820003	Poly Glide Pad
4	1830109-01	Glide Pad Hold Down Screw
5	1830110-01	Glide Pad Hold Down Nut
6	4600007	Cable V-Roller Assembly
7	4600006	Yellow Rear Roller Assembly
8 A	1810013	SR4016 Hydraulic Cylinder
8 B	1810014	SR4020 Hydraulic Cylinder
8 C	1810015	SR5020 Hydraulic Cylinder
9	4870008	Hydraulic Hose w/ Fittings
10	3790000	Electrical Junction Box
11	4600013	Hydraulic Pump w/ Tank and Wiring Harness
12	2720121	Cover for Hydraulic Pump
13	2720120	Mounting Plate for Hydraulic Pump
14	3790002	Electrical Plug for Control Pendant
15	3790033	Winch Stop Switch
16	2720296	Mounting Bracket for Winch Stop Switch
17	1830117-01	Body Lock Safety Pin
18	2720127-08	Mounting Bracket, Universal Rear
19	2720217-03/04	Mounting Bracket, Universal Front
20	2720129	Installation Spacer Tool
21	1830124-01	Flanged Bolt for Mounting Bracket
22	1830125	Serrated Flanged Nut for Mounting Bracket

FIGURE 3.B





Item	Part Number	Description
1 A	3210136	15K Hydraulic Winch Assembly
1 B	3210138	18K Hydraulic Winch Assembly
2	1600000	1/2" Cable (25') w/ Swivel Hook
3	1820003	Poly Glide Pad
4	1830109-01	Glide Pad Hold Down Screw
5	1830110-01	Glide Pad Hold Down Nut
6	4600007	Cable V-Roller Assembly
7	4600006	Yellow Rear Roller Assembly
8 A	1810013	SR4016 Hydraulic Cylinder
8 B	1810014	SR4020 Hydraulic Cylinder
8 C	1810015	SR5020 Hydraulic Cylinder
9	4870008-1	Hydraulic Hose w/ Fittings
10	3790000	Electrical Junction Box
11	3180155	Hydraulic Manifold w/ Wiring Harness
12	2720121	Cover for Hydraulic Manifold
13	2720120	Mounting Plate for Hydraulic Manifold
14	3790002	Electrical Plug for Control Pendant
15	3790033	Winch Stop Switch
16	2720296	Mounting Bracket for Winch Stop Switch
17	1830117-01	Body Lock Safety Pin
18	2720127-08	Mounting Bracket, Universal Rear
19	2720217-03/04	Mounting Bracket, Universal Front
20	2720129	Installation Spacer Tool
21	1830124-01	Flanged Bolt for Mounting Bracket
22	1830125	Serrated Flanged Nut for Mounting Bracket
23	1600013-01	Vibration-Damping Clamp
24	1830004-04	Clamp Carriage Bolt
25	1830114-01	Clamp Nylock Nut
26	487000X	Hydraulic Tube, Top Frame
27	487000X	Hydraulic Tube, Upper Subframe
28	4870003	Hydraulic Hose w/ Fittings

Below are solutions to common installation issues. Consult detailed Troubleshooting Guide or Switch-N-Go® for issues not covered here.

Product	Behavior of Problem	Cause of Problem	Solution (Instructions or see reference)
E-Series Electric over hydraulic system	Neither winch nor hoist will respond or is weak	Control pendant disconnected or defective	Disconnect and reconnect control pendant Check pendant plug to make sure all (5) pins are not bent, broken, or pushed back
		12V DC power disconnected	Check all power and ground terminal connections Check for and replace blown fuse (600A) Check wire harness connections at junction box
		Weak vehicle batteries	Test vehicle batteries with voltmeter and replace if needed Ensure vehicle battery requirements are satisfied
	Hoist will not raise or lower	Bad ground wire connection	Check ground connections at vehicle battery, hoist junction box, winch, pump motor, and top frame to chassis
		Defective coil (black-box coil, qty 2)	Swap with other coil to determine which one may be defective Replace defective coil
	Weak/ no hoist operation	Pump motor not functioning	Replace Bucher pump motor or hydraulic pump assembly
	Winch will not move in either direction	Vehicle battery(s) disconnected	Check 600A fuse Replace fuse if blown Reconnect vehicle battery
		Defective Warn relay block	Replace Warn relay block
		Malfunctioning stop switch (Winch will not winch in)	Check wiring to stop switch Replace winch stop switch assembly
		Warn winch motor is defective	Replace Warn winch motor
	Hoist system is acting sporadically	Defective diodes in junction box	Use a multimeter to determine which diode is defective Replace defective diode(s)
	Breather cap pops off hydraulic tank	Pump was dead headed Load too heavy Dirty fluid	Flush and replace fluid 3/4 full Do not over fill Replace breather cap

Product	Behavior of Problem	Cause of Problem	Solution (Instructions or see reference)
H-Series Full hydraulic system	Hoist is moving slowly or is weak	Undersized PTO or Clutch Pump	Disconnect and reconnect control pendant. Check pendant plug to make sure all (5) pins are not bent, broken, or pushed back.
		No filter installed by the dealer	Clean fluid Check valve assembly for blockage and clean Install inline filter
		Not cleaning the lines causes dirt or metal shavings to get into the system	Ensure new hydraulic lines are clean prior to installation Check valve assembly for blockage and clean
	Neither winch nor hoist will respond or is weak	Control pendant disconnected or defective	Disconnect and reconnect control pendant. Check pendant plug to make sure all (5) pins are not bent, broken, or pushed back.
		12V DC power disconnected	Check all power and ground terminal connections Check for and replace blown fuse (25A) Check wire harness connections at junction box
		Dirty hydraulic fluid	Check filters, flush and refill hydraulic fluid Remove valve, clean to ensure it is not plugged
	Hoist will not raise or lower	Lack of hydraulic fluid flow	Check for leaks or clogged in-line filters Check for blockage in the Bucher valve manifold Fill the hydraulic tank with Grade 32 hydraulic fluid (such as ATF-Dextron II or Mobile DTE 13)
		Broken or cut hydraulic line	Repair leaks or dry-rot cracks in hydraulic lines
	Winch will not move in either direction	Battery(s) is disconnected	Check 25A fuse Replace fuse if blown Reconnect battery
		Malfunctioning stop switch (Winch will not winch in)	Check wiring to stop switch Replace winch stop switch assembly
	Hoist system is acting sporadically	Defective diodes in junction box	Use a multimeter to determine which diode is defective Replace defective diode(s)
		Loose junction box connection	Check/ Tighten power and ground connectors at junction box

TROUBLESHOOT

If you're having issues with your hoist system, use our interactive troubleshoot guide at the link below.



SCAN THIS CODE

to troubleshoot your hoist system or visit us at
switchngo.com/troubleshoot



Notes

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