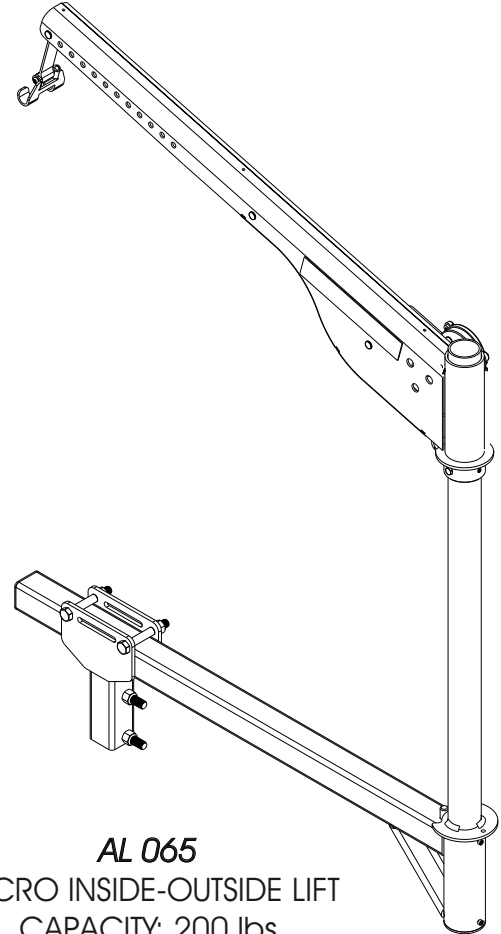


AL 055
MICRO INSIDE LIFT
CAPACITY: 200 lbs



AL 065
MICRO INSIDE-OUTSIDE LIFT
CAPACITY: 200 lbs

Read manual thoroughly before attempting to install or operate lift.

This manual has been provided to assist you with lift installation and operation. For further assistance please contact your authorized Harmar Mobility dealer or Harmar's Technical Service Department.

Tech: 866-378-6648
Fax: 941-308-7399

Email: tech@harmar.com

Harmar
2075 47th ST
Sarasota, FL 34234
Tel: 800-833-0478

Dealer:

Serial Number:



PREPARATION

TOOLS RECOMMENDEDp 2
UN-PACKING THE LIFTp 3
WIRING THE VEHICLEp 4
TRIAL FIT PROCEDUREp 5

INSTALLATION

INSTALLATIONp 6-7
DOCKING DEVICESp 8

OPERATION

OPERATIONp 9-10
SAFETY & MAINTENANCEp 11

TECHNICAL INFORMATION

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TOOLS RECOMMENDED



THE FOLLOWING IS A SUGGESTION OF BASIC TOOLS RECOMMENDED TO HAVE ON HAND DURING INSTALLATION AS WELL AS A GUIDE TO PORTRAY COMPLEXITY OF THIS TYPE OF INSTALLATION THIS IS, BY NO MEANS, MEANT TO REPRESENT THE REQUIREMENTS AS A WHOLE, AS EACH INSTALLATION WILL VARY TO SOME DEGREE. HARMAR LIFTS ARE DESIGNED TO INSTALL WITH AS LITTLE ASSEMBLY AS POSSIBLE.



SAE SOCKET

- 7/16"
- 1/2"
- 9/16"
- 3/4"



SAE WRENCH

- 7/16"
- 1/2"
- 9/16"
- 3/4"



SAE ALLEN WRENCH

- 5/32"
- 1/8"
- 3/16"
- 5/16"
- 3/8"



WIRE CUTTERS



NEEDLE NOSE PLIERS

#2 FLAT HEAD SCREWDRIVER



#2 PHILLIPS HEAD SCREWDRIVER



SMALL HACKSAW



ELECTRIC DRILL



MARKING IMPLEMENT



TAPE MEASURE




DRILL BITS

- PILOT DRILL BIT
- 3/8" DRILL BIT
- 9/16" DRILL BIT



METAL FILE

As always, if you have any questions, concerns or comments, please feel free to contact Harmar's Technical Service Department at 866-378-6648 or "tech@harmar.com" 



UNPACKING THE LIFT

IF ANY PARTS ARE MISSING OR IF ANY DAMAGE IS NOTED, IMMEDIATELY CONTACT THE DISTRIBUTOR FROM WHICH YOU PURCHASED YOUR LIFT. DO NOT ATTEMPT TO INSTALL OR USE THE LIFT WITH ANY MISSING OR DAMAGED PARTS

BE SURE TO CHECK THE CONTENTS OF THE BOX AGAINST THE PACKAGE CHECK LIST TO BE SURE THAT ALL THE PARTS ARE INCLUDED WITH THE LIFT THAT ARE REQUIRED FOR PROPER INSTALLATION

AL-055

FLANGE BUSHING

BUSHING

COLLAR

POST

HAND CONTROL

HARNESS

BASE

ARM ASSEMBLY

HARDWARE PACK

- 3x INSTALLATION WASHERS
- 1 - HHCS, 1/4-28 x 3.00"L, ZP STEEL G5
- 3 - HHTB, 3/8-16 x 3-1/2"L, ZP STEEL G5
- 1 - NUT, NYLOC, 1/4-28, ZP STEEL
- 3 - NUT, NYLOC, 3/8-16, ZP STEEL
- 3 - WASHER, FLAT, 3/8", ZP STEEL
- 10 - 1/4" CABLE TIES
- 4 - 4-1/2" CABLE TIES
- 1 - INSTALLATION & OWNER'S MANUAL w/ WARRANTY SHEET
- 1 - RUBBER GROMMET
- 1 - WIRE HARNESS INSTRUCTION
- 1 - 4" Velcro

AL-065

SHAFT COLLAR

FLANGE BUSHING (X2)

MOUNTING FLANGE

POST

HAND CONTROL

HARNESS

STANDARD CLASS 3 HITCH ADAPTER

MOUNTING ARM

ARM ASSEMBLY

HARDWARE PACK

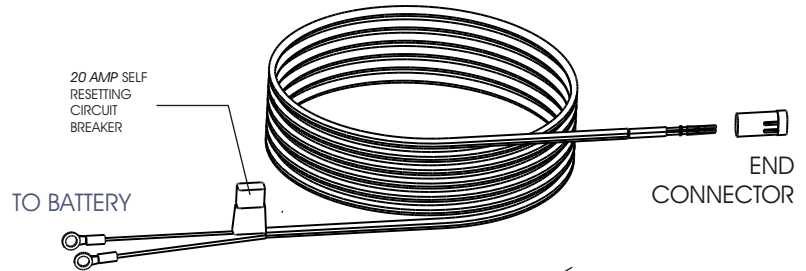
- 1 - VEHICLE HARNESS
- 1 - WIRE CONNECTOR
- 1 - ROCKER STOPPER
- 2 - HHCS, 1/4-20 x 4.00"L, ZP STEEL G5
- 1 - HHCS, 1/4-28 x 3.00"L, ZP STEEL G5
- 2 - NUT, NYLOC, 1/4-20, ZP STEEL
- 1 - NUT, NYLOC, 1/4-28, ZP STEEL
- 10 - 1/4" CABLE TIES
- 4 - 4" CABLE TIES
- 4 - CORD CLIPS
- 1 - INSTALLATION & OWNER'S MANUAL w/ WARRANTY SHEET
- 1 - RUBBER GROMMET
- 1 - WIRE HARNESS INSTRUCTION
- 1 - 6" Velcro

★ IMPROPER WIRING IS THE #1 CAUSE OF PROBLEMS IN THE OPERATION OF A VEHICLE LIFT.
FOLLOW THE WIRING INSTRUCTIONS CAREFULLY

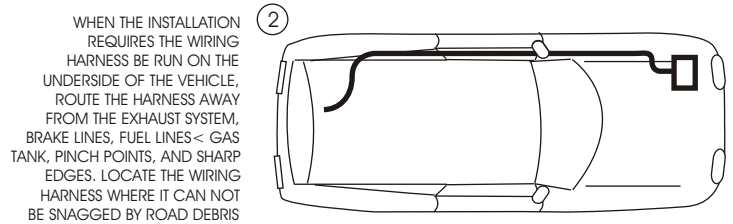
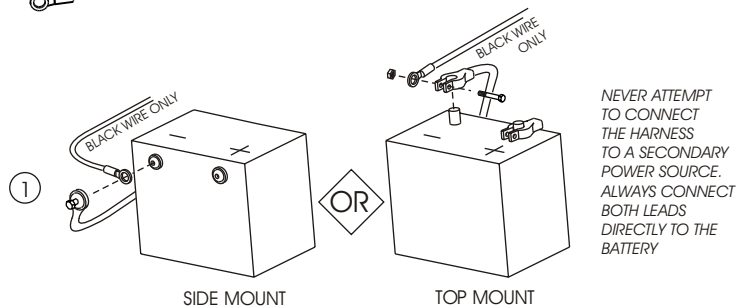
LOCATED IN THE HARDWARE PACK IS THE VEHICLE WIRING HARNESS. THE HARNESS IS MANUFACTURED TO AND COMPLIES WITH, THE SAE J1128 REQUIREMENTS. THE WIRE HARNESS IS APPROXIMATELY 23 ft LONG AND WILL ACCOMMODATE MOST VEHICLES.

YOUR WIRING HARNESS HAS BEEN LEFT UN-ASSEMBLED FOR EASE OF INSTALLATION. THE END CONNECTOR HAS BEEN INCLUDED SEPARATELY FROM THE HARNESS TO ALLOW THE INSTALLER TO RUN THE WIRE UNDER AND THROUGH THE VEHICLE WITH THE SMALLEST HOLE POSSIBLE. FOLLOW THESE INSTRUCTIONS TO ASSURE PROPER INSTALLATION. **DO NOT CONNECT RED WIRE UNTIL THE VERY END.**

UNWIND THE HARNESS AND LAY IT FLAT. ONE END OF THE HARNESS HAS 2 COVERED PINS. THIS IS THE LIFT END OF THE HARNESS AND GOES TO THE REAR CARGO AREA WHERE THE LIFT WILL MOUNT.

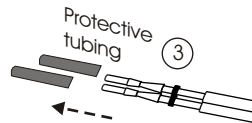


- 1 BEGIN ROUTING THE WIRING HARNESS AT THE VEHICLE BATTERY. ATTACH THE BLACK WIRE TO THE NEGATIVE TERMINAL ON THE BATTERY. DO NOT ATTACH THE RED WIRE UNTIL THE END.
- 2 RUN THE WIRING HARNESS UNDER OR WHEN POSSIBLE THROUGH THE VEHICLE, BACK TO THE REAR CARGO AREA / TRUNK. ALWAYS LOCATE THE WIRING WHERE IT CAN NOT BE SNAGGED BY ROAD DEBRIS AND AWAY FROM THE GAS TANK. THROUGH THE VEHICLE IS BEST, GAINING ENTRY INTO THE VEHICLE THROUGH THE FIREWALL HOWEVER IF YOU WISH TO RUN THE HARNESS UNDER THE VEHICLE, A HOLE WILL MOST LIKELY NEED TO BE DRILLED TO GET THE WIRE INTO THE REAR CARGO AREA / TRUNK. IF THE HARNESS IS TOO LONG FOR THE VEHICLE, COIL THE EXCESS WIRE AND SECURE IT TO THE VEHICLE FRAME WITH SUPPLIED TIE WRAPS.

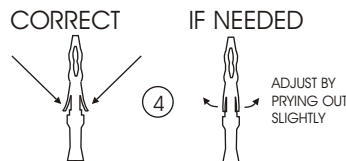


DO NOT CUT OR SHORTEN THE HARNESS.

- 3 ONCE THE HARNESS IS RUN INTO THE VEHICLE, REMOVE PIN'S PROTECTIVE TUBING.

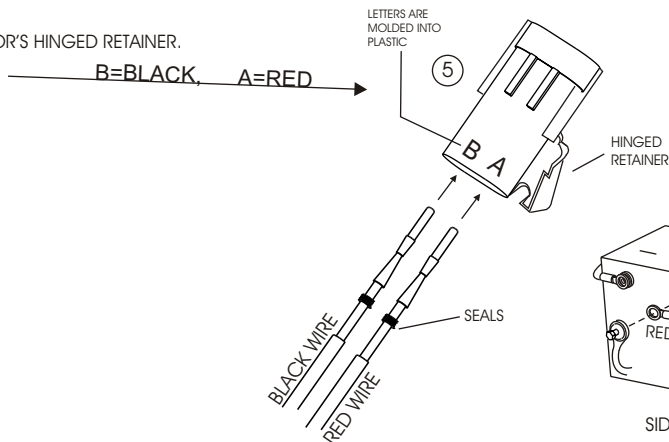


- 4 INSPECT THE PIN'S RETAINING FLANGES. THEY MAY HAVE BECOME DEFORMED WHILE RUNNING THEM THROUGH THE VEHICLE. THESE ARE CRITICAL TO SECURE THE PINS INSIDE THE END CONNECTOR. ADJUST AS NEEDED.

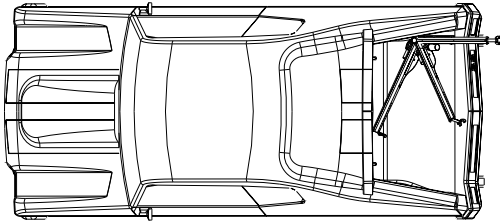


PROBING FOR 12 VOLTS MAY INDICATE A CONNECTION, BUT NOT NECESSARILY A SUFFICIENT CONNECTION. THE LIFT'S MOTOR CAN DRAW UP TO 30 AMPS AT SOME POINTS, REQUIRING ALL OF THE AVAILABLE WIRE TO FLOW PROPER CURRENT. POOR CONNECTIONS ARE THE #1 PROBLEM ASSOCIATED WITH A SLOW, INTERMITTENT WARM, POORLY PERFORMING MOTOR. NOT ONLY WILL THE MOTOR PERFORM POORLY, BUT WILL PREMATURELY DETERIORATE. IF A SINGLE STRAND OF A MULTI-STRAND WIRE IS MAKING CONTACT, 12V WILL APPEAR ON THE METER, OR TEST LIGHT, BUT WILL NOT ALLOW THE MOTOR TO OPERATE. IT IS ALWAYS BEST TO TEST BOTH CURRENT AND VOLTAGE, OR RUN THE MOTOR WITH KNOWN GOOD SHOP BATTERY OR POWER SOURCE WHEN TESTING FOR POWER.

- 5 FLIP OPEN END CONNECTOR'S HINGED RETAINER. INSERT PINS AS SHOWN:



- 6 SIDE MOUNT OR TOP MOUNT LAST

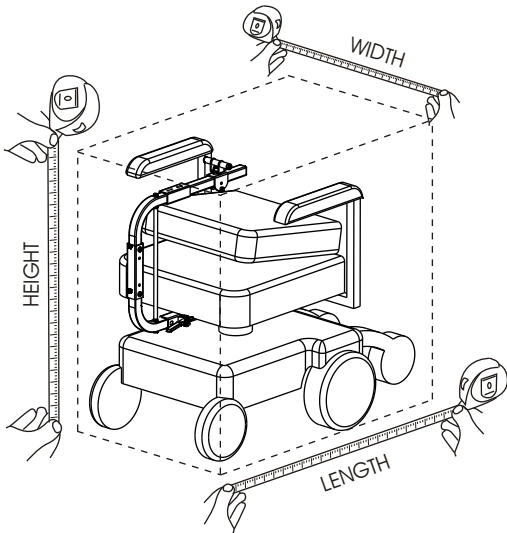


THE AIL-055 WILL REQUIRE 3 HOLES TO BE DRILLED INTO THE VEHICLE, TO BOLT THE LIFT'S BASE TO THE FLOOR. THE POSITIONING OF THE BASE IS VERY IMPORTANT TO A SUCCESSFUL INSTALLATION AND OPERATION OF THIS LIFT.

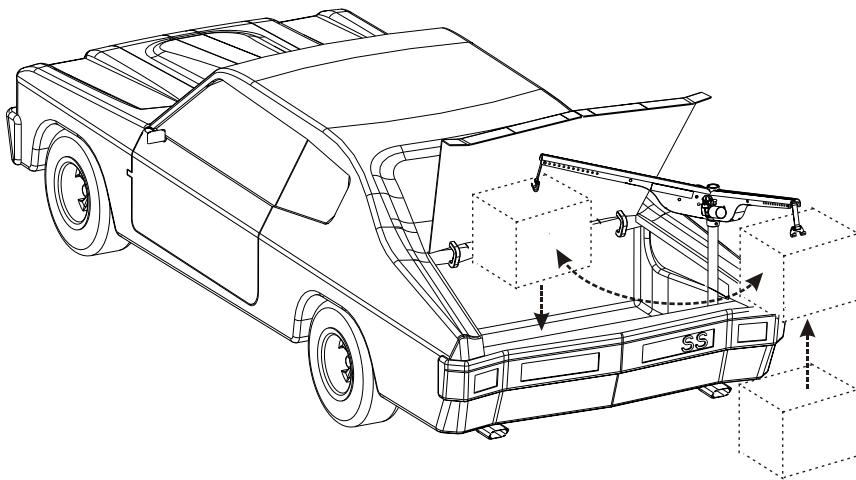
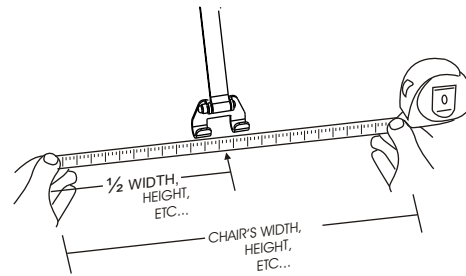
PRIOR TO ANY HOLES BEING DRILLED, IT IS *HIGHLY* RECOMMENDED THAT THE LIFT BE RUN THROUGH ITS RANGE OF MOTION IN A "TRIAL FIT."

WITH THE HELP OF AN ASSISTANT, ASSEMBLE THE LIFT, AND PLACE IT IN THE MOST REAR CORNER OF THE CARGO SPACE CLOSEST TO THE BUMPER. (THIS WILL YIELD THE GREATEST AVAILABLE LOADING AREA)

(PASSENGER SIDE SHOWN. DRIVER'S SIDE IDENTICAL BUT MIRRORED)

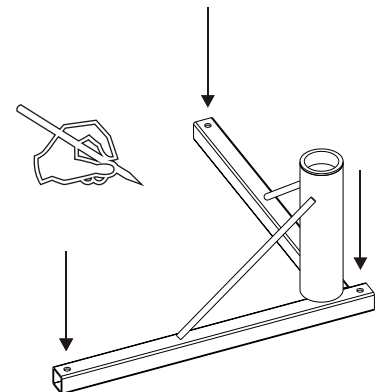


FOLD THE CHAIR OR SCOOTER'S SEAT BACK (or REMOVE SEAT) PREFERABLY WITH DOCKING DEVICE INSTALLED TO ROUGHLY OBSERVE THE CHAIR'S TRANSPORTABLE DIMENSIONS. MEASURE LENGTH, WIDTH, AND HEIGHT



SIMULATE EACH OF THE CHAIR'S DIMENSIONS (LENGTH, WIDTH, and HEIGHT) WHILE RUNNING THE LIFT THROUGH ITS FULL RANGE OF MOTION IN AND OUT OF THE VEHICLE'S CARGO AREA

ONCE IT HAS BEEN VERIFIED EACH OF THE HELD MEASUREMENTS DOES NOT INTERFERE WITH THE VEHICLE'S CARGO AREA / OPENING, MARK THE 3 LOCATIONS IN WHICH TO DRILL

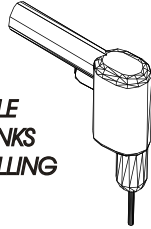


AL-055 INSTALLATION



ONCE CONFIDENCE HAS BEEN GAINED ON THE POSITION OF THE LIFT, AND THE "TRIAL FIT" PROCEDURE HAS BEEN COMPLETED, THREE 3/8" HOLES WILL NEED TO BE DRILLED IN THE MARKED LOCATIONS

CAUTION! AVOID THE VEHICLE WIRING, FUEL LINES, FUEL TANKS SPARE TIRES, ETC. WHEN DRILLING



INSTALLATION TIP:

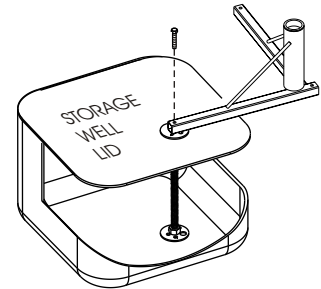
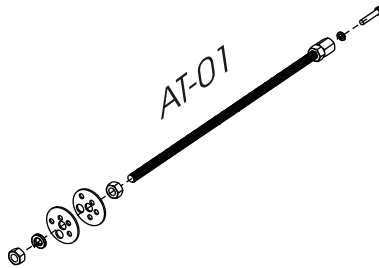
CHOOSE A SAFE LOCATION IN WHICH TO DRILL A SINGLE PILOT HOLE FROM ABOVE IN ONE OF THE 3 MARKED LOCATIONS.

LOOK UNDERNEATH THE VEHICLE AND MEASURE OUT THE SPECIFIED DISTANCE FROM THE PILOT HOLE.

IF ALL IS CLEAR IN THAT AREA, CONTINUE TO DRILL PILOT HOLES IN REMAINING LOCATIONS.

INSPECT ALL THREE PILOT HOLES FROM UNDER THE VEHICLE. IF ALL CLEAR, DRILL 3/8" HOLES IN PILOT LOCATIONS

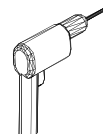
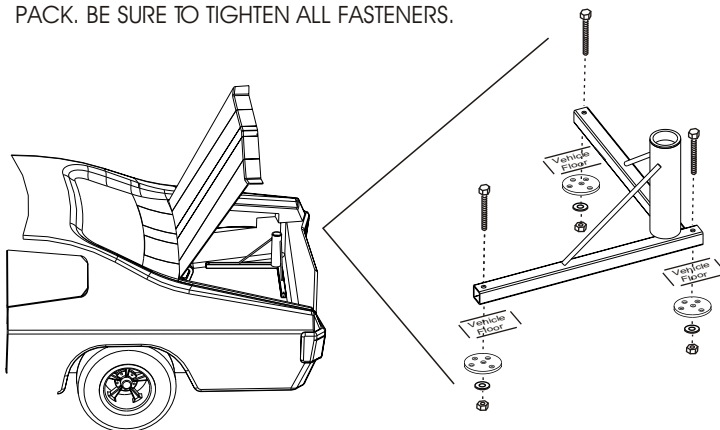
ALL THREAD KIT MAY BE REQUIRED



SOME VEHICLES HAVE STORAGE COMPARTMENTS IN THE REAR CARGO AREA, POTENTIALLY EFFECTING LIFT PLACEMENT. MOST OF THESE CAN BE OVERCOME WITH THE AID OF AN ALL THREAD KIT. SHOWN ABOVE IS THE TYPICAL APPLICATION FOR OVERCOMING THESE STORAGE COMPARTMENTS OR WELLS.

SPARE TIRE STORAGE: SOME VEHICLES STORE THE SPARE TIRE UNDER THE FLOOR OF THE VEHICLE. MAKE SURE THAT THE BASE CAN BE BOLTED THROUGH A STEEL FLOOR OR FRAME.

ONCE HOLES ARE DRILLED, FASTEN BASE TO VEHICLE FLOOR USING SUPPLIED HARDWARE IN THE HARDWARE PACK. BE SURE TO TIGHTEN ALL FASTENERS.



PLACE POST INTO BASE.

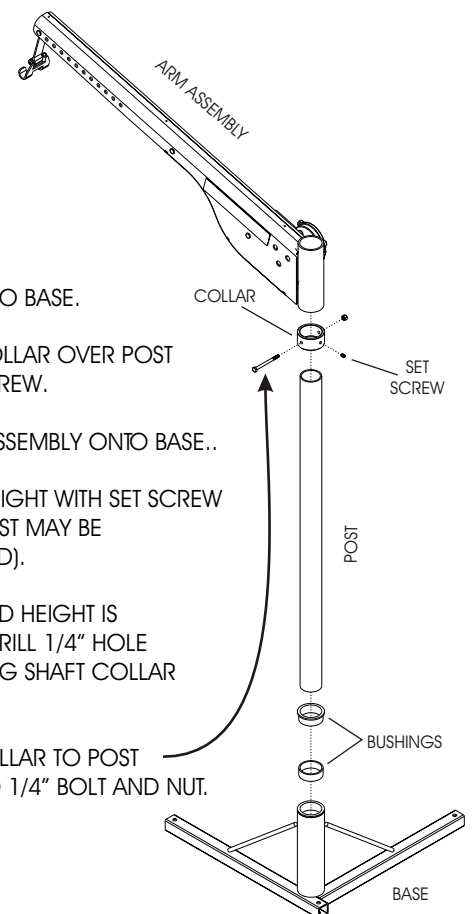
SLIDE SHAFT COLLAR OVER POST
TIGHTEN SET SCREW.

SLIP-ON ARM ASSEMBLY ONTO BASE..

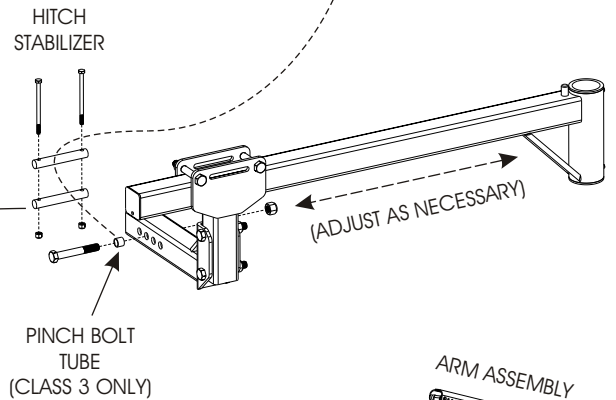
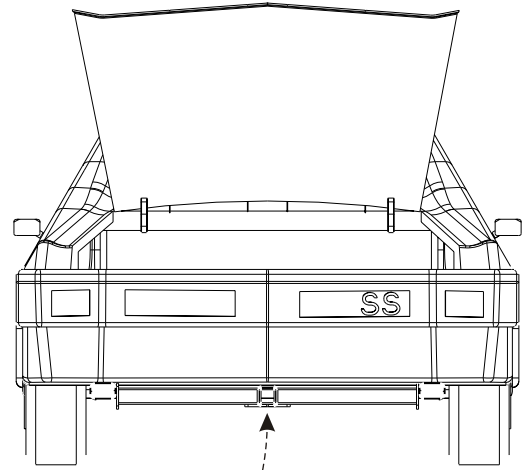
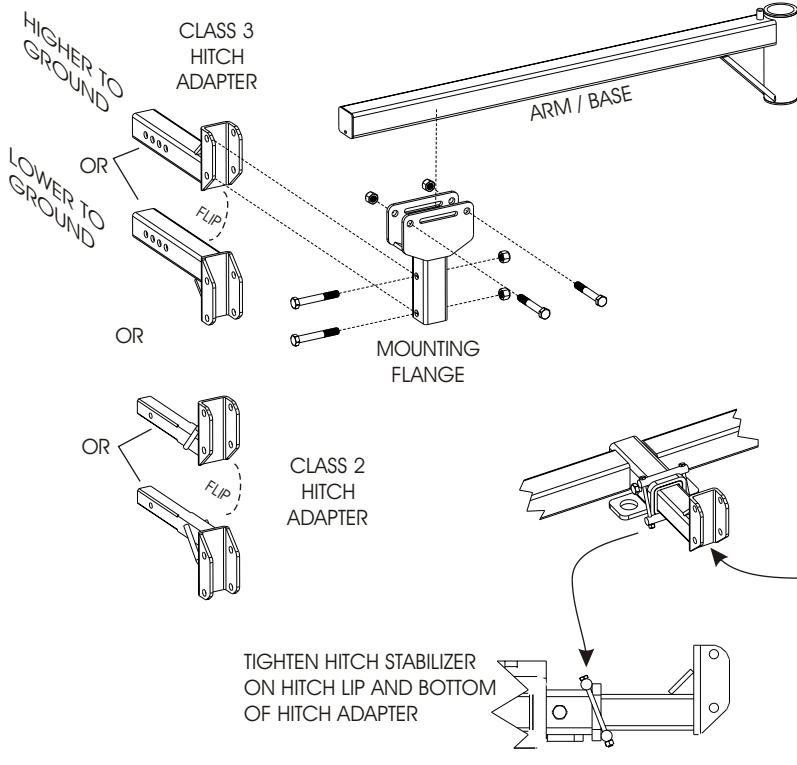
ADJUST ARM HEIGHT WITH SET SCREW
AS NEEDED (POST MAY BE CUT IF REQUIRED).

ONCE REQUIRED HEIGHT IS DETERMINED, DRILL 1/4" HOLE THRU POST USING SHAFT COLLAR AS A GUIDE.

BOLT SHAFT COLLAR TO POST
USING SUPPLIED 1/4" BOLT AND NUT.



ASSEMBLE HITCH ADAPTER TO MOUNTING FLANGE AND BOLT ARM / BASE TO MOUNTING FLANGE (LEAVE LOOSE FOR ADJUSTMENT)



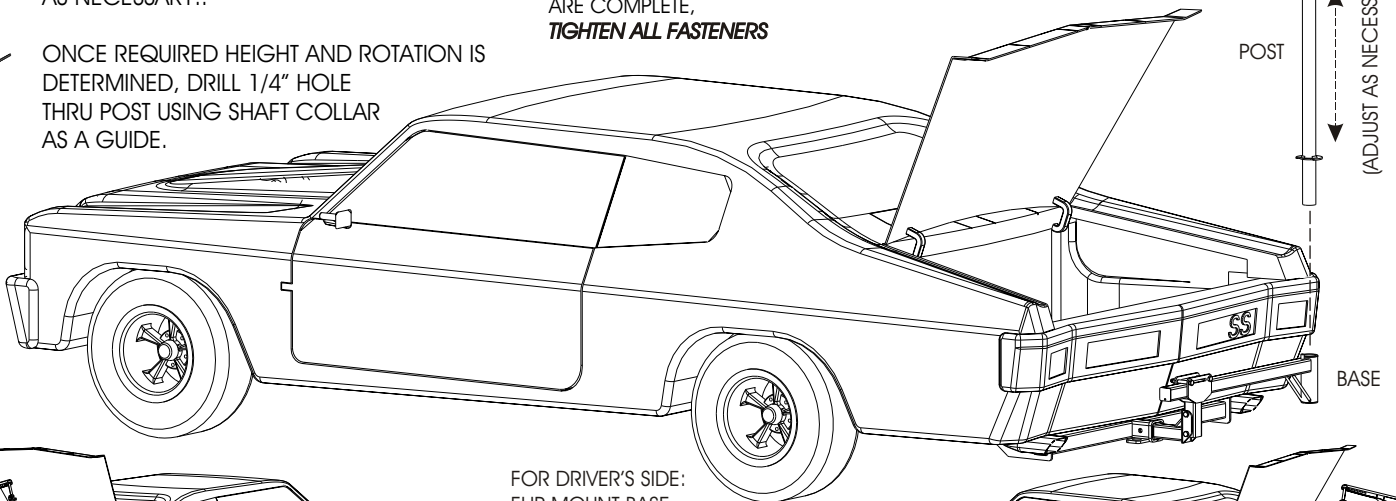
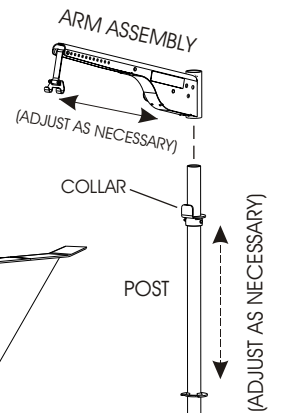
PLACE POST INTO BASE
SLIP FRAME ONTO POST

ADJUST ARM HEIGHT WITH SET SCREW AS NECESSARY..

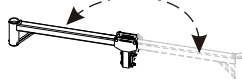
ONCE REQUIRED HEIGHT AND ROTATION IS DETERMINED, DRILL 1/4" HOLE THRU POST USING SHAFT COLLAR AS A GUIDE.

BOLT SHAFT COLLAR TO POST USING SUPPLIED 1/4" BOLT AND NUT.

ONCE ALL ADJUSTMENTS ARE COMPLETE, **TIGHTEN ALL FASTENERS**



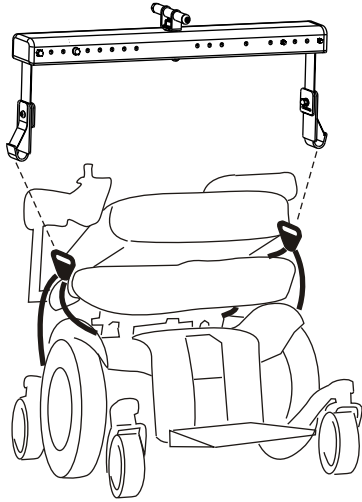
FOR DRIVER'S SIDE:
FLIP MOUNT BASE,
SO ARM IS ON
OPPOSING SIDE.



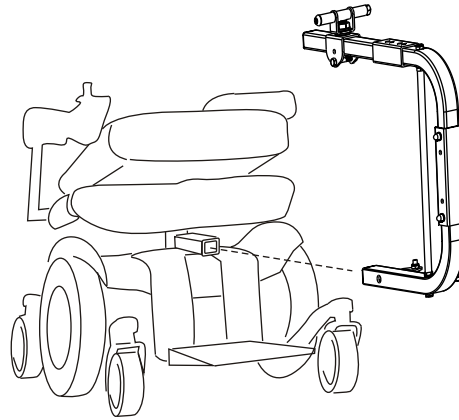


The Docking Device is the interface between the lift and the Chair / Scooter.

Most chairs / scooters can be lifted either by the center seat post or the 4 post seat frame.



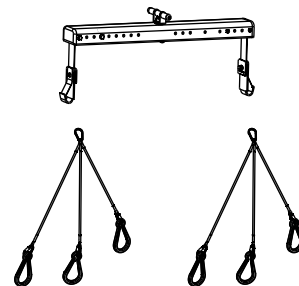
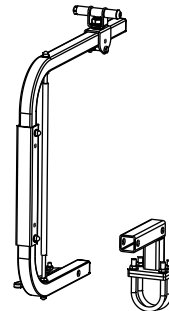
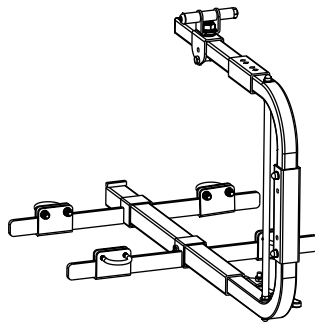
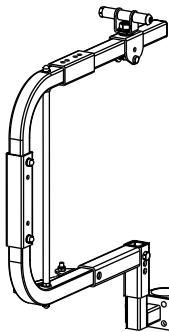
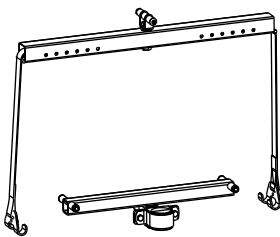
DD-21
Spreader Bar &
Bridles

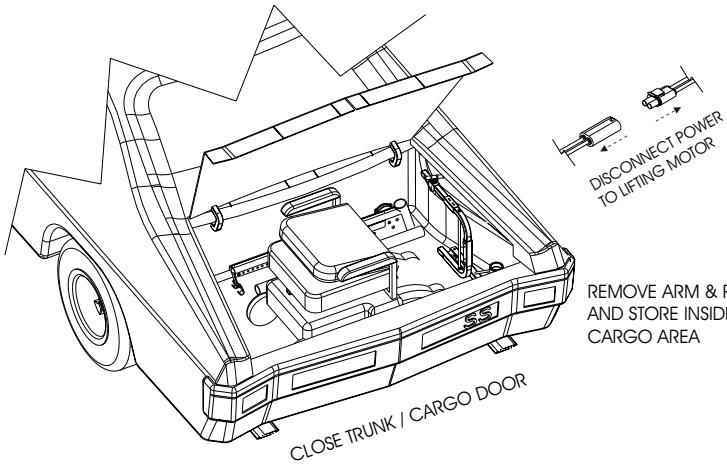
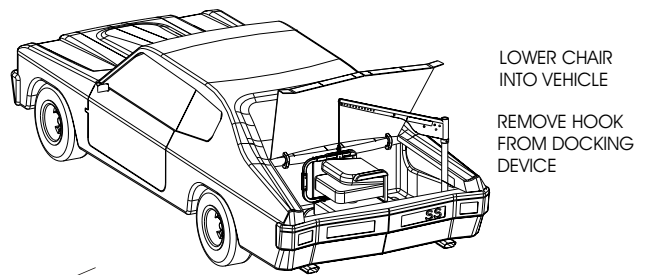
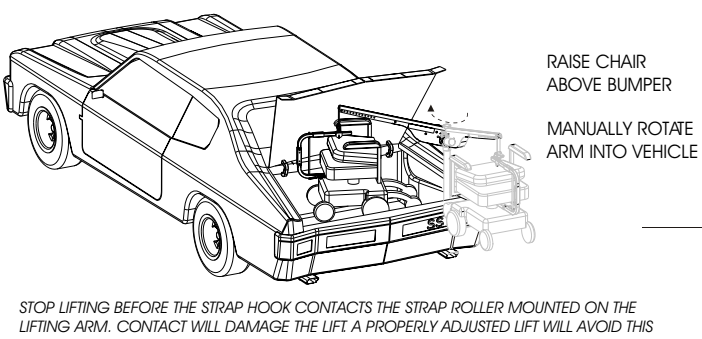
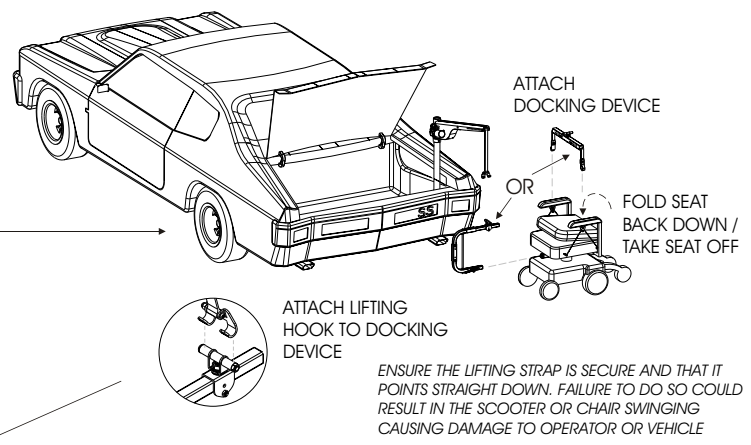
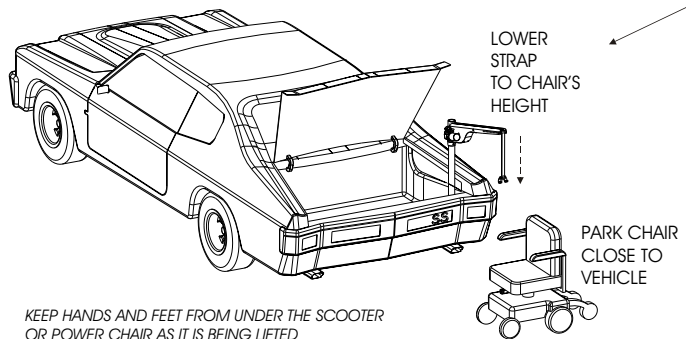
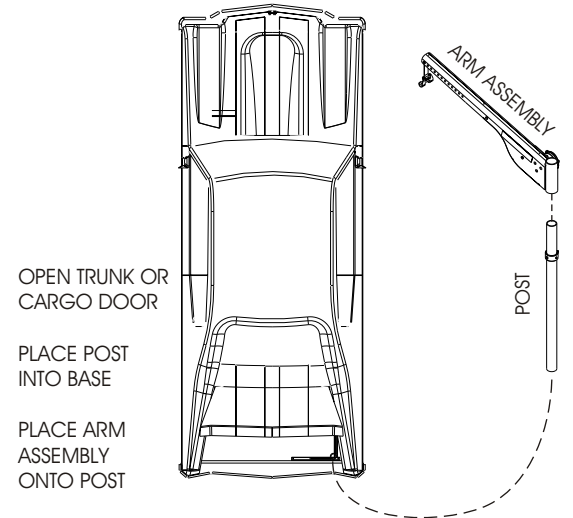
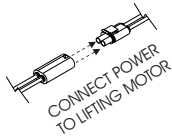
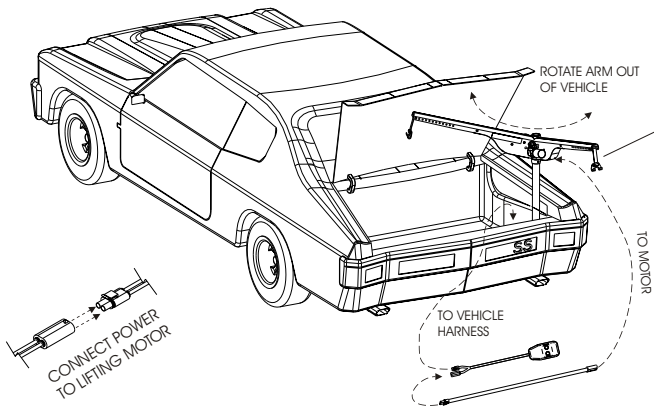


DD-19
C-Arm

Although most chairs / scooters can be lifted by the above Docking Devices, Many specific devices exist making the application even easier.

Please consult the instruction provided with your Docking Device, or contact our technical service department to find out exactly how this device is right for you.





IF PREPARATIONS ARE NEEDED TO SECURE THE SCOOTER OR CHAIR FOR TRANSPORT SUCH AS PARKING BRAKES OR WHEEL CHOCKS, THE DEALER SHOULD INSTRUCT OPERATORS ON HOW.

DUE TO THE WIDE VARIETY OF SCOOTERS, POWER CHAIRS, AND VEHICLES, YOUR DEALER MAY OFFER A DIFFERENT METHOD FOR LOADING AND UNLOADING YOUR MOBILITY DEVICE. PLEASE FOLLOW THE GUIDELINES THEY HAVE OFFERED.

UNLOADING IS THE REVERSE OF LOADING.

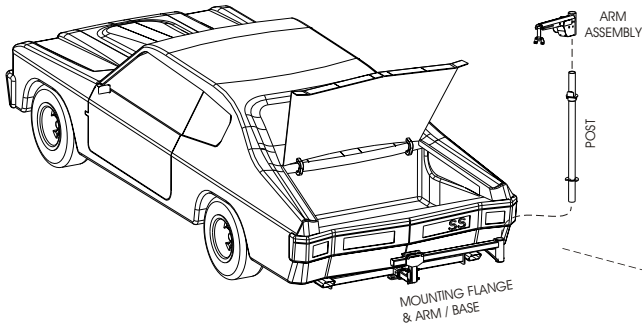
AL-065 OPERATION



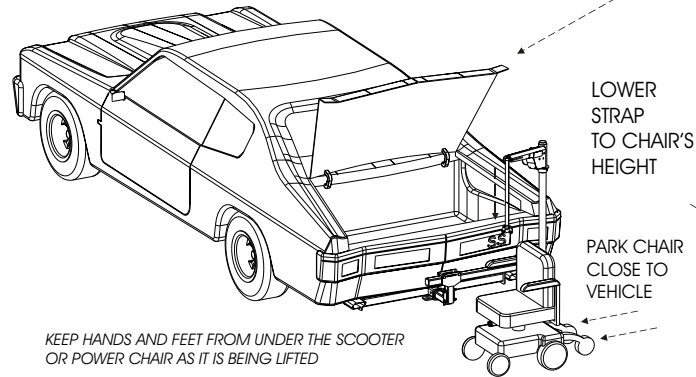
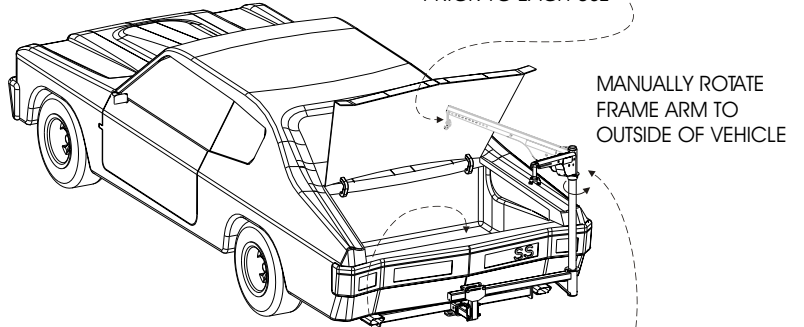
OPEN TRUNK OR CARGO DOOR

INSERT POST INTO ARM / BASE

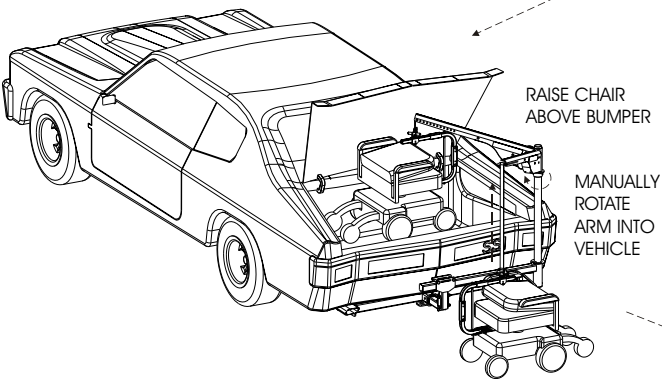
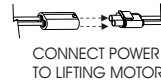
PLACE ARM ASSEMBLY ONTO POST



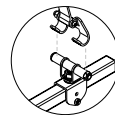
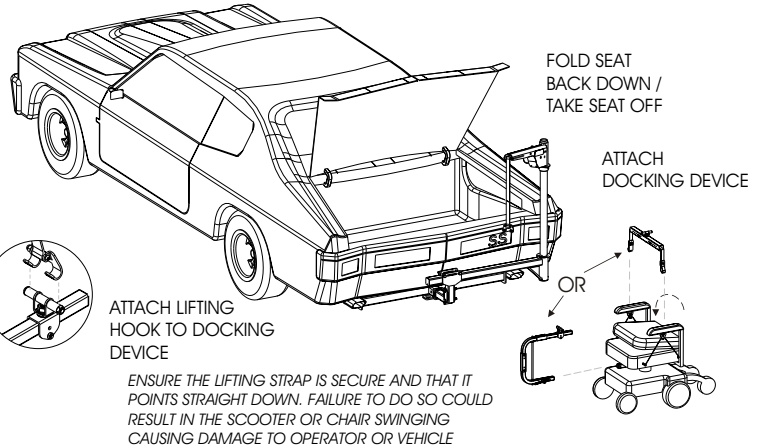
INSPECT LIFTING STRAP PRIOR TO EACH USE



KEEP HANDS AND FEET FROM UNDER THE SCOOTER OR POWER CHAIR AS IT IS BEING LIFTED



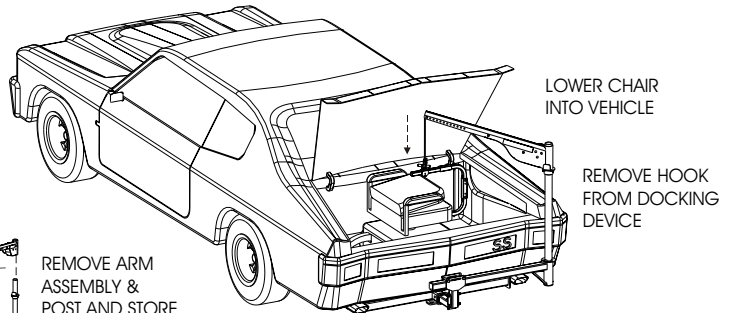
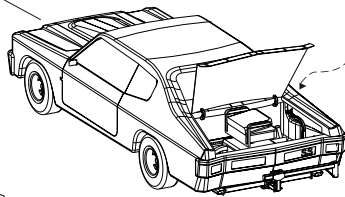
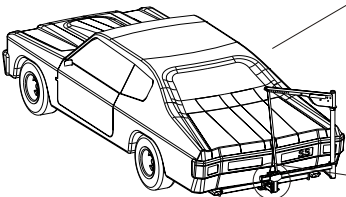
STOP LIFTING BEFORE THE STRAP HOOK CONTACTS THE STRAP ROLLER MOUNTED ON THE LIFTING ARM. CONTACT WILL DAMAGE THE LIFT. A PROPERLY ADJUSTED LIFT WILL AVOID THIS



ENSURE THE LIFTING STRAP IS SECURE AND THAT IT POINTS STRAIGHT DOWN. FAILURE TO DO SO COULD RESULT IN THE SCOOTER OR CHAIR SWINGING CAUSING DAMAGE TO OPERATOR OR VEHICLE

TRAVEL w/ LIFT ASSEMBLED

UN-ASSEMBLE / STORE INSIDE



REMOVE ARM ASSEMBLY & POST AND STORE TRUNK OR CARGO AREA

ELIMINATE EXCESS STRAP BY PRESSING THE "UP" BUTTON UNTIL THE HOOK IS ABOUT 1 INCH FROM THE TOP OF THE LIFTING ARM

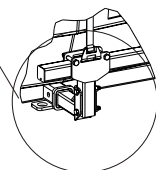
IF PREPARATIONS ARE NEEDED TO SECURE THE SCOOTER OR CHAIR FOR TRANSPORT SUCH AS PARKING BRAKES OR WHEEL CHOCKS, THE DEALER SHOULD INSTRUCT OPERATORS ON HOW.

DUE TO THE WIDE VARIETY OF SCOOTERS, POWER CHAIRS, AND VEHICLES, YOUR DEALER MAY OFFER A DIFFERENT METHOD FOR LOADING AND UNLOADING YOUR SCOOTER. PLEASE FOLLOW THE GUIDELINES THEY HAVE OFFERED

UNLOADING IS THE REVERSE OF LOADING

STRAP HOOK TO MOUNT FLANGE

RUN STRAP UP TILL TIGHT



ALWAYS DISCONNECT POWER TO LIFTING MOTOR BEFORE TRAVEL



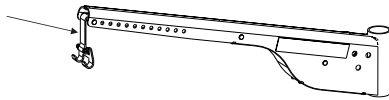
SAFETY:

CAUTION: DO NOT OPERATE THIS LIFT UNTIL YOUR DEALER HAS SATISFACTORILY INSTRUCTED YOU IN THE PROPER OPERATION OF THE LIFT.

YOUR HARMAR INSIDE LIFT HAS BEEN ENGINEERED AND DESIGNED FOR YEARS OF TROUBLE FREE USE. ALTHOUGH, WITH EVERYDAY USE, SOME PARTS MAY BECOME LOOSE OR WORN. IMPORTANT! CHECK REGULARLY FOR ANY WORN, LOOSE, OR DAMAGED PARTS OF YOUR LIFT. IF ANYTHING IS OBSERVED, **DO NOT USE THE LIFT!** CONTACT YOUR DEALER OR INSTALLER OF THE LIFT FOR REPAIRS TO BE MADE. FAILURE TO ACT MAY CAUSE SEVERE INJURY

YOUR HARMAR INSIDE LIFT SHOULD ONLY BE USED FOR THE LOADING AND UNLOADING OF SCOOTERS AND POWER WHEELCHAIRS FOR WHICH IT IS DESIGNED. IF YOUR PARTICULAR APPLICATION (VEHICLE & SCOOTER/CHAIR) CHANGES (ex. BUY A NEW CAR / UPGRADE TO A NEW POWER CHAIR) PLEASE CONSULT YOUR INSTALLER OR DEALER, AS THE ORIGINAL EQUIPMENT MAY NOT CONFIGURE THE SAME. DO NOT ADD TO OR MODIFY ANY PART OF THE LIFT SYSTEM WITHOUT FIRST CONSULTING THE MANUFACTURER OF THE LIFT. ANY MODIFICATIONS MAY VOID ANY WARRANTIES AS WELL AS THE STRUCTURAL INTEGRITY OF THE LIFT.

ALWAYS CHECK THE LIFTING STRAP BEFORE EACH USE FOR DAMAGE OR WEAR



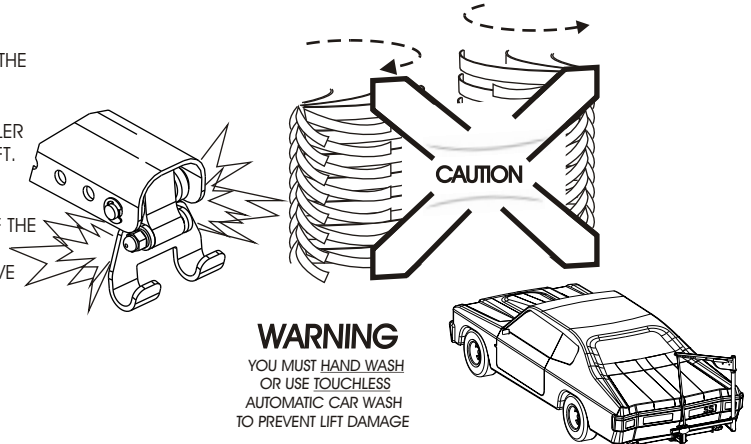
IF THERE IS ANY SIGN OF TEARING / LOOSE THREADS / DAMAGE / WEAR **DO NOT USE THE LIFT.** SEVERE DAMAGE TO CHAIR / SCOOTER / VEHICLE AND PERSONAL INJURY MAY OCCUR. PLEASE CONTACT YOUR DEALER OR INSTALLER, AND HAVE THE STRAP REPLACED IMMEDIATELY.

CAUTION: WHEN ATTACHING THE STRAP HOOK TO YOUR CHAIR / SCOOTER, INSURE THE LIFTING STRAP IS SECURE AND TAUGHT AND THAT IT POINTS STRAIGHT DOWN BEFORE LIFTING. FAILURE TO DO SO COULD RESULT IN THE SCOOTER OR CHAIR SWINGING TOWARD THE OPERATOR OR THE VEHICLE.

CAUTION: WHEN USING THE LIFT, KEEP YOUR HANDS AND FEET FROM UNDER THE CHAIR / SCOOTER AS IT IS BEING LOADED OR UNLOADED.

CAUTION: STOP LIFTING BEFORE THE STRAP HOOK CONTACTS THE STRAP ROLLER MOUNTED ON THE LIFTING ARM. CONTACT WILL RESULT IN DAMAGE TO THE LIFT. A PROPERLY ADJUSTED AND OPERATED LIFT WILL AVOID THIS

CAUTION: INSURE THE CHAIR / SCOOTER IS FIRMLY SITTING ON THE FLOOR OF THE VEHICLE AND NOT SUSPENDED BY THE LIFT DURING TRANSPORTATION. IF THE SCOOTER / CHAIR IS NOT FIRMLY ON THE FLOOR OF THE VEHICLE, IT MAY MOVE DURING TRANSPORTATION CAUSING DAMAGE TO THE LIFT TO THE VEHICLE, TO THE SCOOTER / CHAIR, OR TO THE PASSENGERS.



WARNING
YOU MUST HAND WASH OR USE TOUCHLESS AUTOMATIC CAR WASH TO PREVENT LIFT DAMAGE

MAINTENANCE:

YOUR HARMAR INSIDE LIFT HAS BEEN DESIGNED AND ENGINEERED TO BE AS TROUBLE FREE AS POSSIBLE TO THE OWNER. BUT, AS WITH ANY MECHANICAL DEVICE, REGULAR CARE SHOULD BE GIVEN WHILE OWNING AN USING THIS DEVICE.

MAINTENANCE IS NO EXCEPTION.

WE RECOMMEND THAT DEALERS SCHEDULE A PREVENTATIVE MAINTENANCE INSPECTION AT LEAST ONCE A YEAR ON MOTORS, LIFT FRAME, WIRING HARNESSSES, AND ALL MOVING PARTS OF THE LIFT

CHECK FOR PAINT CHIPS AND TOUCH UP AND BARE METAL WITH A GOOD GLOSS BLACK ENAMEL OR LACQUER TO INHIBIT RUST. THIS MAY BE NECESSARY MORE FREQUENTLY WHEN SUBJECTED TO SALT AIR OR ROAD SALT.

ALWAYS CHECK THE LIFTING STRAP BEFORE EACH USE. IF ANY WEAR OR DAMAGE IN NOTICED **DO NOT USE THE LIFT!** CONTACT THE DEALER OR INSTALLER FOR REPAIR. FAILURE TO DO SO WILL RESULT SEVERE INJURY OR DAMAGE.

HAND CONTROL UNITS SHOULD BE PROPERLY STORED INSIDE THE VEHICLE WHENEVER POSSIBLE. IF LIFT IS INSTALLED IN THE BACK OF A PICK-UP TRUCK, WE STRONGLY RECOMMEND UN-PLUGGING THE CONTROL IN BETWEEN USES, AND STORING IN THE CAB. EXPOSURE TO WEATHER IS OK, BUT RAIN FLOODING THE TRUCK BED, AND THE HAND CONTROLLER BEING SUBMERGED IN WATER, COULD CAUSE THE CONTROLLER TO FAIL.

WARRANTY:

THIS LIFT COVERED BY A THREE YEAR FACTORY WARRANTY ON MATERIALS AND WORKMANSHIP CONTACT YOUR LOCAL DEALER FOR MORE INFORMATION OR GO TO WWW.HARMAR.COM

TROUBLESHOOTING

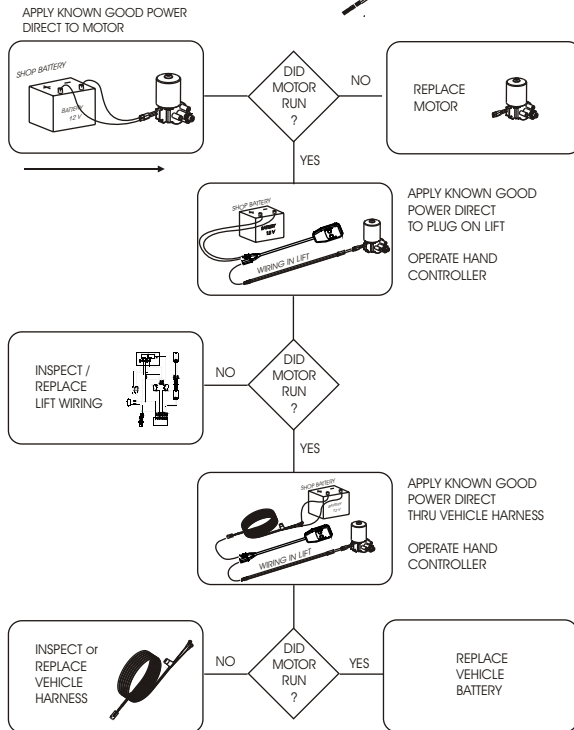
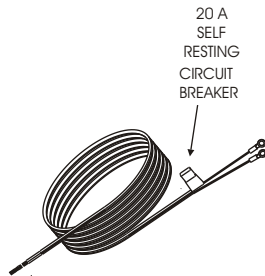
PROBLEM: LIFT WILL NOT OPERATE, OPERATES SLOWLY or OPERATES INTERMITTENTLY.
REASON: BAD ELECTRICAL CONNECTIONS / CIRCUIT BREAKER

PROCEDURE:

CHECK / CLEAN ALL CONNECTIONS THAT MIGHT BE LOOSE OR DIRTY THIS IS THE #1 CAUSE OF A POORLY PERFORMING LIFT. THE MOTOR ON THE LIFT REQUIRES QUALITY ELECTRICAL CONNECTIONS TO OPERATE AT FULL CAPACITY. ANY BREAK IN THE WIRING WILL SLOW DOWN THE MOTOR, OR CAUSE IT TO OPERATE INTERMITTENTLY WHICH IN TURN WILL PREMATURELY DETERIORATE THE MOTOR.

THE LIFT'S VEHICLE POWER HARNESS RUNNING THROUGH OR UNDER THE VEHICLE IS SUBJECT TO ROAD DEBRIS, AND RUBBING AGAINST THE VEHICLE'S FRAME, CAUSING A SHORT. INSPECT THE FULL LENGTH OF THE HARNESS TO BE SURE THE JACKET OF INSULATION IS NOT TORN.

THE CIRCUIT BREAKER IS LOCATED ABOUT 6" FROM THE CONNECTIONS TO THE VEHICLE'S BATTERY. THE BREAKER WILL SELF RESET IF OVER-LOADED. HOWEVER VERIFY (w/ OHM METER or TEST LIGHT) THE BREAKER IS FUNCTIONING, OR REPLACE IT WITH A NEW / KNOWN GOOD CIRCUIT BREAKER, AND PERFORM THE FOLLOWING TESTS.



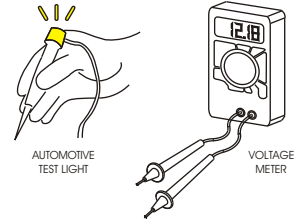
PROBLEM: LIFTING STRAP OPERATES IN REVERSE
REASON: BUTTON WAS HELD TOO LONG AND UNWOUND LIFTING STRAP LIKE A YO-YO, THE LIFTING STRAP WOUND IN REVERSE
PROCEDURE: PRESS WHICH EVER BUTTON EXTENDS STRAP, AND CONTINUE TO HOLD UNTIL STRAP RETURNS TO PROPER DIRECTION

PROBLEM: SCOOTER OR CHAIR TIPS FRONT OR BACK WHILE BEING LIFTED
REASON: CHAIR or SCOOTER IS BEING LIFTED OFF CENTER
PROCEDURE: ADJUST FOR CENTER OF GRAVITY ON DOCKING DEVICE. CHECK TO SEE IF PROPER DOCKING DEVICE IS BEING USED

PROBLEM: LIFTING ARM IS HARD TO ROTATE
REASON: DRY / DIRTY BUSHINGS
PROCEDURE: CLEAN AND LUBRICATE GREY BUSHINGS IN BASE WITH WHITE/LITHIUM GREASE OR EQUIV.

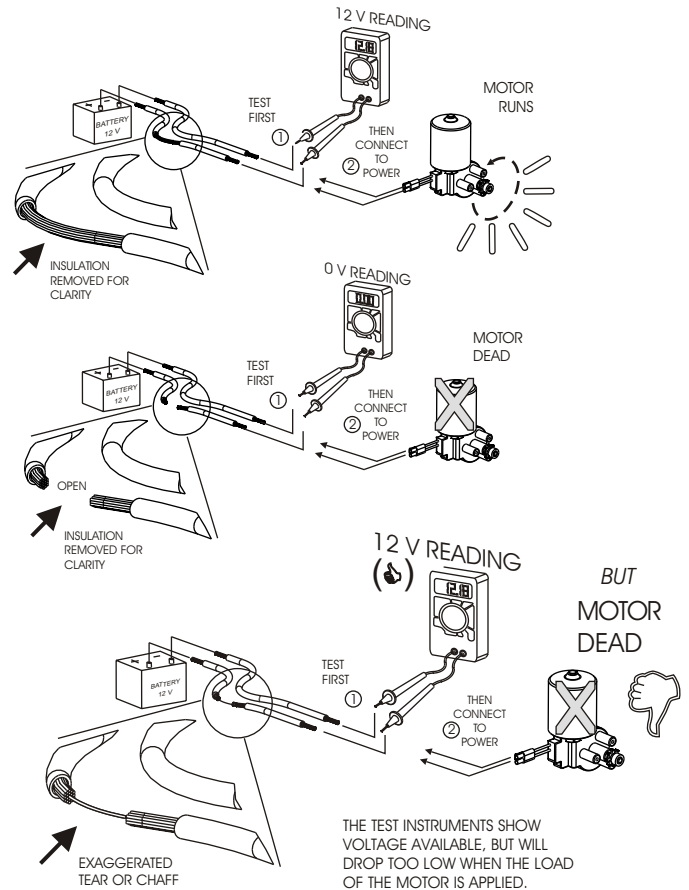
BE CAREFUL WHEN TROUBLESHOOTING WITH A TEST LIGHT, OR VOLTAGE METER. THEY MAY GIVE FALSE INDICATIONS

THIS SECTION IS RESERVED FOR THE INSTALLER / DEALER HARMAR DOES NOT RECOMMEND THESE PROCEDURES BE ATTEMPTED BY ANYONE WITHOUT PROPER KNOWLEDGE OF AUTOMOTIVE ELECTRICAL CIRCUITRY



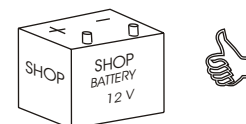
THESE INSTRUMENTS WILL DETECT VOLTAGE, BUT MAY NOT INDICATE A TEAR OR POOR CONNECTION IN THE WIRING

EXAMPLE:



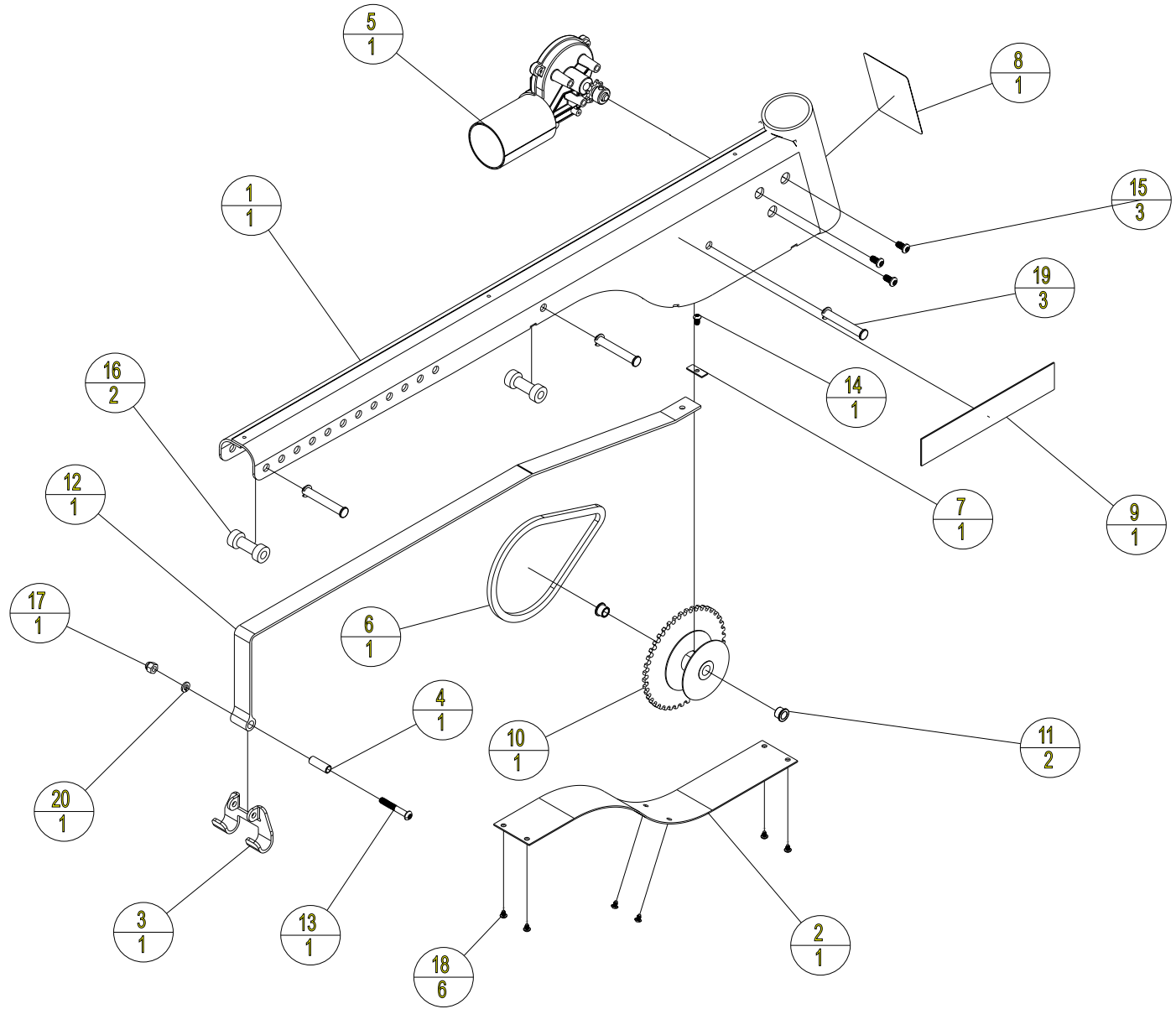
BE CAREFUL WHEN TROUBLESHOOTING WITH A TEST LIGHT, OR VOLTAGE METER. THEY MAY GIVE FALSE INDICATION AS SHOWN ABOVE. THEY WILL ONLY INDICATE THERE IS SOME WIRE CONNECTION--NOT NECESSARILY-ENOUGH.

HARMAR STRONGLY RECOMMENDS TROUBLESHOOTING ELECTRICAL PROBLEMS WITH KNOW GOOD / FULLY CHARGED 12 V AUTOMOTIVE BATTERY or KNOW GOOD / FULLY CHARGED POWER CHAIR/SCOOTER BATTERY





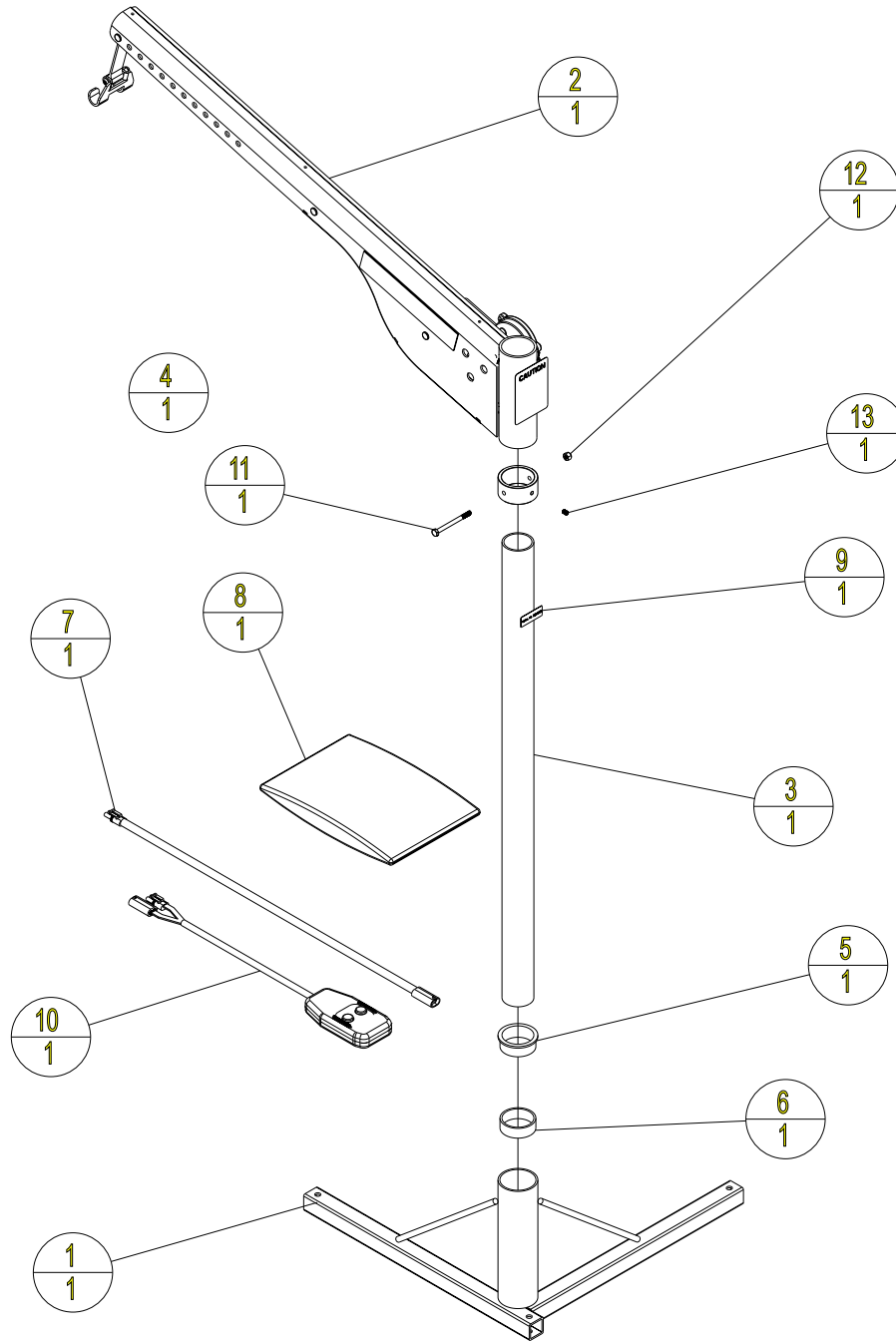
AL 055 / 065 ARM ASSEMBLY



ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	261-ZB05-C	HOIST HOUSING	11	2	ALA21410	FLANGE BUSHING, 3/8X1/2X3/8, BRONZE
2	1	570-ZB01-C	HOIST HOUSING COVER	12	1	ALA67997	LIFTING STRAP
3	1	580-ZB01-C	DETACHABLE HOOK	13	1	BHCS-0_25-20-1_75-SS	BUTTON HEAD, 1/4-20 x 1.75, SS
4	1	591-ZB01-C	HOOK SLEEVE	14	1	BHCS-10-32-0_37-BO	BUTTON HEAD, 10-32 x 3/8, BLACK OXIDE
5	1	700-ZB01-A	ANK. LIFTING MOTOR	15	3	BHCS-M6-1_00-16-SS	BUTTON HEAD, M6-1 X 16MM, SS
6	1	ALA21020	SPOOL CHAIN	16	2	H225402	AL215 & AL225 ROLLER
7	1	ALA21055	STRAP TAB	17	1	NUT-0_25-20-ACORN-NI	ACORN NUT, 1/4-20, NI
8	1	ALA21094	STICKER, "CAUTION"	18	6	PHTS-8-32-0_25-BZ	PAN HEAD - THREAD FORMING, 8-32 X 0.25, BZ
9	1	ALA21095	STICKER, INSIDE LIFTS	19	3	PIN-0_37-2_50-CL-Z	CLEVIS PIN W/E-CLIP, 3/8 X 2.50, ZINC
10	1	ALA214-PLT	SPOOL	20	1	WASH-0_25-0_50-0_06-SL-Z	1/4" SPLIT LOCK WASHER



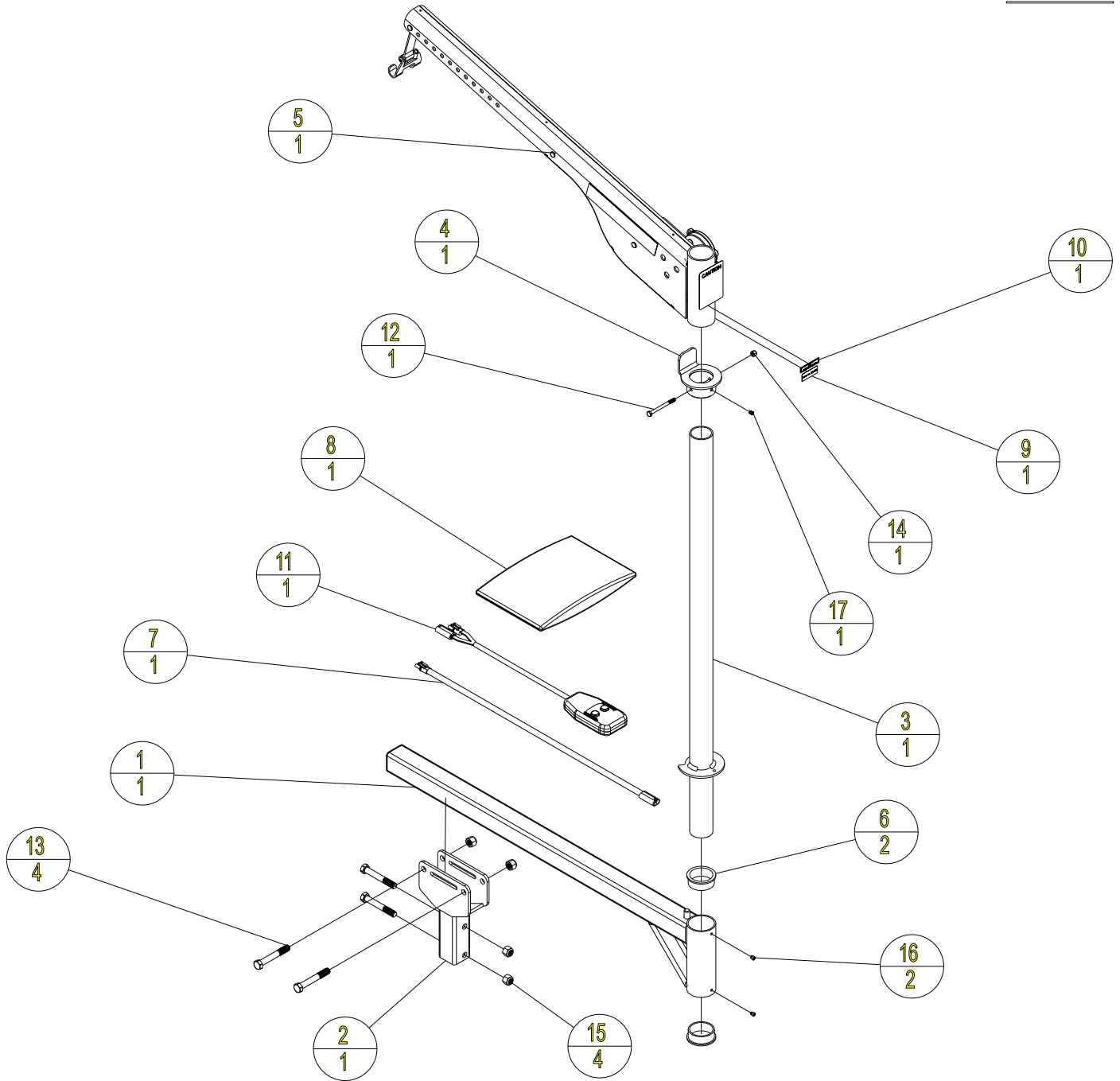
AL-055



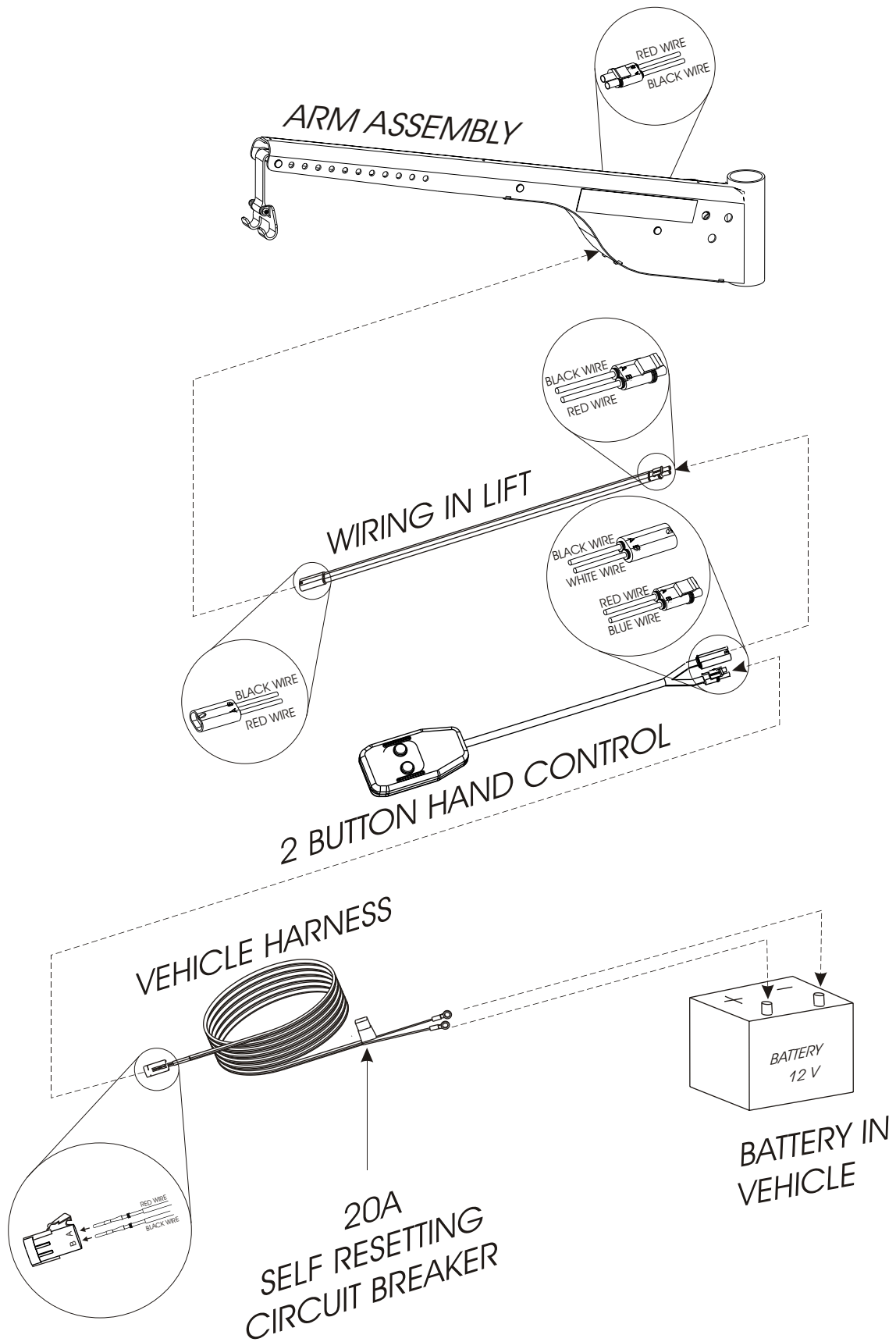
ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
1	1	201-ZB05-C	BASE	8	1	ALA280	HARDWARE PACK
2	1	260-ZB05-A	HOIST ASSEMBLY	9	1	ALA99995	LABEL, SERIAL NUMBER
3	1	541-1B05-C	VERTICAL POST	10	1	H20000	2 BUTTON HAND CONTROL
4	1	542-1B05-C	SHAFT COLLAR TUBE	11	1	HHCS-0_25-28-3_00-Z	HEX HEAD, 1/4-28 X 3.00, ZINC
5	1	ALA05010	FLANGE BEARING 2 INCH	12	1	NUT-0_25-28-NYLOCK-Z	NUT, NYLOCK, 1/4-28, ZINC
6	1	ALA05011	BUSHING 2 INCH	13	1	SSCP-0_25-28-0_375	SET SCREW, 1/4-28 X 0.375
7	1	ALA06550	HARNESS				



AL-065



ASSEMBLY PARTS					ASSEMBLY PARTS				
ITEM	QTY	PART NO.	DESCRIPTION		ITEM	QTY	PART NO.	DESCRIPTION	
1	1	201-1B06-C	MOUNTING ARM		10	1	H065411	AL065 PATENT STICKER	
2	1	210-2B06-C	MOUNTING FLANGE		11	1	H20000	2 BUTTON HAND CONTROL	
3	1	241-1B06-C	VERTICAL POST		12	1	HHCS-0_25-28-3_00-Z	HEX HEAD, 1/4-28 X 3.00, ZINC	
4	1	245-1B06-C	SHAFT COLLAR		13	4	HHCS-0_50-13-3_50-Z	HEX HEAD, 1/2-13 X 3.50, ZP	
5	1	260-2B05-A	HOIST ASSEMBLY		14	1	NUT-0_25-28-NYLOCK-Z	NUT, NYLOCK, 1/4-28, ZINC	
6	2	ALA05010	FLANGE BEARING 2 INCH		15	4	NUT-0_50-13-NYLOCK-Z	NYLOCK NUT, 1/2-13, ZINC	
7	1	ALA06550	HARNES		16	2	SHCS-10-24-0_18-N	SOCKET HEAD, 10-24 X 0.188, NYLON	
8	1	ALA088	HARDWARE PACK		17	1	SSCP-0_25-28-0_375	SET SCREW, 1/4-28 X 0.375	
9	1	ALA9895	LABEL, SERIAL NUMBER						





Service Description:

Service Date:

Service Performed By:

Service Description:

Service Date:

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THANK YOU FOR MAKING HARMAR AMERICA'S LEADER IN LIFTS AND RAMPS