

AL 060
MICRO INSIDE
LIFT CAPACITY:
60 kg

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

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HARMAR LIFTS ARE DESIGNED TO INSTALL WITH AS LITTLE ASSEMBLY AS POSSIBLE. THE FOLLOWING IS A SUGGESTION OF THE BASIC TOOLS RECOMMENDED TO HAVE ON HAND DURING INSTALLATION.

THIS IS, BY NO MEANS, MEANT TO REPRESENT THE REQUIREMENTS AS A WHOLE, AS EACH INSTALLATION WILL VARY TO SOME DEGREE. ADDITIONALLY, THIS MAY SERVE AS A GUIDE TO PORTRAY THE COMPLEXITY OF THIS TYPE OF INSTALLATION.



SAE SOCKETS

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



SAE WRENCHES

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



SAE ALLEN WRENCHES

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



WIRE CUTTERS



NEEDLE NOSE PLIERS



FLAT HEAD SCREWDRIVER



PHILLIPS HEAD SCREWDRIVER



SMALL HACKSAW



ELECTRIC DRILL



PEN/PENCIL



TAPE MEASURER



DRILL BITS



METAL FILE

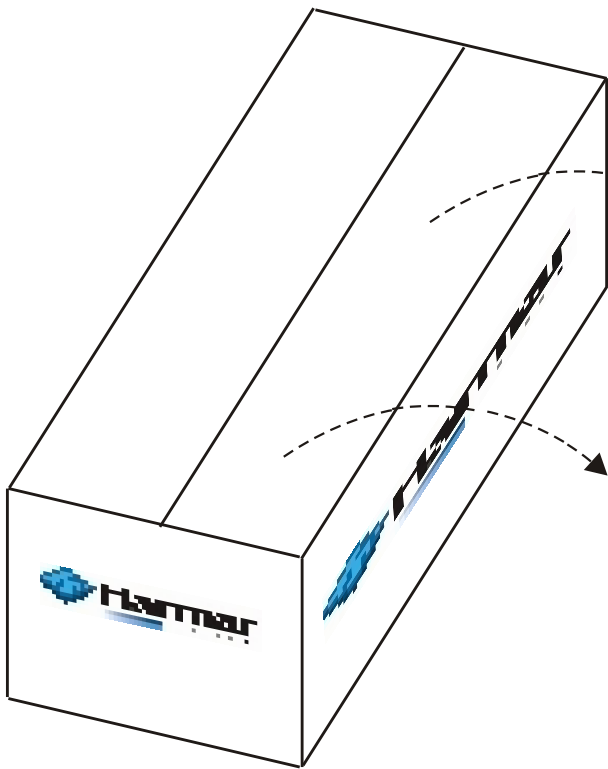
As always, if you have any questions, concerns or comments, please feel free to contact Harmar's Technical Service Department at 866-378-6648 or "tech@harmar.com"






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




HARDWARE PACK















3x
INSTALLATION
WASHERS






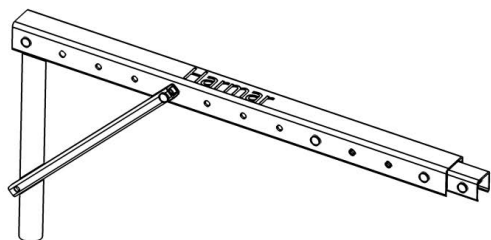
VEHICLE
HARNESS



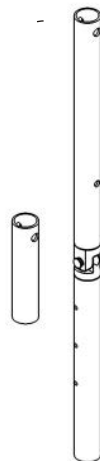
END
CONNECTOR

-  2 - M6, ZP STEEL G5
-  1 - HHTB, 0.5 x 1.5", ZP STEEL G5
-  5 - HHTB, 0.375 x 1.5", ZP STEEL G5
-  1 - NUT, NYLOC, 1/4-28, ZP STEEL
-  3 - NUT, NYLOC, 3/8-16, ZP STEEL
-  2 - WASHER, FLAT, 1/2", ZP STEEL
-  10 - 14" 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

-  Flange Bushing
-  Bushing
-  Collar



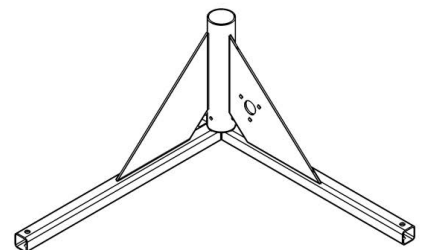
Arm Assembly w/ Brace



Post w/ Sleeve



Hand Control



Base

★ 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.

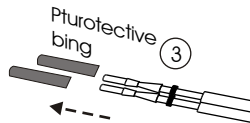
YOUR WIRING HARNESS HAS BEEN LEFT UN-ASSEMBLED FOR EASE OF INSTALLATION. THE END CONNECTOR HAS BEEN INCLUDED SEPARATELY FROM THE HARNESS TO ALLOW THE INSTALLER TO RUN THE WIRE UNDER AND THROUGH THE VEHICLE WITH THE SMALLEST HOLE POSSIBLE. FOLLOW THESE INSTRUCTIONS TO ASSURE PROPER INSTALLATION. DO NOT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

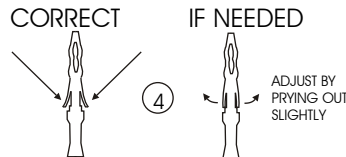
- 1 BEGIN ROUTING THE WIRING HARNESS AT THE VEHICLE BATTERY. ATTACH THE BLACK WIRE TO THE NEGATIVE TERMINAL ON THE BATTERY. DO NOT ATTACH THE RED WIRE UNTIL THE END.
- 2 RUN THE WIRING HARNESS UNDER, OR WHEN POSSIBLE THROUGH THE VEHICLE, BACK TO THE REAR CARGO AREA / TRUNK. ALWAYS LOCATE THE WIRING WHERE 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 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.



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

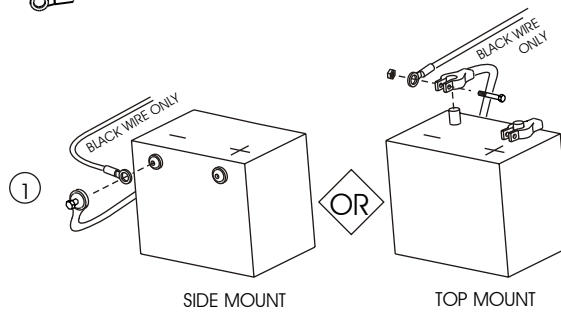
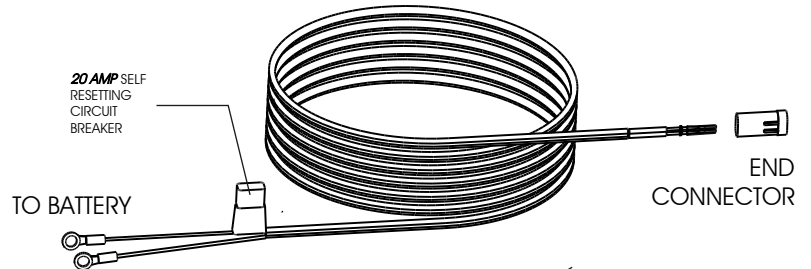
B=BLACK, A=RED

VERIFY THE WIRES CAN NOT BE PULLED OUT BY MODERATELY PULLING ON WIRE.

BE SURE WIRE SEALS ARE INSIDE CONNECTOR, AND CLOSE THE END CONNECTOR'S HINGED RETAINER.

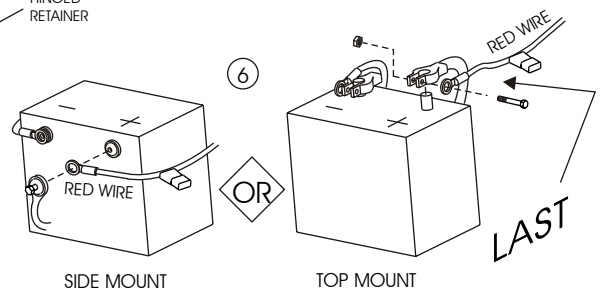
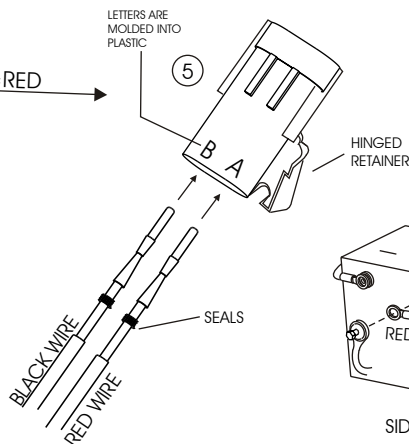
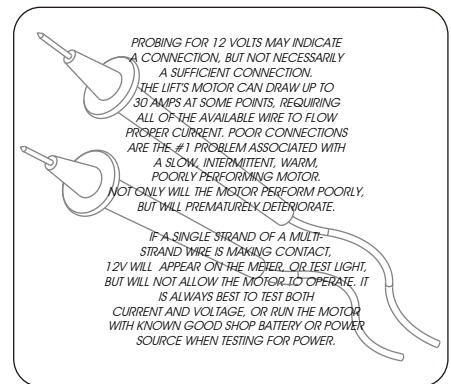
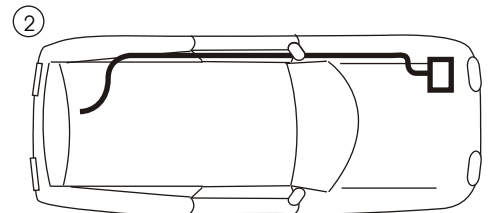
PLUG CONNECTOR INTO LIFT

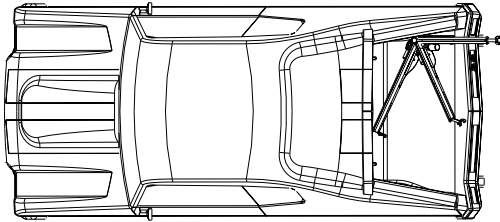
- 6 LAST: ATTACH RED WIRE TO THE POSITIVE TERMINAL ON THE BATTERY



NEVER ATTEMPT TO CONNECT THE HARNESS TO A SECONDARY POWER SOURCE. ALWAYS CONNECT BOTH LEADS DIRECTLY TO THE BATTERY

WHEN THE INSTALLATION REQUIRES THE WIRING HARNESS BE RUN ON THE UNDERSIDE OF THE VEHICLE, ROUTE THE HARNESS AWAY FROM THE EXHAUST SYSTEM, BRAKE LINES, FUEL LINES, GAS TANK, PINCH POINTS, AND SHARP EDGES. LOCATE THE WIRING HARNESS WHERE IT CAN NOT BE SNAGGED BY ROAD DEBRIS



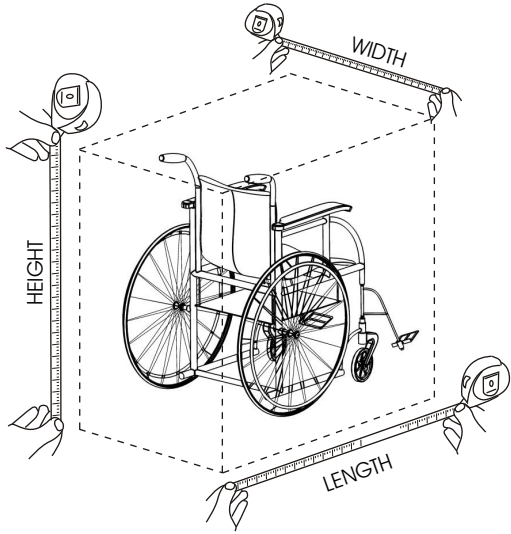


THE AL-060 WILL REQUIRE 3 HOLES TO BE DRILLED INTO THE VEHICLE TO BOLT THE LIFT'S BASE TO THE FLOOR. THE POSITIONING OF THE BASE IS *VERY* IMPORTANT TO A SUCCESSFUL INSTALLATION AND OPERATION OF THIS LIFT.

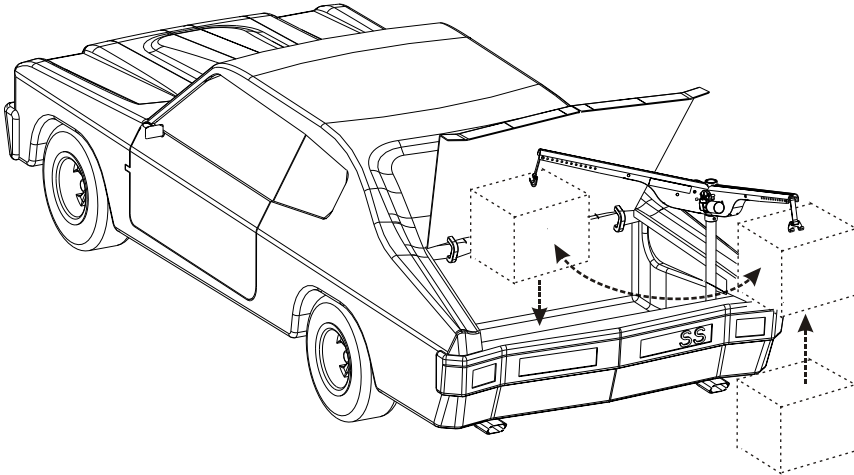
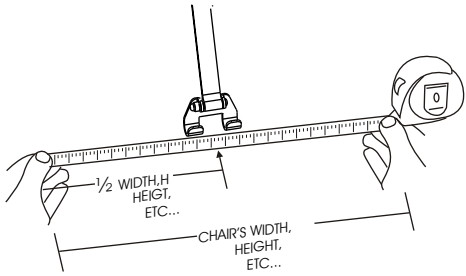
PRIOR TO ANY HOLES BEING DRILLED, IT IS *HIGHLY* RECOMMENDED THAT THE LIFT BE RUN THROUGH ITS RANGE OF MOTION IN A "TRIAL FIT".

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 MIRRORRED)

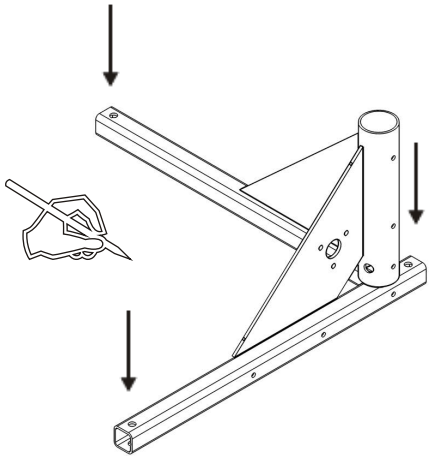


FOLD THE CHAIR OR SCOOTER'S SEAT BACK (or REMOVE SEAT) PREFERABLY WITH DOCKING DEVICE INSTALLED TO ROUGHLY OBSERVE THE CHAIR'S TRANSPORTABLE DIMENSIONS. MEASURE LENGTH, WIDTH, AND HEIGHT



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

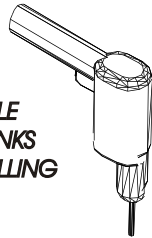
ONCE IT HAS BEEN VERIFIED EACH OF THE HELD MEASUREMENTS DOES NOT INTERFERE WITH THE VEHICLE'S CARGO AREA / OPENING, MARK THE 3 LOCATIONS IN WHICH TO DRILL



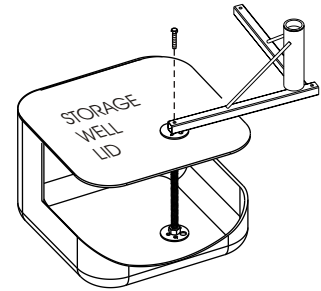
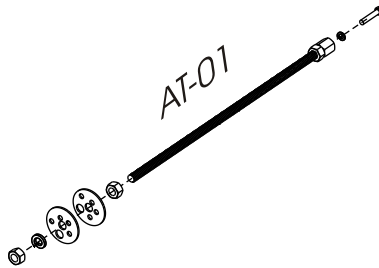


ONCE CONFIDENCE HAS BEEN GAINED ON THE POSITION OF THE LIFT, AND THE "TRIAL FIT" PROCEDURE HAS BEEN COMPLETED, THREE 3/8" HOLES WILL NEED TO BE DRILLED IN THE MARKED LOCATIONS

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



ALL THREAD KIT MAY BE REQUIRED



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

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.

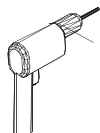
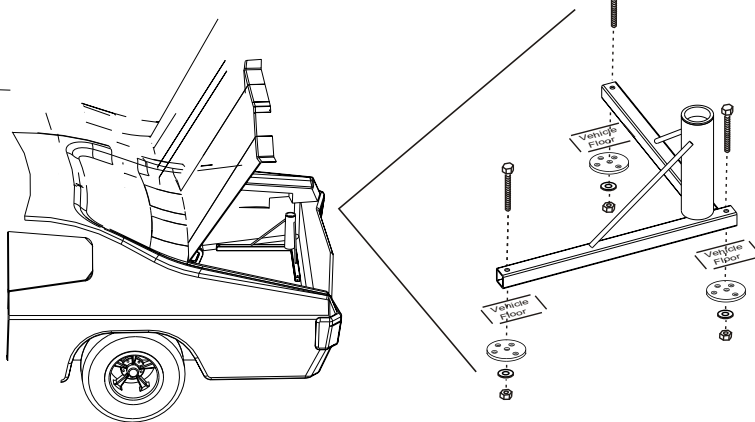
ONCE HOLES ARE DRILLED, FASTEN BASE TO VEHICLE FLOOR USING SUPPLIED HARDWARE FROM THE HARDWARE PACKAGE. BE SURE TO TIGHTEN ALL FASTENERS.

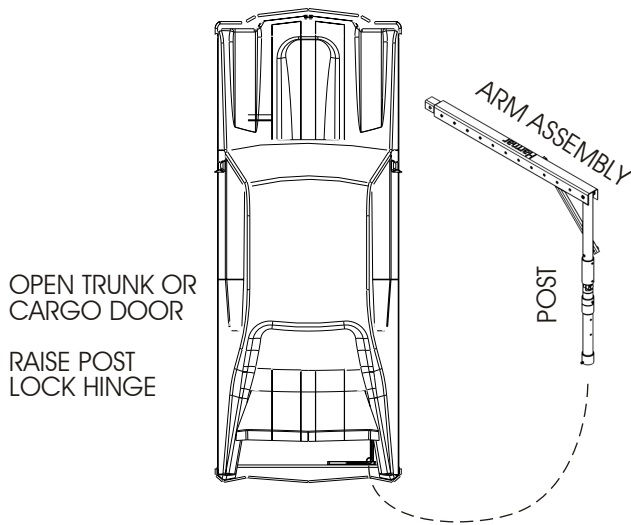
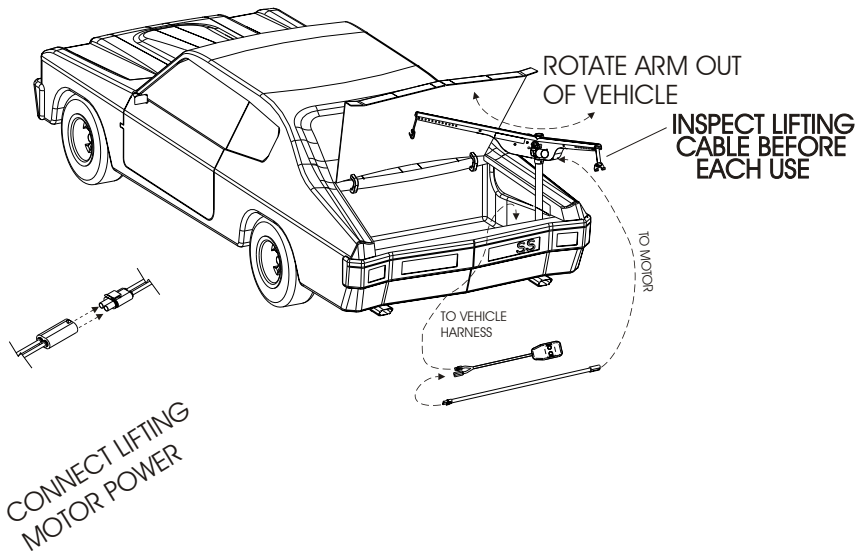
PLACE POST INTO BASE.
SLIDE SHAFT COLLAR OVER POST, THEN TIGHTEN SET SCREW.
OVERALL HEIGHT WILL BE ADJUSTED WITH THIS SET SCREW AND COLLAR.

BOLT ON ARM ASSEMBLY ONTO POST.
BE SURE TO USE THE PROVIDED SPACERS.
BOLT ON BRACE AS WELL.

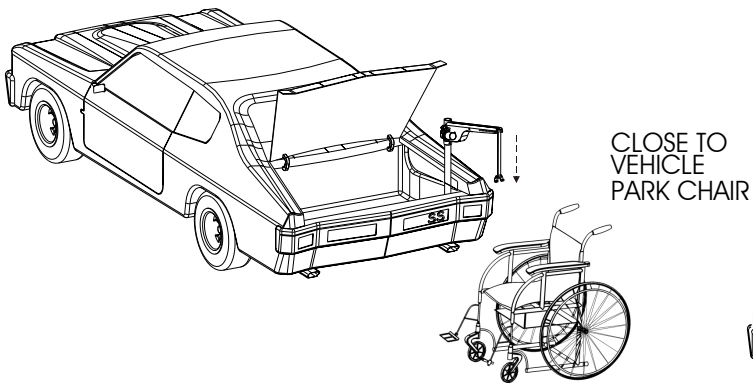
YOUR OVERALL ASSEMBLY IS NOW COMPLETE

THE AL060 IS EQUIPPED WITH A FOLDING HINGE THAT ALLOWS FOR EASY STORAGE. TO FOLD, RAISE POST SLEEVE TO EXPOSE HINGE. WHEN POSITIONING IN UPRIGHT MANNER, LOWER SLEEVE TO SHIELD HINGE AND LOCK UNIT. SET SCREWS MAY BE USED TO FURTHER LOCK SLEEVE AND UNIT.

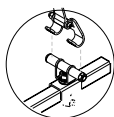
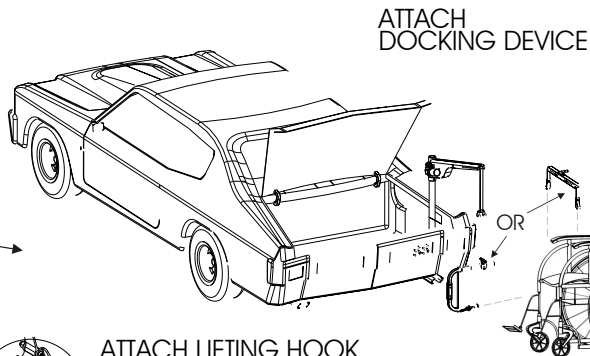




LOWER CABLE TO CHAIR'S HEIGHT



KEEP HANDS AND FEET FROM UNDER THE WHEELCHAIR AS IT IS BEING LIFTED

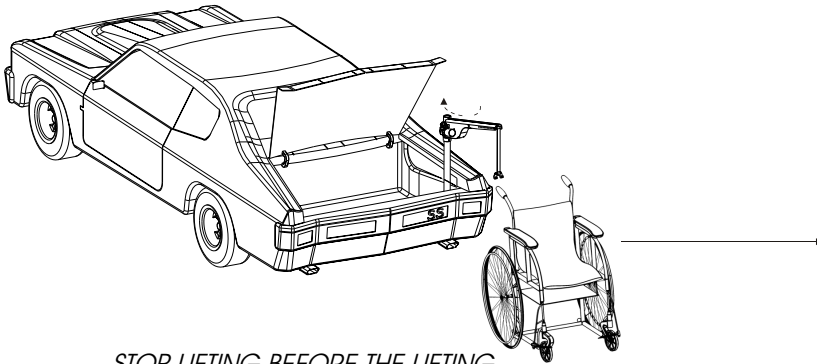


ENSURE THE LIFTING DEVICE IS SECURE AND THAT IT POINTS STRAIGHT DOWN. FAILURE TO DO SO COULD RESULT IN THE CHAIR SWINGING AND CAUSING DAMAGE TO OPERATOR OR VEHICLE

CONTINUE ON NEXT PAGE

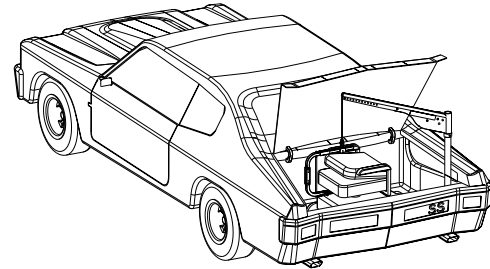


RAISE CHAIR
ABOVE BUMPER
MANUALLY ROTATE
ARM INTO VEHICLE



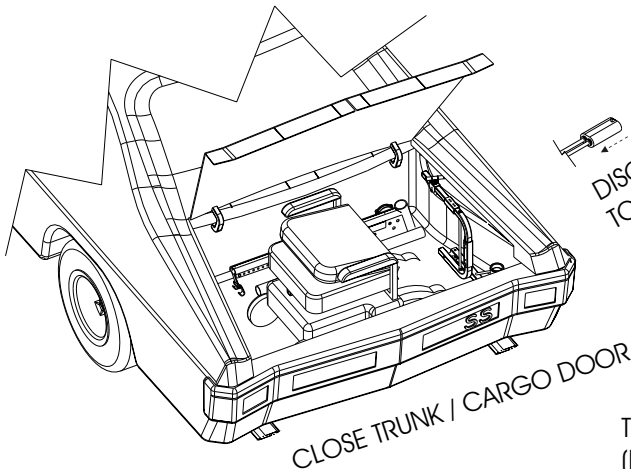
STOP LIFTING BEFORE THE LIFTING
HOOK CONTACTS THE ROLLER
MOUNTED ON THE LIFTING ARM.
CONTACT WILL DAMAGE THE LIFT.
ADJUSTED LIFT PROPERLY TO AVOID

LOWER CHAIR
INTO VEHICLE
REMOVE HOOK
DEVICE
FROM DOCKING
USE HINGE TO LOWER
UPPER PORTION OF UNIT
CLOSE TRUNK



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.
UNLOADING IS THE REVERSE OF LOADING.



DISCONNECT POWER
TO LIFTING MOTOR

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

TO FOLD THE LIFT, RAISE THE POST SLEEVE TO EXPOSE THE FOLDING HINGE.
(IF SET SCREW WAS USED TO PREVENT RATTLING, REMOVE AS WELL)
WITH LIFT NOW FOLDED, LAY THE UPPER PORTION DOWN. ADJUST IF
NECESSARY



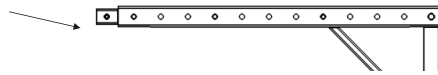
SAFETY:

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 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 CABLE BEFORE EACH USE FOR DAMAGE OR WEAR



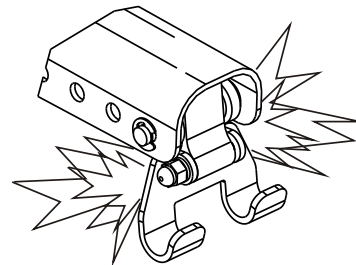
IF THERE IS ANY SIGN OF TEARING / LOOSE THREADS / DAMAGE / WEAR: **DO NOT USE THE LIFT.** SEVERE DAMAGE TO CHAIR / SCOOTER / VEHICLE AND/OR PERSONAL INJURY MAY OCCUR. PLEASE CONTACT YOUR DEALER OR INSTALLER, AND HAVE THE CABLE REPLACED IMMEDIATELY.

CAUTION: WHEN ATTACHING THE CABLE HOOK TO YOUR CHAIR, INSURE THE LIFTING CABLE IS SECURE AND TAUGHT AND THAT IT POINTS STRAIGHT DOWN BEFORE LIFTING. FAILURE TO DO SO COULD RESULT IN THE 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 CABLE 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 IS FIRMLY SITTING ON THE FLOOR OF THE VEHICLE AND NOT SUSPENDED BY THE LIFT DURING TRANSPORTATION. IF THE 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.



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 HARNESSES, 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 CABLE BEFORE EACH USE. IF ANY WEAR OR DAMAGE IS 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. EXPOSURE TO WEATHER IS OK, BUT THE HAND CONTROLLER BEING SUBMERGED IN WATER COULD CAUSE THE CONTROLLER TO FAIL.

WARRANTY:

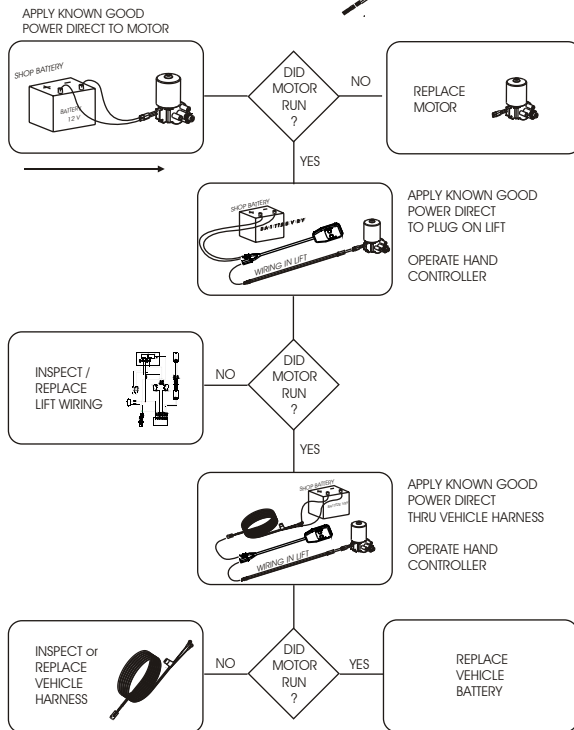
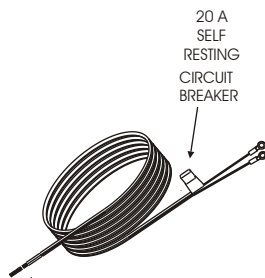
THIS LIFT COVERED BY A THREE YEAR FACTORY WARRANTY ON MATERIALS AND WORKMANSHIP. CONTACT YOUR LOCAL DEALER FOR MORE INFORMATION OR GO TO WWW.HARMAR.COM

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.



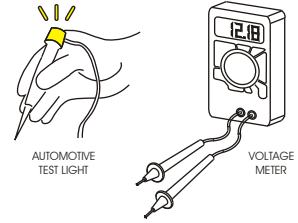
PROBLEM: LIFTING STRAP OPERATES IN REVERSE
REASON: BUTTON WAS HELD TOO LONG AND UNWOUND LIFTING STRAP LIKE A YO-YO, THE LIFTING STRAP WOUND IN REVERSE
PROCEDURE: PRESS WHICH EVER BUTTON EXTENDS STRAP, AND CONTINUE TO HOLD UNTIL STRAP RETURNS TO PROPER DIRECTION

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.

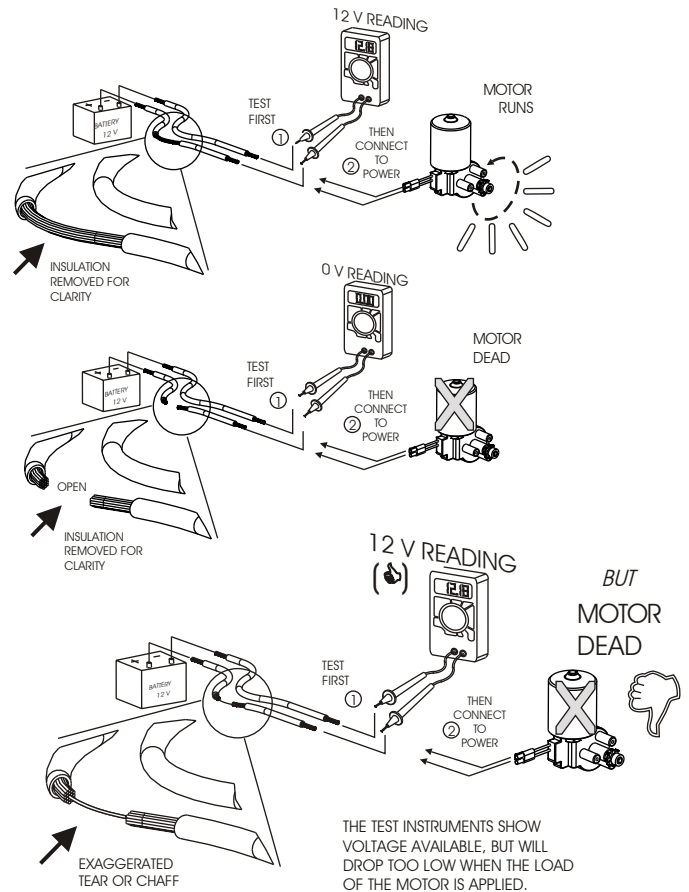
THIS SECTION IS RESERVED FOR THE INSTALLER / DEALER HARMAR DOES NOT RECOMMEND THESE PROCEDURES BE ATTEMPTED BY ANYONE WITHOUT PROPER KNOWLEDGE OF AUTOMOTIVE ELECTRICAL CIRCUITRY

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



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

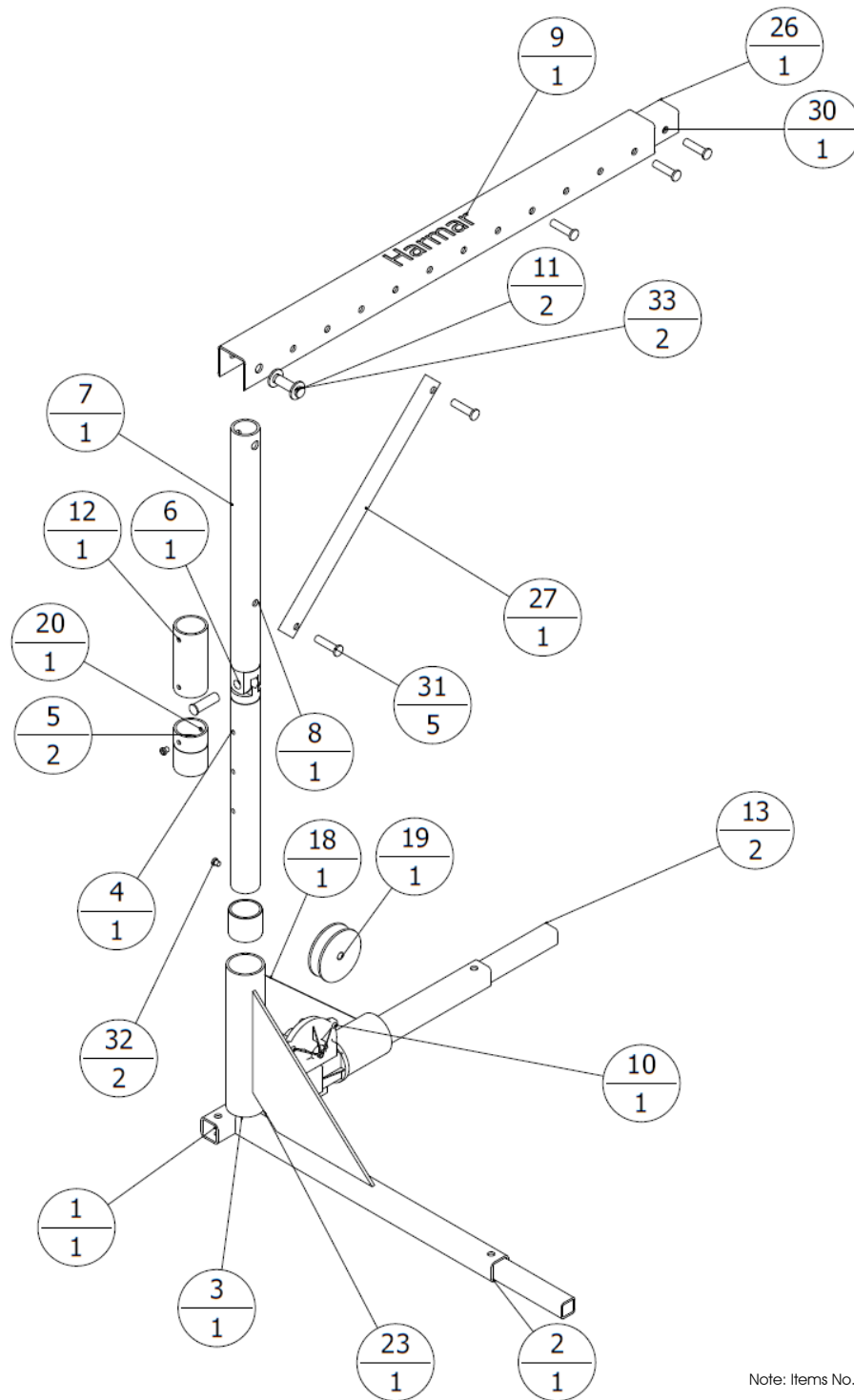
EXAMPLE:



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



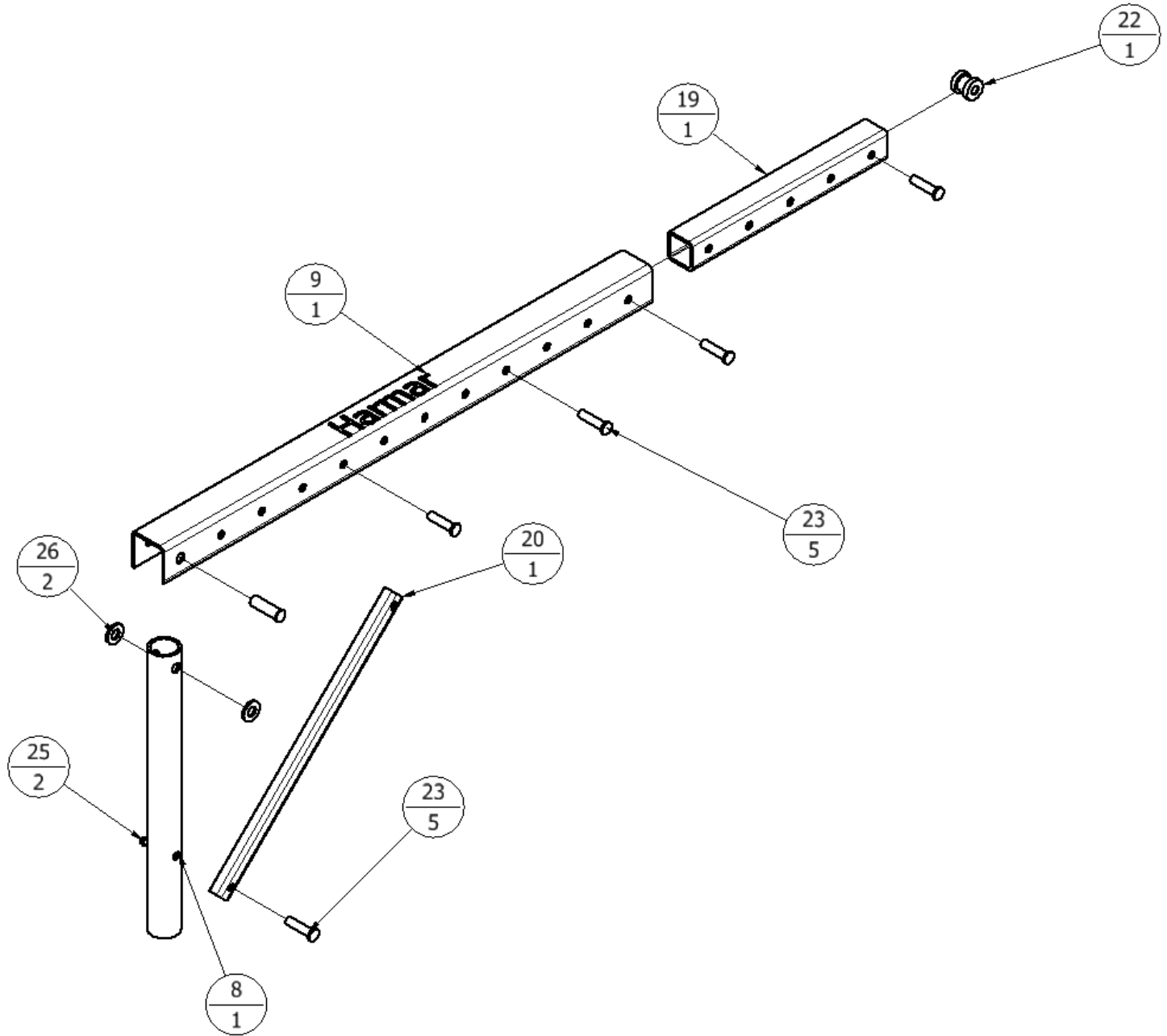


Note: Items No. 25 an 29 not shown in figure

ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	EU-AL060-101	BASE LEG LONG	18	1	EU-AL060-105	HOUSING PLATE INSIDE
2	1	EU-AL060-102	BASE LEG SHORT	19	1	EU-AL060-118	SPOOL
3	1	EU-AL060-103	TUBE LOWER OUTER	20	1	EU-AL060-113	SLEEVE SUPPORT
4	1	EU-AL060-107	TUBE INNER LOWER	23	1	EU-AL060-104	HOUSING PLATE
5	2	ALO60 (MSI-2428-24)	SLEEVE BEARING	25	1	EU-AL060-106	HOUSING PLATE OUTSIDE
6	1	EU-AL060-116	HINGE MALE	26	1	EU-AL060-110	ARM INNER
7	1	EU-AL060-117	HINGE FEMALE	27	1	EU-AL060-112	BRACES
8	1	EU-AL060-108	TUBE INNER UPPER	29	1	EU-AL060-115	HOUSING TOP COVER
9	1	EU-AL060-109	ARM	30	1	EU-AL060-119	ROLLER
10	1	700-ZB01-AA-MOTOR	MOTOR	31	5		BOLT .375
11	2	0.50 DIA BOLT	0.50 DIA BOLT	32	2		M-6 SCREW
12	1	EU-AL060-111	SLEEVE UPPER	33	2		SPACER/ WASHER
13	2	EU-AL060-114	LEG EXTENDER				STEEL SPACER/ WASHER



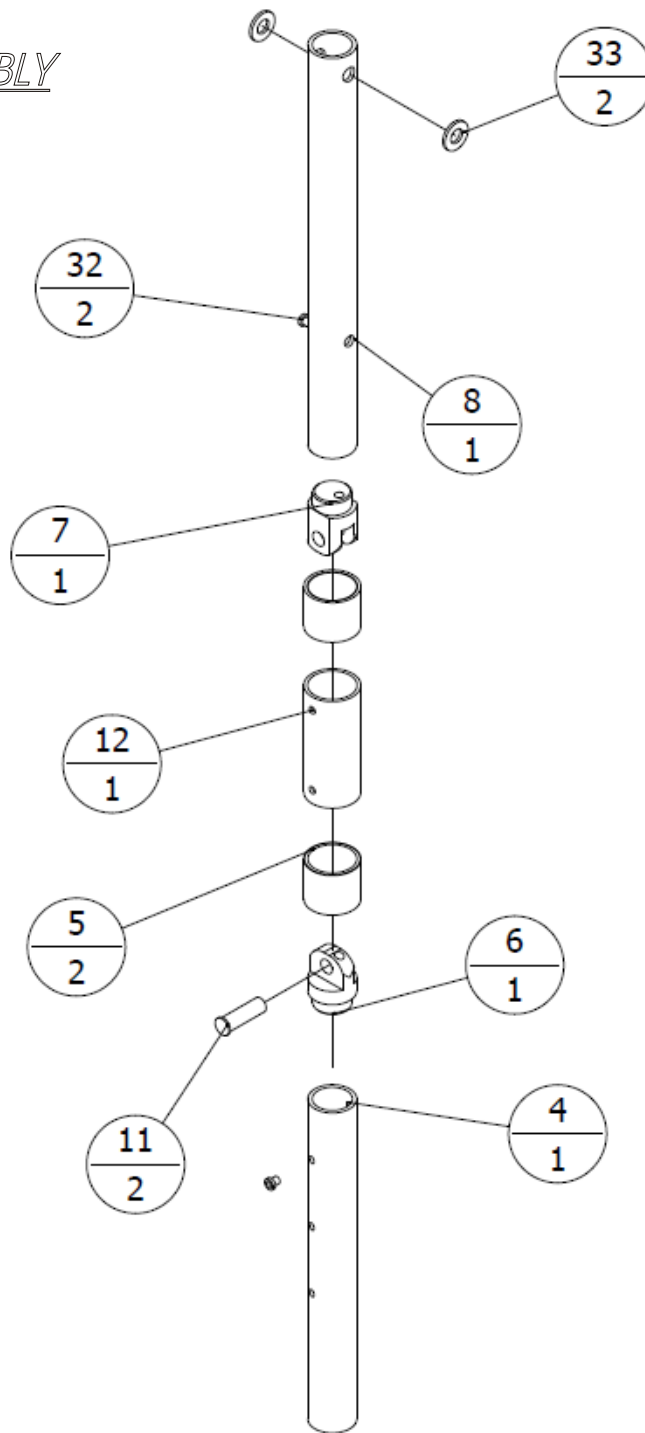
AL060 ARM ASSEMBLY



ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
8	1	EU-AL060-108	TUBE INNER UPPER	22	1	EU-AL060-119	ROLLER
9	1	EU-AL060-109	ARM	23	5	BOLT .375	ARM BOLTS
19	1	EU-AL060-110	ARM INNER	25	2	M-6 SCREW	M-6 SCREW
20	1	EU-AL060-112	BRACES	26	2	SPACER/ WASHER	STEEL SPACER/ WASHER



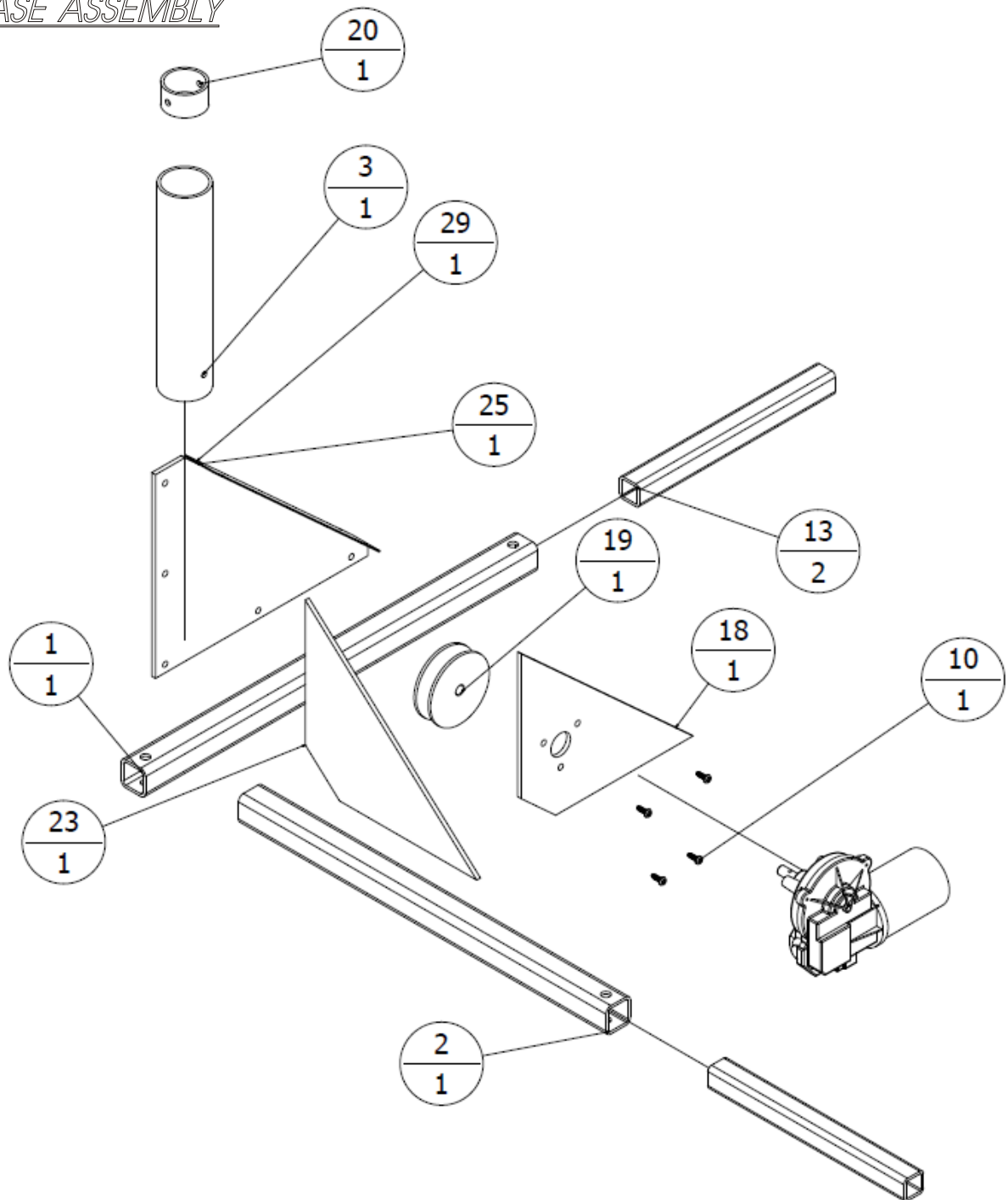
AL 060 POST ASSEMBLY



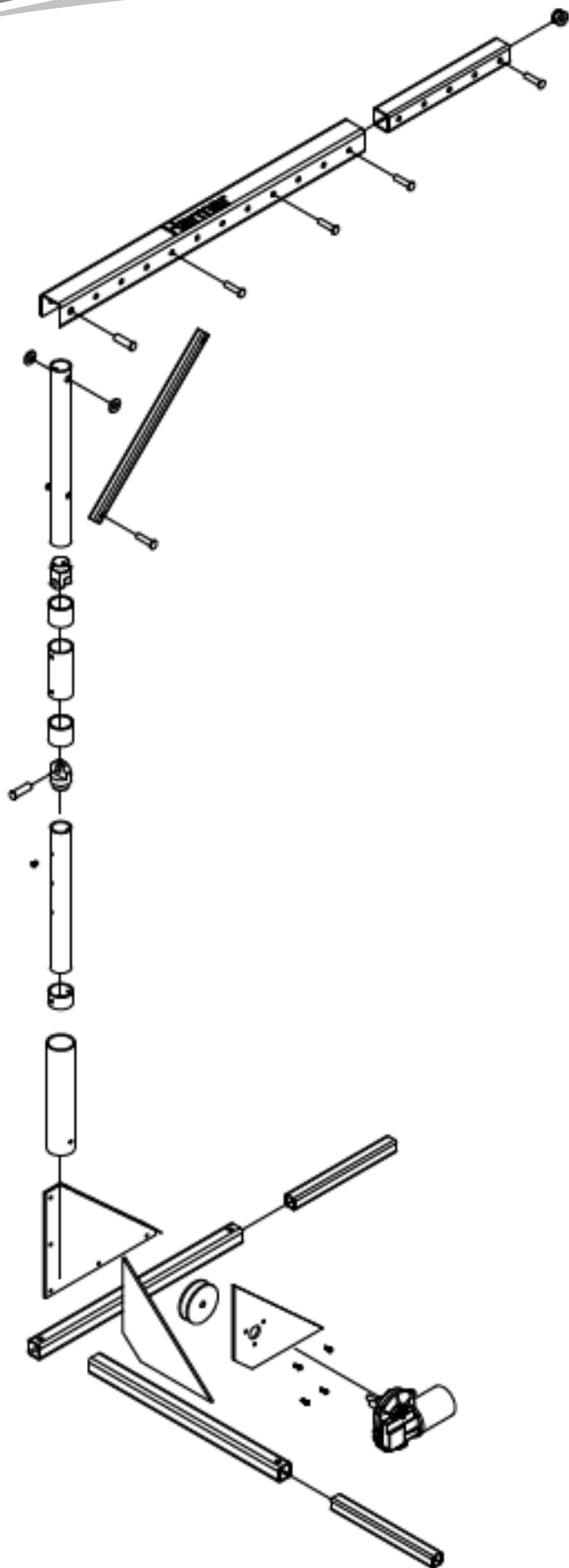
ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
4	1	EU-AL060-107	TUBE INNER LOWER	11	2	0.50 DIA BOLT	0.50 DIA BOLT
5	2	ALO60 (MSI-2428-24)	SLEEVE BEARING	12	1	EU-AL060-111	SLEEVE UPPER
6	1	EU-AL060-116	HINGE MALE	32	2	M-6 SCREW	M-6 SCREW
7	1	EU-AL060-117	HINGE FEMALE	33	2	SPACER/ WASHER	STEEL SPACER/ WASHER
8	1	EU-AL060-108	TUBE INNER UPPER				

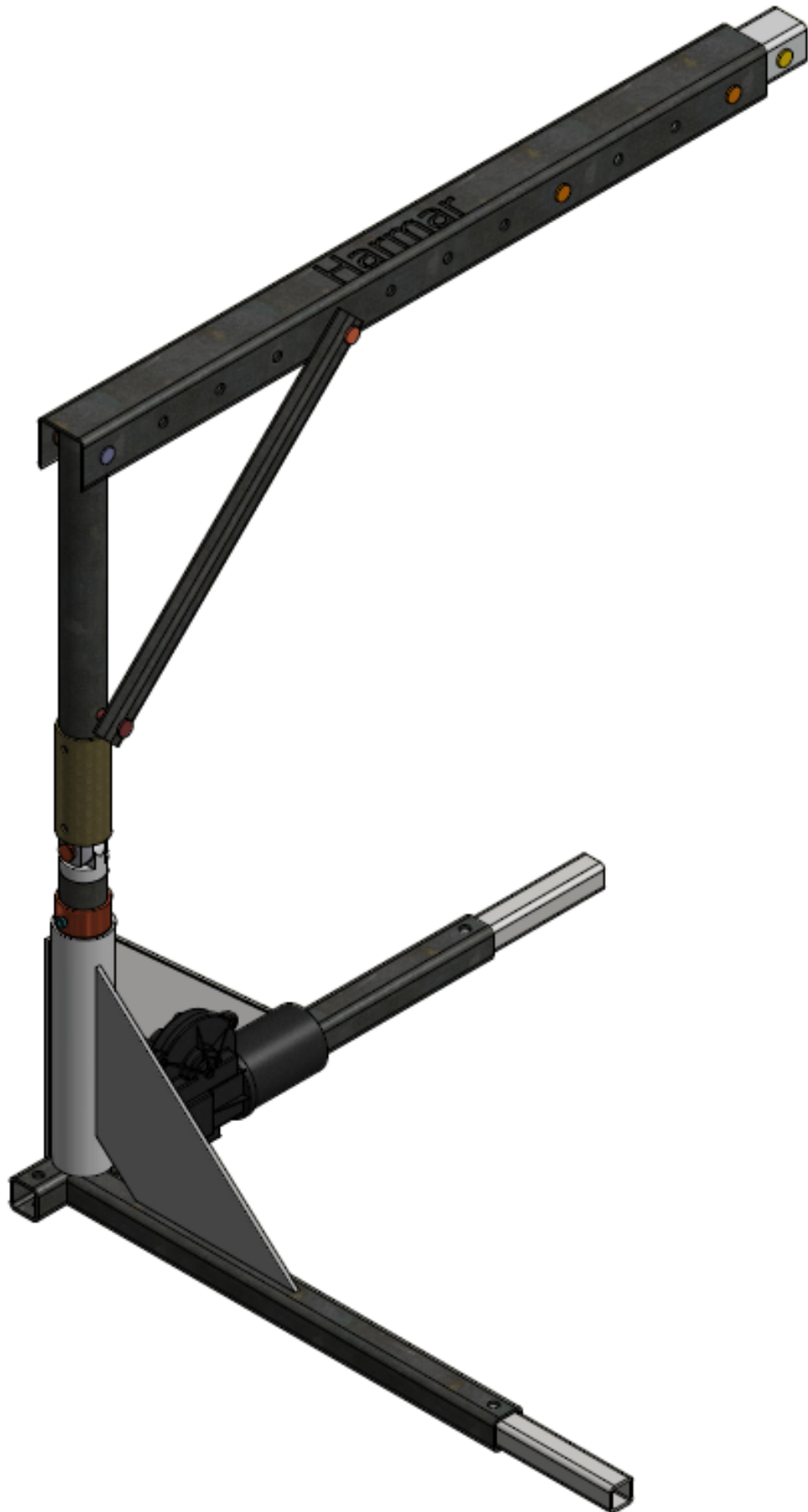


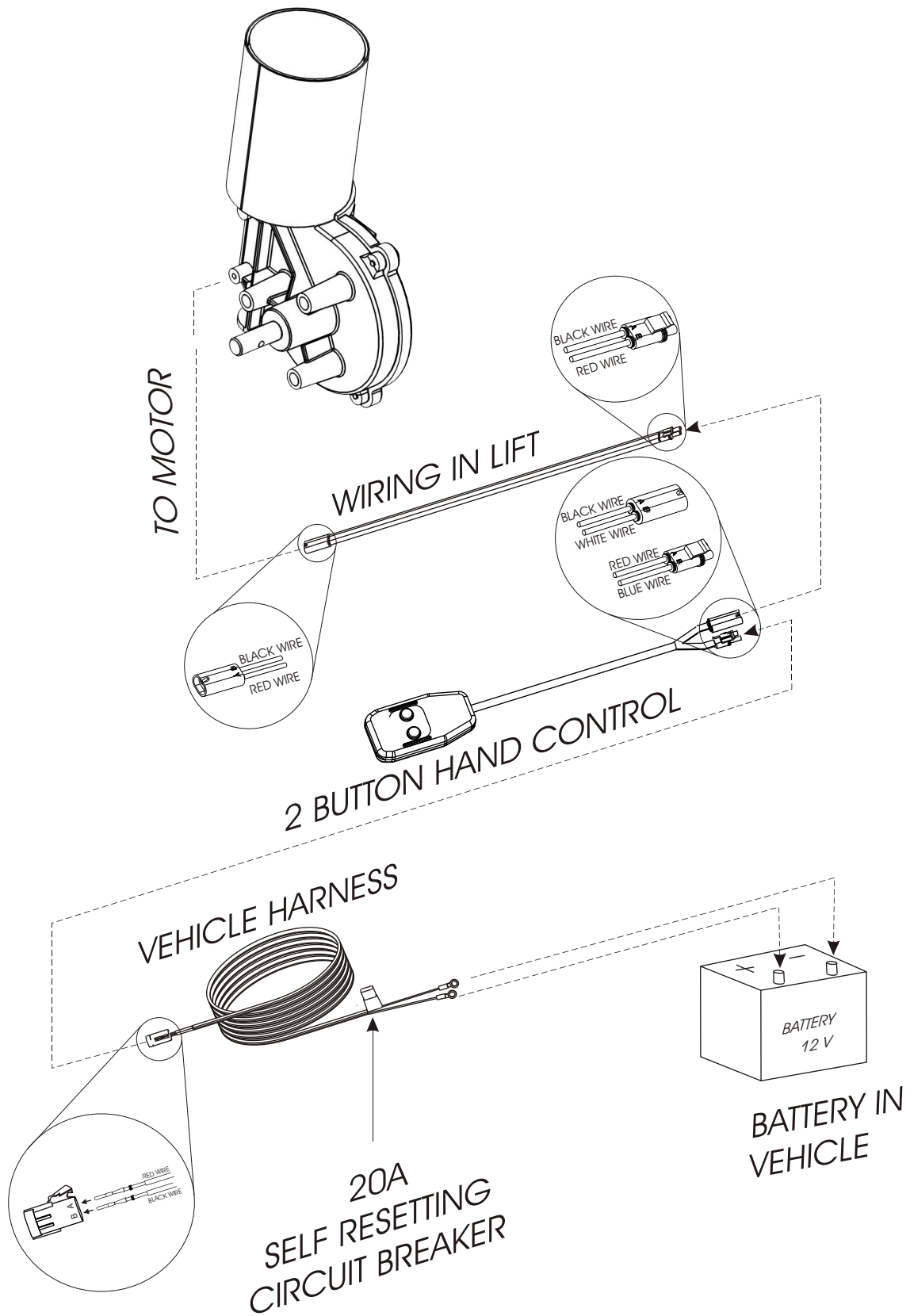
AL 060 BASE ASSEMBLY



ASSEMBLY PARTS				ASSEMBLY PARTS			
ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	EU-AL060-101	BASE LEG LONG	19	1	EU-AL060-118	SPOOL
2	1	EU-AL060-102	BASE LEG SHORT	20	1	EU-AL060-113	SLEEVE SUPPORT
3	1	EU-AL060-103	TUBE LOWER OUTER	23	1	EU-AL060-104	HOUSING PLATE
10	1	700-ZB01-AA-MOTOR	MOTOR	25	1	EU-AL060-106	HOUSING PLATE OUTSIDE
13	2	EU-AL060-114	LEG EXTENDER	29	1	EU-AL060-115	HOUSING TOP COVER
18	1	EU-AL060-105	HOUSING PLATE INSIDE				









Service Description:

Service Date: Service

Performed By:

Service Description:

Service Date: Service

Performed By:

Service Description:

Service Date: Service

Performed By:

Service Description:

Service Date: Service

Performed By:



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