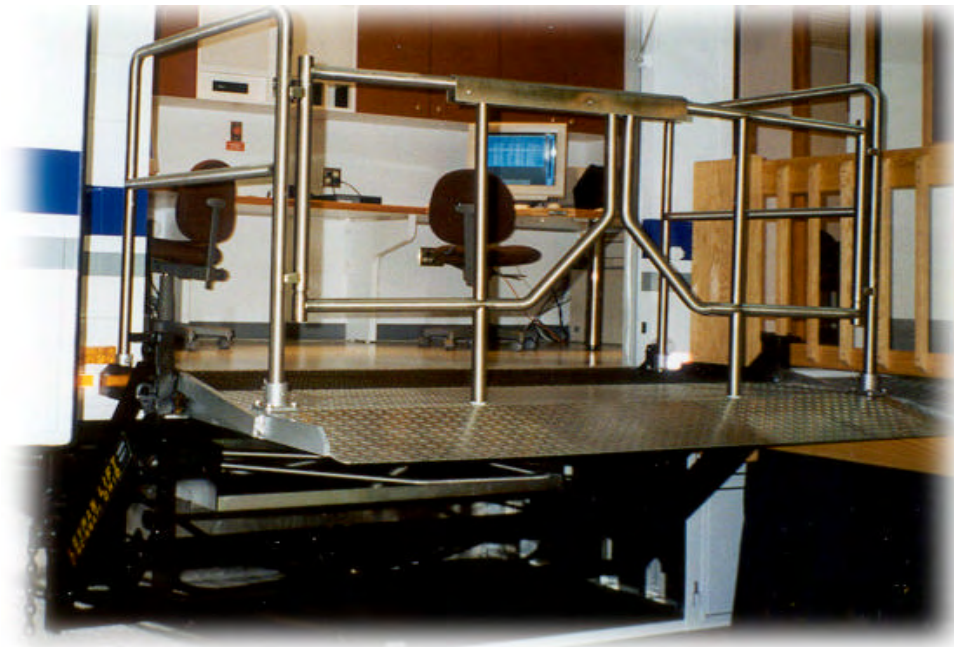




Installation Manual

PLG 1000 Hide-A-Way®

DOT – Private Use Lift
1000 POUND LIFT CAP.



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BEFORE YOU INSTALL THE LIFT GATE

1. Check the lift gate for shipping damage.
2. Inspect gate to make sure stowing chains are securely engaged in safety snap hooks.
3. Remove the shipping bands, etc.
4. Remove the box, open and read the installation manual. Check that all major parts have arrived.
5. Inspect the area under the trailer where the lift gate is to be mounted. Be sure the area is clear of obstructions where the lift gate will be installed. Verify the cross member material is steel.
6. The use of a battery charger as the sole power source to operate the lift gate is unauthorized and will prevent the lift gate from working properly. The lift gate must always be operated in conjunction with at least one (1) 12 volt heavy duty lift gate battery. A minimum of 9.5 volts must be maintained in order for the valves to operate.
7. Read the following pages prior to beginning the installation.
 - A. Pre-installation of the lift gate
 - B. Installation of the lift gate
 - C. Hydraulic and electric installation
8. This lift gate is designed to be installed on medical trailers that meet the space requirements as outlined on page 4. The hydraulic power unit on the vehicle serves as the source for pressure (approximately 2000 psi.) and flow (approximately 1.5 GPM) to operate the lift gate, using solenoid valves and switches supplied with this lift gate.

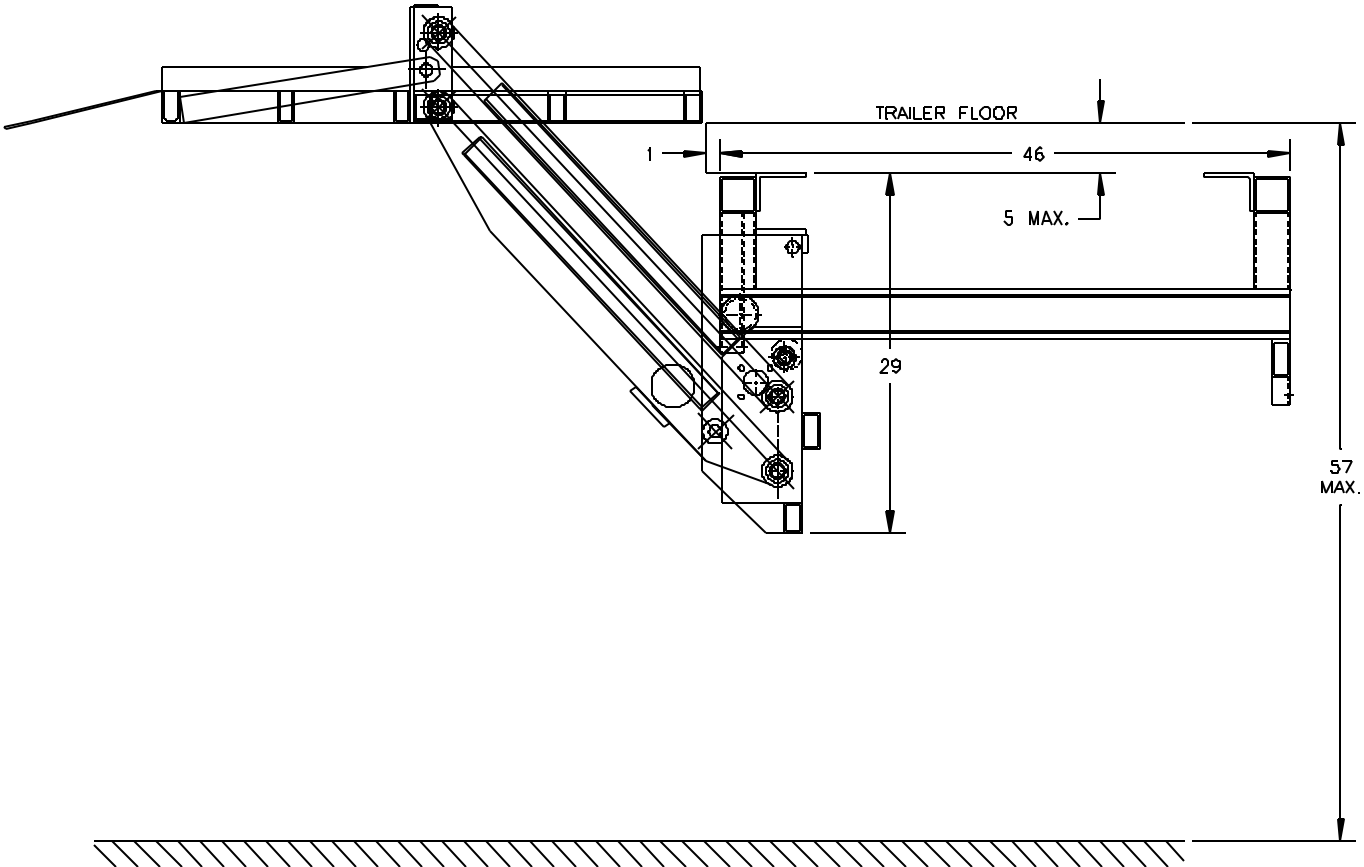
GENERAL SPECIFICATIONS

CUSTOMER:	<u>Medical Coaches</u>
MODEL:	<u>PLG 1000 – 8445RRCS</u>
RATED LOAD:	<u>1000 lbs.</u>
TYPE:	<u>DOT - Private Use Lift</u>
PLATFORM OPERATING DIMENSIONS:	73.75" wide x 36" deep
UNOBSTRUCTED PLATFORM OPERATING VOLUME:	73.75" x 36" x 30" = 46.1 cu. ft.
OVERALL PLATFORM DIMENSIONS:	84" wide x 45" deep + 21" flip ramp
HYDRAULIC PRESSURE:	2000 PSI – Provided by trailer Hydraulic power unit
OPERATION:	Power up/gravity down Power stow/deploy
SERIAL #:	

NOTE: "DOT Private Use Lift" verifies that this platform lift meets only the "Private Use Lift" requirements of FMVSS No. 403. This lift may be installed on all vehicles appropriate for the size and weight of the lift, except for buses, school buses, and multi-purpose passenger vehicles other than motor homes with a gross weight rating (GVWR) that exceeds (4,536 kg) 10,000 lbs.

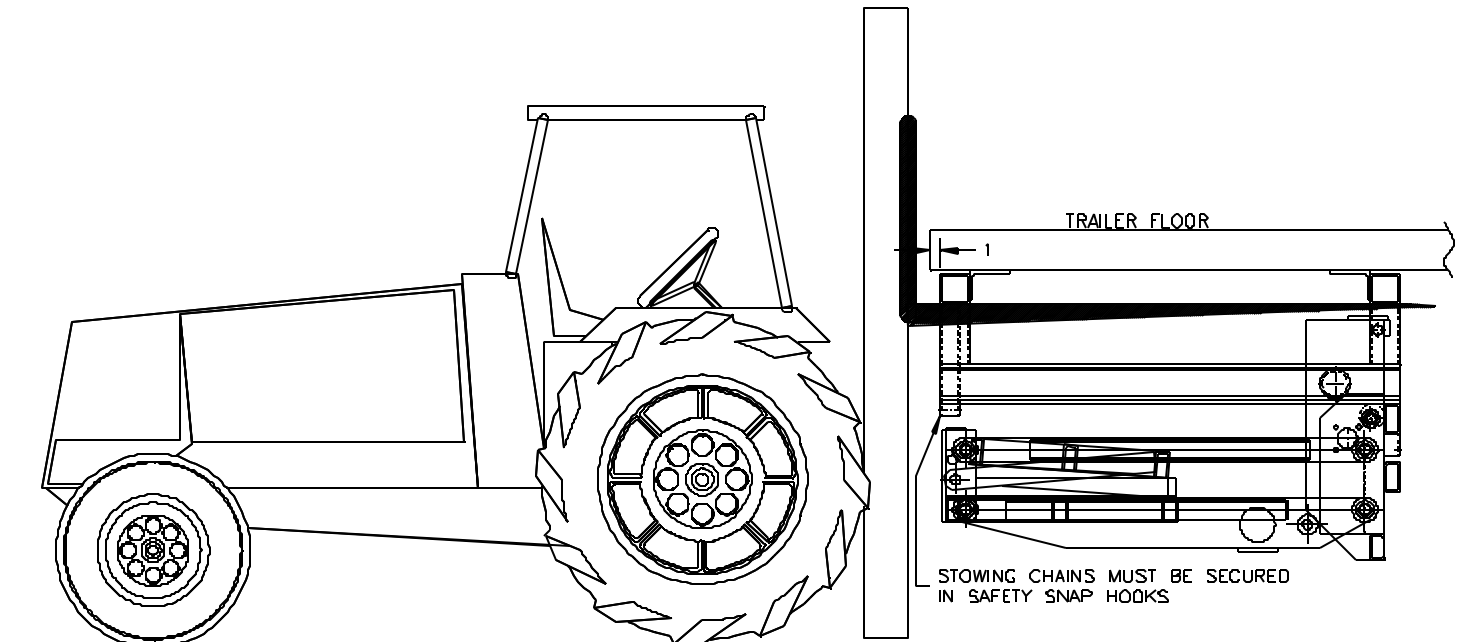
PRE-INSTALLATION OF THE LIFT GATE

- 1. Before installing the lift gate, check the dimensions given below. If your dimensions differ from these, call Leyman before installing the gate.



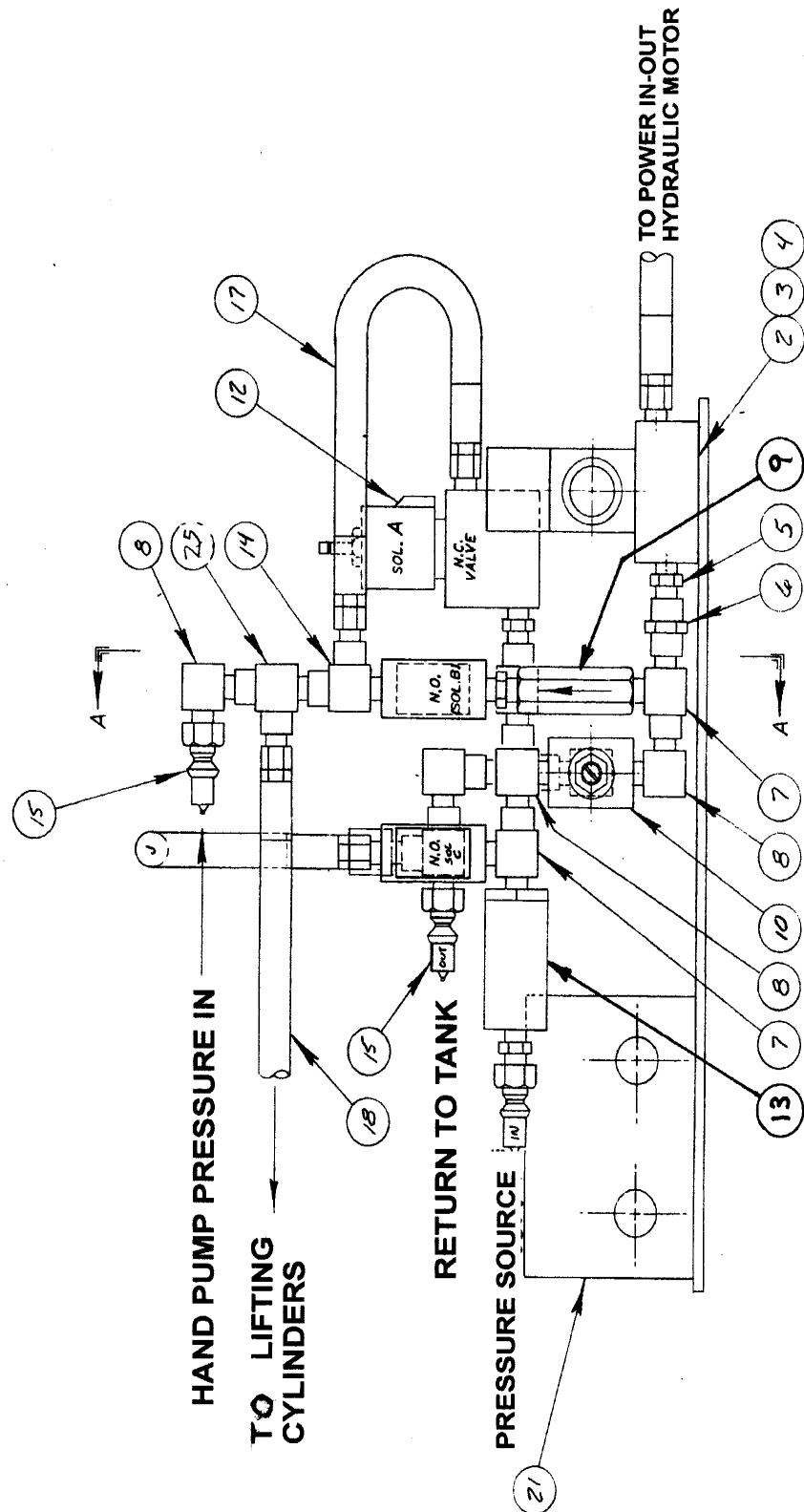
INSTALLATION OF THE LIFT GATE

1. Use a forklift to raise the gate. Position the forks of the truck under the tubes of the Outer Slide. Secure the gate to the forks by using clamps. See sketch below.
2. Position the gate under the vehicle. Set the front the Outer Slide tube 1" from the edge of the rub rail. See sketch below.
3. Tack weld the Outer Slide to the vehicle's cross members. Test the unloaded gate to verify it operates correctly. Make hydraulic connections as shown on pages 6A and 7. Find a suitable location for the power unit and switches, and connect the electric power line as shown on page 8A. Power unit must be grounded to the vehicle frame. It will be necessary to install a jumper wire as shown on the Interlock Switch Wiring diagram on page 9A to test the lift gate. This jumper wire temporarily replaces the handrail gate safety switch and **WILL BE USED FOR INSTALLATION and INITIAL TESTING ONLY**. Remove this jumper wire when connecting the cable from the handrail gate safety switch. Follow operating instructions on page 12 to test gate.
4. Once the unloaded gate is tested and operates correctly, go back and weld gate to each cross member at all intersections.
5. Connect Emergency Hand Pump per diagrams on pages 6A and 7.



NOTE: It will be necessary to use "C" clamps to hold the gate to the forks of the lift truck.

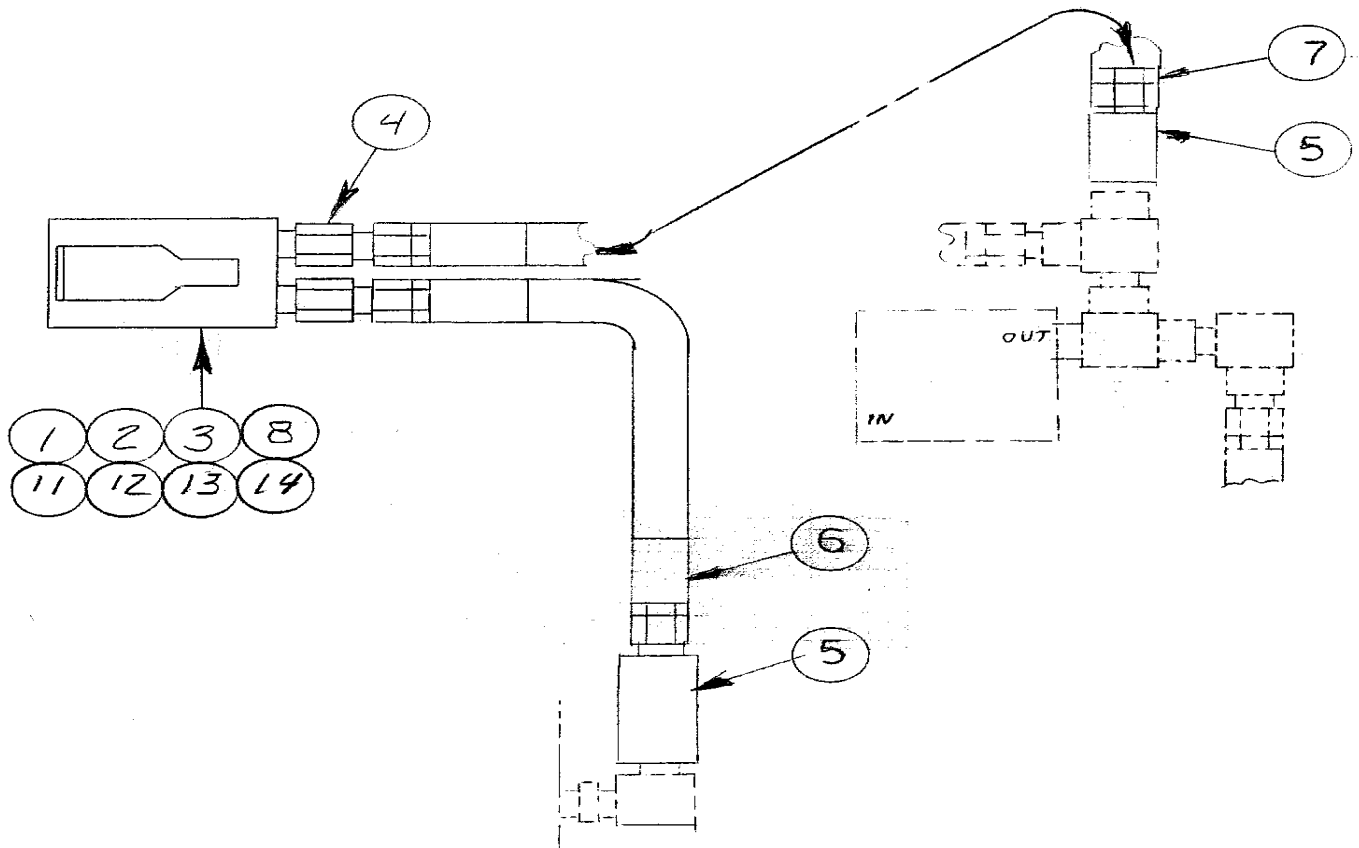
POWER UNIT



POWER UNIT

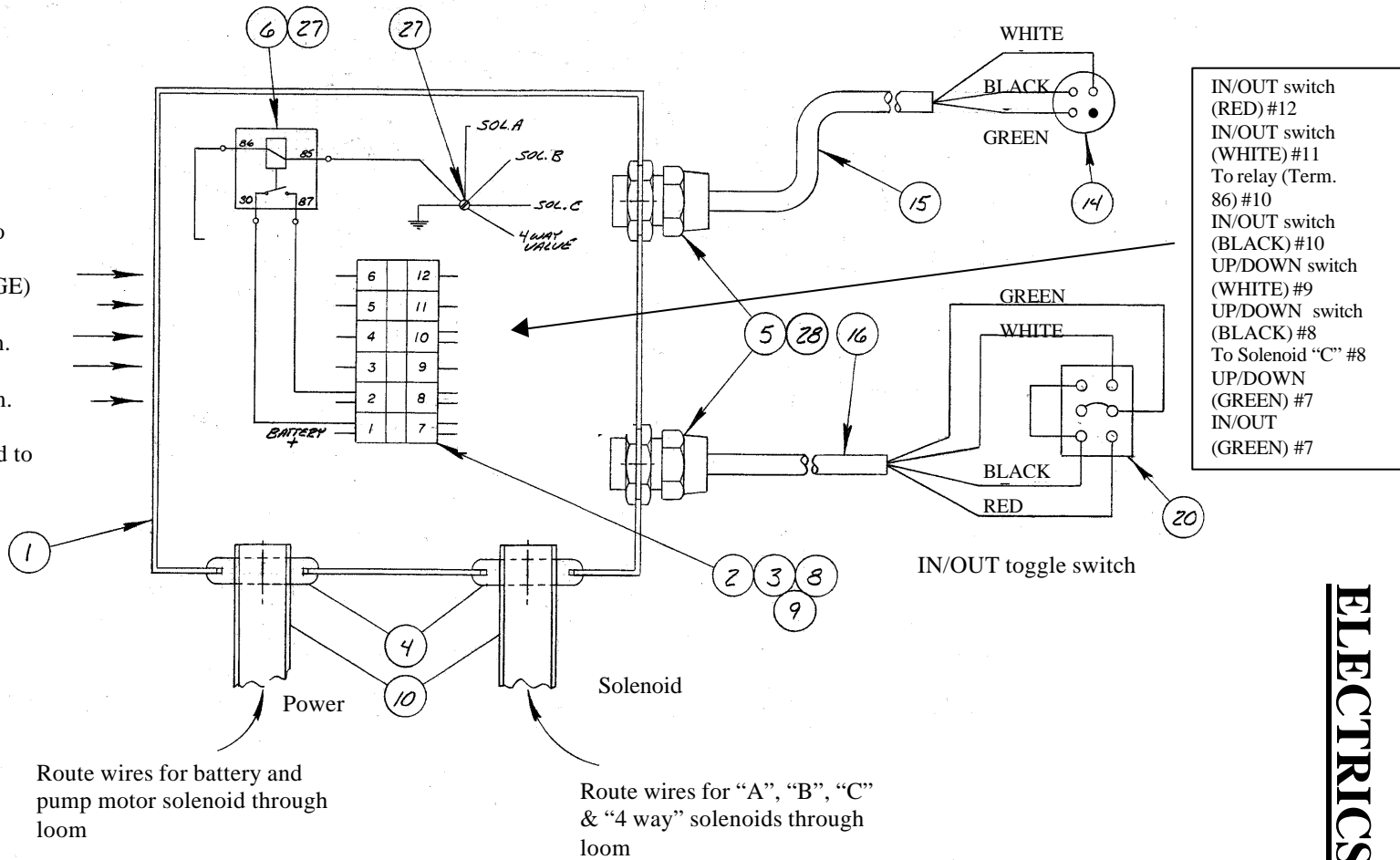
25	1	P33199	TEE F-M-F			
24	3	AT-501-101-012	Hydraulic line assembly		12 ft.	
23	8	P46156	Butt Connector			
22	1	BA-501-158	Hand pump assembly			Loose
21	1	CA-551-196	Electrics			
20	1	P33006	Street elbow			
19	1	AT-501-101-018	Hydraulic line assembly		18 ft.	
18	1	AT-501-101-015	Hydraulic line assembly		15 ft.	
17	3	AT-501-100-018	Hydraulic line assembly		18 in.	
16	5	P33169	Quick disconnect socket			On end of hoses
15	4	P33168	Quick disconnect plug			1 loose
14	5	P33216	Street tee			
13	1	P33616	Inline filter			
12	1	P33650	Drain valve N.C.			
11	2	P33719	Drain valve N.O.			
10	1	P33147	Relief valve			
9	1	P33506	Check valve			
8	4	P33217	Male elbow			
7	2	P33199	Male street tee			
6	1	P33190	Coupler			
5	4	P33064	Nipple			
4	1	P33207	Bolt kit			
3	1	P33206	Valve sub plate			
2	1	P33205	4 way valve			
1	1	BP-501-229	Mtg. plate			
Index	Reqd	Part number	Part name	Material	Material size	Engineering remarks
No.					Part name	Model: MED COACH
					Power unit	Assembly
						Sub. Assembly
					Scale: Approx. 1/2	Dwg. DA-501-221
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EMERGENCY HAND PUMP

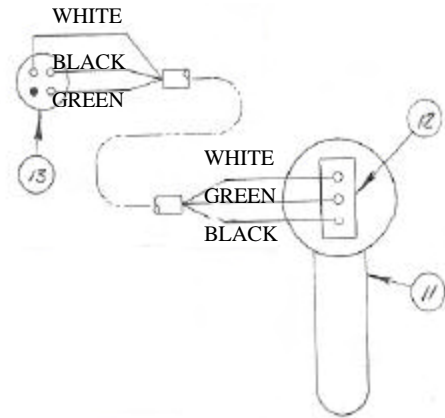


14	2	P23502	Nut		1/4 - 20		
13	2	P26007	Flat Washer		1/4		
12	2	P15540	Soc Head Cap Scr				
11	1	AP-501-267	Mtg. bracket				
10	4	P46250	Loom clamp				
9	4	P17518	Self tapping screw				
8	2	P23510	Nut		5/16 - 18		
7	2	AT-501-100-060	Hyd. Line Assembly				
6							
5	2	P33169	Quick disconnect		Socket		
4	2	P33101	Adapter				
3	2	P26506	Flat Washer		5/16		
2	2	P10040	Bolt		5/16 x 1		
1	1	P33902	Hand Pump				
Index No.	Reqd	Part No.	Part Name	Material	Material Size	Remarks	Wgt.
Leyman Manufacturing Corporation							
Part Name: Hand Pump Kit							Assembly: BA-501-158

- 4 way valve (RED) to Term. Strip #6
- 4 way valve (ORANGE) to Term. Strip #5
- Solenoid "B" to Term. Strip #4
- Solenoid "A" to Term. Strip #3
- Pump Motor Solenoid to Term. Strip #2



ELECTRICS



UP/DOWN
TOGGLE SWITCH

Valve Functions:

Valve "A": Controls the down function. If it fails, the platform will not lower.

Valve "B": Controls switching between the up/down function and the in/out function. If it fails, the platform will still go up/down but will not go in or out.

Valve "C": Controls the supply pressure to all gate operations. If it fails, the valving remains in a bypass mode and all gate functions are lost except the down function if the platform is in the up position.

27	2	P17518	Self tapping screw			
26	6	P46300	Shrink tube		4" each	24" total
25	1	P46214	Orange wire	16 ga.	36"	
24	1	P46019	Red wire	16 ga.	36"	
23	4	P46471	Blue wire	16 ga.	36", 4 pcs.	
22	1	P46018	White wire	16 ga.	36"	
21	2	P46017	Black wire	16 ga.	36" each	
20	1	AA-551-327	Toggle switch assembly			For in/out
19	1	AP-551-016	Switch bracket			
18	2	P46444	Fork terminal			
17	7	P46319	Fork terminal			
16	1	P46314	Jacketed wire	16-4	15 ft. (180")	
15	1	P46186	Jacketed wire	16-3	21 ft. (252")	
14	1	P46329	Plug conn. female			
13			Plug conn. male		Included in item 11	Ref. P46328
12			Toggle switch		Included in item 11	Ref. AA-551-326
11	1	AA-551-210	Pistol grip walk around		Includes switch & plug	Includes coil cord
10	2	P46485	½ split nylon loom		1 pc.-24", 1 pc.-48" loose	
9	2	P23504	Lock nut			
8	2	P19501	Screw			
7	4	P46318	Female connect term.			
6	1	P46487	Relay			
5	2	P46139	Cord grip			
4	2	P25054	Rubber grommet			
3	2	P46382	Term. Block			
2	1	P46395	End-Term. strip			
1	1	P46486	Elect. Box		6 x 6 x 4	
Index No.	Reqd	Part Number	Part Name	Material	Material Size	Remarks/Wgt.
			Assy. CA-551-196		Model: Med Coach	

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INTERLOCK SWITCH ELECTRICS

34	27	P17518	SELF TAPPING SCREW		NOT SHOWN
33	23	P46251	LOOM CLAMP 3/4		NOT SHOWN
32	4	P46450	LOOM CLAMP 3/8		NOT SHOWN
31	1	P46018	WIRE - 16 GA. WHITE		1 PC 8" - 1 PC. 12" (GRD)
30	5	P46319	SM. FORK TERMINAL		NOT SHOWN
29	5	P46476	FORK TERMINAL		NOT SHOWN
28	1	P46507	RING TERMINAL		NOT SHOWN
27	4	P46318	FEMALE SPADE CONNECTOR		1/4" - NOT SHOWN
26	3	P46156	BUTT CONNECTOR		
25	1	P46496	SPLIT LOOM 1/4"		60" LG.
24	1	P46186	16-3 SOW CABLE		360" LG.
23	5	P46139	CORD GRIP		
22	2	P25176	GROMMET		7/16 ID X 15/16 OD (11/16 HOLE)
21	1	P25136	GROMMET		7/8 ID X 1-5/8 OD (1-1/4 HOLE)
20	1	P46485	SPLIT LOOM 1/2"		{1} 360" - {1} 240"
19	1	P46314	16-4 SOW CABLE		240" LG.
18	1	P46030	JUNCTION BOX COVER		
17	1	P46029	JUNCTION BOX 4"		
16	1	P23504	LOCK NUT		10-24
15	1	P19501	RND HD SCREW		10-24 X 1/2
14	1	P46487	RELAY		
13	2	P23535	LOCK NUT		6-32
12	2	P19519	RND HD SCREW		6-32 X 3/4
11	1	P46474	TERMINAL STRIP		
10	4	P23504	LOCK NUT		10-24
9	4	P26007	FLAT WASHER		1/4
8	4	P18519	FLAT HD SCR.		10-24 X 1
7	2	AP-999-137	HOOK MTG. PLATE		
6	2	S559-001.500	ANGLE BASE	ST ANGLE	1-1/2 X 1-1/2 X 3/16 X 1-1/2
5	1	S008-006.375	MDUNTING PLATE	HR FLAT	1/8 X 2 X 6-3/8 LG.
4	1	P14518	SET SCREW HEX SOC.		8-32 X 1/8 LG.
3	1	AP-551-393	EXTENSION TUBE		
2	1	P46626	PHOTOELECTRIC SWITCH		INCLUDES BOTH EMITTER & RECEIVER
1	1	P46625	LIMIT SWITCH - DPDT		
INDEX	REQD.	PART NO.	PART NAME	MATL.	MATERIAL SIZE REMARKS WGT.

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TOLERANCE FRACTIONS = 1/32 DECIMAL = .005 DR HOLE = .003-.004 ANGLE = 1/2" UNLESS OTHERWISE NOTED	DRAWN	RJM 12/3/04	PART NAME	MODEL PLG1000 MED CDACH
	CHECK		INTERLOCK SWITCH ELECTRICS	ASSY.
	APPR.		TOTAL WEIGHT	SCALE NONE
			CA-551-392	

RECOMMENDED HYDRAULIC OILS/LUBRICATION

HYD. OILS:

This lift gate uses the vehicle hydraulic power unit as the source for fluid power. Follow the hydraulic oil recommendations given in the vehicle instruction manual.

LUBRICATION:

ROLLER CHAIN for POWER IN / OUT

Lightly brush SAE 30 oil on carbon steel chain. PLG gates manufactured after June, 2009 have stainless steel roller chain, which requires NO lubrication.

CAM ROLLERS

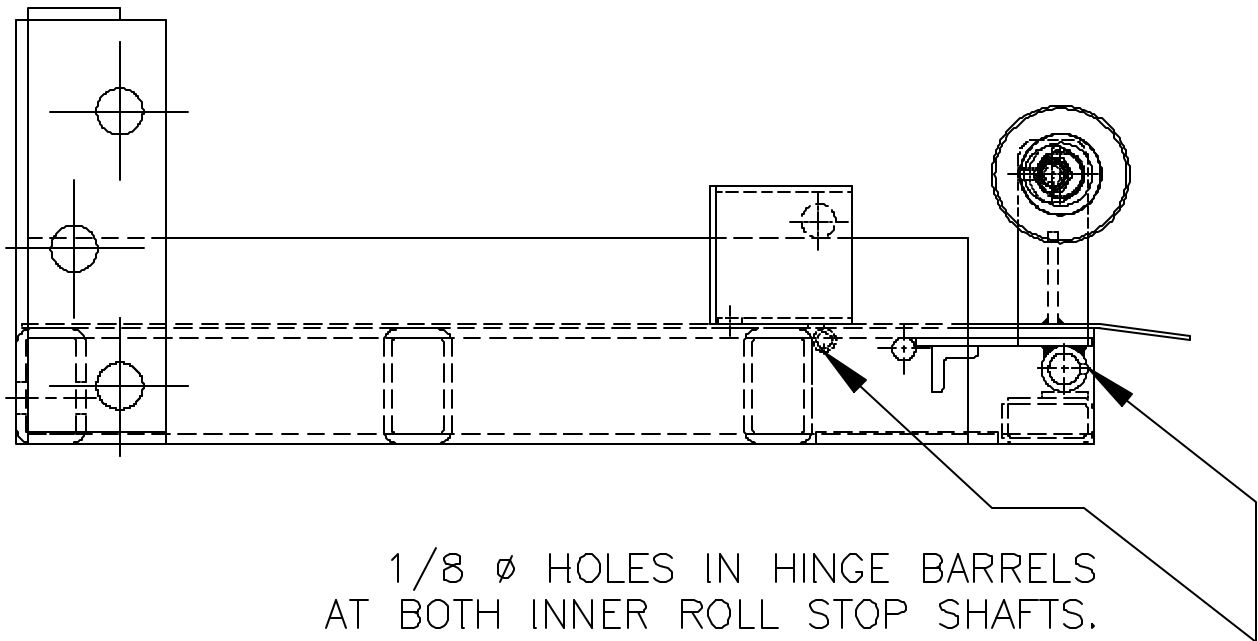
Four (4) located on Inner Slide. If roller studs have grease fittings, lubricate using a lithium base grease. Note – some Cam Rollers are permanently greased and have no grease fitting.

LIFTING ARM PIVOT POINTS

Use a lithium base grease at all grease fittings.

INNER ROLL STOP SHAFTS

Apply grease at the 1/8" lubrication holes in all Hinge Barrels for BOTH Inner Roll Stop Shafts. See sketch below for locations. Use Needle Nozzle Adapter (Grainger # 6Y900) in grease gun.



1/8" ϕ HOLES IN HINGE BARRELS
AT BOTH INNER ROLL STOP SHAFTS.
USE NEEDLE NOZZLE ADAPTER
(GRAINGER # 6Y900).

TROUBLESHOOTING CHART

PROBLEM	PROBABLE CAUSE	REMEDY
Vehicle power unit runs, but platform will not go UP or go IN / OUT	1. "C" valve is not activating.	1. Check for power at "C" valve coil. Check for defective "C" coil.
Platform will not go DOWN. All other functions work.	1. "A" valve is not activating.	1. Check for power at "A" valve coil. Check for defective "A" coil.
Platform only goes UP/ DOWN, will not go IN / OUT	1. Secondary platform is not folded, so limit switch is preventing IN / OUT movement, as it should. 2. "B" valve is not activating. 3. Limit switch between primary and secondary platform is not functioning properly.	1. Fold secondary platform. 2. Check for power at "B" valve coil. Check for defective "B" coil. 3. Check for power at GREEN wire on terminal strip on box lid that goes to IN / OUT switch.
Platform will not go UP/ DOWN	1. Handrail is open or object is resting near Inner Roll Stop, preventing UP / DOWN movement, as it should. 2. Handrail gate switch not functional. 3. Inner Roll Stop photo-sensor not functioning.	1. Close handrail or remove object from Inner Roll Stop. 2. ONLY AS A TEST, connect a jumper wire on terminal strip on box lid as shown on p. 9B. If this solves problem, fix handrail switch. 3. Check sensor alignment and positioning. Check for power at terminal 86 on relay with no object near Inner Roll Stop.
Oil build-up in cylinder vent line collection tank. Platform may bleed down.	1. One or both cylinders have an internal leak at the piston seal.	1. Repair or replace cylinder.

OPERATING INSTRUCTIONS

OPERATING INSTRUCTIONS

CAUTION

BEFORE OPERATING THE LIFT, READ AND UNDERSTAND THIS DECAL, URGENT WARNING DECAL, AND OWNER'S MANUAL.

DOT - PRIVATE USE LIFT

OPERATING FROM THE STOWED POSITION:

- 1) TO RELIEVE TENSION ON THE SAFETY CHAINS, PUSH THE UP SWITCH. GATE WILL GO UP.
- 2) REMOVE SAFETY CHAINS FROM HOOKS ON BOTH SIDES.
- 3) USE DOWN SWITCH TO LOWER LIFT UNTIL ARMS ARE PARALLEL TO THE GROUND.
- 4) STAND TO THE SIDE OF LIFT GATE. PUSH THE DEPLOY SWITCH DOWN. GATE WILL COME OUT. RUN UNTIL FULLY EXTENDED.
- 5) LOWER PLATFORM TO GROUND BY PRESSING DOWN SWITCH. UNFOLD SECONDARY PLATFORM AND RAMP.
- 6) ASSEMBLE HANDRAILS AND CLOSE WHEELCHAIR RETENTION DEVICE.
TO RAISE PLATFORM, USE THE UP SWITCH ONLY.
TO LOWER PLATFORM, USE THE DOWN SWITCH ONLY.
UP / DOWN SWITCH IS DISABLED UNLESS WHEELCHAIR RETENTION DEVICE IS CLOSED.
STOW / DEPLOY SWITCH IS DISABLED UNLESS SECONDARY PLATFORM AND RAMP ARE FOLDED.

TO STORE GATE IN THE OVER THE ROAD POSITION:

- 1) LOWER PLATFORM TO GROUND AND REMOVE HANDRAILS.
- 2) FOLD AND LATCH RAMP, THEN FOLD SECONDARY PLATFORM.
- 3) RAISE PLATFORM OFF GROUND UNTIL ARMS ARE PARALLEL TO GROUND. USE UP SWITCH.
- 4) STAND TO THE SIDE OF LIFT GATE. PRESS STOW SWITCH UP. RUN GATE ALL THE WAY UNDER TRAILER UNTIL LIFT STOPS.
- 5) RUN GATE UP USING UP SWITCH.
- 6) HOOK BOTH SAFETY CHAINS IN HOOKS ON EACH SIDE OF LIFT.
- 7) LOWER GATE UNTIL CHAINS ARE TIGHT. USE DOWN SWITCH.

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P65350

OPERATING THE EMERGENCY HAND PUMP

MANUAL BACKUP OPERATION (EMERGENCY HAND PUMP)

CAUTION

BEFORE OPERATING THE LIFT, READ AND UNDERSTAND THIS DECAL, URGENT WARNING DECAL, AND OWNER'S MANUAL.

DOT - PRIVATE USE LIFT

OPERATING FROM THE DEPLOYED POSITION:

- 1) LOCATE HAND PUMP HANDLE AND REMOVE FROM CLIPS.
- 2) BEFORE MOVING PLATFORM UP OR DOWN, MAKE CERTAIN WHEELCHAIR RETENTION DEVICE (HAND RAILS) ARE IN PLACE AND CLOSED. INNER ROLL STOP WILL DEPLOY AUTOMATICALLY.
- 3) TO RAISE PLATFORM, USE END OF HANDLE TO CLOSE VALVE AT BASE OF HAND PUMP. TURN CLOCKWISE TO CLOSE. THEN INSERT HANDLE INTO HAND PUMP AND STROKE.
- 4) TO LOWER PLATFORM, USE END OF HANDLE TO OPEN VALVE AT BASE OF HAND PUMP. TURN COUNTER-CLOCKWISE TO OPEN. PLATFORM WILL LOWER.

EMERGENCY HAND PUMP CANNOT BE USED TO STOW / DEPLOY LIFT GATE.

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P55352

INSTALLATION OF SAFETY DECALS

DECAL LOCATION	DECAL NUMBER	DESCRIPTION
Near UP / DOWN switch storage box	P55157 P55350 P55294 P55302	Safety Decal 4-1/2" x 4-7/8" Operating Instructions Safety Decal 7" x 7" Max. Capacity Decal 1000 lbs.
On UP / DOWN switch pistol grip	P55353	UP / DOWN Decal
On STOW / DEPLOY toggle switch	P55351	STOW / DEPLOY Decal
Near Lift Gate power switch	P55157	Safety Decal 4-1/2" x 4-7/8"
Just below door threshold	P55138	Safety Decal 2" x 26" horizontal
Near hand pump	P55352	Hand Pump Operating Instructions

FINAL INSTALLATION INSPECTION

CUSTOMER:

VEHICLE SERIAL NUMBER:

LIFT GATE SERIAL NUMBER:

CHECK EACH ITEM

WELDING / ADJUSTMENTS

- Gate is welded secure to bottom of all cross members in contact with Outer Slide.
- UP Stops (1" x 1" x 2-1/2") are welded to Compression Arms to stop platform at sill.

ELECTRICS

- Check all wiring connections for tightness (switches, terminal strips, etc)
- Check power line connection and be sure it's secured by loom clamps and protected by grommets.

HYDRAULIC OIL / LUBRICATION

- Check reservoir on vehicle power unit for correct amount of fluid (see vehicle manual).
- Grease Cam Rollers on Inner Slide if grease fitting present. Cam Rollers could be permanently greased design and have no grease fitting.
- Lightly lubricate IN / OUT chains. See page 10

OPERATION OF GATE

- Start with the gate in the STOWED position. Follow Operating Instructions and DEPLOY gate. With Secondary Platform and Ramp still folded, verify gate will move IN / OUT (STOW / DEPLOY) and UP / DOWN.
- Now unfold Secondary Platform. Verify gate will not go IN / OUT (STOW / DEPLOY) with Secondary Platform unfolded (limit switch mounted at edge of Primary Platform is functioning). Also verify gate will not go UP / DOWN with handrails not present.
- Now set handrails in place. Close handrails and verify platform goes UP / DOWN. Open handrails and verify platform will not go UP / DOWN.
- With handrails closed, place an object near or on the Inner Roll Stop. Verify the platform will not go UP / DOWN. Remove object and verify platform will go UP / DOWN (photo-sensor at Inner Roll Stop functioning properly).
- Verify Threshold Warning Signal is operating correctly using the following test. With the vehicle door open, step onto the platform at ground level, close handrails, and raise platform to vehicle floor. Step into vehicle, but stay within 18" of threshold edge. Now lower platform. Threshold Warning should sound. Move back more than 18" from threshold, and warning signal should stop.

