

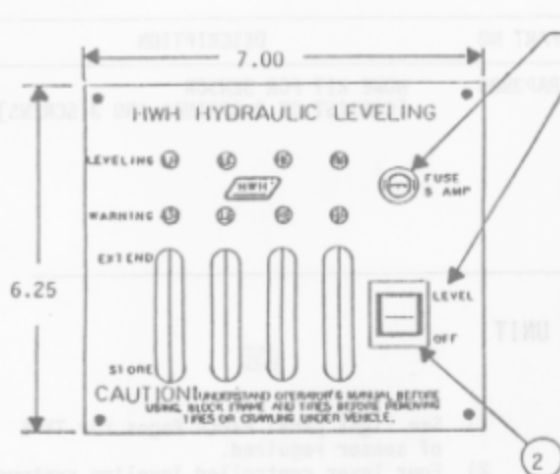
PARTS MANUAL
FOR
MOTOR COACH LEVELING SYSTEMS

This manual is intended as a Parts Manual only. It is the responsibility of the individual doing repairs to know the safe and proper procedures. Consult the appropriate Coach Manufacture's Manual, HWH Repair Manual, Operator Manual, or other manual. Contact HWH Corporation for additional information if needed.

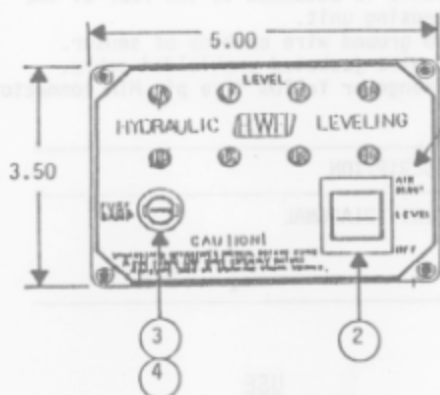
HWH CORPORATION
R.R. 1
MOSCOW, IOWA 52760
563 ~~319~~-724-3396
800-321-3494

LIGHT PANELS FOR SYSTEMS WITH FOUR LEVER CONTROL

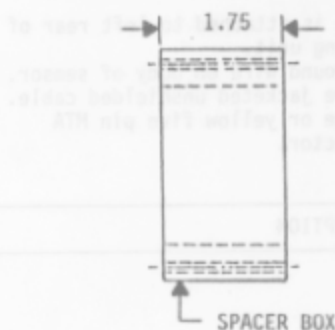
LIGHT PLATE W/ROCKER SWITCH USE BEGINNING IN 1989



INTEGRAL LIGHT PLATE
W/ ROCKER SW.



REMOTE PANEL
W/ROCKER SWITCH



NOTE: DISTINGUISHING FEATURES.

FOR REPLACEMENT SENSING UNITS FOR
THESE LIGHT PANELS SEE "DIAGONAL
MTG. SENSING UNITS" ON PAGE MLP2.11

REPLACEMENT PANELS

PART NO.	DESCRIPTION
RAP6901	LIGHT PLATE W/O AIR DUMP. (Complete assembly with PC board and switch.)
RAP7075	LIGHT PLATE WITH AIR DUMP. (Complete assembly with PC board and switch.)

REPLACEMENT PANELS

PART NO.	DESCRIPTION
RAP6897	LIGHT PANEL ASSEMBLY W/O AIR DUMP (Complete assembly including PC board. Does not include spacer box.)
RAP6898	LIGHT PANEL ASSEMBLY W/ AIR DUMP. (Complete assembly including PC board. Does not include spacer box.)

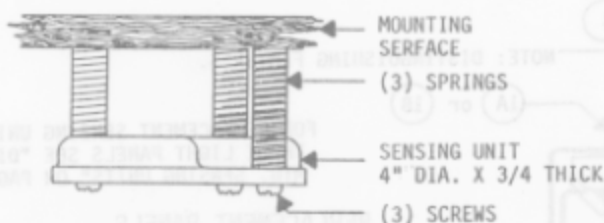
ACCESSORIES

PART NO.	DESCRIPTION
RP6269	SPACER BOX 5 X 3.5 X 1.75 (For use only with remote panels.)
R7057	SCREWS #6 X 2-1/2 BLACK (Bag of 4)
R7058	SCREWS #6 X 3/4 BLACK (Bag of 4)

REPLACEMENT PARTS

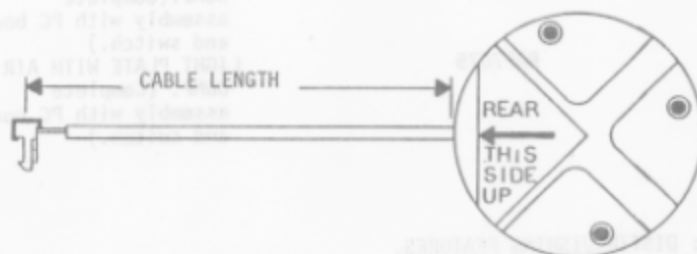
ITEM	PART NO.	DESCRIPTION
1A	RAP6899	PC BOARD W/O AIR DUMP
1B	RAP6900	PC BOARD W/ AIR DUMP
2	RP6977	SWITCH 3rd POSITION MOMENTARY FOR PANELS W/NO AIR DUMP.
3	RP6352	FUSE HOLDER
4	R3674	FUSE AGC 5 (5 Fuses per R3674)

SENSING UNIT MOUNTING HARDWARE (FOR 4 LEVER OR COMPUTERIZED SYSTEM)



PART NO	DESCRIPTION
RAP3905	HDWE KIT FOR SENSOR [CONSIST OF 3 SPRINGS AND 3 SCREWS]

DIAGONAL MTG SENSING UNIT

USE


- 1) See light panel Parts Pages for TYPE of sensor required.
- 2) Four lever controlled leveling systems with rocker switch on light panel.

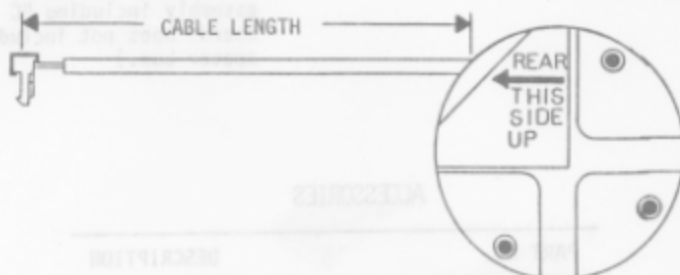
DISTINGUISHING FEATURES:

- 1) Cable is attached to the rear of the sensing unit.
- 2) No ground wire on body of sensor.
- 3) 5 wire jacketed unshielded cable.
- 4) Orange or Yellow five pin MTA connector.

REPLACEMENT SENSING UNITS

PART NO	CABLE LENGTH	DESCRIPTION
RAP6849	13'	SENSING UNIT DIAGONAL
RAP6794	21'	
RAP6847	30'	

CROSS MTG (BI AXIS) SENSING UNIT

USE


- 1) See control box or control panel parts page for type of sensor required.
- 2) Touch panel computerized leveling system.

DISTINGUISHING FEATURES:

- 1) Cable is attached to left rear of sensing unit.
- 2) No ground wire on body of sensor.
- 3) 5 wire jacketed unshielded cable.
- 4) Orange or yellow five pin MTA connector.

REPLACEMENT SENSING UNITS

PART NO	CABLE LENGTH	DESCRIPTION
RAP6894	15'	SENSING UNIT CROSS
RAP6798	21'	
RAP6800	27'	

GENERAL REPLACEMENT SENSING UNIT

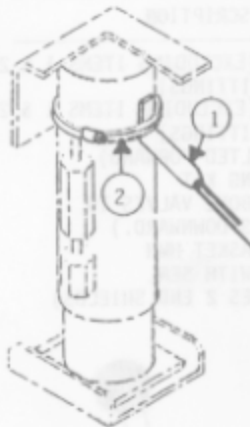
May be used in place of either of the above two types of sensors. Comes with out the orientation sticker mounted on the sensor.

RAP7056

30'

SENSING UNIT GEN 30'

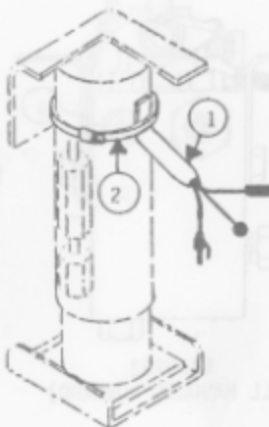
MERCURY SWITCH



2-WIRE

ITEM	PART NO.	DESCRIPTION
1	RAP7328	SWITCH WARNING SHORT (Replaces RAP3309) (Used on 6000# and 9000# kick-down jacks). (100,110,400,500,510 systems)
1	RAP2477	WARNING SWITCH LONG 36" long leads. Used on AP2381 large std., AP3677 large auto. and AP1206 mechanic kick-down jacks.

MERCURY SWITCH W/RESISTOR



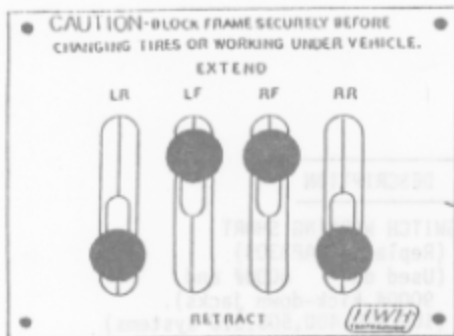
3-WIRE

ITEM	PART NO.	DESCRIPTION
1	RAP8072	SWITCH WARNING W/RESISTOR 21" (Used on 6000# and 9000# single hose computerized kick-down jacks).
OR		
1	RAP8551	SWITCH WARNING W/ RESISTOR 25" (Used on 6000# and 9000# Single hose computerized kick down jacks).

THE FOLLOWING BAND CLAMPS ARE USED TO MOUNT EITHER
STYLE OF WARNING SWITCH.

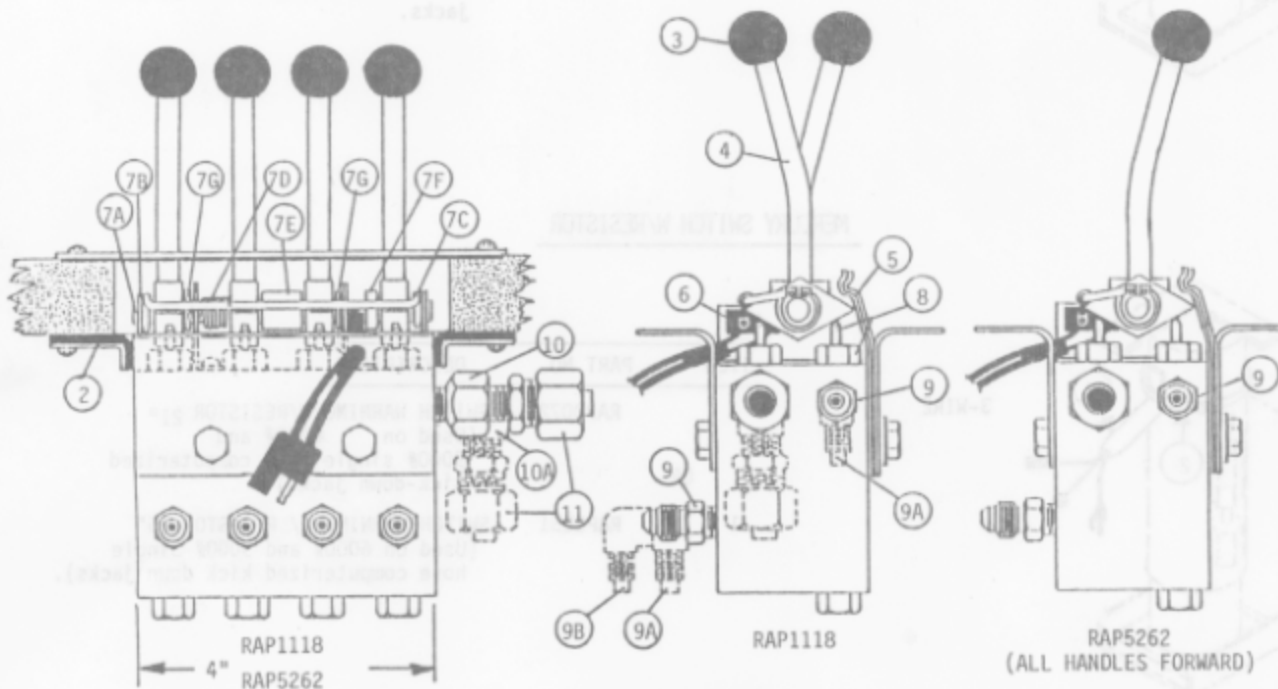
ITEM	PART NO.	DESCRIPTION
2	RP2508	CLAMP BAND H40 SMALL FOR JACKS WITH 2-5/8 DIA. CYLINDER BARRELS (Used on AP3289 short std., AP3342 tall std., AP3706 short auto., AP3664 tall auto., AP8125 short single hose, AP8251 tall single hose, and AP1206 mechanic kick-down.
2	RP2711	CLAMP BAND H52 LARGE FOR JACKS WITH 3-1/2 DIA. CYLINDER BARRELS (Used on AP2381 large std. and AP3677 large auto. jacks.

FOUR LEVER CONTROL VALVE WITH 4" BODY



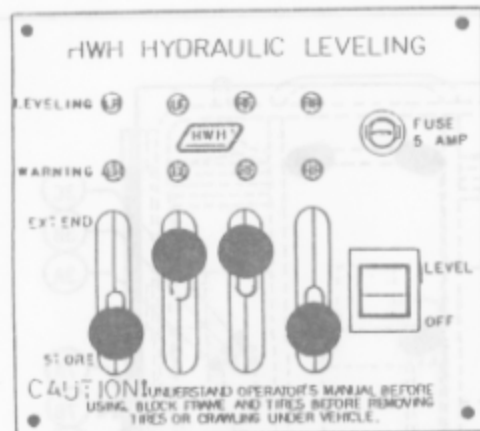
REPLACEMENT VALVES AND ACCESSORIES

ITEM	PART NO.	DESCRIPTION
	RAP1118	VALVE ASSY. 4" (EXCLUDING ITEMS 1 & 2) (ALL STRAIGHT FITTINGS)
	RAP5262	VALVE ASSY. 4" (EXCLUDING ITEMS 1 & 2) (ALL STRAIGHT FITTINGS) (ALL HANDLES TILTED FORWARD)
	R5283	VALVE 90° FITTING KIT (FITTINGS FOR ABOVE VALVES TO DIRECT ALL LINES DOWNWARD.)
1	RAP1146	BEZEL PLATE W/GASKET HHH
2	RAP1153	END SHIELD KIT WITH SEAL (RAP1153 INCLUDES 2 END SHIELDS)



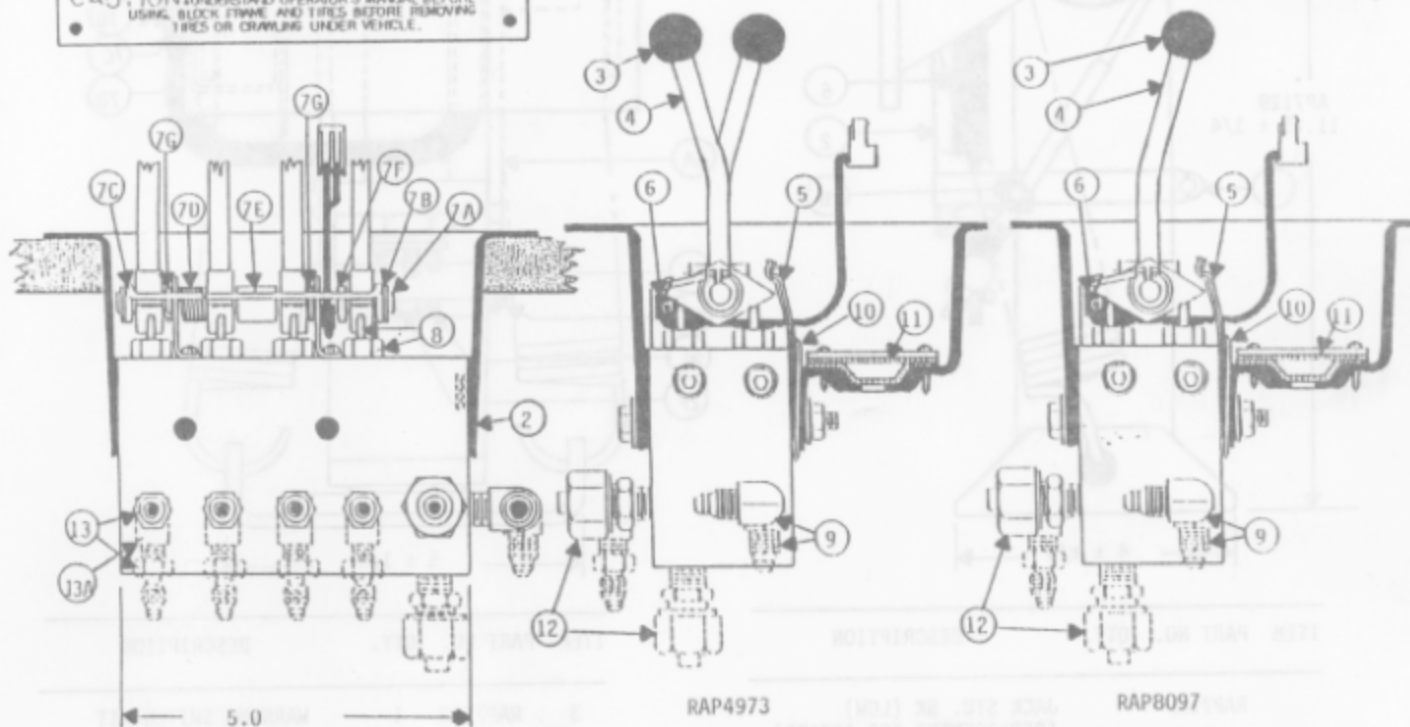
VALVE REPAIR PARTS

ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
3	RAP1379	4	KNOB BLACK (4 KNOBS PER RAP1379)	9	RF1456	5	4-FTX-S MALE CONNECTOR (1/8 NPT x 7/16 - 20 FOR 1/4 HYD LINE) (1FITTING PER RF1456)
4	RAP1143	4	VALVE HANDLE WITH KNOB (1 HANDLE PER RAP1143)	*9A	RF1453	(3)	4-CTX-S MALE ELBOW (1/8 NPT x 7/16 - 20 FOR 1/4 HYD LINE) (1FITTING PER RF1453)
5	RP1150	2	DETENT PLATE (2 PLATES PER RP1150)	*9B	RF1511	(2)	4-CCTX-S LONG MALE ELBOW (1/8 NPT x 7/16 - 20 FOR 1/4 HYD LINE) (1FITTING PER RF1511)
6	RAP1455	1	SWITCH KIT WITH BRKT.	10	RF1457	1	222P-4-2 1/8 x 1/4 ADAPTER (1/8 NPT MALE x 1/4 NPT FEMALE)
7	R5284	1	VALVE PIVOT KIT	*10A	RF3474	(1)	2202-4-2 ELBOW (BRASS) (1/8 NPT MALE x 1/4 NPT FEMALE)
7A		1	PIVOT ROD	11	RF1458	1	68 NTA-B-4 1/2 TUBE x 1/4 NPT (1/4 NPT x 1/2 OD TUBE)
7B		2	SNAP RING	Indented items are included with preceding item. * Alternate parts used on some existing valves.			
7C		1	SWITCH ACTIVATING ROD				
7D		1	SPRING TORSION				
7E		1	SPACER .59				
7F		1	SPACER .15				
7G		2	SPACER .10				
8	R1217	8	PLUNGER AND GUIDE (8 PLUNGER AND GUIDE PER R1217)				



REPLACEMENT VALVES & ACCESSORIES

ITEM	PART NO.	DESCRIPTION
1		LIGHT PLATE See page MLP1,1000
2	RAP4973	VALVE ASSY W/ BOX Does not include light plate or harness.
	RAP8097	VALVE ASSY W/ BOX (All handles forward) Does not include light plate or harness.
	R5283	VALVE 90° FITTING KIT (Fittings for above valves to direct all lines downward.)



RAP4973

RAP8097

----- DENOTES ALTERNATE FITTINGS

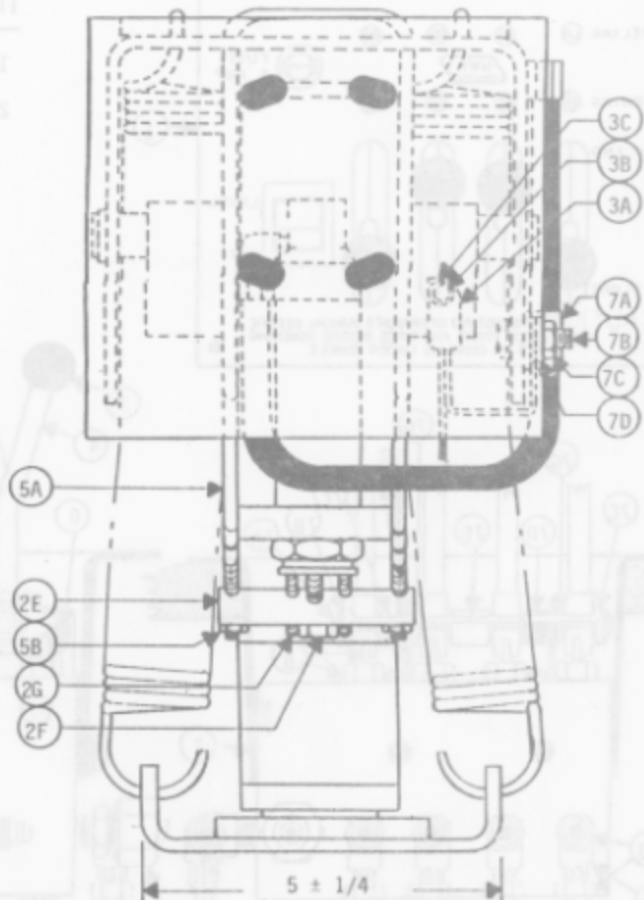
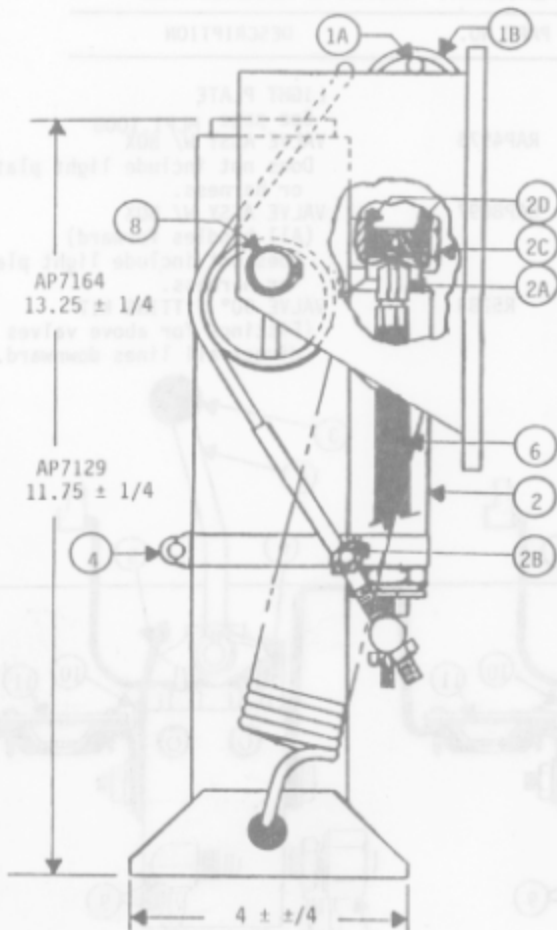
REPAIR PARTS

ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
3	RAP1379	4	KNOB BLACK 4 KNOBS PER RAP1379)	9	RF1453	1	4-CTX-S MALE ELBOW (1/8 NPT X 7/16 - 20 FOR 1/4 LINE)
4	RAP1143	4	VALVE HANDLE W/KNOB (1 HANDLE PER RAP1143)	10	RP5224	1	BACKING PLATE
5	RP1150	2	DETENT PLATE (2 PLATES PER RP1150)	11	RAP5023	1	HOLE COVER W/SEAL
6	RAP4974	1	SWITCH KIT	12	RF1458	1	68NTA-8-4 1/2 TUBE X 1/4 NPT (1/4 NPT X 1/2 OD TUBE)
7	R5284	1	VALVE PIVOT KIT	13	RF1456	4	4-FTX-S MALE CONNECTOR (1/8 NPT X 7/16 - 20 FOR 1/4 HYD LINE) (1 FITTING PER RF1456)
7A		1	PIVOT ROD	*13A	RF5132	4	2202P-2-2 ELBOW BRASS (1 PER RF5132) (1/8 NPT MALE X 1/8 NPT FM)
7B		2	SNAP RING				
7C		1	SWITCH ACTIVATING ROD				
7D		1	SPRING TORSION				
7E		1	SPACER .59				
7F		1	SPACER .15				
7G		2	SPACER .10				
8	R1217	8	PLUNGER AND GUIDE (8 PLUNGER AND GUIDE PER R1217)				

Indented items are included with preceding item.

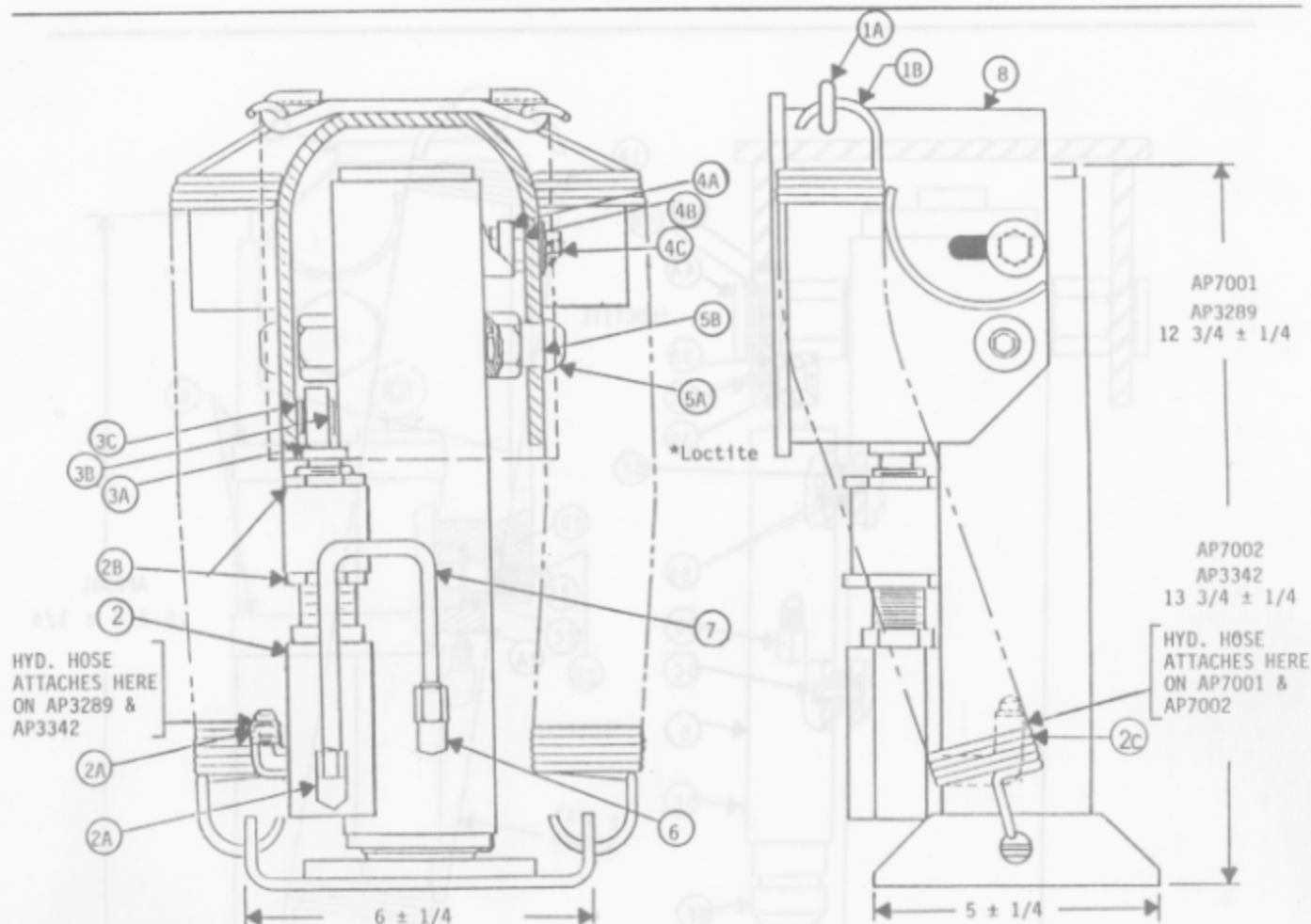
*Alternate fittings used on some valves.

AP7129 JACK 6000 STD, LOW KICK DOWN
AP7164 JACK 6000 STD, KICK DOWN
FOR STANDARD 100 AND 110 SYSTEMS



ITEM	PART NO.	QTY.	DESCRIPTION
	RAP7129		JACK STD. 6K (LOW) (REPLACEMENT FOR AP7129)
	RAP7164		JACK STD. 6K (REPLACEMENT FOR AP7164)
1	R6824	1	SPRING KIT 1 1/2 X 10
1A		1	SPRING ROD
1B		2	SPRING 1 1/2 X 10
2	RAP7062	1	ACTUATOR KIT/STD/6K
2A		1	4CTX-S 90° MALE ELBOW
2B		1	STEEL BALL 3/16 DIA. GR25 (TO POSITION ACTUATOR)
2C		1	SCREW HEX SPECIAL
2D		2	"O" RING
2E		1	ACTUATOR RETAINING ROD
2F		1	HHCS 1/4 - 20 X 1
2G		2	SET SCREW #10-24 C 1 1/4
2E	RP7064	1	ACTUATOR RETAINING ROD

ITEM	PART NO.	QTY.	DESCRIPTION
3	RAP7328	1	WARNING SWITCH KIT
3A		1	WARNING SWITCH
3B		1	#10-24 X 3/8 PHRDHD SAE
3C		1	LOCKWASHER #10 EXT STAR
4	RP2508	1	CLAMP BAND W/T BOLT
5	RAP7194	1	ACTUATOR CABLE KIT
5A		1	ACTUATOR CABLE
5B		2	HEX NUT 1/4 - 28 NYLOK
6	RAP7542	1	HOSE ASSY.
7	RAP7555	1	HOSE CLAMP KIT
7A		1	HOSE CLAMP
7B		1	HHCS 1/4 - 20 X 1
7C		1	HEX NUT 1/4 - 20 UNC PLD
7D		1	LOCKWASHER 1/4 EXT STAR
8	R7531	2	SNAP RING (BAG OF 4)

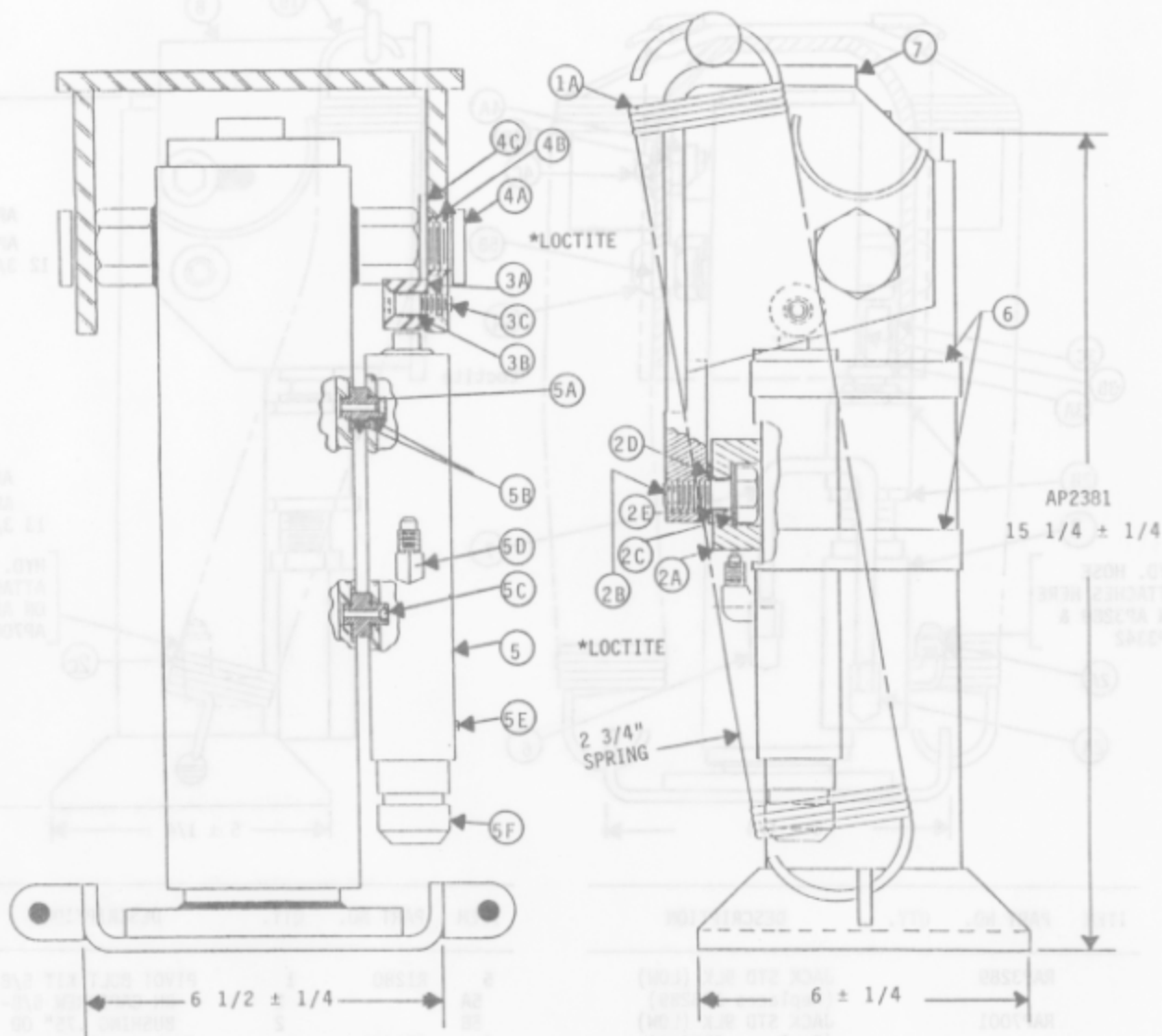


ITEM	PART NO.	QTY.	DESCRIPTION
	RAP3289		JACK STD 9LK (LOW) (Replaces AP3289)
	RAP7001		JACK STD 9LK (LOW) (Replaces AP7001)
	RAP3342		JACK STD 9K (Replaces AP3342)
	RAP7002		JACK STD 9K (Replaces AP7002)
1	R1171	1	SPRING KIT 1-5/8 x 12
1A		1	SPRING ROD
1B		2	SPRING 1-5/8 x 12
2	RAP2795		OBSOLETE ACTUATOR (Use RAP7028 Actuator with the fitting on the front)
2	RAP7028		ACTUATOR KIT/STD/9K For use on all above jacks. Fitting is as shown on AP7001 & AP7002 jack. 2A, 2B, and 2C come with replacement actuator.
2A	RF1453	1	4CTX-S 90° MALE ELBOW
2C	RF1511	1	4-CCTX-S 90° MALE ELBOW (LONG)
3	R2527	1	ROLLER KIT 1.125 OD
3A		1	BEARING 1.125 DIA.
3B		1	ROLLER FASTENER
3C		3	LOCKWASHER 3/8 EXT. STAR
4	R2956	1	STOP KIT HEX
4A		1	BUMPER
4B		1	HEX STOP
4C		1	FSHCS 3/8-16 x 1

ITEM	PART NO.	QTY.	DESCRIPTION
5	R1280	1	PIVOT BOLT KIT 5/8 BH
5A		2	BH CAPSCREW 5/8-11 x 1
5B		2	BUSHING .75" OD
6	RF1453 (CHOOSE ONE)	1	4CTX-S 90° MALE ELBOW
7	RAP5653		TUBE ASSY 1/4" SHORT (For AP3289 or RAP3289 Short std. jack only)
7	RAP5652		TUBE ASSY 1/4" TALL (For AP3342 or RAP3342 TALL std. jack only)
8	RAP5520	1	PIVOT BRKT. ASSY 2" (Includes items 3 and 4)

Indented items are included with preceding item.

*Apply a thread locking adhesive such as Loctite #271, 277, 242, or 569.



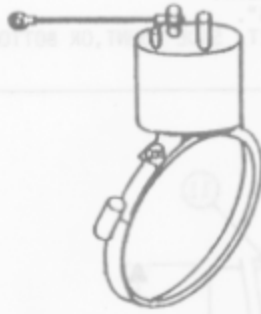
ITEM	PART NO.	QTY.	DESCRIPTION
	RAP2381		JACK STD 16K (Replaces AP2381)
1	R2365	1	SPRING KIT 2-3/4 x 13-1/2
1A		2	SPRING 2-3/4 x 13-1/2
2	R2511	1	STOP KIT 2" DIA
2A		1	BUMPER URETHANE 2" OD
2B		1	HEX CAPSCREW 1/2-13 x 1-1/4
2C		1	WASHER STRUCTURAL 1/2"
2D		1	SPACER 5/8 OD
2E		1	WASHER FLAT 1/2"
3	R2327	1	ROLLER KIT 1" OD
3A		1	ROLLER 1"
3B		1	BUSHING BRASS 1/2 OD
3C		1	FLAT CAPSCREW 3/8-16 x 1-1/4
4	R2329	1	PIVOT BOLT KIT 7/8 HEX
4A		2	HEX CAPSCREW 7/8" SPECIAL
4B		2	BUSHING 1-1/8 OD PLATED
4C		1	WASHER 7/8 SAE 1-3/4 OD (Used on actuator side only)

ITEM	PART NO.	QTY.	DESCRIPTION
5	RAP4211	1	ACTUATOR STD/16K
5A		2	CYLINDER PORT OPEN
5B		4	O RING
5C		1	STEEL BALL 3/16 DIA GR 25 (Used in lower port only)
5D		1	4-CTX-S MALE ELBOW
5E		1	SET SCREW #10-24 x 3/16
5F		1	END PLUG ACTUATOR
5D	RF1453	1	4-CTX-S MALE ELBOW
6	RP2383	2	CLAMP BAND w/ T BOLT (2 CLAMPS PER RP2383)
7	RAP5521	1	PIVOT BRKT ASSY 2.75 (Includes items 2 and 3)

Indented items are included with preceding item.

*Apply a thread locking adhesive such as Loctite #271, 277, 242 or 569.

USED PRIMARILY ON FOUR LEVER CONTROL SYSTEMS

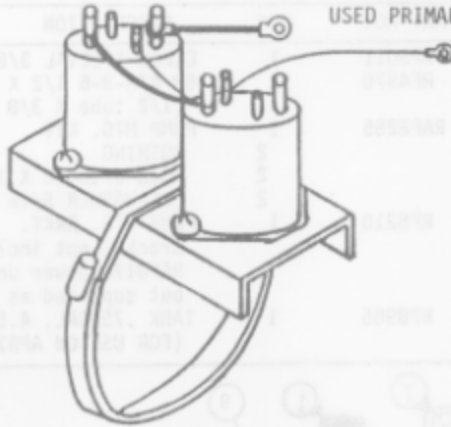


RAP5147 SOLENOID KIT INTERMIT.

Pump solenoid for any four lever control system. Includes intermittent duty solenoid, battery cable, and band clamp for mounting to power unit motor.

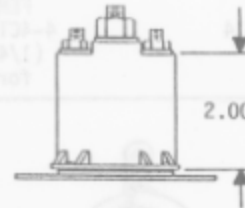


RAP4985 Solenoid intermittent duty
Intermittent duty solenoid only.
Same as RAP5147 but w/o battery cable and band clamp.



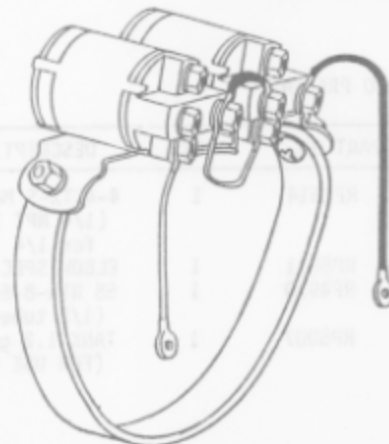
R5231 SOLENOID KIT AU W/ BRKT.

Pump solenoid for systems with computerized control panels. Includes two continuous duty solenoids, mounting brkt., band clamp, and connecting wires.



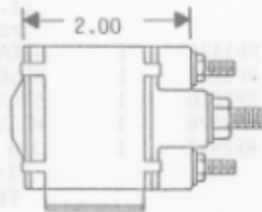
RAP4276 Solenoid Continuous Duty
Same solenoid as in R5231 solenoid kit.

USED PRIMARILY ON TOUCHPANEL SYSTEMS



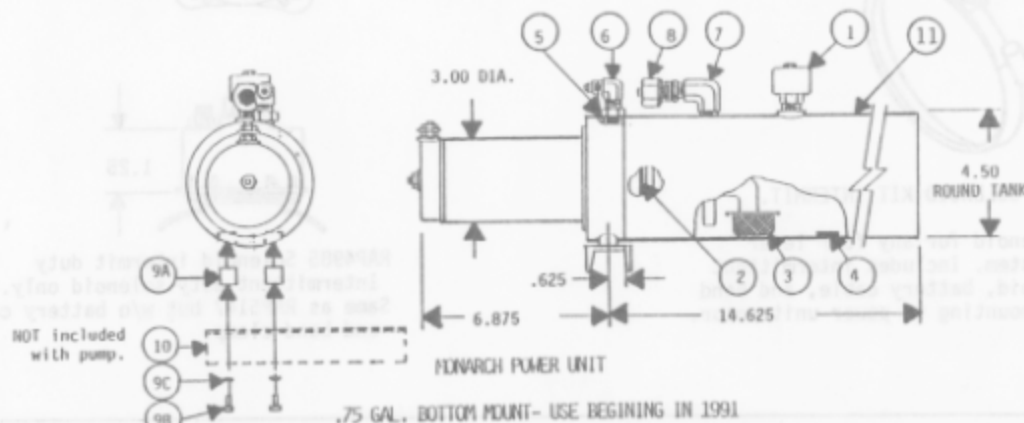
R7572 SOLENOID KIT

Pump solenoids for systems with touchpanel controls. Includes two continuous duty solenoids, band clamp, and connecting wires.

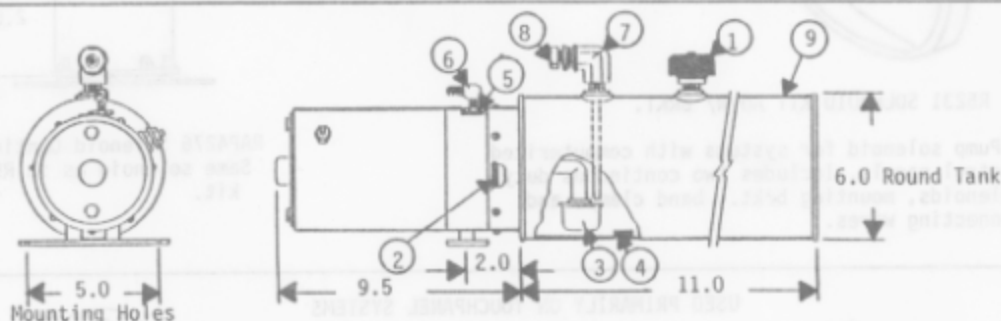


RAP7505 Solenoid Continuous Duty
Same solenoid as in R7572 solenoid Kit.

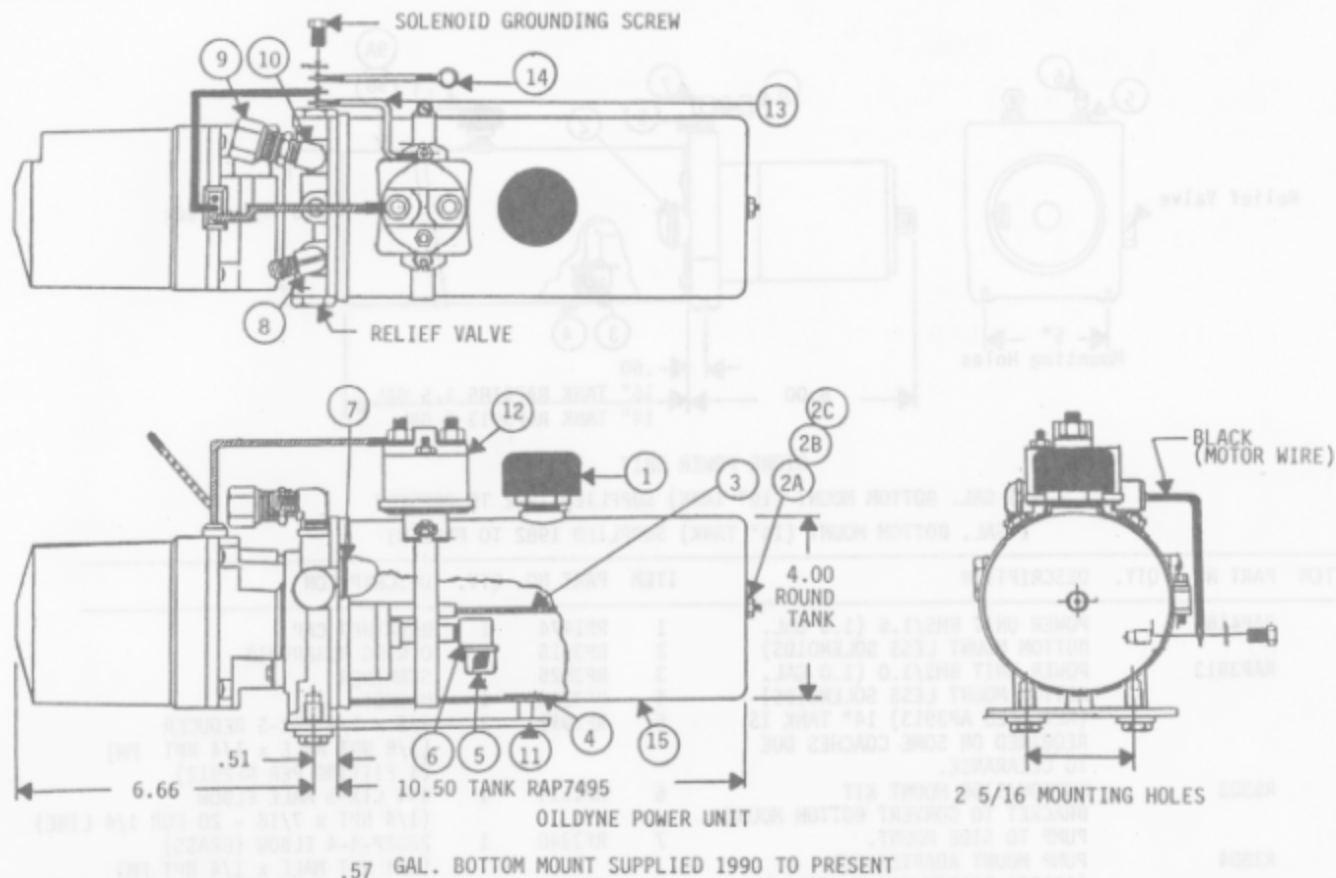
ON THE FOLLOWING PAGES ARE VARIOUS HYDRAULIC POWER UNITS WITHOUT CONTROL SOLENOIDS. REPLACEMENT POWER UNITS ARE FURNISHED WITHOUT SOLENOIDS, BUT WITH FITTINGS AS SHOWN. FOR SOLENOIDS SEE THE PRECEDING PAGES ENTITLED "HYDRAULIC POWER UNIT SOLENOIDS". BELOW FIND THE POWER UNIT LIKE THAT IN QUESTION. NOTE THE SHAPE OF THE POWER UNIT, SIDE MOUNT, OR BOTTOM MOUNT, SIZE OF TANK, AND IF IT HAS EITHER A ROUND OR SQUARE RESERVOIR.



ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
	RAP8178		POWER UNIT BMM / .75 (3/4 gal. bottom mount) (replaces AP8178)	7	RP5011	1	ELBOW SPECIAL 3/8
1	RAP7984	1	BREATHER CAP	8	RF4970	1	68 NTA-8-6 1/2 X 3/8 (1/2 tube X 3/8 NPT)
2	RP5008	1	RESERVOIR "O" RING	9	RAP8255	1	PUMP MTG. KIT
3	RP5010	1	STRAINER	9A		2	BUSHING
4	RP3526	1	MAGNET	9B		2	HHCS 5/16-18 X 1-1/4
5	RF2912	1	3/8 X 1/4 PTR-S REDUCER 10 (3/8 NPT MALE X 1/4 NPT FEMALE)	9C		2	LOCKWASHER 5/16 EXT.
6	RF1514	1	4-4CTX-S MALE ELBOW (1/4 NPT X 7/16-20 for 1/4 line)	RP8210		1	PUMP MTG. BRKT. Bracket not included with RAP8178 power unit assy. but supplied as repair part.
				11	RP8986	1	TANK .75 GAL. 4.50 RD. (FOR USE ON AP8178)



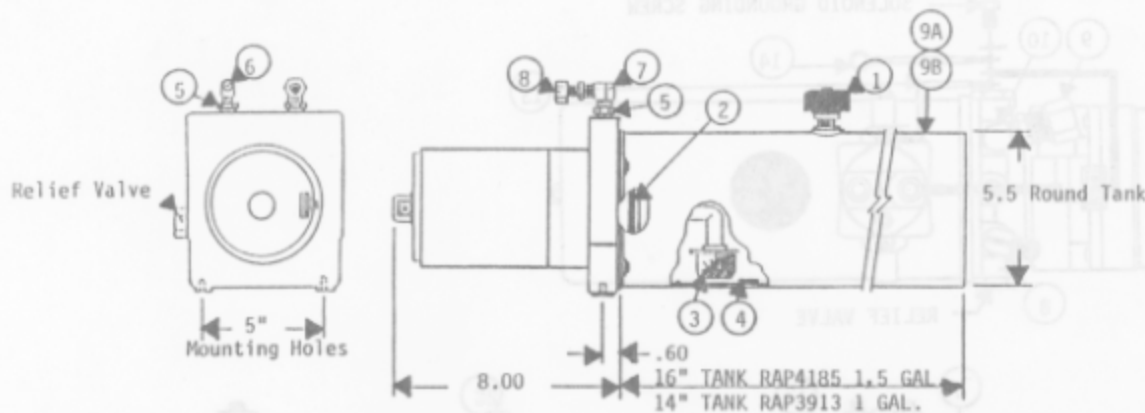
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
	RAP4931		POWER UNIT BMM / 1.2 (1.2 gal. bottom mount) (replaces AP4931)	6	RF1514	1	4-4CTX-S MALE ELBOW (1/4 NPT X 7/16-20 for 1/4 line)
1	RP1474	1	BREATHER CAP	7	RP5011	1	ELBOW SPECIAL 3/8 NPT
2	RP5008	1	RESERVOIR "O" RING	8	RF4970	1	68 NTA-8-6 1/2 X 3/8 (1/2 tube X 3/8 NPT)
3	RP5010	1	STRAINER	9	RP5007	1	TANK 1.2 gal. 6" RD. (FOR USE ON AP4931)
4	RP3526	1	MAGNET				
5	RF2912	1	3/8 X 1/4 PTR-S REDUCER (3/8 NPT MALE X 1/4 NPT FEMALE)				



ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
	RAP7337		POWER UNIT BMO/.57 (.57 GAL. BOTTOM MOUNT (REPLACES AP7337))	6	RP7498	1	ELBOW
1	RP1474	1	BREATHING CAP	7	RP7499	1	"O" RING RESERVOIR
2	RAP7496	1	TANK MTG KIT	8	RF1453	1	4-CTX-S MALE ELBOW (1/8 NPT X 7/16 - 20 FOR 1/4 LINE)
2A		1	HEX NUT	9	RF1458	1	68 NTA-8-4 1/2 TUBE X 1/4 NPT
2B		1	SEAL	10	RF3340	1	2202 P-4-4 ELBOW (BRASS) (1/4 NPT MALE X 1/4 NPT FEMALE)
2C		1	WASHER FLAT	11	RP7533	1	RESERVOIR SUPPORT
3	RP7497	1	TANK MTG. ROD	12	RAP4985	1	SOLENOID (ONLY)
4	RP3526	1	MAGNET	12	RAP5147	1	SOLENOID KIT WITH CLAMP
5	RP7532	1	STRAINER	13	RAP7355	1	GROUNDING WIRE 7.00
				14	RAP7356	1	GROUNDING WIRE 10.00
				15	RP7495	1	TANK .57 GAL. 4" RD. (FOR USE ON AP7337 POWER UNIT)

NOTE:

SOME EARLIER MODELS HAVE A 9.00 LONG TANK WHICH IS NO LONGER AVAILABLE.

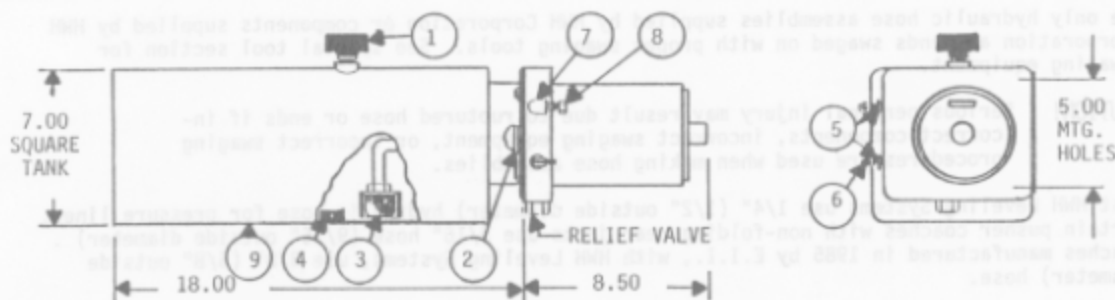


STONE POWER UNIT

1.5 GAL. BOTTOM MOUNT (16" TANK) SUPPLIED 1982 TO PRESENT

1 GAL. BOTTOM MOUNT (14" TANK) SUPPLIED 1982 TO PRESENT

ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
	RAP4185		POWER UNIT BMS/1.5 (1.5 GAL. BOTTOM MOUNT LESS SOLENOIDS)	1	RP1474	1	BREATHER CAP
	RAP3913		POWER UNIT BMS/1.0 (1.0 GAL. BOTTOM MOUNT LESS SOLENOIDS) (REPLACES AP3913) 14" TANK IS REQUIRED ON SOME COACHES DUE TO CLEARANCE.	2	RP3515	1	O RING RESERVOIR
	R5303		BOTTOM/SIDE MOUNT KIT BRACKET TO CONVERT BOTTOM MOUNT PUMP TO SIDE MOUNT.	3	RP3525	1	STRAINER
	R3804		PUMP MOUNT ADAPTER 4/5 (ADAPTS BOTTOM MOUNT STONE TO MOUNTING HOLES FOR BOTTOM MOUNT WEBSTER. (ALTERNATIVE TO USE OF THIS BRACKET IS REDRILLING MOUNTING HOLES).	4	RP3526	1	MAGNET
				5	RF2912	2	3/8 x 1/4 PTR-S REDUCER (3/8 NPT MALE x 1/4 NPT FM) (1 FITTING PER RF2912)
				6	RF1514	1	4-4 CTX-S MALE ELBOW (1/4 NPT x 7/16 - 20 FOR 1/4 LINE)
				7	RF3340	1	2202P-4-4 ELBOW (BRASS) (1/4 NPT MALE x 1/4 NPT FM)
				8	RF1458	1	68 NTA-8-4 1/2 TUBE x 1/4 NPT
				CHOOSE EITHER			
				9A	RP3521	1	TANK 1.50 GAL. 16" LONG (FOR USE ON AP4185 POWER UNIT)
				OR			
				9B	RP4132	1	TANK 1.00 GAL. 14" LONG (FOR USE ON AP3913 POWER UNIT)

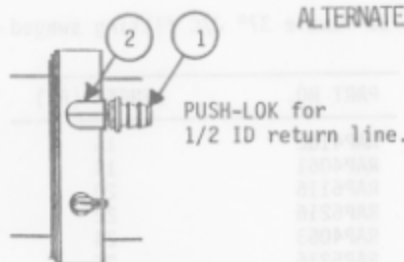


STONE POWER UNIT
3.50 GAL. SIDE MOUNT SUPPLIED 1987 TO PRESENT

ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
	RAP4702		POWER UNIT SMS/3.5 (SIDE MOUNT 3.5 GAL LESS SOL.) REPLACES THE FOLLOWING AP4702 STONE 3.5 GAL. AP3910 & RAP3910 STONE 2.0 GAL. WEBSTER 2.0 GAL. SIDE MOUNT.	1	RP1474	1	BREATHER CAP
				2	RP3515	1	SEAL KIT
				3	RP5292	1	STRAINER W/ SHROUD
				4	RP3526	1	MAGNET
				5	RF2912	2	3/8 X 1/4 PTR-S REDUCER (3/8 NPT M X 1/4 NPT FM)
				6	RF1514	1	4-4 CTX-S MALE ELBOW (1/4 NPT X 7/16-20 for 1/4 line)
				7	RF3340	1	2202P-4-4 ELBOW (brass) (1/4 NPT M X 1/4 NPT FM)
				8	RF1458	1	68NTA-8-4 1/2 TUBE X 1/4 (1/4 NPT X 1/2 OD tube)
				9	RP4659	1	TANK 3.50 GAL. 7" SQ.

SEE "ALTERNATE RETURN FITTINGS" BELOW FOR BLUE BIRD COACHES.

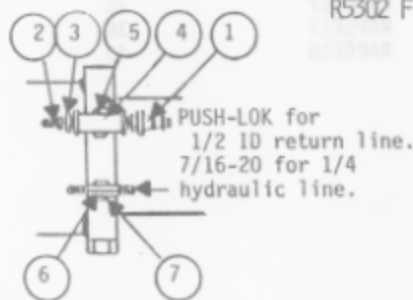
ALTERNATE RETURN LINE FITTINGS



Used on some BLUE BIRD coaches beginning in 1987.

ITEM	PART NO.	QTY.	DESCRIPTION
1	RF4385	1	PUSH-LOK 3/8 NPT (3/8 NPT X 1/2 Hose)
2	RF4709	1	2202P-6-6 ELBOW (brass) (3/8 NPT M X 3/8 NPT FM)

R5302 FITTING KIT DOUBLE



R5302

FITTING KIT PUMP DOUBLE

Used on BLUE BIRD pusher coaches with computerized leveling systems beginning in 1986

ITEM	PART NO.	QTY.	DESCRIPTION
	R5302		FITTING KIT PUMP DOUBLE (Converts pump to two pressure and two return lines.)
1	RF4385	1	PUSH-LOK 3/8 NPT (3/8 NPT X 1/2 hose)
2	RF1477	1	4-4 FTX-S MALE CONNECTOR (1/4 NPT X 7/16-20 for 1/4 line.)
3	RF2912	1	3/8 X 1/4 PTRS reducer (3/8 NPT M X 1/4 NPT FM)
4	RF4671	1	TEE 3/8 NPT FM 2203P-6
5	RF4701	1	NIPPLE 3/8 FF-S (3/8 NPT X 3/8 NPT)
6	RF4670	1	BRANCH TEE FM4-CTX-S (1/8 NPT FM X (2) 7/16-20 for 1/4 line)
7	RF4672	1	NIPPLE 3/8 X 1/8 FF-S (3/8 NPT X 1/8 NPT)

Use only hydraulic hose assemblies supplied by HWH Corporation or components supplied by HWH Corporation and ends swaged on with proper swaging tools. See special tool section for swaging equipment.

CAUTION! Serious personal injury may result due to ruptured hose or ends if incorrect components, incorrect swaging equipment, or incorrect swaging procedures are used when making hose assemblies.

Most HWH Leveling Systems use 1/4" (1/2" outside diameter) hydraulic hose for pressure lines. Certain pusher coaches with non-folding rear jacks use 5/16" hose (9/16" outside diameter). Coaches manufactured in 1985 by E.I.I., with HWH Leveling Systems, use 3/8" (5/8" outside diameter) hose.

1/4" hoses may be identified by a "-04" being incorporated into the description printed on the hose.

BULK HOSE, RETURN LINES, AND FITTINGS

The following hoses come without ends. The proper swaging tool, die and pusher must be used to swag the ends onto the hose. See Special Tool Section of Parts Manual for swaging tools.

PART NO.	DESCRIPTION
R5233	HYDRAULIC HOSE HWH 04 1/4" X 250 FT
R7313	HYDRAULIC HOSE HWH 04 1/4" X 100 FT
RFH3338	HOSE END 1/4 X 7/16-20 FM SWIVEL (BOX OF 20)
RAP6219	DUST PLUG FOR 1/4" HOSE END (BAG OF 100)
RF2539	4-HTX-S 1/4" HOSE UNION (FOR CONNECTING 1/4" HOSE ASSEMBLIES)
RF3680	4-JTX-S 1/4" UNION TEE (FOR CONNECTING 3 HOSE ASSEMBLIES)
R5232	TUBING NYLON 1/2" X 50 FT (RETURN LINE)
R4220	TUBING NYLON 1/2" X 8 FT (RETURN LINE)
RF4819	62NTA-8 UNION 1/2" TUBE (FOR SPLICING 1/2" RETURN LINE)

READY MADE 1/4" HOSE ASSEMBLIES

Hose assemblies are of the designated length with a 7/16-20 female 37° J/C fitting swaged on each end.

PART NO.	LENGTH (FT)	PART NO.	LENGTH (FT)
RAP4158	1	RAP4162	16
RAP4060	2	RAP4061	18
RAP4059	3	RAP6116	20
RAP3314	4	RAP6216	22
RAP4073	5	RAP4063	24
RAP4159	6	RAP5216	26
RAP1412	7	RAP5561	28
RAP5352	8	RAP4163	30
RAP4074	9	RAP4164	32
RAP4161	10	RAP4669	34
RAP4827	12	RAP6117	36
RAP6115	14	RAP6217	38
		RAP6218	40

5/16 and 3/8 hose assemblies and bulk hoses are available upon request from HWH Corporation.