Pool Power Pak[®] III - Program One[™] with Programmable Timer



0-1076-010 (1 HP), 0-1077-010 (1-1/2 HP)

NEC Models:

0-1076-016 (1 HP), 0-1077-016 (1-1/2 HP)

Owner's Guide







Congratulations. You've wisely invested in a new dimension in filtration excellence - the Pool Power Pak II-Program One™, a fully programmable pump unit by Doughboy. This unique and versatile pump combines sophisticated technology with easy operation to insure the luxury of programming multiple filter cycles in advance. In addition, because of the ease of varying your program times, you not only benefit by conserving energy during the day, but will also have more efficient filter cycles. Just think, no more worries about when to run your pump. Once programmed, Pool Power Pak II- Program One™ does the work for you, even when you're away from home. That means more time to enjoy your pool, compliments of Doughboy - the world's leading manufacturer of above-ground swimming pools.

This extra-ordinary pump is ideal for conserving energy because the program times are based specifically on your individual needs. For more effective energy conservation*, Doughboy recommends programming the unit for morning and evening cycles consisting of approximately four hours each in order to reduce usage during peak electrical hours.

*Remember, off-peak hours often have reduced rates which may result in lower electric bills.

In addition, morning and evening filter cycles will also provide more efficient filtering action by extending the backwashing intervals; the time between the filter cleanings. Efficiency is enhanced when the morning filter cycle is completed and the filter media relaxes inside the filter tank. This way, when the evening filter cycle begins, the filter media is regenerated which results in a cleaner and more productive filtering area. For this reason, less frequent backwashing is necessary to keep your pool clean.

As an added feature, the programmable timer module has the capability of accepting the Optional Remote Air Switch Kit (part number 0-2351-007). Consult your local dealer for details.

PREPARATION IMPORTANT SAFETY INSTRUCTIONS

FOR ALL MODELS:

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

- 1. READ AND FOLLOW ALL INSTRUCTIONS.
- **2. WARNING:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

3. **WARNING:** Risk of electric shock. Connect only to a grounding type receptacle protected by a Ground Fault Interrupter (GFCI).

Contact a qualified electrician if you cannot verify that the receptacle is protected by a GFCI.

- 4. Do not bury cord. Locate cord to minimize abuse from lawn mowers, hedge trimmers, and other equipment.
- 5. **WARNING**: To reduce the risk of electric shock, replace damaged cord immediately.
- WARNING: To reduce the risk of electric shock, do not use an extension cord to connect unit to the electrical supply; provide a properly located outlet.

FOR UL MODELS ONLY:

0-1076-010, 0-1077-010

7. CAUTION: This pump is for use with storable pools only. Do not use with permanently installed pools. A storable pool is constructed so it may be readily disassembled for storage and reassembled to its original integrity. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage.

FOR NEC/UL MODELS ONLY:

0-1076-016, 0-1077-016

8. **CAUTION**: This pump is for use with permanently installed pools and may also be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original integrity.

FOR ALL MODELS:

9. SAVE THESE INSTRUCTIONS.

ELECTRICAL SOURCE

FOR UL MODELS ONLY:

0-1076-010, 0-1077-010

Your pump is supplied with a 25 foot, 3-wire electrical cord and a 3-pronged plug. The pump is double insulated and grounded. The pump electrical cord must be connected to a grounded, 3-wire, 115 VAC electrical receptacle.

The pump should be connected to a receptalce on a dedicated circuit protected by a 20 AMP circuit breaker. **DO NOT** use a grounding adaptor.

The receptacle must be protected by a Ground Fault Circuit Interrupter (GFCI) in accordance with Article 680-31 of the National Electrical Code (NEC), (Section 68-204 of the Canadian Electrical Code (CSA) and local codes or ordinances. For runs greater than 25 feet, consult your local licensed electrical contractor.

FOR NEC/UL MODELS ONLY:

0-1076-016, 0-1076-016

Your pump is suppplied with a 3-foot, 3-wire electrical cord and a 3-prong flanged, twist-lock plug.

The pump electrical cord must be connected to a single twist lock, grounding type receptalcle that is located a minimum of 5 feet from the inside pool wall.

A qualified electrical contractor must install this receptacle in accordance with Article 680-6 of the National Electrical Code (NEC). A Ground Fault Interrupter (GFCI) must be used. An ON/OFF Switch must be installed at the receptacle.

Use a Hubbell No. 2310 Receptacle, 20 AMP 125 Volt A.C. or an equivalent receptalcle that meets NEMA Configuration L5-20R.

This pump is double insulated and grounded. Dead metal parts are not in contact with pool water.

CAUTION

- DO NOT install the pump on a deck. It could fall into the water, causing severe electrical shock. Do not install on any surface at, above, or slightly below the top rail of the pool.
- DO NOT allow children or adults to climb, sit, or stand on the pump unit. They could easily fall. Position the filter and pump approximately 4 feet from the pool wall so they may not be used as steps by children.
- Always keep the water level in your pool between the water level markers on the skimmer face plate. If pump is run with water level too low, the pump seal may overheat and cause permanent damage to the pump.
- 4. Your Pool Power Pak must sit in it's pump base, on a patio block, or on any firm surface that slightly elevates the pump off the ground. This keeps water away from the motor and prevents the vents of the Power Pak from becoming blocked, which could cause the motor to overheat.

NOTE: The pump unit is designed to operate <u>above</u> 107 volts. If pump is operated at or below 107 volts, the pump unit will malfunction due to a low power source or use of an extension electrical cord. If malfunction occurs, your Power Pak III will remember the program(s) you have given it. However, it will be necessary to increase the power supply to a level above 107 volts, then reset the time on your Power Pak III. The clock display may or may not be flashing to let you know a malfunction occurred. Simply push the "SET CLOCK" key pad on the timer and reset to proper day and current time of day.

SUCTION AND DISCHARGE CONNECTIONS

Your Pool Power Pak is provided with two union socket connections for hard plumbing to 1-1/2" PVC pipe or flex pipe and two union hose adaptors for connecting to 1-1/2" inside diameter hose. Install o-ring into groove on end of the body outlets, then position either the union socket or hose adaptor and secure in place with the union nut.

PICKUP PHOTO A FROM PREVIOUS 365-1715

NOTE: Use ABS to PVC solvent cement when using the union socket connections for hard plumbing installations. Refer to the solvent manufacturer's instructions for preparations of socket and pipe end and solvent welding of the joints.

SHUT-OFF VALVE

Your Pool Power Pak features a shut-off valve in the pump suction inlet. This feature allows you to shut off the flow from the skimmer when removing strainer basket for cleaning or servicing the pump.

Rotate valve knob counter-clockwise until it stops (open position) for normal pumping operation.

PICKUP PHOTO B FROM PREVIOUS 365-1715

Rotate valve knob clockwise until it stops (closed position) when cleaning out the strainer basket or servicing the pump.

PICKUP PHOTO C FROM PREVIOUS 365-1715

Proper Filtration and Energy Conservation...

With Pool Power Pak III-Program One™ it's easy to obtain the normal 8 hours of filtration a day necessary for sparkling clear water. For efficient energy usage, Doughboy recommends two filter cycles a day: (7:30 a.m. to 11:30 a.m.) and (6:00 p.m. to 10:00 p.m.), although less filtration may ultimately be sufficient for your pool. NOTE: If display is in direct sunlight, it will be easier to see if you shade it with your hand. Otherwise, wait until display is out of direct sunlight before reading.

MANUAL OVERRIDE:

This key operates like an ON/OFF switch and overrides all programmable times. Please note that when MANUAL override is selected (for vacuuming, filter cleaning, etc.), the program cycle which is interrupted will be canceled for that cycle only. Filter cycles will resume with the next programmed setting. See Fig. 1.

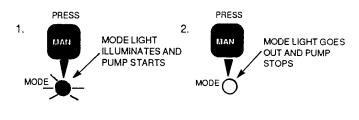


Fig. 1

Use the DAY CONVERSION TABLE and MILITARY TIME TABLE as reference guides for setting the clock and program times.

DAY CONVERSION TABLE

Monday 1 2 Tuesday Wednesday 3 Thursday 4 Friday 5 Saturday 6 Sunday 7

MILITARY TIME

*MIDNIGHT	=	23:59	NOON	=	12:00
1:00AM	=	01:00	1:00PM	=	13:00
2:00AM	=	02:00	2:00PM	=	14:00
3:00AM	=	03:00	3:00PM	=	15:00
4:00AM	=	04:00	4:00PM	=	16:00
5:00AM	=	05:00	5:00PM	=	17:00
6:00AM	=	06:00	6:00PM	=	18:00
7:00AM	=	07:00	7:00PM	=	19:00
8:00AM	=	08:00	8:00PM	=	20:00
9:00AM	=	09:00	9:00PM	=	21:00
10:00AM	=	10:00	10:00PM	=	22:00
11:00AM	=	11:00	11:00PM	=	23:00
*NIOTE: TI: -		/4:	III 4 f 4!		

*NOTE: The pump/timer will not function properly when using 00:00 as setting for midnight.

1. TO CLEAR PROGRAMS: (From prior factory testing and/ or entry errors you might make). Clear memory of existing programs: 1. Press TIME ON followed by pressing **CLEAR**. Repeat this step eight (8) times. The display will show all bars. 2. Press TIME **OFF** followed by pressing **CLEAR**. Repeat this step eight (8) times. The display will show all bars. See Fig. 2.

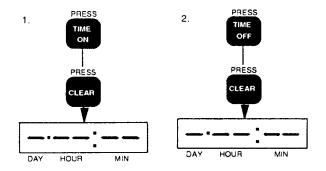
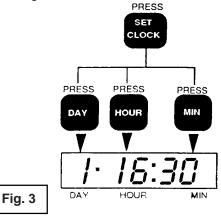


Fig. 2

2. TO SET THE CLOCK FOR TIME OF DAY:

(Refer to DAY CONVERSION TABLE and MILITARY TIME **TABLE** on this page for reference.) To set the clock, press SET CLOCK key. Next, press DAY key until appropriate day of the week is displayed. Press HOUR key until correct hour is displayed. Press MIN key until correct minute is displayed. Clock is now set for time of day. Example: Monday (1) 4:30 p.m. (16:30 hours). See Fig. 3.



NOTE: If you make an error in setting day, hour or minute, simply continue to press the appropriate key until the correct setting reappears in the display or press the "Clear" key to back up to the correct setting.

...in Five Simple Steps.

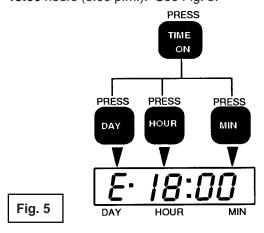
3. TO PROGRAM ENERGY EFFICIENT MORNING & EVENING "TIME ON" SETTINGS:

To program morning **TIME ON**, press **TIME ON** key. Next, press **DAY** key, (Note: disregard all other numbers and letters) until "E" (Everyday - Monday thru Sunday) setting is displayed. Press **HOUR** key until **07** is displayed. Press **MIN** key until **30** is displayed. Morning **TIME ON** is now programmed for **07:30** hours (7:30 a.m.). See Fig. 4.

PRESS PRESS

Morning TIME ON program is now complete.

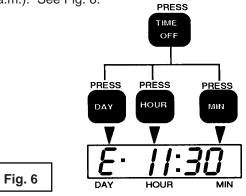
Next, to program evening TIME ON, press TIME ON key AGAIN. Next, press DAY key until "E" (Everyday - Monday through Sunday) setting is displayed. Press HOUR key until 18 is displayed. Press MIN key until 00 is displayed. Evening TIME ON is now programmed for 18:00 hours (6:00 p.m.). See Fig. 5.



Evening TIME ON program is now complete.

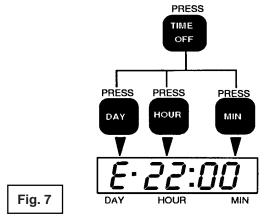
4. TO PROGRAM ENERGY EFFICIENT MORNING & EVENING "TIME OFF" SETTINGS:

To program morning **TIME OFF**, press **TIME OFF** key. Next, press **DAY** key, (Note: disregard all other numbers and letters) until "E" (Everyday - Monday thru Sunday) setting is displayed. Press **HOUR** key until **11** is displayed. Press **MIN** key until **30** is displayed. Morning **TIME OFF** is now programmed for **11:30** hours (11:30 a.m.). See Fig. 6.



Morning TIME OFF program is now complete.

Next, to program evening TIME OFF, press TIME OFF key <u>AGAIN</u>. Next, press DAY key until "E" (Everyday - Monday through Sunday) setting is displayed. Press HOUR key until 22 is displayed. Press MIN key until 00 is displayed. Evening TIME OFF is now programmed for 22:00 hours (10:00 p.m.). See Fig. 7.



Evening TIME OFF program is now complete.

5. AFTER PROGRAMMING:

Upon completion of setting your program times, press **SET CLOCK**. The day and time will appear on the display and your Program One unit is now programmed for proper filtration and energy conservation.

Note: Other programming options to be discussed later in this guide.

ALTERNATIVE PROGRAM OPTION

Although Doughboy strongly recommends the morning and evening filter cycles for energy conservation (see pages 4 and 5), **Pool Power Pak III - Program One**™ is designed to provide an alternative program option based on your filtration needs. This alternate program is explained below. Note: excessive filter cycles per day could increase energy consumption which may lead to higher electric bills and possible motor wear. Use the tables on page 7 as reference for setting clock and program times. The display will flash until any key is depressed. If the display is in direct sunlight, it is easier to see if you shade it with your hand.

If you use your pool more on weekends than during the week, you may wish to vary your filter cycles for weekend use only. The following program allows you to program the same cycles Mon. thru Fri. and vary the cycles on the weekend.

TO PROGRAM THE WEEKDAYS (MON. THROUGH FRI.) FOR THE SAME CYCLE AND VARY THE CYCLES ON THE WEEKENDS

- 1. Clear memory of any existing programs. See page 4.
- 2. Set clock to current time (if not already set). See page 4.
- 3. Determine the filter cycle starting time for **Monday through Friday**, then:
 - A) Press TIME ON.
 - B) Press **DAY** until "d" appears in the display.
 - C) Press HOUR until desired hour is shown.
 - D) Press MIN until desired minute is shown.

Repeat this step for a second filter cycle starting time for Monday through Friday.

- 4. Program the filter cycle starting time for **Saturday**, **Day 6**:
 - A) Press TIME ON.
 - B) Press DAY until "6" is displayed.
 - C) Press HOUR until desired hour is shown.
 - D) Press MIN until desired minute is shown.

Repeat this step for a second filter cycle starting time for Saturday.

- 5. Program the filter cycle starting time for **Sunday**, **Day 7**:
- A) Follow step 4 except use a "7" in place of "6". Repeat this step for a second filter cycle starting time for Sunday.

- 6. Determine the filter cycle stopping time for **Monday through Friday**, then:
 - A) Press TIME OFF.
 - B) Press DAY until "d" appears in the display.
 - C) Press HOUR until desired hour is shown.
 - D) Press MIN until desired minute is shown.

Repeat this step for a second filter cycle starting time for Monday through Friday.

- 7. Determine the filter cycle stopping time for **Saturday**, **Day 6**:
 - A) Press TIME OFF.
 - B) Press DAY until "6" appears in the display.
 - C) Press HOUR until desired hour is shown.
 - D) Press MIN until desired minute is shown.

Repeat this step for a second filter cycle starting time for Monday through Friday.

- 8. Program the filter cycle stopping time for **Sunday**, **Day 7**:
 - A) Follow step 7 except use a "7" in place of "6". Repeat this step for a second filter cycle stopping time for Sunday.
- 9. Upon completion of setting your program times, press **SET CLOCK**. The current day and time will appear.

TO VERIFY TIME ON AND TIME OFF SETTINGS

- 1. Check **TIME ON** settings:
 - A) Press **TIME ON**. Your first TIME ON will be displayed.
 - B) Each subsequent pressing of "TIME ON" will advance the display to the next programmed TIME ON.
- 2. Check **TIME OFF** settings:
 - A) Press **TIME OFF**. Your first TIME OFF will be displayed.
 - B) Each subsequent pressing of "TIME OFF" will advance the display to the next programmed TIME OFF.
- 3. Press **SET CLOCK**. The current day and time will appear.

OPTION TABLE NO. 1 Day of Week Displayed

MILITARY TIME TABLE NO. 2

MIDNIGHT =
$$23:59$$

$$NOON = \frac{12 : 00}{Min}$$

$$3:00 \text{ PM} = \frac{15 : 00}{\text{HOUR} \text{ MIN}}$$

FRIDAY =
$$\frac{5}{DAY}$$

$$5:00 \text{ PM} = \frac{17 : 00}{\text{HOUR} \text{ MIN}}$$

7:00 AM =
$$\frac{\boxed{07 : 00}}{\text{HOUR} \text{ MIN}}$$

9:00 AM =
$$\frac{\boxed{09 : 00}}{\text{HOUR}}$$

$$10:00 \text{ AM} = \frac{10 : 00}{10 : 00}$$

$$= \frac{10 : 00}{\text{HOUR} \quad \text{MIN}} \quad 10:00 \text{ PM} \quad = \frac{22 : 00}{\text{HOUR} \quad \text{MIN}}$$

ADDITIONAL INFORMATION REGARDING POOL POWER PAK III - PROGRAM ONE™

When the Power Pak III electrical cord is plugged in for the first time, the pump may start to operate immediately. If this occurs, push the "MANUAL" key pad on the timer to shut pump off. Then follow installation instructions to set timer and program pump operation.

IN CASE OF POWER INTERRUPTION

Program - A power interruption will not affect the program you have given it. The computer will "remember" the program until you physically clear it (see TO CLEAR PROGRAMS).

Clock - Your computer has a built-in Super Capacitor which stores enough electricity to run the clock for up to four (4) continuous hours of power interruption. After that the clock will revert back to Midnight (0:00) on day one (1), and will have to be reset.

NOTICE

THIS EQUIPMENT GENERATES and uses radio frequency energy. If not installed and used properly, that is, in strict accordance with the manufacturer's instructions, it may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a class B computing device in accordance with the specifications in subpart J of part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the unit with respect to the receiver
- Move the unit away from the receiver
- Plug the unit into a different outlet so that computer

and receiver are on different branch circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

SERVICING SAFETY TIPS

- A. ALWAYS TURN "OFF" the main power switch and the Ground Fault Circuit Interrupter (GFCI) breaker switch so power is completely off before servicing your unit.
- B. **ALWAYS STOP PUMP** before you service, tighten, or adjust the pump assembly.
- C. ALWAYS BE SURE THE GROUND UNDER YOUR FEET AND YOUR BODY IS DRY before you touch electrical equipment. Failure to heed this warning may cause personal injury due to severe electrical shock.
- D. ALWAYS have a qualified electrician service your system if electrical problems occur. This system is UL listed and must be serviced by a qualified electrician to insure that the electrical integrity is maintained. Failure to do so may cause personal injury due to severe electrical shock and may void the listing and warranty.
- E. ALWAYS have a qualified electrician install a Ground Fault Circuit Interrupter (GFCI) breaker at the electrical service or supply panel. Follow GFCI manufacturer's operating instructions for testing. Failure to do so may cause personal injury due to severe electrical shock.

CAUTION: To reduce the risk of electrical shock, connect only to grounding type receptacles. A Ground Fault Circuit Interrupter (GFCI) must be provided in accordance with Article 680-31 of the National Electrical Code (NEC) or Section 68-204 of the Canadian Electrical Code, and local codes or ordinances.

CAUTION: To reduce the risk of electrical shock, use only Original Equipment Manufactured (OEM) replacement parts when servicing.

MAINTENANCE

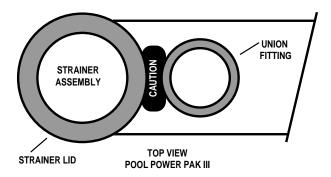
Make sure the pump is disconnected from the electrical source before attempting any maintenance work.

LUBRICATION:

Periodically lubricate the O-Ring under the strainer cover with a NON-PETROLEUM lubricant recommended for A.B.S., Noryl and Acrylic plastics. Consult your pool dealer for lubricant selections.

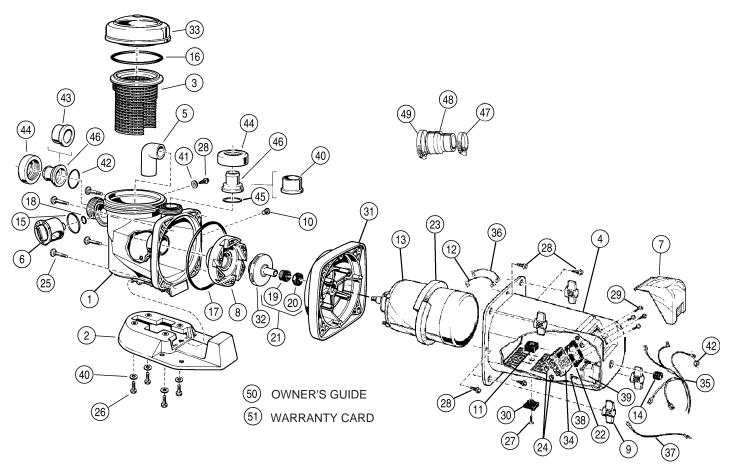
CAUTION

Fingers can become wedged where Strainer Lid and Union Fitting intersect. Please use caution when removing the Strainer Lid.



If you have any questions or require assistance, contact your Doughboy pool dealer.

POOL POWER PAK III[®] With Programmable Timer EXPLODED VIEW UL Models: 0-1076-010 (1 HP), 0-1077-010 (1-1/2 HP) NEC Models: 0-1076-016 (1 HP), 0-1077-016 (1-1/2 HP)



ITEM	P/N	QTY	DESCRIPTION	ITEM	P/N	QTY	DESCRIPTION
1 1	1121-1553	1	Strainer Housing w/Suction Tube	29	330-1238	4	#8-32 x 1" Screw
2	1121-1496	1 1	Pump Base	30	340-2054	1 1	Motor Housing Bumper - Bottom
3	340-1988	1 1	Strainer Basket	31	1107-1555	1 1	Backplate Assembly
4	1121-1552	1 1	Motor Housing	32	1107-1513	1 1	1 H.P. Impeller
5	340-1987	1	Elbow Suction Tube		1107-1514	1 1	1-1/2 H.P. Impeller
6	340-1996	1	Valve Shut-off Knob	33	1107-1498	1 1	Strainer Lid
7	340-2004	1	Timer Cover	34	1100-1394	1 1	Timer Module Assembly
8	340-1991	1	Diffuser	35	1100-1567	1	Power Cord (NEC)
9	340-1215	4	Strainer Knob				Model 0-1077-016 only
10	340-1218	1	1/4" Pipe Plug (not shown)		1100-1564	1	Power Cord (UL)
11	1121-1497	1	Motor Housing Bumper - Top				Model 0-1077-010 only
12	1100-1400	1	Black Jumper Wire	36	1100-1399	1	White Jumper Wire
13	300-1091	1	1 H.P. Motor	37	1100-1566	1	6 in. Black Jumper Wire-Models
	300-1092	1	1-1/2 H.P. Motor				0-1077-010, 0-1077-016 only
14	303-1715	1	Strain Relief Bushing	38	330-1027	2	#8 x 1/2" Screw - Models
15	308-1227	1	O-Ring - 2.609 I.D.				0-1077-010, 0-1077-016 only
16	308-1228	1	O-Ring - 6.975 I.D.	39	303-1899	1	Relay - Models 0-1077-010,
17	308-1229	1	O-Ring - 8.475 I.D.				0-1077-016 only
18	308-1009	1	O-Ring487 I.D.	40	327-1020	4	5/16" Flat Washer
19	308-1202	1	3/4" Shaft Seal	41	327-1063	1	#10 Flat Washer
20	308-1231	1	3/4" Pump Seal Seat	42	327-1036	1	#8 Ext. Tooth Lockwasher
21	1121-1495	1	3/4" Pump Seal Set	43	340-1837	2	Union Socket
22	308-1106	1	Face Gasket	44	340-1835	2	Union Nut
23	310-1054	1	Foam Baffle	45	308-1241	2	O-Ring 1.984 I.D.
24	332-1133	4	J Nut #8-32	46	340-1969	2	Union Hose Adaptor
25	330-1239	4	3/8-16 x 2-1/2" Carriage Bolt	47	387-1023	1	#28 Band Clamp
26	330-1219	4	5/16-18 x 1" Bolt	48	348-1036	1	Hard Plumb Adaptor
27	330-1240	1	#10-24 x 1" Screw	49	387-1024	1	#36 Band Clamp
28	330-1241	5	#10 x 5/8" Screw	50	365-1748	1	Owners Guide
				51		1	Warranty Card



CHANGE OF DESIGN: Doughboy Recreational expressly reserves the right to change or modify the design and construction of any product in due course of our manufacturing procedures, without incurring any obligation or liability to furnish or install such changes or modifications on products previously or subsequently sold.

"the original portable pool"

