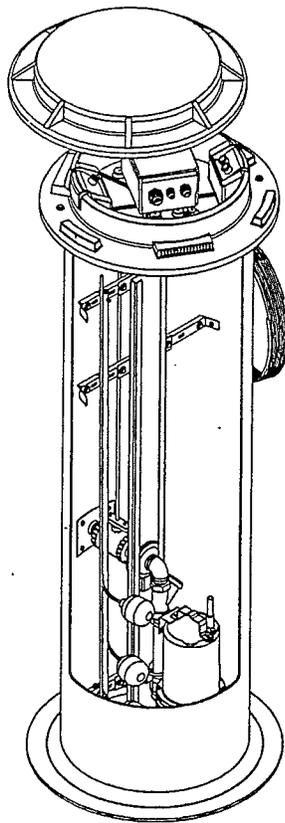




INSTALLATION MANUAL



Easy
ELECTRIC™
PREWIRED STATION

Simplex

For Series:
SGV & SGPC Pumps

U L T R A
GRIND™
GRINDER PUMP SYSTEMS

U L T R A
CRIP™
DRY WELL

IMPORTANT: READ ALL INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING.

As a result of Barnes® Pumps constant product improvement program, product changes may occur. As such Barnes Pumps reserves the right to change product without prior written notification.

CRANE

A Crane Co. Company

PUMPS & SYSTEMS

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Submersible Wastewater
Pump Association

SWPA
MEMBER

Form No. 109965-A

SAFETY FIRST!

Only qualified personnel should install, operate and repair pump. Any wiring of pumps should be performed by a qualified electrician.

Minimize the amount of cooking grease entering the system.

DO NOT leave pump cover off the basin, except while servicing, to prevent entrance of foreign materials such as rocks, metal, soil, animals or humans.

Prevent infiltration or direct flow of rain or run-off water into the pump basin to minimize pump cycling. This will prevent overloading the treatment facility, and will facilitate swift transportation of sewage.

▲WARNING



Hazardous voltage can shock, burn or cause death.

To reduce risk of electrical shock, pumps and control panels must be properly grounded in accordance with the National Electric Code (NEC) or the Canadian Electrical Code (CEC) and all applicable state, province, local codes and ordinances.

To reduce risk of electrical shock, always disconnect the pump from the power source before handling or servicing. Lock out power and tag.

Prevent large articles of clothing, large amounts of chemicals, other materials or substances such as are uncommon in domestic sewage from entering the system.

During power black-outs, minimize water consumption at the home(s) to prevent sewage from backing up into the house.

Always keep the shut-off valve completely open when system is in operation (unless advised otherwise by the proper authorities). Before removing the pump from the basin, be sure to close the shut-off valve. (This prevents backflow from the pressure sewer.)

Keep the control panel locked or confined to prevent unauthorized access to it.

If the pump is idle for long periods of time, it is advisable to start the pump occasionally by adding water to the basin.



WARNING! Do not pump hazardous materials (flammable, caustic, etc.) unless the pump is specifically designed and designated to handle them.

▲WARNING



Hazardous Machinery can cause severe personal injury.

Do not wear loose clothing that may become entangled in the impeller or other moving parts.

Keep clear of suction and discharge openings. **DO NOT** insert fingers in pump with power connected.

Always wear appropriate safety gear, such as safety glasses, when working on the pump or piping.

Cable should be protected at all times to avoid punctures, cut, bruises and abrasions - inspect frequently.

▲WARNING



Hazardous voltage can shock, burn or cause death.

Never handle connected power cords with wet hands.

To reduce risk of electrical shock, all wiring and junction connections should be made per the NEC or CEC and applicable state or province and local codes. Requirements may vary depending on usage and location.

▲WARNING



Biohazard can cause serious personal injury.

Products Returned Must Be Cleaned, Sanitized, Or Decontaminated As Necessary Prior To Shipment, To Insure That Employees Will Not Be Exposed To Health Hazards In Handling Said Material. All Applicable Laws And Regulations Shall Apply.

Bronze/brass and bronze/brass fitted pumps may contain lead levels higher than considered safe for potable water systems. Various government agencies have determined that leaded copper alloys should not be used in potable water applications. For non-leaded copper alloy materials of construction, please contact factory.



IMPORTANT!

BARNES® Pumps, Inc. is not responsible for losses, injury, or death resulting from a failure to observe these safety precautions, misuse or abuse of pumps or equipment.

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GRINDER PUMP SYSTEMS

USER GUIDE

Congratulations on your purchase of a Barnes *UltraGRIND*™ grinder pump system. With proper care and by following a few simple guidelines your grinder pump will give you many years of dependable service.

Use and Care

The *UltraGRIND* grinder pump station is designed to handle routine, domestic sewage. Solid waste materials should be thrown in the trash. While your station is capable of accepting and pumping a wide range of materials, regulatory agencies advise that the following items should not be introduced into any sewer either directly or through a kitchen waste disposal:

- Glass
- Metal
- Diapers
- Socks, rags or cloth
- Plastic objects (e.g., toys, utensils, etc.)
- Sanitary napkins or tampons

In addition you must **NEVER** introduce into any sewer:

- Explosives
- Flammable Material
- Lubricating Oil and/or Grease
- Strong Chemicals
- Gasoline

General Information

Your home wastewater disposal service is part of a low pressure sewer system. The key element in this system is the Barnes *UltraGRIND* grinder pump station. The basin collects all wastewater from the house. The solids in the sewage are then ground to a small size suitable for pumping in the slurry.

The grinder pump generates sufficient pressure to pump

this slurry from your home to the wastewater plant.

Power Failure

Your grinder pump cannot dispose of wastewater or provide an alarm signal without electrical power. If electrical power service is interrupted, keep water usage to a minimum.

Warranty

Your grinder pump is furnished with a warranty against defects in material or workmanship. A properly completed Start Up/Warranty Registration form must be on file at the Barnes factory in order to activate your warranty. In addition your pump must be installed in accordance with the installation instructions.

If you have a claim under the provisions of the warranty, contact your local Barnes Pumps, Inc. Distributor.

When contacting your representative for service, please include your station serial number, pump model number, and pump serial number.

For future reference, record the following information:

Station Serial No: _____

Pump Model No: _____

Pump Serial No: _____

Local Distributor: _____

Distributor Telephone: _____



BEFORE YOU BEGIN

- READ THIS MANUAL COMPLETELY BEFORE STARTING YOUR INSTALLATION.
- CONSULT LOCAL OFFICIALS FOR ANY APPLICABLE CODES AND REGULATIONS.
- DETERMINE THE BEST LOCATION FOR YOUR BASIN AND CONTROL PANEL. (SEE FIG. 1)
- MINIMIZE THE USE OF ELBOWS ON THE INLET LINE. IF REQUIRED ONLY USE 45° ELBOWS.
- PLAN YOUR INSTALLATION LOCATION CAREFULLY TO INSURE A MINIMUM 1/4" PER FOOT DROP ON THE INLET LINE WHILE STAYING WITHIN THE ALLOWABLE INLET ZONE.
- DETERMINE WHERE THE INCOMING POWER WILL BE SUPPLIED FROM AND IF IT CAN HANDLE THE RATED LOAD FOR YOUR PUMP STATION.
- MOUNT CONTROL PANEL IN ACCORDANCE WITH ELECTRICAL CODES AND WHERE ALARM LIGHT CAN BE EASILY SEEN.
- OBTAIN ALL NECESSARY PERMITS. CALL YOUR LOCAL UTILITIES COMMITTEE BEFORE DIGGING TO LOCATE ALL UNDERGROUND LINES AND CABLES.
- MAKE SURE YOU HAVE THE NECESSARY EQUIPMENT AND SUPPLIES BEFORE STARTING YOUR INSTALLATION. (SEE TOOL AND MATERIAL LISTS)
- DETERMINE THE BALLAST REQUIREMENTS FOR YOUR PARTICULAR BASIN SIZE. (SEE CHART 1)
- USE ONLY THE ELECTRIC CABLE SPECIFIED IN CHART 2. DO NOT USE ANY OTHER CABLE.

TOOLS REQUIRED LIST (NOT INCLUDED)

- | | |
|---|------------------------------------|
| • 9/16" WRENCH | • DRILL BIT SET |
| • HOLESAW FOR INLET AND CORD GRIP
(SEE CHARTS) | • LEVEL |
| • WIRE STRIPPERS(10 AWG TO 18AWG) | • TAPE MEASURE |
| • PIPE WRENCH | • LARGE NYLON LIFTING STRAP |
| • CORD OR CORDLESS DRILL | • MULTI-METER |
| • CHANNEL LOCKS | • WINCH OR ASSISTED LIFTING DEVICE |
| • PHILLIPS SCREWDRIVER | • SHOVEL |
| • SMALL FLAT TIP ELECTRICIAN SCREWDRIVER | • HACKSAW |
| | • EXCAVATING EQUIPMENT |

MATERIAL LIST (NOT INCLUDED)

- | | |
|--------------------------------|-----------------------------------|
| • BEDDING MATERIAL(SEE CHART) | • PVC PIPE CLEANER AND GLUE |
| • BALLAST MATERIAL (SEE CHART) | • GREEN ELECTRICAL TAPE |
| • DISCHARGE PIPING AND VALVING | • 20A OR 30A CIRCUIT BREAKER |
| • INLET PIPING | • WATER |
| • CONDUIT AND FITTINGS | • CONTROL PANEL MOUNTING HARDWARE |
| • CONDUIT SEALANT | • INK PEN |

MATERIAL LIST (INCLUDED)

- | | |
|----------------------------------|-------------------------|
| • CONTROL PANEL AND/OR ALARM BOX | • DIRECT BURIAL CABLE |
| • BASIN PACKAGE | • REDUNDANT CHECK VALVE |
| • PUMP | |

CHART 1
BALLAST (in cubic yards)

BASIN I.D.	BASIN HEIGHT							
	48"	60"	72"	84"	96"	108"	120"	144"
24"	0.30	0.38	0.46	0.53	0.61	0.69	0.78	0.93
30"	0.48	0.60	0.71	0.84	0.96	1.08	1.21	1.45
36"	0.70	0.88	1.03	1.21	1.39	1.57	1.75	2.10
42"	0.94	1.89	1.42	1.66	1.90	2.15	2.39	2.87
48"	1.24	1.56	1.85	2.17	2.48	2.80	3.11	3.74
60"	1.88	2.38	2.88	3.37	3.86	4.36	4.85	5.84

CHART 2
INLET SPECIFICATIONS

INLET PIPE SIZE	HOLE SAW SIZE	FLEXIBLE INLET COLOR
1.25" - SCH40	3"	Black
1.50" - SCH40	3"	Black/Red
2.00" - SCH40	3"	Black/Blue
3.00" - SCH40	4"	White
4.00" - SCH40	5"	Grey
6.00" - SCH40	7" *	Black
4.00" - SDR35	5"	Maroon
6.00" - SDR35	7" *	Yellow

* Available from factory.

Location Of Basin And Control Panel

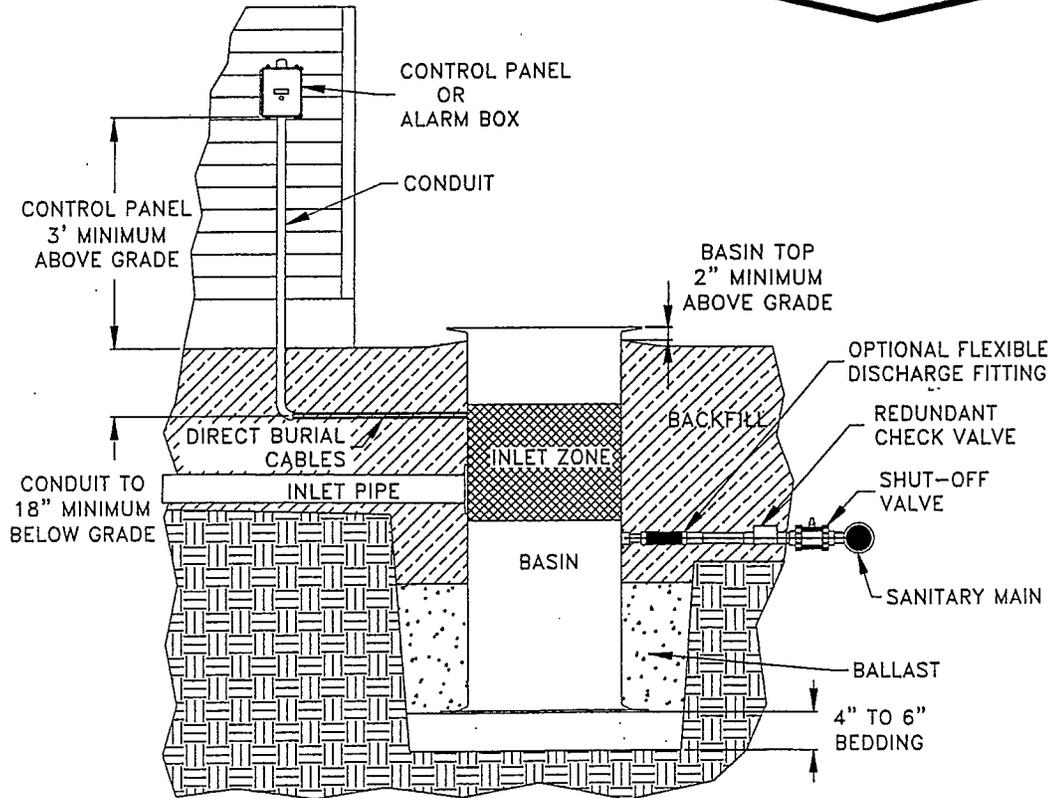
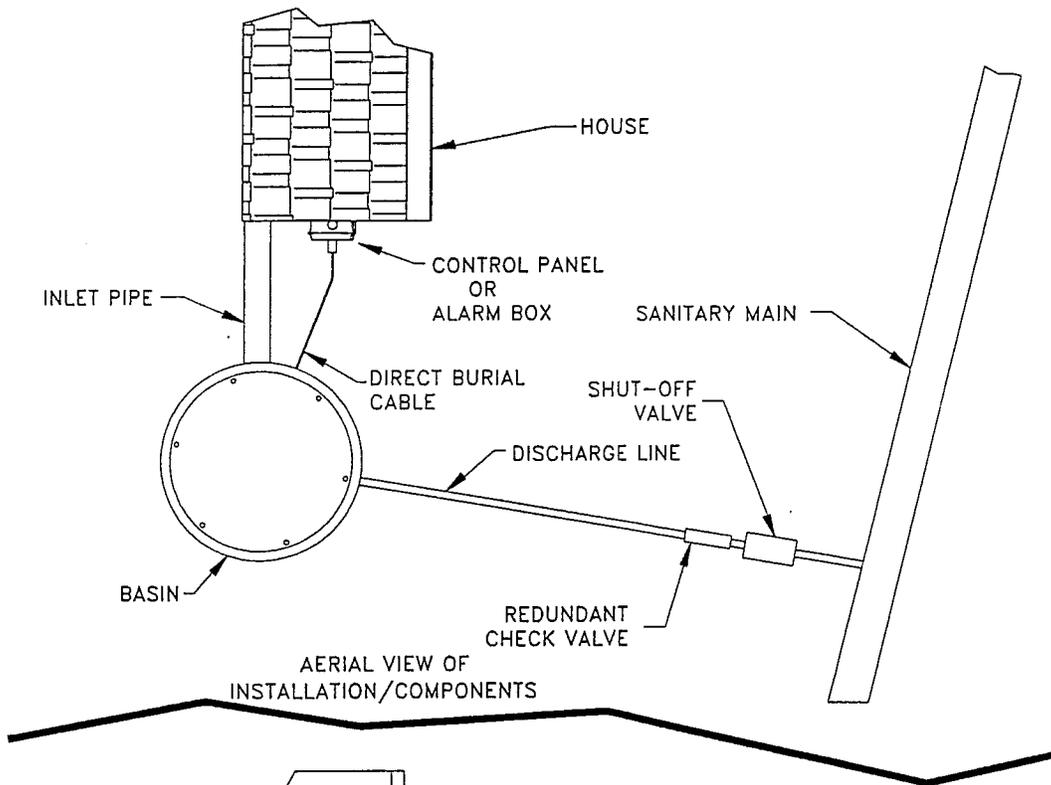


Fig. 1

STEP 1. Hole Excavation, Bedding & Setting of the Basin

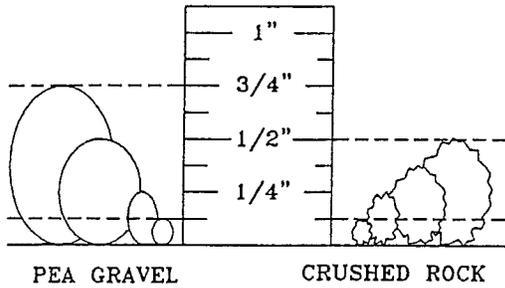
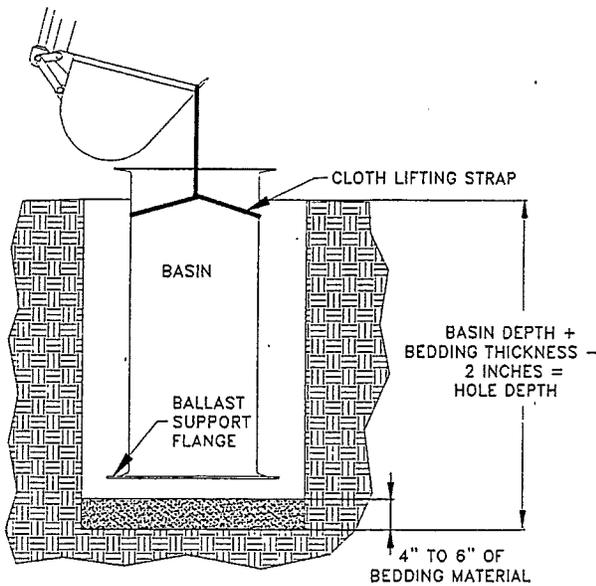


Fig. 2

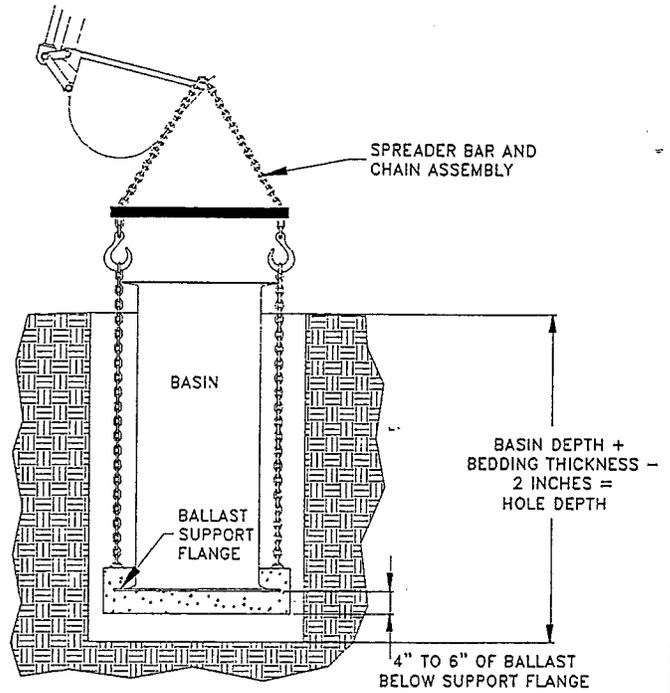
STEPS & TIPS:

- Refer To The Gravel Size Diagram For Acceptable Bedding Material Sizes.
- Compact The Bedding Per ASTM D 2321 Specifications Outlined For Bedding.
- Set The Basin Into The Hole Using A Cloth Lifting Strap As Shown In Figure 3a, Or A Chain And Spreader Bar Assembly To Lift The Basin On Units With Pre-cast Ballast Per Figure 3b.
- Once Set, Make Sure The Rim Of The Basin Is Roughly 2" Above Grade To Prevent Ground Water Infiltration.



SETTING BASIN WITH CLOTH STRAP
(POURED IN PLACE BALLAST METHOD)

Fig. 3A



SETTING BASIN WITH SPREADER BAR AND CHAINS
(PRECAST BALLAST METHOD)

Fig. 3B

STEP 2. Discharge Connections & Backfill to Inlet Depth

STEPS & TIPS:

- A Flexible Pipe Coupling Or Fitting Is Recommended To Help Compensate For Settling Of Ground.
- Make Sure The Required Check Valve Is Installed In Proper Direction. Flow Arrow Should Point Away From The Basin.
- A Shut Off Valve Must Be Installed Between The Force Main And Redundant Check Valve.
- Backfill Around The Basin In 12" Increments And Compact To A Minimum Soil Modulus Of 700 PSI Using A Hand or Vibratory Tamper.
- Backfill Around The Basin To A Level Just Below Where The Inlet Will Enter The Basin.

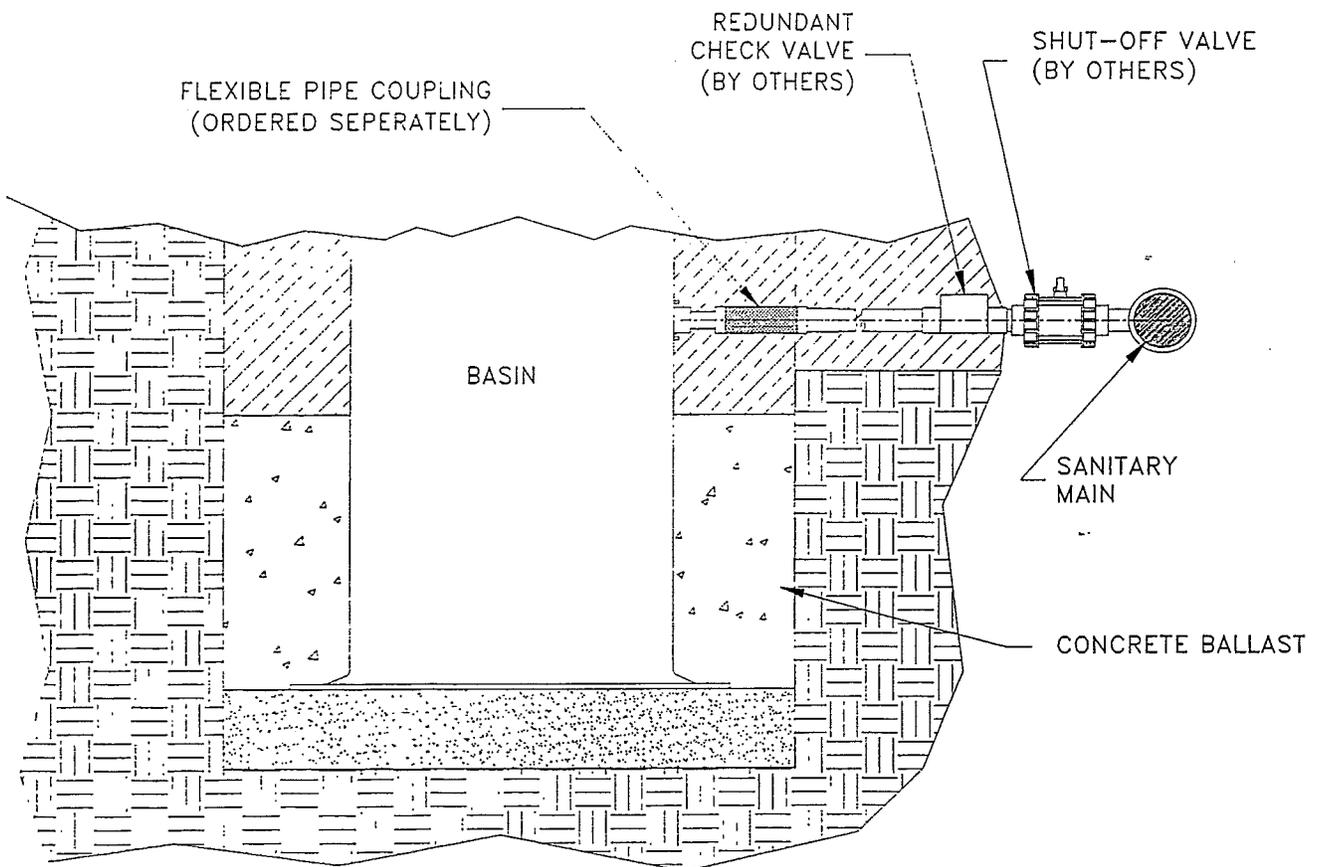
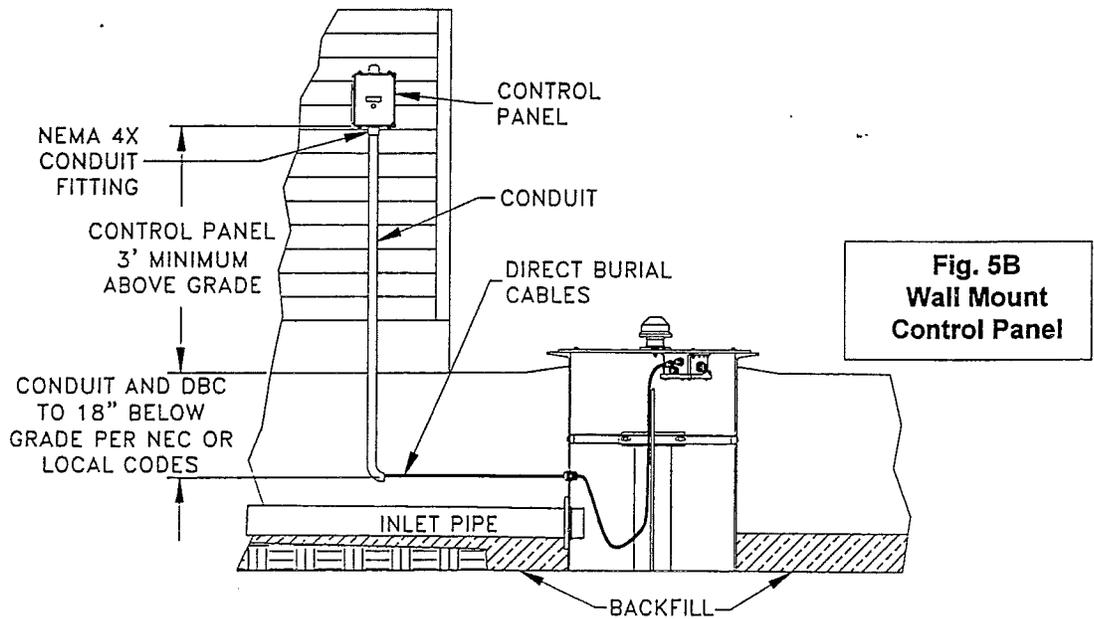
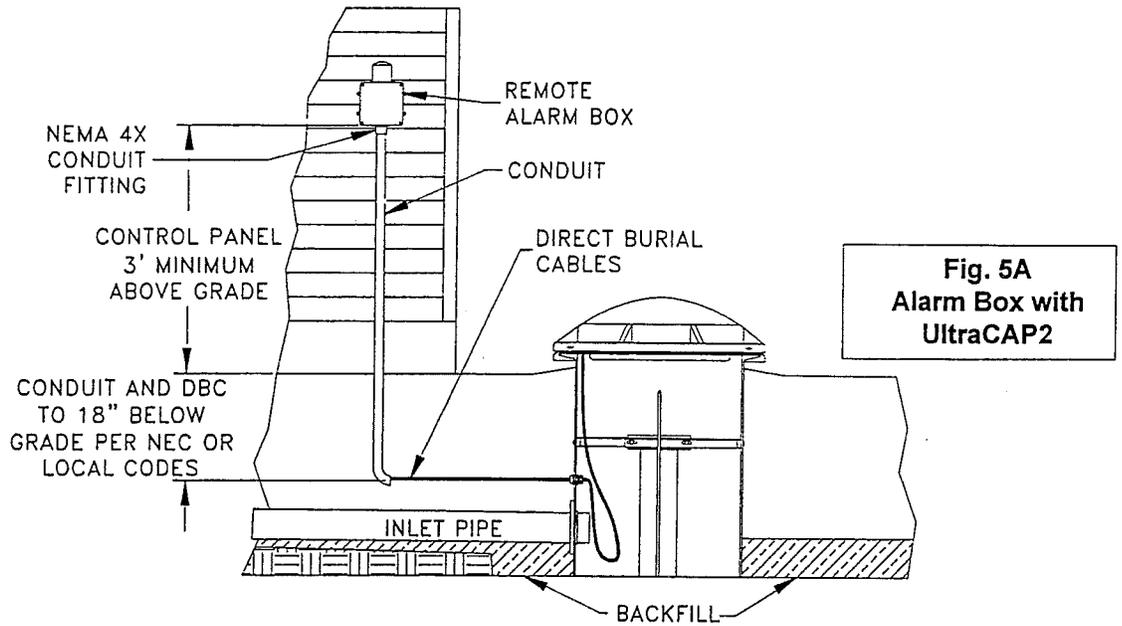


Fig. 4

STEP 3. Running Direct Burial Cable From Basin to Control Panel or Remote Alarm Box

STEPS & TIPS:

- Unroll Coiled Direct Burial Cable and Run To Control Panel/Remote Alarm Box.
- Inlet Not Yet Connected - Shown For Reference Only



STEP 4. Remove Parts Box From Basin, Attach Rope to Pump, Record Pump Data

STEPS & TIPS:

Remove Parts Box from inside basin. It should contain the following items

- Lifting device, inlet fitting and vent (If required)
- Remove Connector Protectors From Cord and Pump.
- Record pump information on user guide for future reference.
- Attach lifting device to pump. **NEVER LOWER OR RAISE PUMP BY THE CORD!**
- Plug Cord Into Pump As Shown Below.

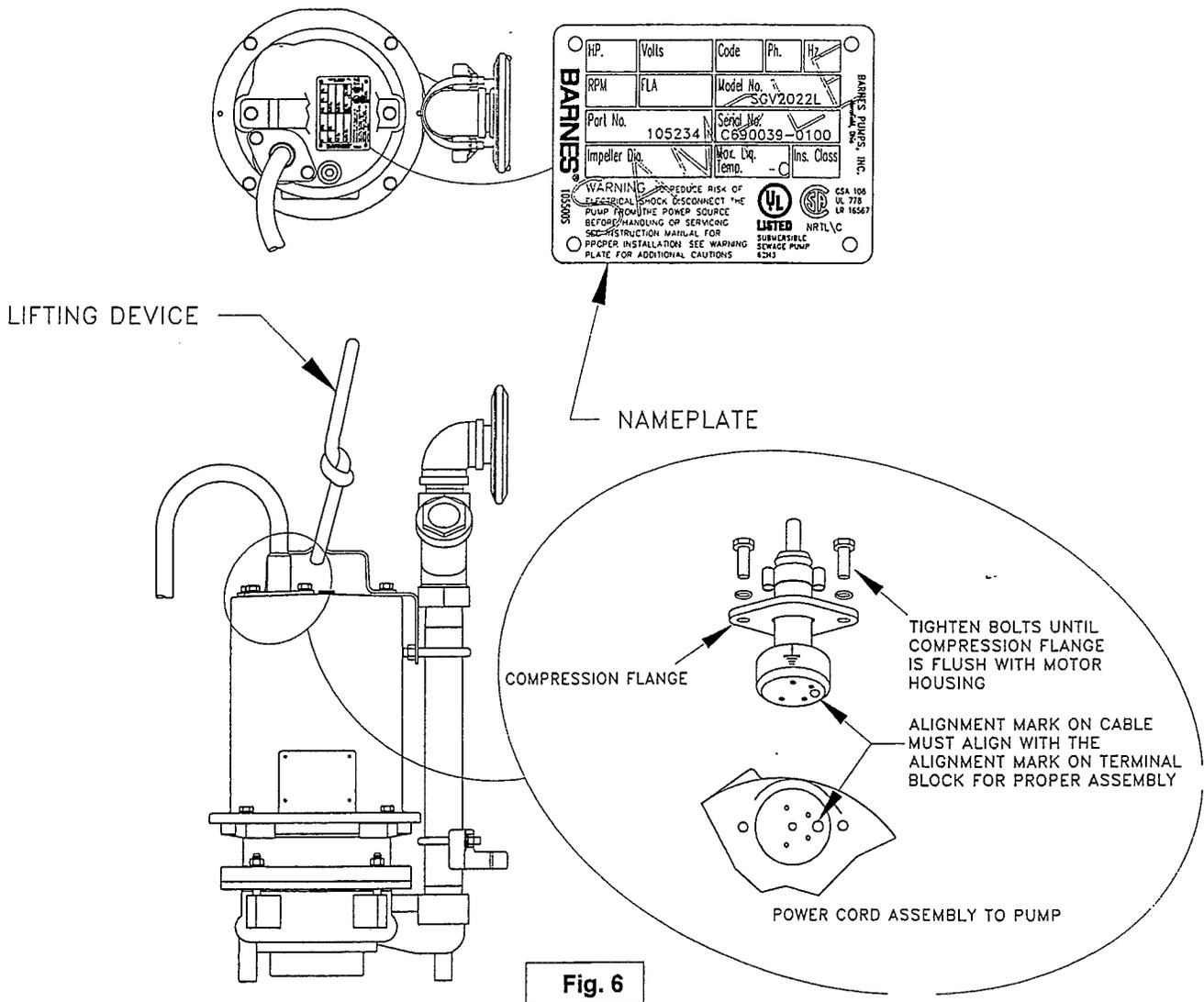


Fig. 6

STEP 5. Sliding Pump Into Basin

STEPS & TIPS:

- Once the lifting device is attached to the pump, secure it so it will not fall into basin.
- Secure pump cord(s) so they will not fall into basin.
- Follow all O.S.H.A. guidelines.
- Align the lower and upper guide brackets into the rail and lower pump into basin using the lifting device.
- **NEVER LOWER OR RAISE PUMP BY THE CORD!**

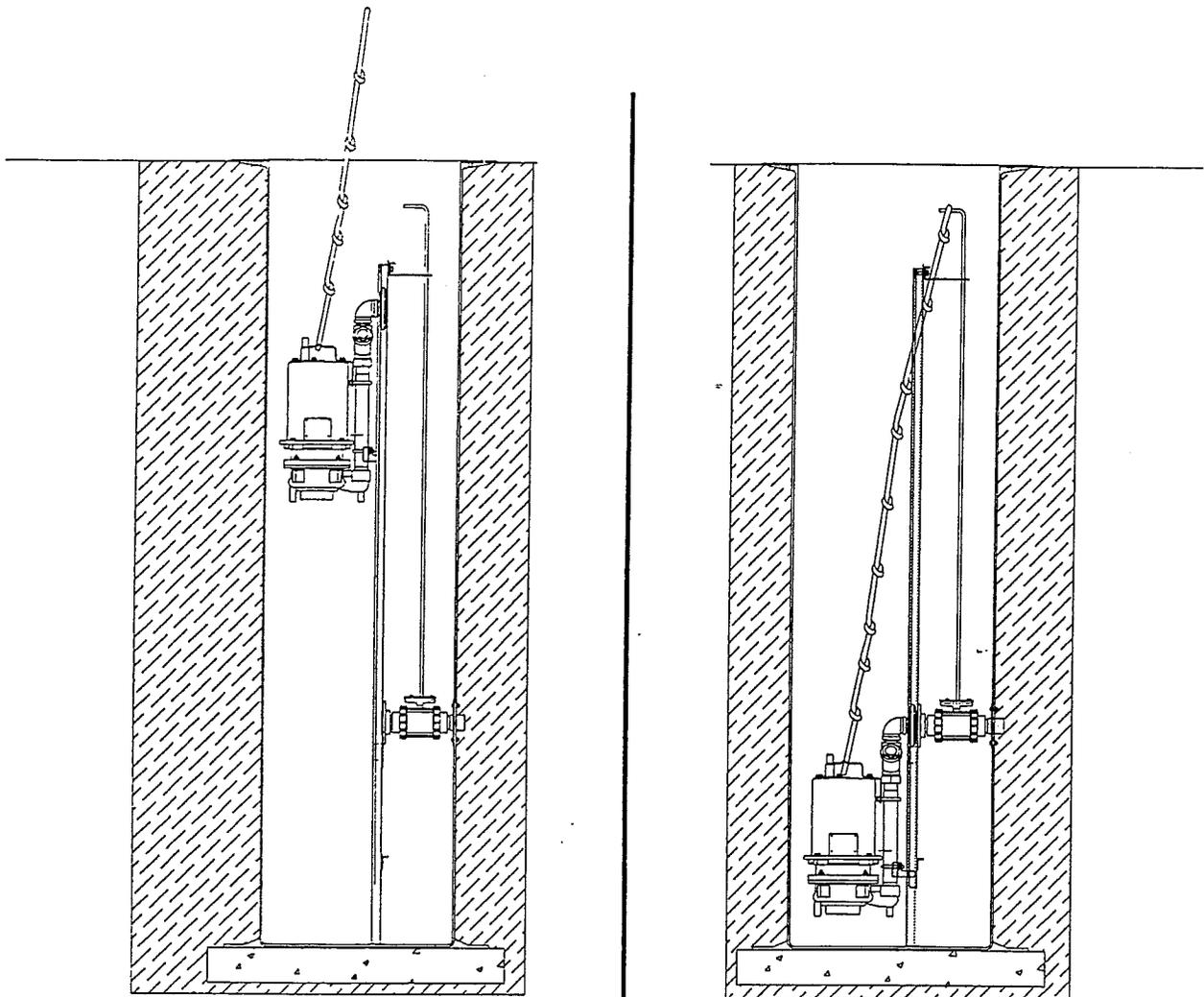
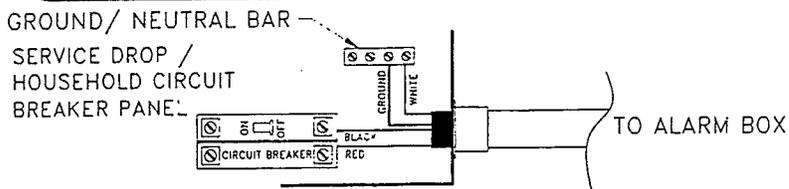


Fig. 7

STEP 6. Power to Remote Alarm Box For Intergrated Controls (J-Box Units Skip This Step)

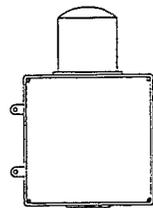
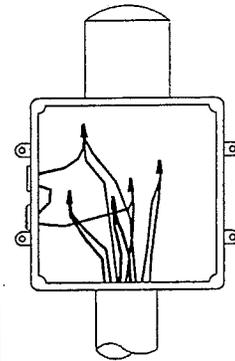
STEP & TIPS:

- Electrical Power Should Be Turned Off During This Part Of The Installation Procedure.
- Check For Nicks Or Defects In The Cable And Wires Before Installing.
- Check That Connections Are Secure By Pulling On The Wires.
- A GFI Type Breaker Should **NOT** Be Used.
- A Separate Ground And Neutral Wire Are Required For Proper Operation



PUMP MODEL	SERVICE DROP BREAKER
SGV2022L	DOUBLE POLE 30 AMP
SGPC1014L	DOUBLE POLE 30 AMP
SGPC1024L	DOUBLE POLE 20 AMP

ALARM BOX



REMOTE ALARM BOX CONNECTIONS		
DIRECT BURIAL	SERVICE DROP	ALARM BOX
BLACK	BLACK	-
RED	RED	-
YELLOW	-	BLACK W/YELLOW TAPE
BLUE	WHITE	WHITE
ORANGE	GROUND	-

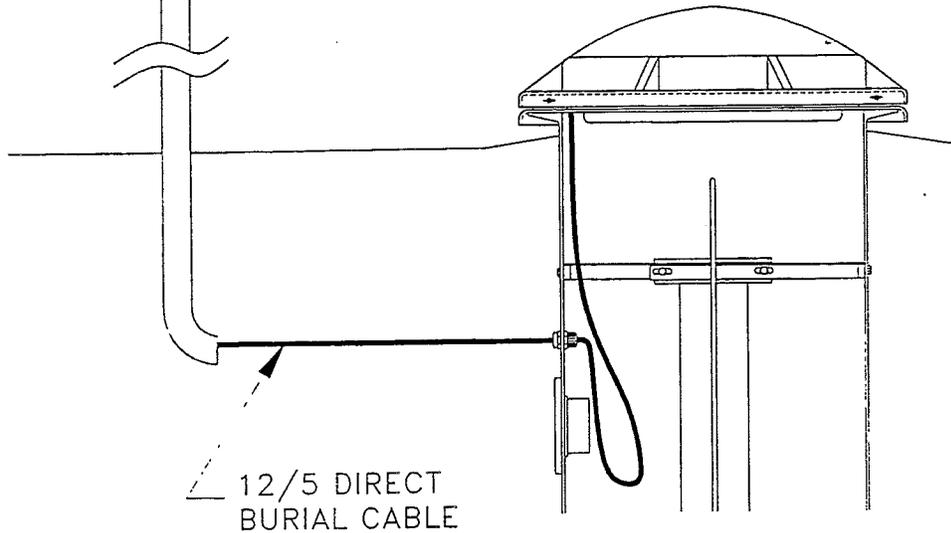


Fig. 8

STEP 7. Connecting "Pump Power Leads" Direct Burial Cable to Control Panel - (J-Box Units Only)

STEPS & TIPS:

- Check For Nicks Or Damage To Wire Prior To Installation.
- Ensure Wire Is Secured Into Terminal Strip By Pulling On Wire After Installed
- Place A Strip Of Green Electrical Tape On The Ground Wire.

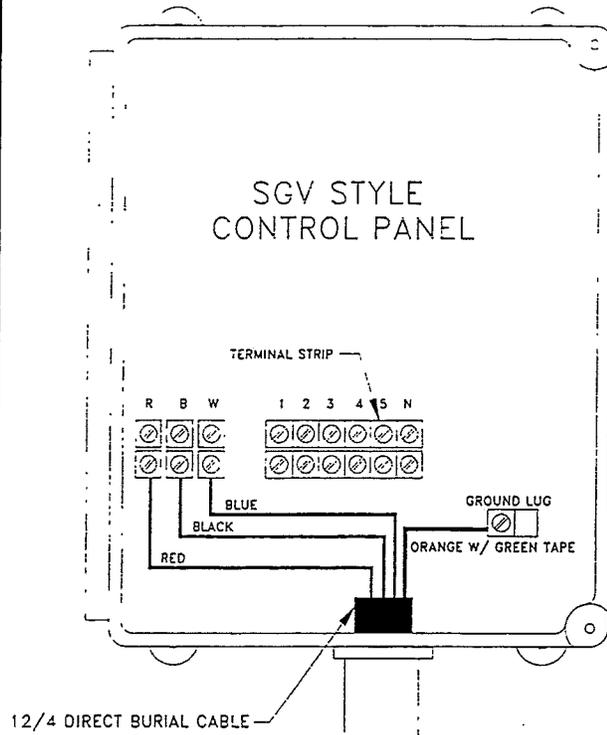


Fig. 9A

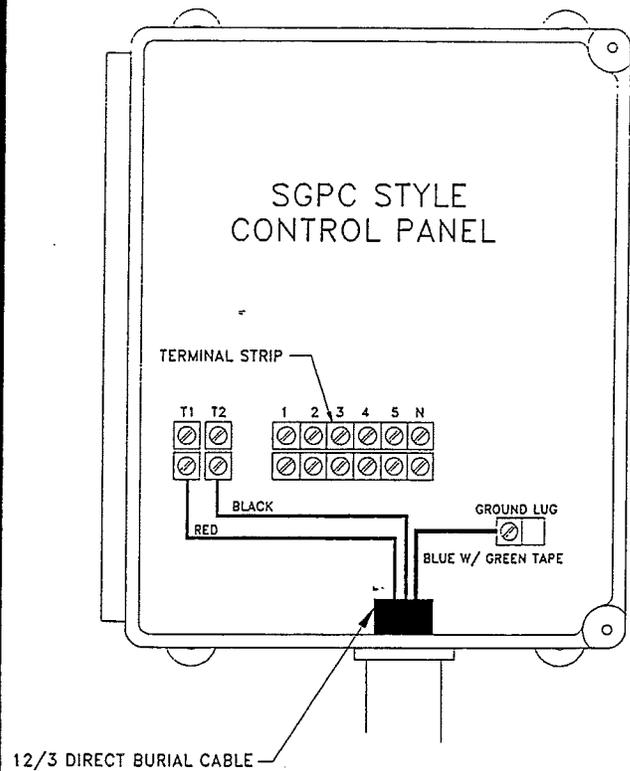


Fig. 9B

STEP 8. Connecting "Level Control Leads" Direct Burial Cable to Control Panel (J-Box Units Only)

STEPS & TIPS:

- Check For Nicks Or Damage To Wire Prior To Installation.
- Ensure Wire Is Secured Into Terminal Strip By Pulling On Wire After Installed.

WIRE COLOR	TERMINAL #
RED	1
BLACK	2
YELLOW	3
BLUE	4
ORANGE	5
BROWN	NOT USED

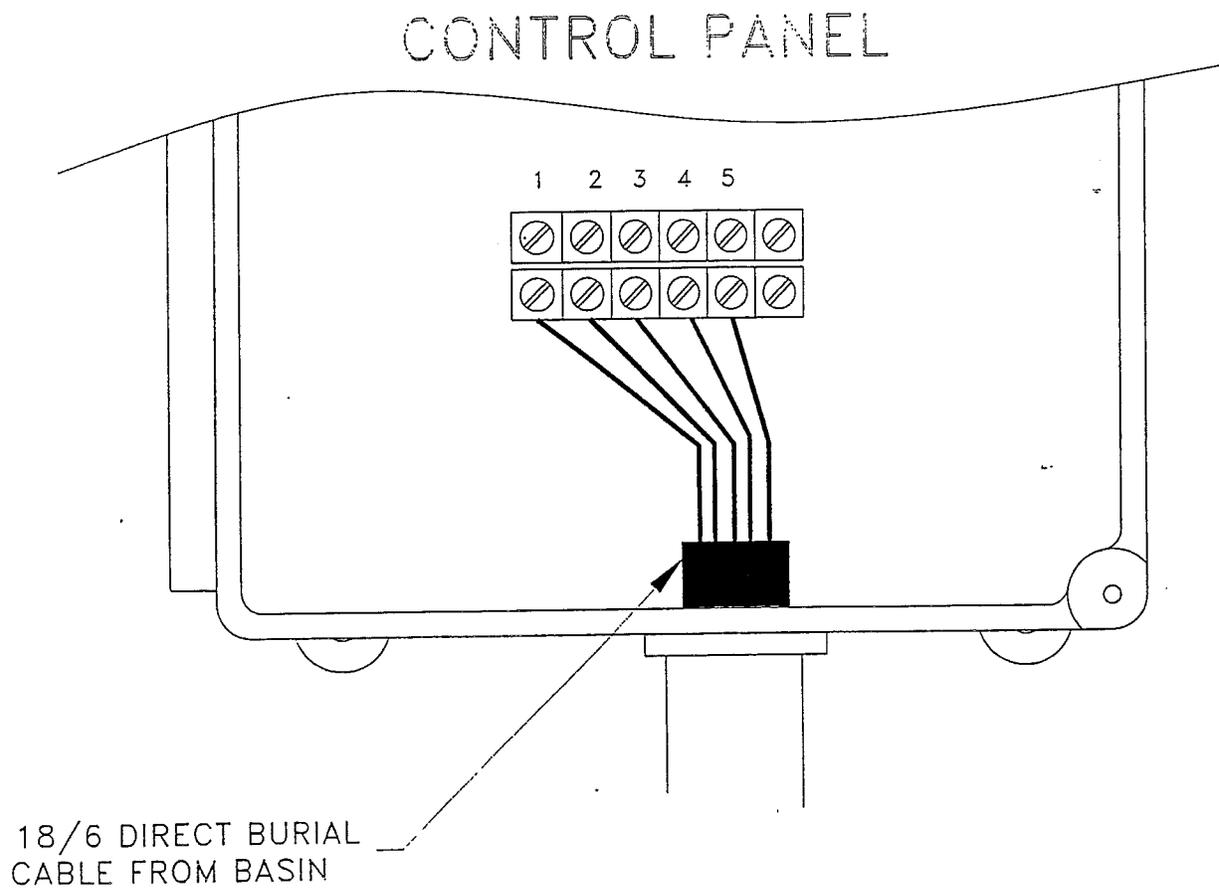


Fig. 10

STEP 9. Power to Control Panel (J-Box Units)

STEP & TIPS:

- Electrical Power Should Be Turned Off During This Part Of The Installation Procedure.
- Check For Nicks Or Defects In The Cable And Wires Before Installing.
- Check That Connections Are Secure By Pulling On The Wires.
- A GFI Type Breaker Should Not Be Used.
- A Separate Ground And Neutral Wire Are Required For Proper Operation

PUMP MODEL	SERVICE DROP/HOUSEHOLD CIRCUIT BREAKER PANEL
SGV2022L	DOUBLE POLE 30 AMP
SGPC1014L	DOUBLE POLE 30 AMP
SGPC1024L	DOUBLE POLE 20 AMP

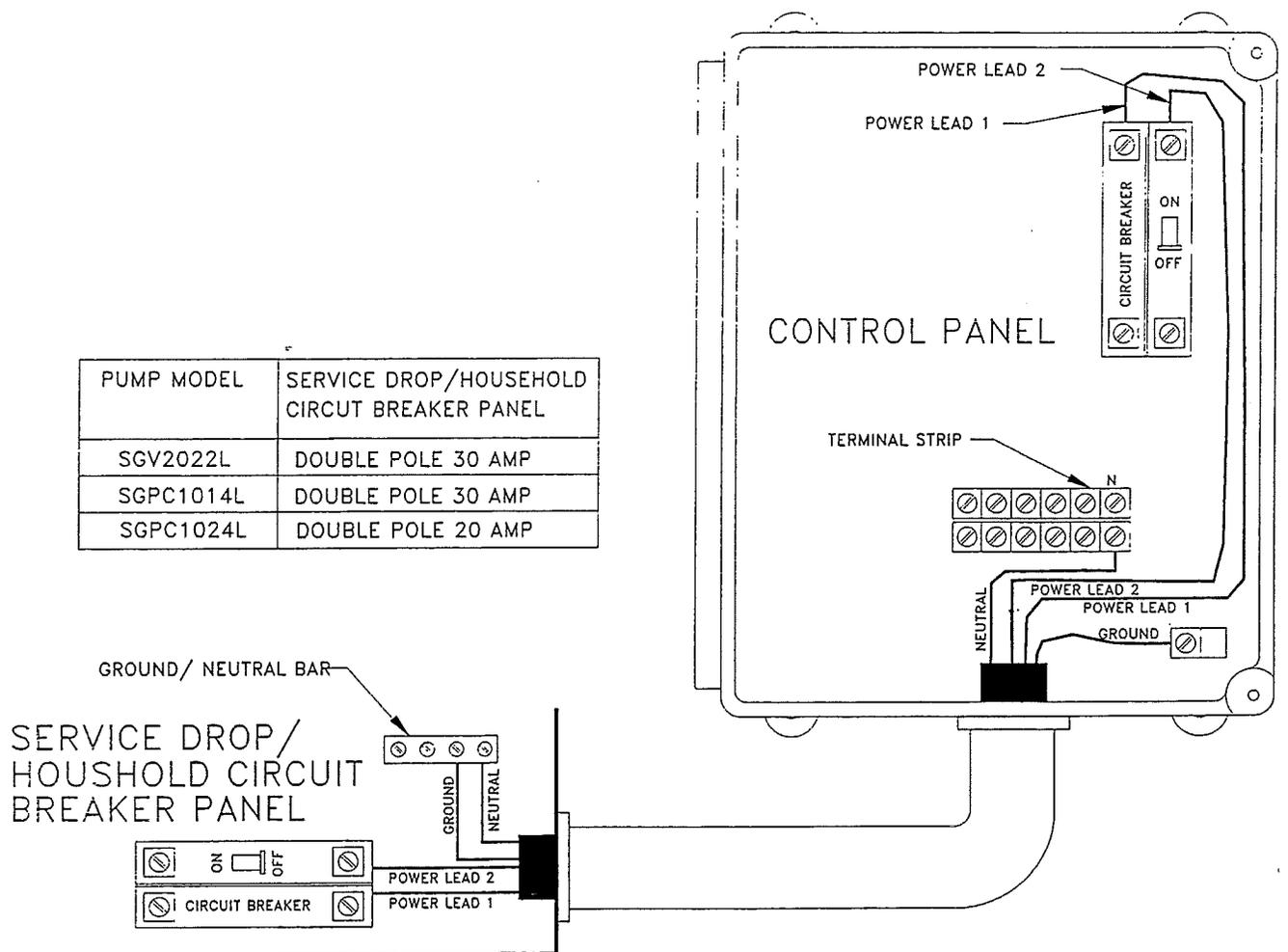
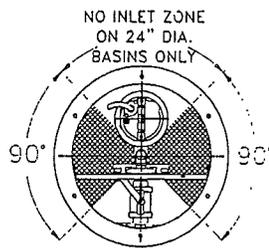


Fig. 11

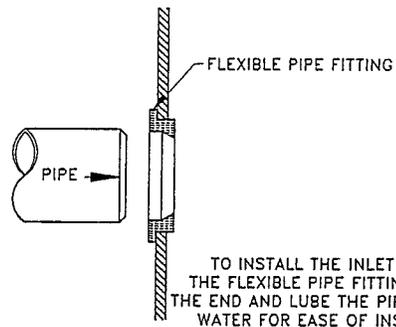
STEP 10. Inlet Connection and Final Backfill

STEP & TIPS:

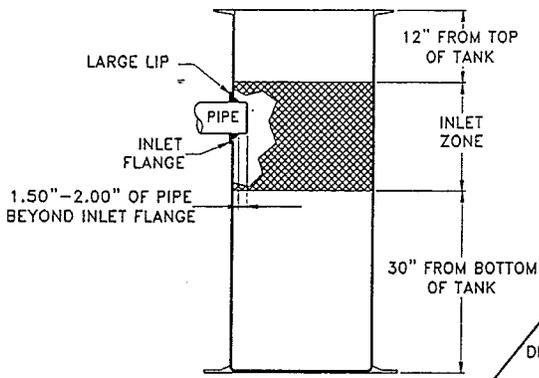
- Inlet Should Not Interfere With Pump Removal Or Level Control Operation.
- Inlet Should Have A Minimum 1/4" Per Foot Drop. If required only use 45° elbows.
- Proper Backfill Should Be Done To Prevent Damage From Excessive Settling.
- Backfill Material Should Be Free Of Large Rocks, Ice, And Trash.
- Slope Finish Grade Away From Basin.



Shaded Area Is Suitable Inlet Zone

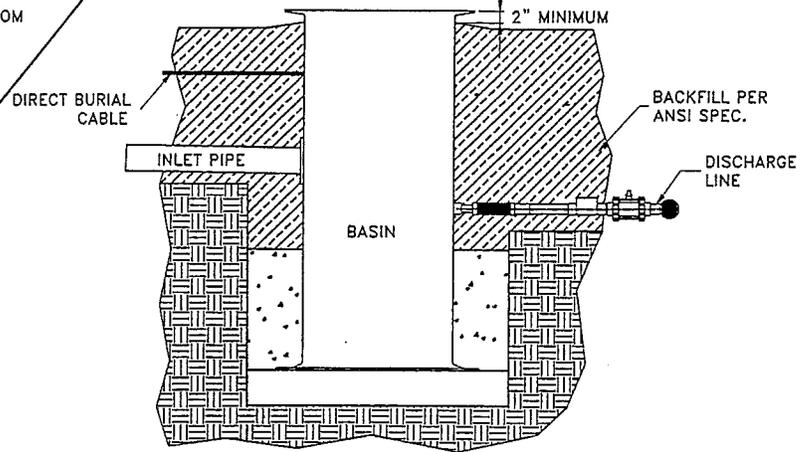


INLET PIPE
Fig. 14



INLET INSTALLATION

Fig. 12



FINAL BACKFILL

Fig. 13

STEP 11. Sealing of Control Panel Conduit

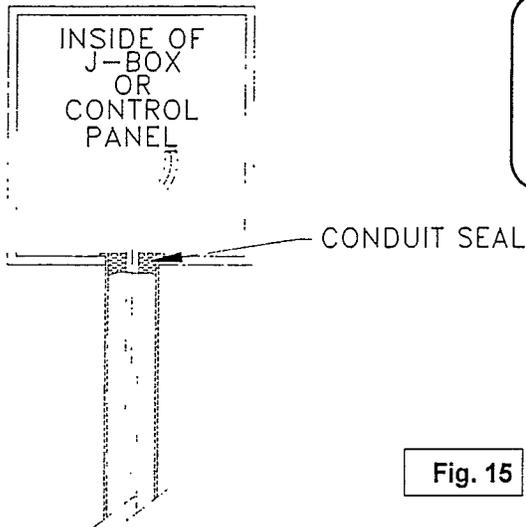


Fig. 15

Sealing of Conduit Entering Electrical Enclosure

STEPS & TIPS:

- Conduit Should Be Sealed To Prevent Water Infiltration
- Peel and Place Gasket on Clean/Dry Basin Rim Surface Inside Bolt Circle.

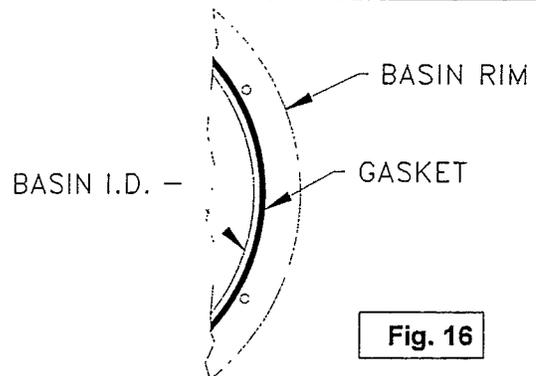


Fig. 16

START UP PRE-CHECKLIST

BEFORE STARTING UP YOUR UNIT, CHECK THE FOLLOWING ITEMS:

INSTALLATION QUESTIONS:

- Was A Proper Bedding Material Used
- Is Basin Installed Level (within A Half Of Bubble)
- Was The Proper Amount And Type Of Ballast Used
- Was Proper Backfill And Compaction Done To Support Piping
- Is The Inlet Location Provide Clear Removal Of Pump And Have A 1/8" Per Foot Drop
- Are All Penetrations Through The Basin Wall Sealed Water-tight
- Are All Piping Connections Tight And Required Valves Installed Properly
- Has A Minimum Of 32 Inches Of Water Been Put Into The Tank
- Has The Vent Been Installed On The Cover, If Required (polycover Covers Have Vent Factory Installed)

ELECTRICAL QUESTIONS:

- Is The Junction Box Dry (if Applicable)
- Are All Of The Cord Grips Tight
- Are All Wiring Connections Secured
- Is The Junction Box Cover Tight
- Are All Cords Secured And Clear Of The Pump
- Is The Control Panel Securely Mounted
- Is The Control Panel Dry
- Is The Conduit Entering The Control Panel Sealed
- Are All Wiring Connections Secured
- Verify All Valves Are Open
- Turn The Circuit Breaker In Control Panel To "Off" Position
- Turn The Circuit Breaker In The Service Drop/Household Breaker Panel To The "On" Position

Optional - Installation of UltraCAP2 Basin Cover & Control Panel Locks

STEPS & TIPS:

- Install the lock as shown in Figure 17.
- The basin cover lock requires a 9/16" socket to tighten or loosen bolt.
- Remove the knockouts on control panel and insert lock.

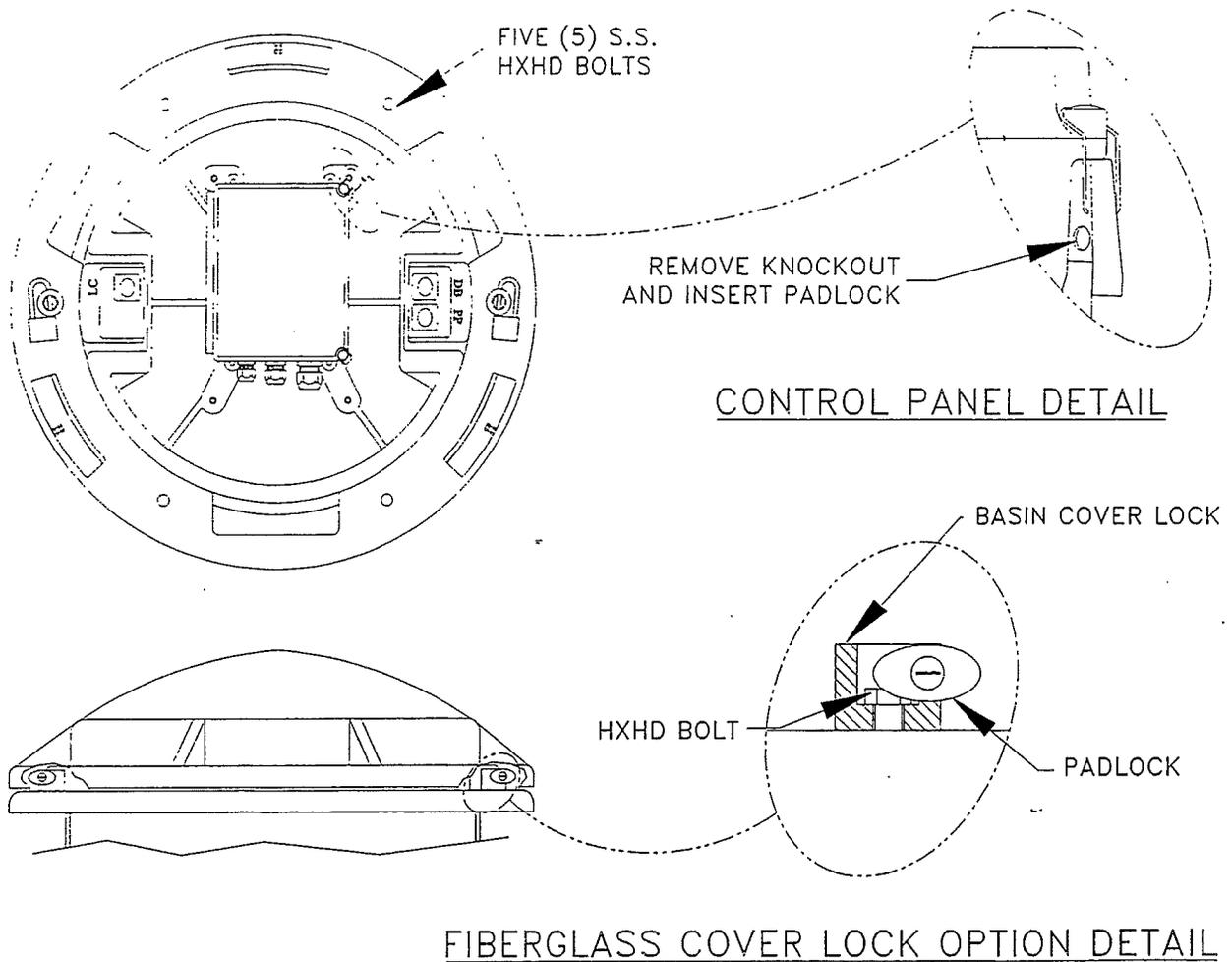


Fig. 17

Optional - Installation of UltraCAP Basin Cover & Control Panel Locks

STEPS & TIPS:

- Use the Illustration that represents your cover style.
- Install the lock as shown in Figure 18.
- The basin cover lock requires a 9/16" socket to tighten or loosen bolt.
- Remove the knockouts on control panel and insert lock.

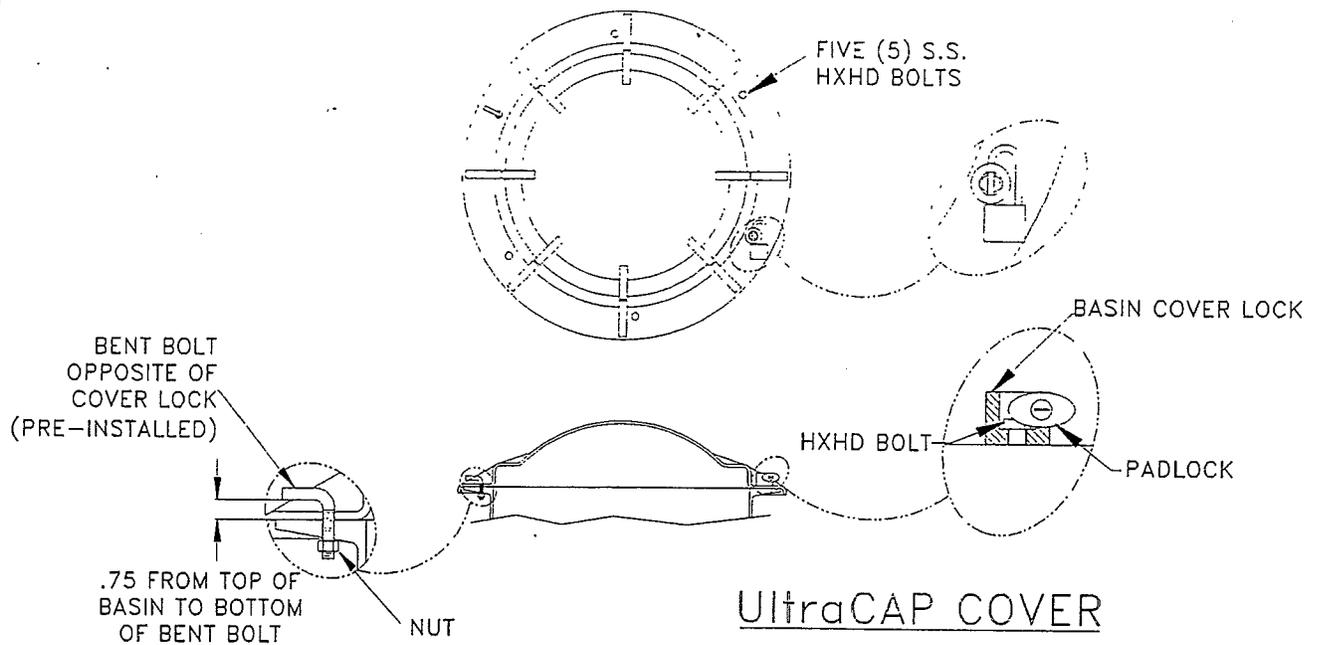


Fig. 18

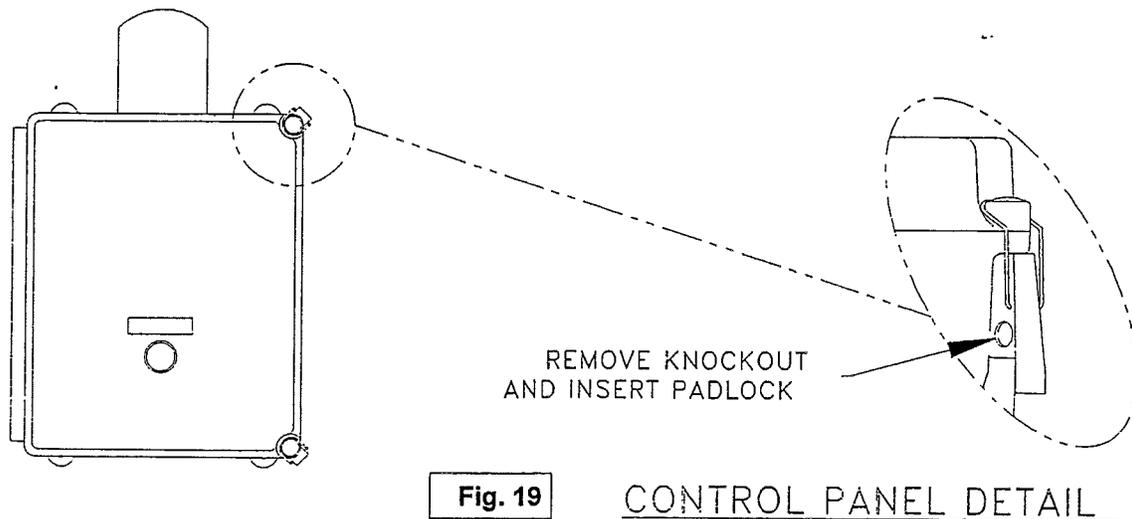


Fig. 19

CONTROL PANEL DETAIL

Basin Package Exploded View

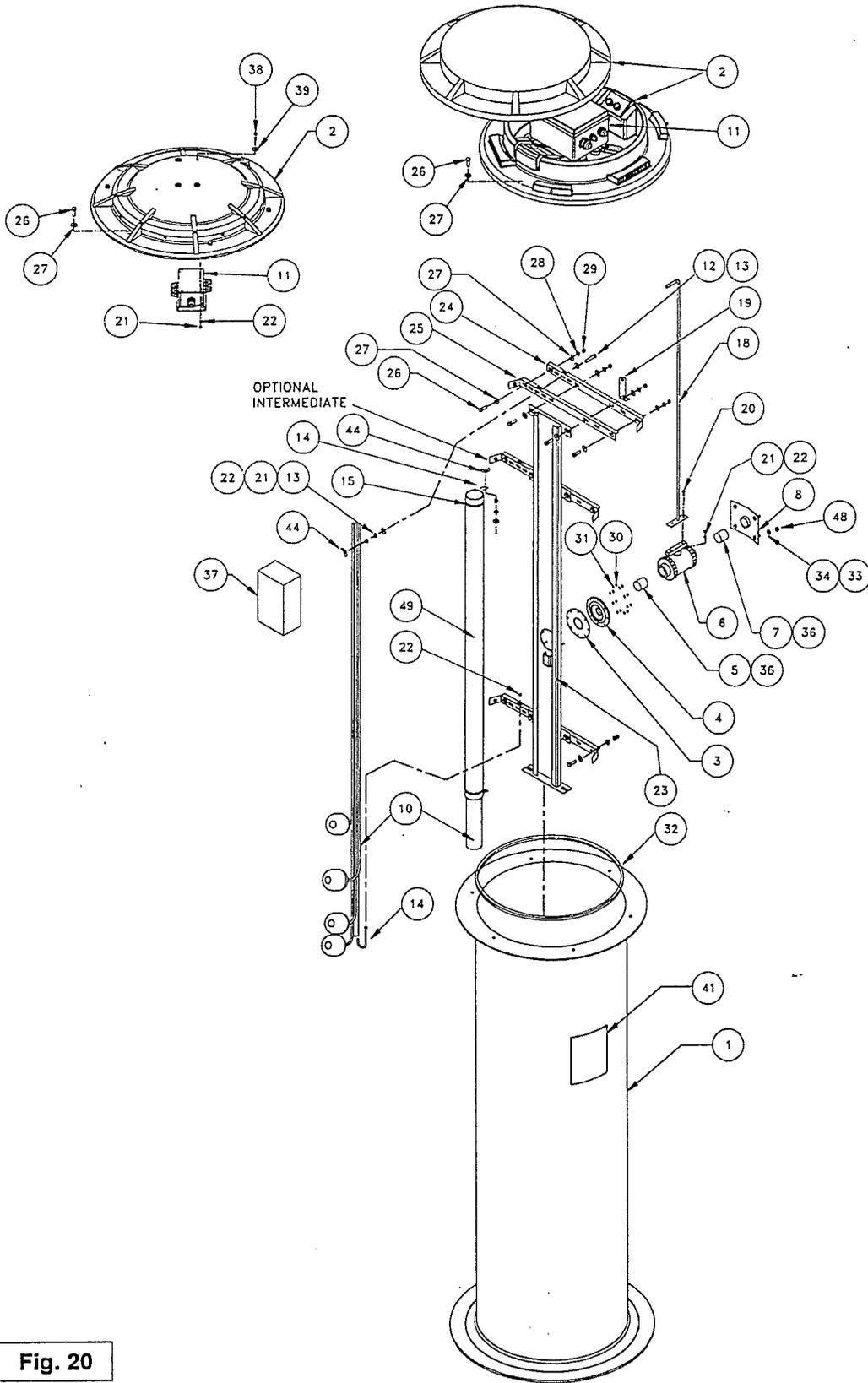


Fig. 20

Parts List

ITEM No.	PART No.	DESCRIPTION
1		Basin 24" Dia.
2		UltraCAP2 Cover or UltraCAP Cover
3	072072	Diaphragm
4	074834	Stationary Fitting
5		Close Nipple
6	085115	True Union Ball Valve
7		Pipe Nipple
8		Discharge Coupling
9		Cap Plug (Not Shown)
10	Chart 1 Chart 2	UltraSWITCH or FloatTREE
11		Control Panel or Junction Box
12	102831	Capscrew
13	20-15-1	Flat washer
14		J-Hook or Mtg Bracket
15		Hose Clamp (UltraSWITCH)
16		Inlet (Field Installed)
17		Lifting Device (Not Shown)
18		Handle
19		Handle Mtg Bracket
20	1-6-1	Hex Hd Screw
21	022333	Lockwasher
22	15-5-1	Hex Nut
23		Rail
24		Brace, Right
25		Brace, Left
26	1-36-1	Hex Hd Screw
27	082727	Flatwasher
28		Lockwasher
29		Hex Nut
30	15-4-1	Hex Nut
31	053241	Lockwasher
32	034452	Press. Sensitive Gasket
33	---	RTV Adhesive
34		Weatherseal Washer
35		Hex Hd Screw (Rail/Basin)
36	---	PST Adhesive
37		Carton*
38		Hex Hd Screw
39		Washer
41		Manual & User Guide Bag
44	625-03269	Wing Nut
48		Hex Nut
49		Switch Mounting Tube

CHART 1		
Item 10 - UltraSWITCH		
Basin Depth	Part No. SGV	Part No. SGPC
ALL	104150	104153
CHART 2		
Item 10 - FloatTREE		
Basin Depth	Part No. SGV	Part No. SGPC
48 in	106629	106660
60 in	106631	107098
72 in	106633	107100
78 in	107086	107101
84 in	107087	107102
90 in	107088	107103
96 in	107089	107104
108 in	107076	107106
120 in	107092	107108
144 in	107096	107112

* Items 16 - Inlet, 17 - Lifting Device and 32 - Pressure Sensitive Gasket are packaged in carton.



Limited 1 Year Warranty

Longer Term Warranty is Available

We warrant that products of our manufacture will be free of defects in material and workmanship under normal use and service for twelve (12) months after notice of owner's acceptance, but no greater than twenty-four (24) months after receipt of shipment, when installed and maintained in accordance with our instructions.

This warranty gives you specific legal rights, and there may also be other rights which vary from state to state. In the event the product is covered by the Federal Consumer Product Warranties Law (1) the duration of any implied warranties associated with the product by virtue of said law is limited to the same duration as stated herein, (2) this warranty is a LIMITED WARRANTY, and (3) no claims of any nature whatsoever shall be made against us, until the ultimate consumer, his successor, or assigns, notifies us in writing of the defect, and delivers the product and/or defective part(s) freight prepaid to our factory or nearest authorized service station. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply. **THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY AND ALL WARRANTIES WITH RESPECT TO ANY PRODUCT SHALL BE TO REPLACE OR REPAIR AT OUR ELECTION, F.O.B. POINT OF MANUFACTURE OR AUTHORIZED REPAIR STATION, SUCH PRODUCTS AND/OR PARTS AS PROVEN DEFECTIVE. THERE SHALL BE NO FURTHER LIABILITY, WHETHER BASED ON WARRANTY, NEGLIGENCE OR OTHERWISE.** Unless expressly stated otherwise, guarantees in the nature of performance specifications furnished in addition to the foregoing material and workmanship warranties on a product manufactured by us, if any, are subject to laboratory tests corrected for field performance. Any additional guarantees, in the nature of performance specifications must be in writing and such writing must be signed by our authorized representative. Due to inaccuracies in field testing if a conflict arises between the results of field testing conducted by or for user, and laboratory tests corrected for field performance, the latter shall control. **RECOMMENDATIONS FOR SPECIAL APPLICATIONS OR THOSE RESULTING FROM SYSTEMS ANALYSES AND EVALUATIONS WE CONDUCT WILL BE BASED ON OUR BEST AVAILABLE EXPERIENCE AND PUBLISHED INDUSTRY INFORMATION. SUCH RECOMMENDATIONS DO NOT CONSTITUTE A WARRANTY OF SATISFACTORY PERFORMANCE AND NO SUCH WARRANTY IS GIVEN.**

This warranty shall not apply when damage is caused by (a) improper installation, (b) improper voltage (c) lightning (d) excessive sand or other abrasive material (e) scale or corrosion build-up due to excessive chemical content. Any modification of the original equipment will also void the warranty. We will not be responsible for loss, damage or labor cost due to interruption of service caused by defective parts. Neither will we accept charges incurred by others without our prior written approval.

This warranty is void if our inspection reveals the product was used in a manner inconsistent with normal industry practice and/or our specific recommendations. The purchaser is responsible for communication of all necessary information regarding the application and use of the product. **UNDER NO CIRCUMSTANCES WILL WE BE RESPONSIBLE FOR ANY OTHER DIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST INCOME, LABOR CHARGES, DELAYS IN PRODUCTION, IDLE PRODUCTION, WHICH DAMAGES ARE CAUSED BY ANY DEFECTS IN MATERIAL AND/OR WORKMANSHIP AND/OR DAMAGE OR DELAYS IN SHIPMENT. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

No rights extended under this warranty shall be assigned to any other person, whether by operation of law or otherwise, without our prior written approval.

BARNES PUMPS, INC.

BARNES PUMPS CANADA INC.

420 Third Street. P.O. Box 603 • Piqua, Ohio 45356-0603
Ph: (937) 615-3599 • Fax: (937) 773-7157

83 West Drive, Bramalea, Ontario, Canada L6T 2J6
Ph: (905) 457 6223 • Fax: (905) 457-2650

Easy ELECTRIC START-UP / WARRANTY REGISTRATION FORM

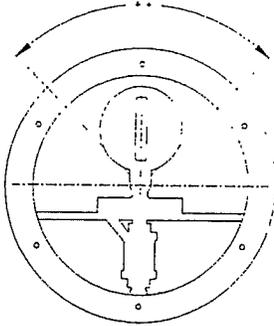
This form is designed to provide assurance that customer service and a quality product are the number one priority with Barnes® Pumps, Inc. Please fill out the following questions as completely and accurate as possible. Before beginning the circuit breaker in the basin control panel should be turned off and the circuit breaker in the home should be turned on.

A.) Necessary General Information:

- 1.) Owner's Name: _____
2.) Address: _____
3.) City: _____ State: _____ Zip Code: _____

B.) Basin Information:

- 1.) Basin Part Number: _____ 2.) Basin Serial Number: _____
3.) Pump Part Number: _____ 4.) Pump Serial Number: _____
5.) Basin Top Relative to Finish Grade: Above Even Below
6.) If Above or Below Grade, How Far: _____ Inches.
7.) Amount of Ballast in Cubic Yards: _____ 8.) Type of Backfill Material Used: _____
9.) Sketch Inlet Location on Diagram Below.



**** Not an Inlet Zone on 24"
Diameter Basins ONLY !**

- 10.) Distance from Top of Basin to Center of Inlet Pipe: _____ Inches
11.) Valve at Sewer Main: Check Valve Manual Shut-off Valve

C.) Electrical Check:

- 1.) Single Phase: Voltage Supply at Panel with Breaker in Panel Off: L1-L2 _____ Volts (Must be within 10% of Pump Volts)
2.) Resistance of Pump Power Cable Connections at Terminal Strip in Panel with Power Off:
a.) SGPC Model Pumps: (Consult pump manual for proper values for the pump being used.)
Black to White _____ Ohms
b.) SGV Model Pumps:
Red to Black _____ Ohms, Black to White _____ Ohms, Red to White _____ Ohms

D.) Performance Check:

- 1.) Breaker in Panel should be "OFF" and basin filled with a minimum of 32 inches of water before starting this section. Next, turn the circuit breaker in the basin control panel to the "ON" position.
Is the high water alarm on: Yes No
2.) When the alarm turns off, turn the circuit breaker at the basin control panel to the "OFF" position.
Did the alarm shut off with the water level in the basin at approximately 26" from the bottom: Yes No
3.) Turn the circuit breaker back to the "ON" position and record the pump amperage readings
(Consult pump manual for proper values for the pump being used.)
Amperage reading at line connection with the pump running: Lead 1 _____ Lead 2 _____
4.) Did the pump shut off with approximately 10 inches of water left in the basin: Yes No
5.) Are there any leaks within the basin: Yes No

E.) Final Check:

- 1.) Has the end user received the User Guide with the pump and basin information filled out: Yes No
2.) I certify this report to be accurate to my best knowledge: (Name of person performing this startup).

Signature: _____ Date: _____

Employed By: _____

Phone Number: _____ Fax Number: _____

FOLD HERE AND TAPE, DO NOT STAPLE

PLACE
STAMP
HERE

**BARNES PUMPS, INC.
SERVICE DEPARTMENT
420 THIRD STREET
P.O. BOX 603
PIQUA, OHIO
45356-0603 - U.S.A.**