

USER MANUAL

AMT DIAPHRAGM PUMPS



AMT 338G-96 & AMT 337G-96 (Honda Petrol Engine)
AMT 338E-96 & AMT 337E-96 (Baldor Electric Motor)
AMT 338B-96 & AMT 337B-96 (Honda Battery Power)

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Pump type : Self-Priming Diaphragm (Membrane) Pump

Model : AMT 338G-96 & AMT 337G-96 (Honda Petrol Engine)
AMT 338E-96 & AMT 337E-96 (Baldor Electric Motor)
AMT 338B-96 & AMT 337B-96 (Honda Battery Power)

Manufacturer: AMT Pump Company, 400 Spring Street, Royersford, PA 19486, United States



AMT 338G-96 (2")
AMT 337G-96 (3")
Honda Petrol Engine



AMT 338E-96 (2")
AMT 337E-96 (3")
Baldor Electric Motor



AMT 338B-96 (2")
AMT 337B-96 (3")
Honda Battery Power

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EUROPE

The Pump People®

Specifications & Parts Manual



Please read and save this Repair Parts Manual. Read this manual and the General Operating Instructions carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. The Safety Instructions are contained in the General Operating Instructions. Failure to comply with the safety instructions accompanying this product could result in personal injury and/or property damage! Retain instructions for future reference. AMT reserves the right to discontinue any model or change specifications at any time without incurring any obligation. ©2024 AMT Pump Company, A Subsidiary of The Gorman-Rupp Company, All Rights Reserved. Periodic maintenance and inspection is required on all pumps to insure proper operation. Unit must be clear of debris and sediment. Inspect for leaks and loose bolts. Failure to do so voids warranty.

These diaphragm pumps are high capacity, self-priming (up to 7 meters), portable units shipped completely assembled (except for handle). The pumps are used for operation with fluids mixed with abrasive solids such as sand, silt, mud, sludge and waste. Not for use with pumping cement or mortar. Handles liquids from 4° to 82 ° C. Pump is capable of handling solids up to 40 mm diameter. For use with water and other non-flammable fluids compatible with pump component materials.

Model	Driver Type	Material	Diaphragm	Check Valve	Gear box	Plunger Bearings	NPT
338G-96	Honda GX160	Aluminum	Thermoplastic /TPE	Neoprene	Oilbath	Needle	2"
337G-96	Honda GX160	Aluminum	Thermoplastic /TPE	Neoprene	Oilbath	Needle	3"
338E-96	BALDOR / ABB 1.5h Single Ph 115/230 VAC V	Aluminum	Thermoplastic /TPE	Neoprene	Oilbath	Needle	2"
337E-96	BALDOR / ABB 1.5h Single Ph 115/230 VAC V	Aluminum	Thermoplastic /TPE	Neoprene	Oilbath	Needle	3"
338B-96	Honda GXe 2.0kW 3-phase brushless DC electric motor	Aluminum	Thermoplastic /TPE	Neoprene	Oilbath	Needle	2"
337B-96	Honda GXe 2.0kW 3-phase brushless DC electric motor	Aluminum	Thermoplastic /TPE	Neoprene	Oilbath	Needle	3"

NOTE: Driver is subject to change without notice, see labels and manual with driver for operation, specifications, maintenance and warranty.

UNPACKING Contents



Part 1 : Pumps with petrol engine and with electric motor (wired)	5
UNPACKING	5-6
ASSEMBLY.....	7
INSTALLATION.....	7
OPERATION	8
MAINTENANCE.....	8
GEARBOX OVERHAULING.....	9
FAULT FINDING	11
DRAWINGS AND PARTS LIST.....	12
 Part 2 : Pumps with battery-powered motor	22
UNPACKING.....	22
ASSEMBLY	22
INSTALLATION.....	23
OPERATION	24
MAINTENANCE	24
GEARBOX OVERHAULING	25
FAULT FINDING	26
DRAWINGS AND PARTS LIST	27
 Part 3A : HONDA eGX Motor	37
OPERATION	38
INSTALLING THE BATTERY	39
Part 3B : HONDA eGX battery pack (optional)	46
Part 3C : HONDA eGX battery charger (optional)	54
CHARGING PROCEDURE	55

Part 1 : Pumps with petrol engine and with electric motor (wired)

UNPACKING

After unpacking the unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing or damaged parts.

1. Specific Safety Information for Gasoline Engine

Driven Pumps : Carefully read the instruction manuals supplied by the engine manufacturer before attempting to assemble, disassemble or operate the engine or any other part. The “Warning” and “Caution” statements in this manual signal potentially hazardous conditions to the operator or equipment. Know when these conditions can exist. Take necessary steps to protect personnel, as well as equipment.

▲ WARNING

Gasoline is a highly combustible fuel. Use it with care! The improper use, handling and/or storage of gasoline can be dangerous. Help prevent accidents by following these safety rules:

- a. Use gasoline only as a fuel, never as a cleaning fluid.
- b. Always use an approved container to hold or store gasoline. Never store gasoline in familiar containers such as milk gallons or soda pop bottles.
- c. Never store gasoline near a heater or an open flame.
- d. When storing or using gasoline, make sure container is out of the reach of children.
- e. Never add gasoline to a running or hot engine. Spilled gasoline on a hot engine may cause a fire or an explosion. Fill gasoline tank outdoors and wipe up any spills.
- f. Have a fire extinguisher nearby. Be sure extinguisher is in operating condition – check the pressure gauge or indicator. Be familiar with its proper use. Consult the local fire department for the correct type of extinguisher for your application. Extinguishers rated ABC by the National Fire Protection Association are appropriate for all applications.
- g. On permanent installations, be sure all fuel supplies have a positive shutoff valve. Fuel lines must be of steel piping, adequately secured and free from leaks. Do not use copper piping on flexible lines as copper becomes hardened and brittle and will break. Use black pipe on natural gas or gaseous fuels, but not on gasoline or diesel fuels. Piping at the engine should be a suitable flexible line that is compatible with the fluid.

POSITIVELY NO SMOKING!

2. Check engine oil, fuel levels and gear box oil levels before initial startup each day. Stay away from moving parts due to the danger of becoming caught in moving parts. Avoid loose jackets, shirts, sleeves and ties. Make sure all nuts and bolts are secure. Keep power shields and guards in place. If adjustment **MUST** be made while the unit is running, use extreme caution around hot manifolds, moving parts, etc
3. Do not work with this equipment when mentally or physically fatigued.
4. Be careful not to touch the exterior of the engine, especially the muffler and the area around it. It is hot enough to be painful or cause injury.
5. To prevent accidental starting, always remove the spark plug or disconnect and ground the spark plug wire before working on the engine or the equipment driven by the engine.
6. **DO NOT RUN THE ENGINE IN AN ENCLOSED AREA!!**
Exhaust gases contain carbon monoxide, which is an odorless and deadly gas that will cause death if breathed too long. If equipment is located in an enclosed area with an exhaust line to the outside, regularly check the exhaust system for leaks. Be sure the area is well ventilated.
7. If the gas engine is equipped with a spark arrester screen in the muffler, it should be inspected for wear periodically and replaced when necessary.

Specific Safety Information for Electric Motor Driven Pump

1. This unit is not waterproof and is not intended to be used in potentially wet locations. The motor is designed to be used in a clean dry location with access to an adequate supply of cooling air. Ambient temperature around the motor should not exceed 40° C. For outdoor installations, motor must be protected by a cover that does not block air flow to and around the motor. This unit is not weatherproof nor is it able to be submersed in water.
2. When wiring an electrically driven pump, follow all electrical and safety codes, as well as the most recent United States National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

⚠ WARNING

Risk of electrical shock! Never connect the green (or green and yellow) wire to a live terminal.

3. To reduce the risk of electric shock, the motor must be securely and adequately grounded!. This can be accomplished by either: (1) inserting plug (portable) directly into a properly installed and grounded 3-prong grounding-type receptacle (as shown in Figure 2); (2) permanently wiring the unit with a grounded metal raceway system; (3) using a separate ground wire connected to the bare metal of the motor frame; or (4) other suitable means. The green (or green and yellow) conductor in the cord is the grounding wire. The motor must be securely and adequately grounded for your protection against shock hazards! Where a 2-prong wall receptacle is encountered, it must be replaced with a properly grounded 3-prong receptacle with a grounded 3-prong receptacle installed in accordance with the National Electrical Code and local codes and ordinances. To ensure a proper ground, the grounding means must be tested by a qualified electrician. Use only 3-wire extension cords that have 3-prong, grounding-type plugs and 3-pole receptacles that accept the equipment plug.
4. All wiring should be performed by a qualified electrician.

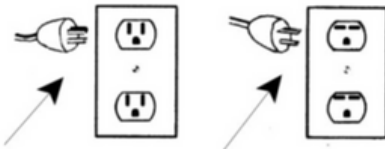


Figure 2- Grounding Methods

⚠ WARNING

An incorrect connection may cause an electric short, produce an electrical shock or burn out the pump motor, resulting in property damage and/or personal injury.

5. Protect electrical cord from sharp objects, hot surfaces, oil and chemicals. Avoid kinking the cord. Replace or repair damaged or worn cords immediately.
6. Provide safety shields on all moving and electrical parts to prevent personal injury.
7. Keep fingers and foreign objects away from ventilation and other openings. Do not insert any objects into the motor.
8. Use wire of adequate size to minimize voltage drop at the motor.
9. Disconnect power before servicing a motor or its load. If the power disconnect is out of sight, lock it in the open position and tag it to prevent unexpected application of power.
10. Do not touch an operating motor. Modern motors are designed to operate at high temperatures.

General Safety Information (All Units)

1. Know the pump application, limitations and potential hazards.

⚠ WARNING

Do not use to pump flammable or explosive fluids such as gasoline, fuel oil, or kerosene, etc. Do not use in flammable and/or explosive atmospheres. Pump should only be used with liquids compatible with pump component materials. Failure to follow this warning can result in personal injury and/or property damage.

2. Make certain that the power source conforms to the requirements of your equipment.
3. Provide adequate protection and guarding around moving parts.
4. Disconnect power before servicing. 5. Release all pressure within the system before servicing any component.
6. Drain all liquids from the system before servicing.
7. Secure the discharge line before starting the pump. An unsecured discharge line will whip, possibly causing personal injury and/or property damage
8. Check hoses for weak or worn condition before each use, making certain that all connections are secure.
9. Periodically inspect pump and system components. Perform routine maintenance as required (see Maintenance Section).
10. Provide a means of pressure relief for pumps whose discharge line can be shut off or obstructed.
11. **Personal Safety:**
 - a. Wear safety glasses at all times when working with pumps.
 - b. Wear a face shield and proper apparel when pumping hazardous chemicals.
 - c. Keep work area clean, uncluttered and properly lighted - replace all unused tools and equipment.
 - d. Keep visitors at a safe distance from the work area. Make workshop childproof - with padlocks, master switches and by removing starter keys.

ASSEMBLY

1. HANDLE (REFER TO FIGURE A)
 - a. Place handle (Ref. No. A11) on gearbox foot flange and align holes.
 - b. Install two hex screws (Ref. No. A12) flat washers (Ref. No. A13) and hex nuts (Ref. No. A14), tighten screws.
2. HANDLE ON 3" PUMP (FIGURE A.)
 - d. Remove the two hexagon nuts (ref. no. A14), from the pump housing.
 - e. Place the handle under the pump housing.
 - f. Replace the two hexagon nuts and washers. Tighten firmly.

ROTATING SUCTION/DISCHARGE PORTS (OPTIONAL) (Refer to Figure A,W,P)

In some applications, it may be preferable to have suction/discharge ports rotated 90 degrees to be in line with driver. If so, proceed as follows:

- a. Remove four hex cap screws (Ref. No. A8) and hex nut (Ref. No. A9) from pump assembly to separate pump well (Ref. No. A3) from pump base (Ref. No. A7).
- b. Rotate pump well 90 degrees clockwise so that driver is positioned over top of discharge plate (Ref. No. W6).
- c. Be sure that pump well, base and diaphragm (Ref. No. P13) are aligned properly with one another. Then, reinstall four hex cap screws and hex nuts and tighten.

GEAR BOX OIL (Refer to Figure A,GG)

3. Place pump on a level surface. Fill pump gear box (Ref. No. A1) with gear box oil before the pump is operated. Gear oil must meet requirements of API GL-5 and military specification MIL-L-2105B. Remove level plug (Ref. No. G5). Pour gear oil into gear box slowly until oil comes out of fill port.

Warranty on this unit is void unless the gear box is lubricated with appropriate gear oil listed above. DO NOT OVER FILL!

INSTALLATION

NOTE: In any installation where property damage can occur by pumps not operating due to power outages, discharge line freezing or any other reason, a backup system(s) and/or warning system(s) should be used.

1. Place the pump on a level, solid foundation, locating it as close to the liquid as possible, making the suction line as short and direct as possible.
2. Install pipe nipples (Ref. No. A35) so the smoother side of pipe end faces the suction and discharge hose.

⚠ CAUTION

Maximum discharge head is 7 meter. Operation over this head or pressure will cause pump to stall and/or gearbox damage. Use only rigid hoses

3. Attach suction piping to the suction inlet (Ref. No. W2) and discharge piping to the discharge outlet (Ref. No. W6). The suction line should be positioned such that there is a continual upward slope from the fluid source to the pump. Avoid using loops or sections of pipe or fittings, which might permit air to become trapped.

NOTE: If hose is used, be sure to use reinforced hose on both the suction and discharge. DO NOT USE canvas or similar collapsible materials. NEVER USE PIPE REDUCER; PIPE SIZE MUST BE EQUAL TO OR LARGER THAN PUMP PORT SIZE. Suction line must be airtight so that air cannot leak in and destroy priming vacuum. On a permanent installation where piping is used, always connect a piece of flexible hose between pump and piping so pump is free to move slightly.

4. It is advisable to use a strainer (Ref. No. A36) on the inlet end of the suction hose or pipe. A properly sized strainer is supplied with this unit and should be used at all times to prevent damage. Keep the strainer clean. If possible, suspend it to keep it from becoming clogged with muck, roots, debris or leaves. It is best to keep hose free of kinks as they will restrict flow and add excess loading to pump and gearing.

5. **GASOLINE ENGINE UNITS:** Follow all instructions in the engine manual before starting the engine. Fill engine with oil, gasoline, etc.
ELECTRIC MOTOR UNITS: It is strongly recommended that this unit is plugged into a G.F.I. (Ground Fault Interrupter) circuit. Consult your local electrician for installation and availability.
6. Input RPM (to pump) – Input RPM must be between 1750 and 2750 RPM. Final pump speed will be 40 strokes/min. with a 1750 RPM input and 60 strokes/min. with a 2750 RPM input.

It is up to the end user to install a bypass pressure relief valve in the piping system.

Do not exceed 60 strokes per minute with a diaphragm pump.

OPERATION

Operate the diaphragm pump in an upright position only.

1. This diaphragm pump is capable of priming “dry” up to 4,5 meter. It will prime much faster when it is filled with clean water through priming cap (Ref. No. W5). Primed, it can lift 7 meter.
2. Activate unit following engine or air motor manual or turning unit on if electrical.

⚠ CAUTION

Do not control discharge capacity with a valve or similar device.

CLEARING JAM-UP

If large solids or an accumulation of sand or other sediment becomes lodged in the pump well (Ref. No. A3) preventing the plunger arm (Ref. No. A2) from making a full stroke, the pump should be thoroughly cleaned as described in “If Pump Stalls” shown below. Refer to parts list and illustration for parts identification.

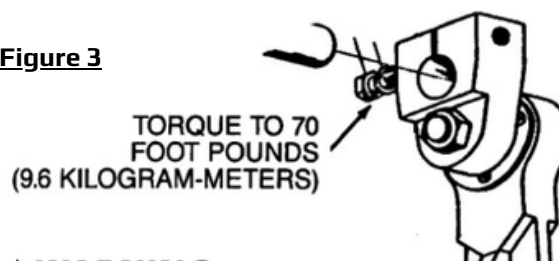
⚠ CAUTION

If pump has stopped or stalled for any unknown reason, clean out pump cavity thoroughly. Failure to comply with the “caution” could result in damage to crank (Ref. No. P5/P9), plunger arm (Ref. No. P1) or other parts of assembly.

1. IF PUMP STALLS:
 - a. Remove four bolts (Ref. No. A8). Separate pump well from pump body.
 - b. Clean obstruction and all debris from pump well assembly (Ref. No. A3).
 - c. Reassemble pump in reverse order of disassembly and return to service.

2. IF PLUNGER ARM (Ref. No. P1) SEIZES AND GEAR BOX OUTPUT SHAFT (Ref. No. G8) TURNS IN CRANK (Ref. No. P5):
 - a. Remove guard (Ref. No. A4) by loosening screws (Ref. No. A5)
 - b. Disassemble pump and clean as described in steps above stalled engine jam up.
 - c. Torque the crank lock screw (Ref. No. P7) to 95 Nm with an appropriate torque wrench (see Figure 3).
 - d. Reassemble the pump in reverse order of disassembly and return to service.

Figure 3



⚠ WARNING

Pump jamming with an over-torqued lock screw may cause internal damage. Under torqueing may allow the output shaft to spin and wear parts necessitating replacement.

MAINTENANCE

⚠ WARNING

Make certain that unit is disconnected from power source before attempting to service or remove any component.

1. Check gear box oil level every 20 hours of operation or at least once a week; more often if any leakage is detected around the gear box. Change gearbox oil after the first 40 hours of operation. Fill to the oil level plug. Change gearbox oil every 350 hours of operation.
2. The plunger bearing (Ref. No. P3) must be greased (any automotive grease) after every 8 hours of use. Remove guard (Ref. No. A4) by loosening two screws (Ref. No. A5). Grease fitting on end of bearing; will be visible after removing guard. Bearing may be cleaned and kept well lubricated by pumping grease slowly into fitting until new grease oozes out between bearing and journal.
3. During freezing weather, be sure to drain the pump when it is not running. Remove discharge hose and tip unit towards discharge side.
4. Keep pump clean. After use with liquids containing foreign materials, flush with clean water.

REPLACEMENT OF FLAPPER VALVE

(Ref. no. W9)

1. Remove two bolts (Ref. No. W3) and remove suction priming plate (Ref. No. W2). Replace flapper (Ref. No. W9) on pin (Ref. No. W8) to locate on suction plate.
2. Remove two bolts (Ref. No. W7) and remove discharge plate (Ref. No. W6). Replace flapper valve on pin (Ref. No. W8) to locate valve on pump well (Ref. No. W1).

REPLACEMENT OF DIAPHRAGM

(Ref. nr. P13)

1. Remove guard (Ref. No. A4) by loosening screws (Ref. No. A5).
2. Rotate pump until plunger arm (Ref. No. A2) is in the down position.
3. Remove pump well (Ref. No. A3) by removing screws (Ref. No. A8).
4. Remove diaphragm by removing four nuts (Ref. No. P12) from studs (Ref. No. P11).
5. Replace diaphragm and reverse steps 1 through 4 for reassembly.

GEAR BOX OVERHAULING

A completely assembled gear box is available as a replacement part (Ref. No. G28).

DISASSEMBLY

1. Remove diaphragm (Ref. No. P13) as described in "Replacement of Diaphragm".
2. Remove crank (Ref. No. P5) by loosening hex head screw (Ref. No. P7). Use screwdriver in slot of crank to release clamp on output shaft (Ref. No. G8).
3. Drain oil from gear box by removing drain plug (Ref. No. G4).
4. Remove driver (Ref. Nos. A28/A32) from adapter (Ref. No. G26) by removing four bolts (Ref. No. A27) plus 4 additional bolts (Ref. No. A29) from engine mount bracket (Ref. No. A16) for gas driver models. Slide driver back from adapter until driver shaft disengages pinion (Ref. No. G20).
5. Remove adapter by removing four bolts (Ref. No. G27).
6. Remove gear box from pump base (Ref. No. A7) by removing four bolts (Ref. No. A6).
7. Remove pinion/bearing assembly (Ref. Nos. G15, G20, G24) by pulling straight out. Use a slide hammer puller gripping in pinion groove
8. Remove twelve screws (Ref. No. G3) holding gear box halves (Ref. Nos. G1 & G2) together.

9. Carefully separate gearbox halves; input (Ref. No. G2) and output (Ref. No. G1).
10. Remove gasket (Ref. No. G22).
11. Remove output shaft/bearing assembly (Ref. Nos. G8, G9, G10, G11, G12, G13) and idler pinion/bearing assembly (Ref. Nos. G13, G14, G17, G18, G19).
12. Remove output shaft oil seal (Ref. No. G23) from output housing.
13. Remove needle bearing (Ref. No. G16) from input housing.
14. Remove bearing (Ref. No. G15) from end of input pinion shaft (Ref. No. G20).
15. Remove bearings (Ref. Nos. G13 & G14) from ends of idler pinion shaft (Ref. No. G17).
16. Remove internal spur gear (Ref. No. G19) and key (Ref. No. G18) from idler pinion shaft.
17. Remove retaining ring (Ref. No. G10) and bearings (Ref. Nos. G12 & G13) from ends of output shaft (Ref. No. G8).
18. Remove output gear (Ref. No. G11) and key (Ref. No. G9) from output shaft.

REASSEMBLY

1. Assemble input pinion/bearing assembly, idler pinion/bearing assembly and output shaft/bearing assembly.
2. Install output shaft oil seal into gearbox output half. Lubricate lip seal. Install needle bearing in gear box input half.
3. Slide output shaft through lip seal. Start output bearing in bore in gear box output half. Position idler pinion bearing assembly in its bore in output half. Simultaneously press both assemblies into output half.
4. Install gasket on output half.
5. Position gear box input half; align shaft bearings with bearing bores. Press gear box halves together, align pins in output half with pin bore in input half.
6. Secure halves together with twelve screws.
7. Slide input pinion/bearing assembly into bore in gear box input half. Rotate pinion during installation to make sure gear teeth align with internal spur gear teeth.
8. Reassemble gear box to pump base with four bolts.
9. Reassemble adapter to gear box with four bolts.
10. Align driver shaft key (Ref. No. A26) with keyway in pinion. Slide driver into pinion, secure to adapter with four bolts (Ref. No. A27).
 - o (Gas engine only) Attach engine to engine mount with four additional screw assemblies (Ref. No. A29).
11. Reassemble crank to output shaft as described under "Operation" section.
12. Replace diaphragm as described under "Replacement of Diaphragm" section.
13. Fill gear box with oil as described under "Assembly" section.
14. Pump should be checked daily, weekly, monthly for proper operation.

NOTE:

Only qualified service personnel should attempt to repair this unit. Improper repair and/or assembly can cause pump damage, driver damage and/or an electrical shock hazard depending on model.

FAULT FINDING

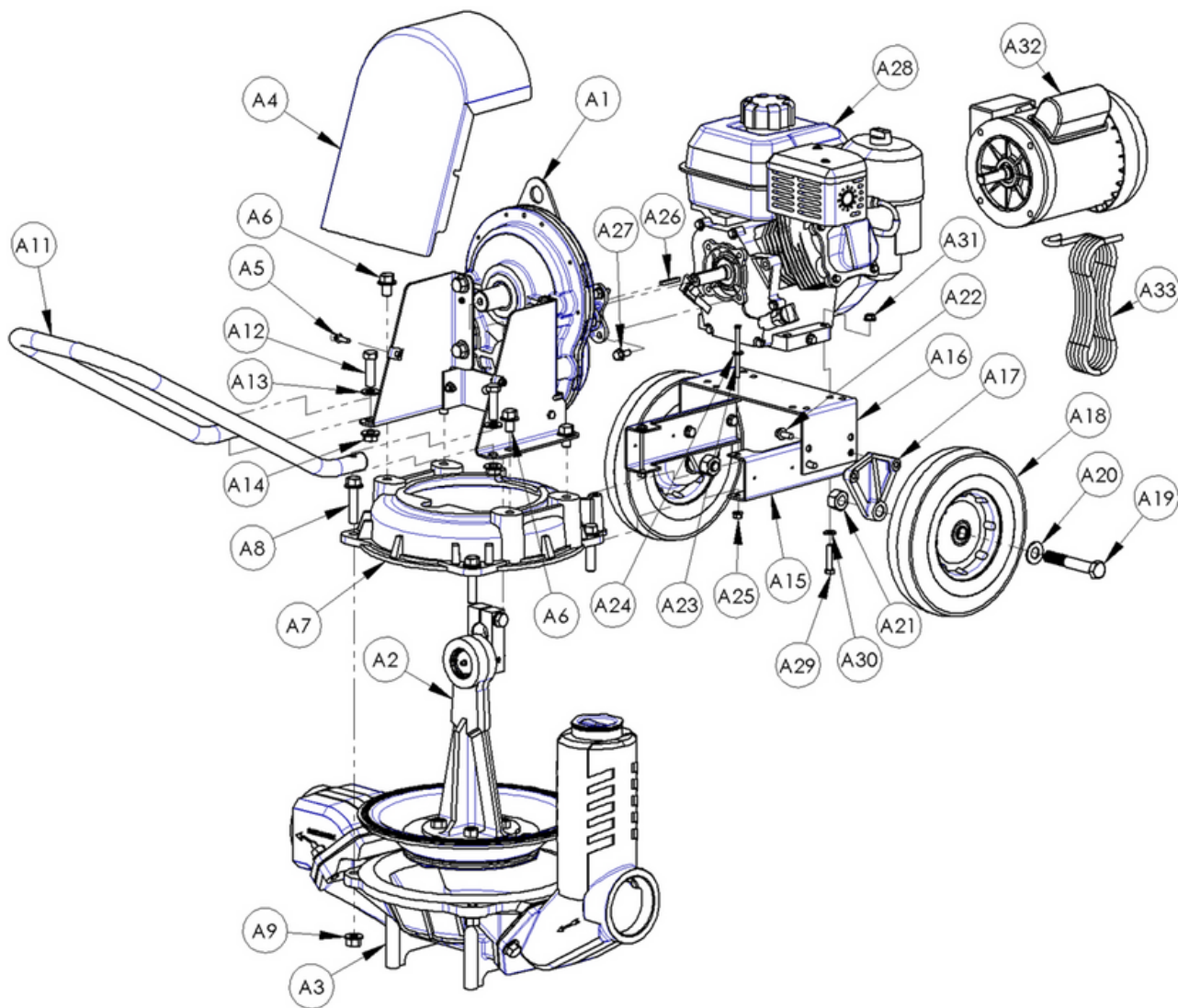
SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Pump will not prime or retain prime after operating	1. Air leak in suction line 2. Defective flapper valves 3. Clogged foot valve or strainer 4. No liquid in suction line 5. Material jammed in pump well	1. Repair or replace 2. Replace 3. Clean or replace 4. Fill suction line & pump with liquid 5. Clean (See Maintenance)
Flow rate is slow	1. Incorrect driver speed 2. Piping is fouled or damaged 3. Clogged pump 4. Discharge line restricted or undersized 5. Collapsible discharge hose 6. Too many bends 7. Lines are too long	1. Increase speed (see Specifications) 2. Clean or replace 3. Clean 4. Flush out piping or replace 5. Replace with rigid or non-collapsible hose 6. Straighten hose 7. Shorten lines
Pump runs but no fluid	1. Faulty suction piping 2. Pump located too far from fluid source 3. Gate valve closed 4. Clogged strainer 5. Discharge height too great	1. Replace 2. Place pump closer to source 3. Open gate valve 4. Clean or replace 5. Lower discharge height
Pump starts and stops pumping	1. Leak in suction line 2. Leak in foot valve 3. Diaphragm has a crack or hole 4. Defective or clogged flapper valves	1. Repair 2. Repair or replace 3. Replace 4. Clean or replace
Excessive noise while pump in operation	1. Pump not secured to firm foundation 2. Restricted suction line	1. Secure properly 2. Clean or correct
Pump stalls repeatedly or stops for no apparent reason	1. Discharge height over 25 feet of head 2. Material jammed in pump well	1. Lower height (see Specifications) 2. Clean out pump well (See Operation & Maintenance section)

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number as shown in parts list.



Assembled Pump - Figure A

REPAIR PARTS LIST - ASSEMBLED PUMP (REFERENCE FIGURE A)

Ref No.	Description	Part Number for Models				Qty
		3" Engine Driven Pump	3" Motor Driven Pump	2" Engine Driven Pump	2" Motor Driven Pump	
A1	Gearbox/Gearbox Feet Assembly	Ref. Page 8 to 11	Ref. Page 8 to 11	Ref. Page 8 to 11	Ref. Page 8 to 11	1
A2	Plunger Diaphragm Assembly	Ref. Page 12 & 13	Ref. Page 12 & 13	Ref. Page 12 & 13	Ref. Page 12 & 13	1
A3	Well Assembly	Ref. Page 14 & 15	Ref. Page 14 & 15	Ref. Page 14 & 15	Ref. Page 14 & 15	1
A4	Plunger Guard / Kit	3370-102-92	3370-102-92	3370-102-92	3370-102-92	1
A5	1/4-20x3/4 Screw	Incl. w/Ref. A4	Incl. w/Ref. A4	Incl. w/Ref. A4	Incl. w/Ref. A4	2
A6	1/2-13x3/4 Hex Flange Screw	1766-065-00	1766-065-00	1766-065-00	1766-065-00	4
A7	Base	3354-001-00	3354-001-00	3360-020-01	3360-020-01	1
A8	1/2-13x2-1/4 Hex Head Bolt Grade-5	1766-016-00	1766-016-00	1766-016-00	1766-016-00	4
A9	1/2-13 Hex Nut	1782-004-00	1782-004-00	1782-004-00	1782-004-00	4
A10	Washer (not shown)	1798-002-00	1798-002-00	1798-002-00	1798-002-00	4
A11	Handle / Kit	3370-116-90	3370-116-90	3370-116-90	3370-116-90	1
A12	1/2-13x1-3/4 Hex Head Bolt	incl w/A11	incl w/A11	incl w/A11	incl w/A11	2
A13	1/2 Flat Washer	incl w/A11	incl w/A11	incl w/A11	incl w/A11	2
A14	1/2-13 Hex Nut	incl w/A11	incl w/A11	incl w/A11	incl w/A11	2
A15	Mount Brace	3354-107-00	3354-107-00	3354-107-00	3354-107-00	2
A16	Engine Mount	3354-108-00	3354-108-00	3354-108-00	3354-108-00	1
A16	Engine Mount Kit for Hatz Diesel	335Z-101-90	N/A	335Z-101-90	N/A	1
A17	Wheel Bracket	3354-109-00	3354-109-00	3354-109-00	3354-109-00	2
A18	Wheel	1663-000-00	1663-000-00	1663-000-00	1663-000-00	2
A19	5/8-11x4 Hex Head Bolt	1769-000-00	1769-000-00	1769-000-00	1769-000-00	2
A20	5/8 Flat Washer	1799-000-00	1799-000-00	1799-000-00	1799-000-00	2
A21	5/8-11 Hex Nut	1782-022-00	1782-022-00	1782-022-00	1782-022-00	2
A22	5/16-18x3/4 Hex Flange Screw	1745-002-00	1745-002-00	1745-002-00	1745-002-00	4
A23	1/4-20x3 Hex Bolt	1734-013-00	1734-013-00	1734-013-00	1734-013-00	2
A24	1/4 Flat Washer	1789-000-00	1789-000-00	1789-000-00	1789-000-00	2
A25	1/4-20 Hex Nut	1776-000-00	1776-000-00	1776-000-00	1776-000-00	2
A26	3/16x1-1/2 Square Key	1517-001-00	1517-001-00	1517-001-00	1517-001-00	1
A27	5/16-24x3/4 Hex Flange Screw	1752-000-00	N/A	1752-000-00	N/A	4
A27	3/8-16x1 Hex Flange Screw	N/A	1755-002-00	N/A	1755-002-00	4
A28	Engine 3/4 Keyed PTO	See Chart	N/A	See Chart	N/A	1
A29	5/16-18x1-1/2 Hex Bolt	1748-000-00	N/A	1748-000-00	N/A	4
A30	5/16 Flat Washer	1790-000-00	N/A	1790-000-00	N/A	4
A31	5/16-18 Hex Nut	1785-000-00	N/A	1785-000-00	N/A	4
A32	Motor - 1 Phase	N/A	1626-095-00	N/A	1626-095-00	1
A32	Motor - 3 Phase	N/A	1627-039-00	N/A	1627-039-00	1
A33	Cord Assembly	N/A	335E-352-90	N/A	335E-352-90	1
A34	Switch Assembly (not shown)	N/A	335E-350-90	N/A	335E-350-90	1
A35	Nipple Pack (2 NPT nipples) (not shown)	3270-173-90	3270-173-90	C366-999-90	C366-999-90	1
A35	NPT x BSPT Nipple pack (2 nipples)	C370-999-90	C370-999-90	C369-999-90	C369-999-90	opt
A36	Suction Strainer (not shown)	1680-000-00	1680-000-00	C230-170-00	C230-170-00	1

Honda GX160UT1QX2

PARTS LIST - ENGINES

Ref		3" Engine	2" Engine		
No.	Description	Driven Pump	Driven Pump	Part Number	Qty
A28	Honda GX160UT1QX2	337G-96	338G-96	1630-007-00	1
A28	Honda GX160UT1QX2	337H-96	N/A	1639-017-00	1
A28	LCT280CC	337L-96	338L-96	Discontinued	1
A28	Hatz 1B30	337Z-96	338Z-96	1630-037-90	1
	Honda GX160 Spark Arrestor Kit (not shown)	337H-96	N/A	1639-001-90	1

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number as shown in parts list.

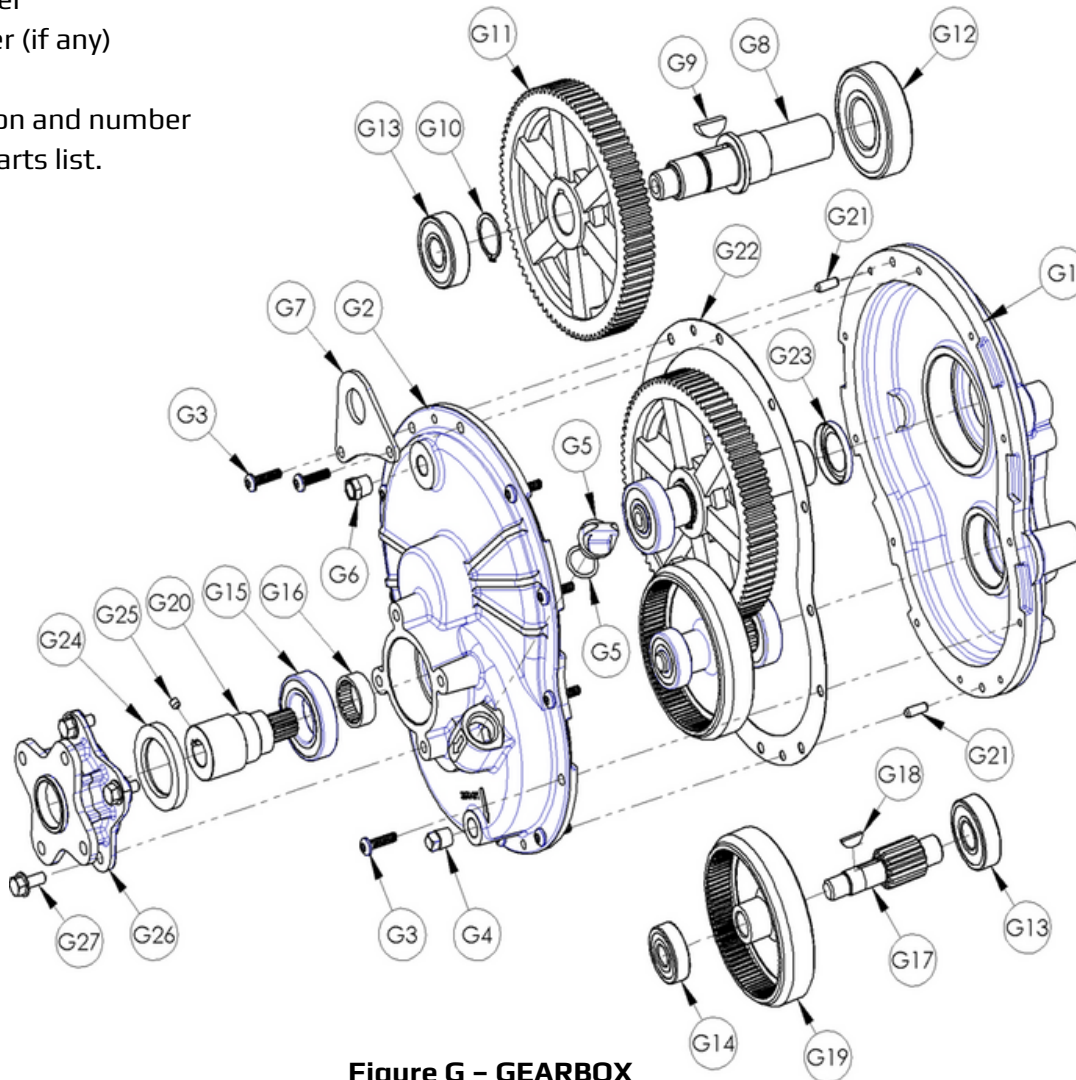


Figure G - GEARBOX

REPAIR PARTS LIST - GEARBOX - FIGURE G

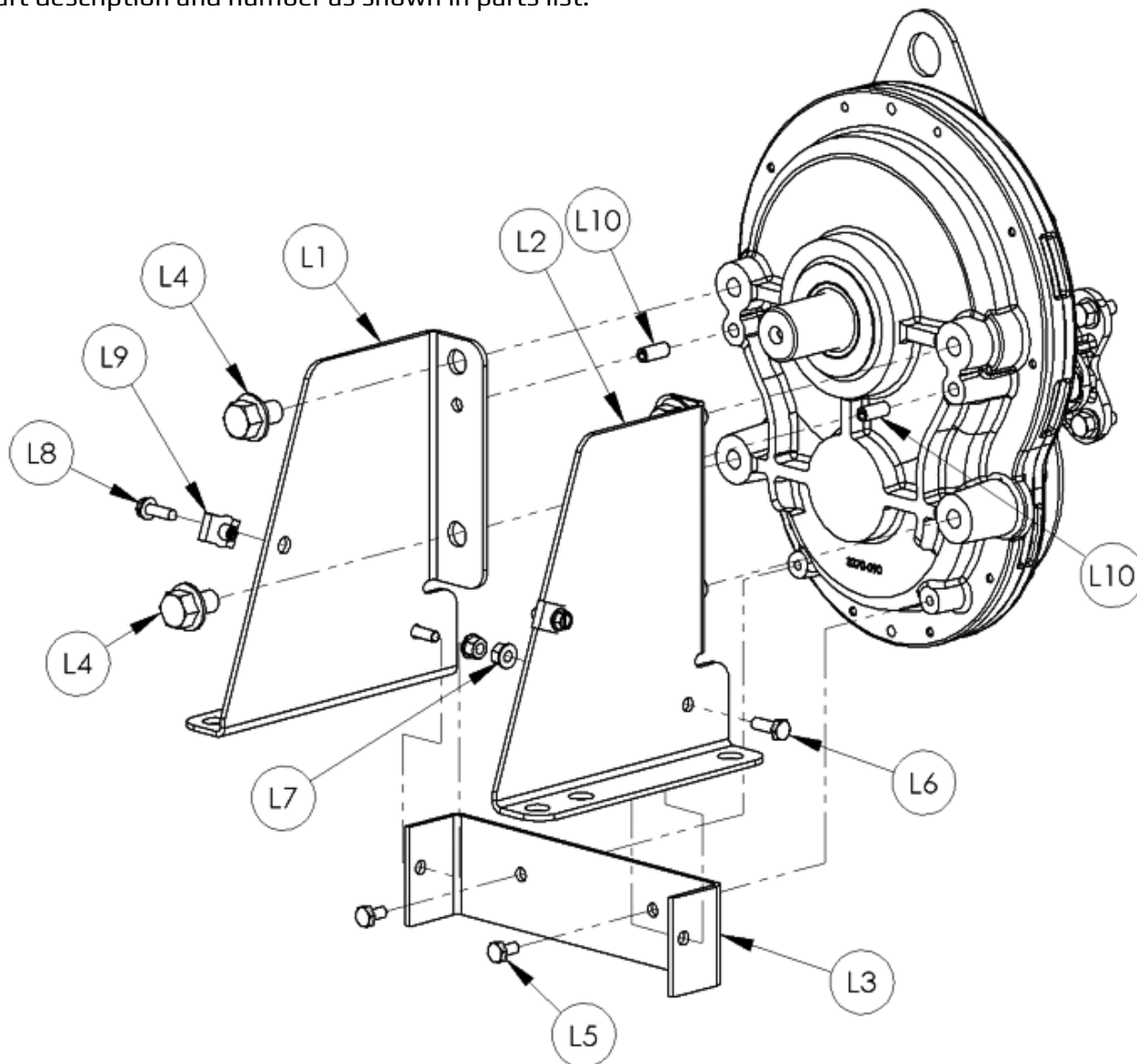
Ref No.	Description	3" Pumps Part Number	2" Pump Part Number	Qty
G1	Gearbox Output Half	3370-090-01	3370-090-01	1
G2	Gearbox Input Half	3370-091-01	3370-091-01	1
G3	1/4-20x1 Screw	1718-007-00	1718-007-00	12
G4	1/4 NPT Plug (drain)	1767-002-00	1767-002-00	1
G5	1/2 NPT Plug and Oring (fill / oil level)	3SXB-170-90	3SXB-170-90	1
G6	1/4 NPT Vented Plug	1767-009-00	1767-009-00	1
G7	Lift Bracket	3354-106-00	3354-106-00	1
G8	Output Shaft	3354-140-00	3354-141-00	1
G9	Woodruff Key #1008	2141-000-00	2141-000-00	1
G10	External Retaining Ring SH-112	1806-064-00	1806-064-00	1
G11	Output Gear	3354-120-00	3354-120-00	1
G12	Bearing-Open 35x80x21 #6307 JEM	3354-190-00	3354-190-00	1
G13	Bearing-Open 20x52x15 #6304 JEM	3354-191-00	3354-191-00	2
G14	Bearing-Open 15x42x13 #6302 JEM	3354-192-00	3354-192-00	1
G15	Bearing-Open 35x62x14 #6007 JEM	3354-194-00	3354-194-00	1
G16	Bearing-Open 30x37x12 Needle	3370-094-00	3370-094-00	1
G17	Idler Pinion Shaft	3354-121-00	3354-121-00	1
G18	Woodruff Key #406	2157-000-00	2157-000-00	1
G19	Internal Spur Gear	2149-000-00	2149-000-00	1
G20	Input Pinion (3/4 keyed engine)	3370-122-00	3370-122-00	1
G20	Input Pinion (5/8 keyed 56C motor)	3370-123-00	3370-123-00	1
G21	1/4x1 Dowel Pin	1717-002-00	1717-002-00	2
G22	Gasket	3354-300-00	3354-300-00	1
G23	Oil Lip Seal 1-1/4x1-3/4x1/4	2148-000-00	2148-000-00	1
G24	Oil Lip Seal 40x62x8	2148-001-00	2148-001-00	1
G25	1/4-20x1/4 Set Screw	1711-001-00	1711-001-00	1
G26	Adapter (engine)	3370-093-01	3370-093-01	1
G26	Adapter (56C motor)	3370-092-00	3370-092-00	1
G27	5/16-18x3/4 Hex Flange Screw	1745-002-00	1745-002-00	4
G28	Assembled Gearbox for Gas Engine Models (includes Ref. Nos. G1 thru G25)	3370-090-96	3380-090-96	1
G28	Assembled Gearbox for Electric Models (includes Ref. Nos. G1 thru G25)	3370-090-96	3380-090-96	1

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number as shown in parts list.



Gearbox Feet - Figure L

REPAIR PARTS LIST - Gearbox Feet (FIGURE L)

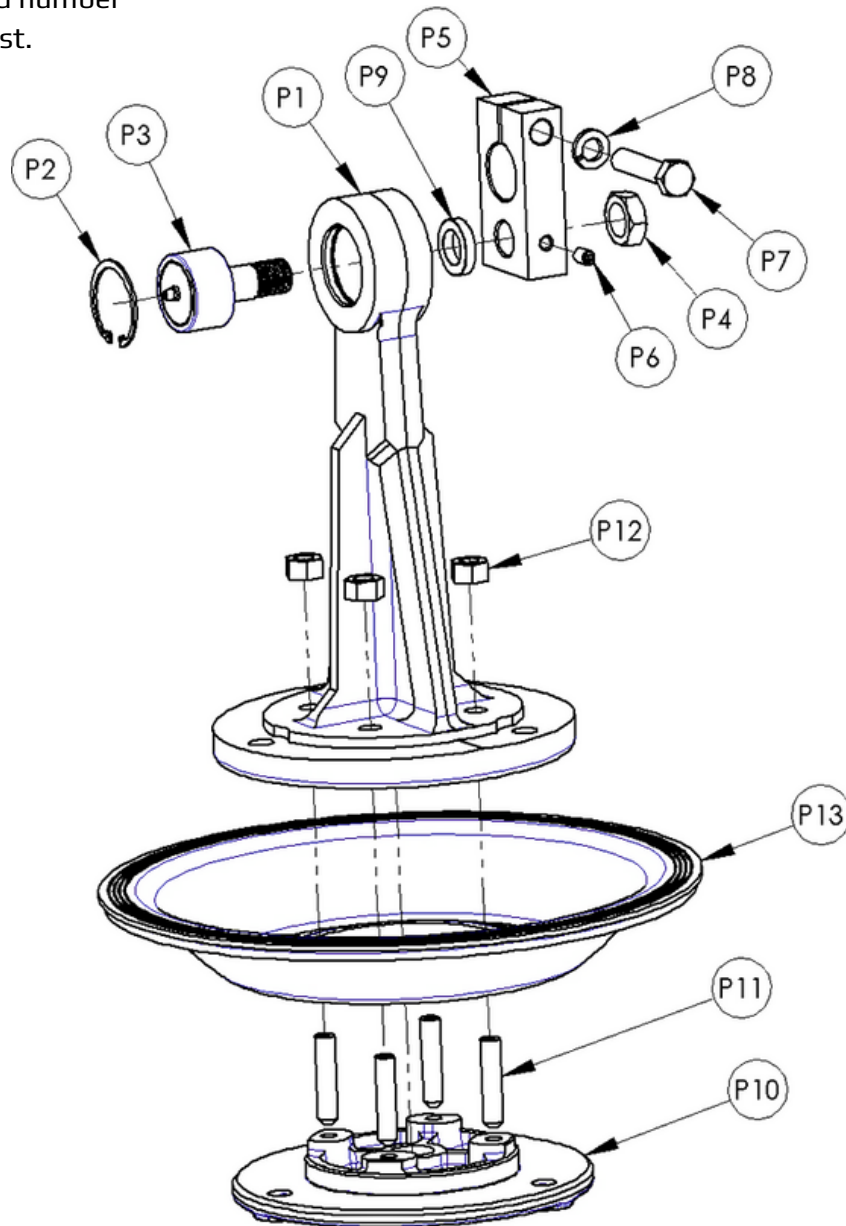
Ref No.	Description	3" Pumps Part Number	2" Pump Part Number	Qty
L1	Steel leg - Left	3370-101-00	3370-101-00	1
L2	Steel leg - Right	3370-100-00	3370-100-00	1
L3	Guard Bracket	3370-102-00	3370-102-00	1
L4	1/2-13x3/4 Hex flange screw	1766-065-00	1766-065-00	4
L5	1/4-20X1/2 Screw	1715-001-00	1715-001-00	2
L6	1/4-20x3/4 Screw	1719-000-00	1719-000-00	2
L7	1/4-20 Flange nut	1776-000-00	1776-000-00	2
L8	1/4-20x3/4 Hex flange screw	1722-000-00	1722-000-00	2
L9	1/4-20 Clip nut	1769-011-00	1769-011-00	2
L10	5/16x3/4 Spring pin	1769-010-00	1769-010-00	2

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number
as shown in parts list.



Plunger Assembly - Figure P

REPAIR PARTS LIST - PLUNGER ASSEMBLY (FIGURE P)

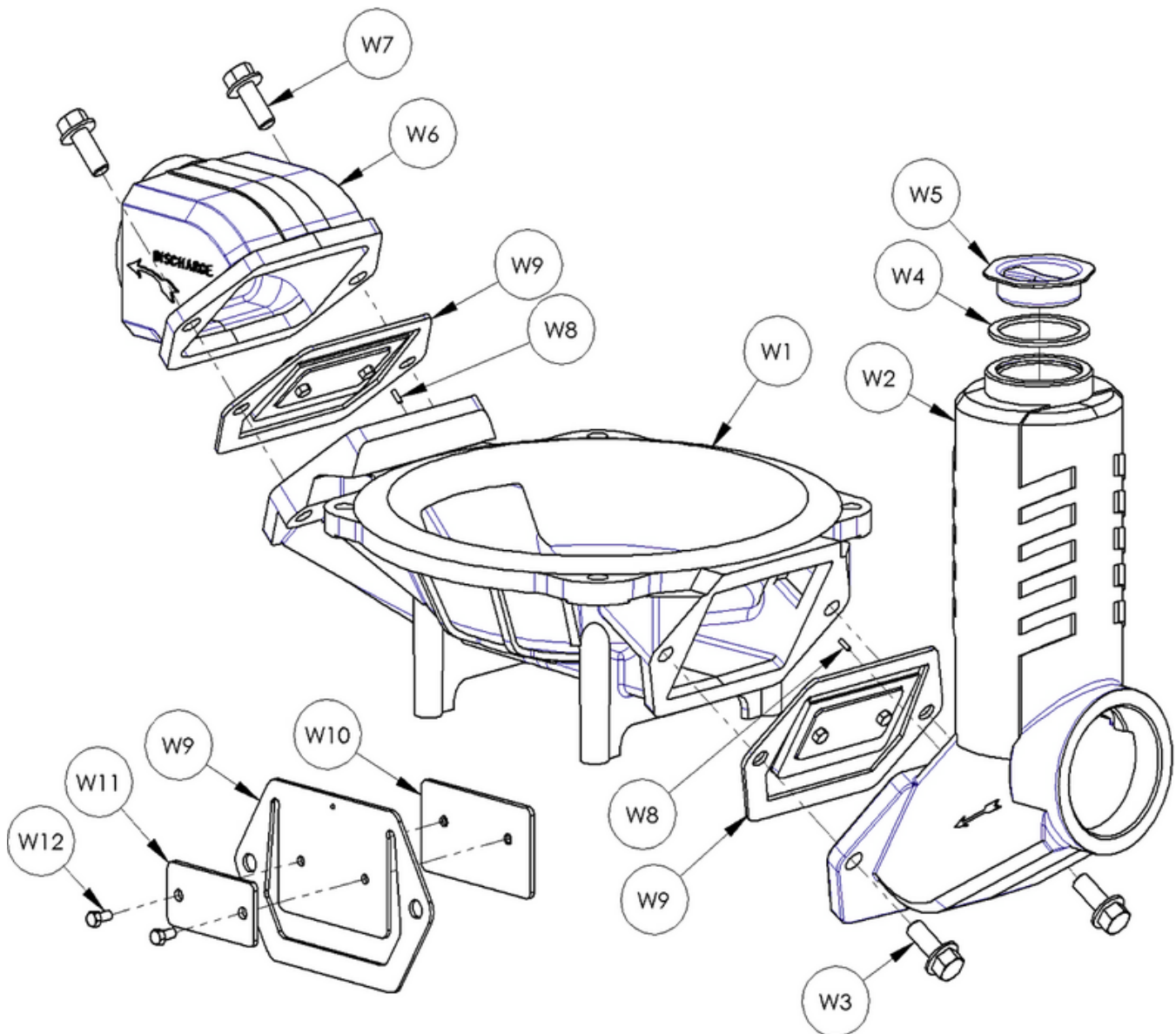
Ref No.	Description	3" Pumps Part Number	2" Pump Part Number	Qty
P1	Plunger	2134-000-02	3360-090-02	1
P2	Retaining Ring	3350-190-00	3360-191-00	1
P3	Plunger Bearing (includes Ref. No. P4)	2138-000-90	3360-190-90	1
P4	Bearing Lock Nut	Incl. w/Ref. P3	Incl. w/Ref. P3	1
P5	Crank / Crank Assembly Kit (Includes Ref. Nos. P6, P7, P8, & P9)	2140-000-90	3360-094-90	1
P6	5/16-18x1/2 Socket Set Screw	Incl. w/ Ref.P5	Incl. w/ Ref.P5	1
P7	1/2-13 Hex Head Cap Screw Grade-5	Incl. w/Ref. P5	Incl. w/Ref. P5	1
P8	1/2 Lock Washer	Incl. w/Ref. P5	Incl. w/Ref. P5	1
P9	Bearing Shim	Incl. w/Ref. P5	Incl. w/Ref. P5	1
P10	Diaphragm Retaining Plate	3370-020-00	3380-092-00	1
P11	7/16-14x2 Stud	1766-007-00	N/A	4
P11	3/8-16x2 Stud	N/A	1760-012-00	4
P12	7/16 Heavy Hex Nut	1766-036-00	N/A	4
P12	3/8-16 Hex Nut	N/A	1780-000-00	4
P13	Diaphragm	3370-300-00	3380-300-00	1

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number as shown in parts list.



Well Assembly - Figure W

REPAIR PARTS LIST - WELL ASSEMBLY (FIGURE W)

Ref No.	Description	3" Pumps Part Number	2" Pump Part Number	Qty
W1	Well	2120-001-00	3360-001-00	1
W2	Suction Plate	2123-000-00	3360-050-00	1
W3	1/2-13x1-1/4 Hex Flange Screw Grade-5	1766-010-00	N/A	2
W3	3/8-16x1-1/4 Hex Flange Screw Grade-5	N/A	1757-007-00	2
W4	Gasket	Incl. w/Ref. W5	Incl. w/Ref. W5	1
W5	Fill Cap (includes Ref. Nos. W5, & W6)	2124-000-00	2124-000-00	1
W6	Discharge Plate	2131-000-00	3360-052-01	1
W7	1/2-13x1-1/4 Hex Flange Screw Grade-5	1766-010-00	N/A	2
W7	3/8-16x1-1/4 Hex Flange Screw Grade-5	N/A	1757-007-00	2
W8	1/8 Diameter x 3/8 Pin	2121-000-00	2121-000-00	2
W9	Check Valve (neoprene) / Assembly Kit (includes Ref. Nos. W9, W10, W11, & W12)	3354-070-90	3360-070-90	2
W10	Check Valve Weight Top	Incl. w/Ref. W9	Incl. w/Ref. W9	1
W11	Check Valve Weight Bottom	Incl. w/Ref. W9	Incl. w/Ref. W9	1
W12	1/4-20x1/2 Hex Head Cap Screw	Incl. w/Ref. W9	Incl. w/Ref. W9	2

Part 2 : Pumps with electric motor (Battery Powered)

UNPACKING

After unpacking the unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing or damaged parts.

1. Check the engine oil and gearbox oil level before starting the engine. Keep away from moving parts due to the risk of entanglement. Avoid loose-fitting jackets, shirts, sleeves, and ties. Ensure all nuts and bolts are tight. Keep flow guards and other guards in place. When making adjustments to the pump, be careful of possibly hot components, manifolds, moving parts.
2. Do not operate this equipment when you are mentally or physically tired.

Specific Safety Information for Battery Powered Electric Motor

3. This unit is not waterproof and is not intended for use in potentially wet locations. The motor is designed to be used in a clean, dry location with access to an adequate supply of cooling air. The ambient temperature around the motor should not exceed 40°C. For outdoor installations, the motor must be protected by a cover that does not block airflow around the motor. This unit is not weatherproof and cannot be submerged in water.

⚠ WARNING

Do not use the pump to pump flammable or explosive liquids such as gasoline, fuel oil, or kerosene. Do not use in flammable and/or explosive atmospheres. The pump must only be used with liquids compatible with the pump component materials. Failure to observe this warning may result in personal injury and/or property damage.

4. Ensure that the power source used meets the required specifications of the equipment.
5. Provide adequate protection for rotating parts.
6. Disconnect the power supply before servicing the equipment.

7. Depressurize the system before performing any maintenance.
8. Drain all fluids from the system before performing any maintenance.
9. Ensure the discharge line is securely fastened before starting the engine. Insufficiently fastened discharge lines can fly off and cause injury or property damage.
10. Check hoses for signs of wear or damage before use. Ensure all connections are secure.
11. Inspect the equipment regularly. Performing routine inspections requires routine inspection; see the maintenance section.
12. Provide some form of pressure relief for pumps whose discharge lines can become blocked or occluded.
13. **Personal safety:**
 - a. Always wear safety glasses when operating the equipment.
 - b. Wear face protection and appropriate clothing when working with chemicals.
 - c. Keep the work area clean, uncluttered, and well lit.
 - d. Keep visitors away from the work area.
 - e. Make the work area safe for children by using locks or removing automatic starters from the unit.

ASSEMBLY

1. Handle on the 2" pump. (Figure A.)
 - f. Remove the two hex screws (ref. A6) and lock washers (ref. A7) from the gearbox. (Ref. A1)
 - g. Place the handle (ref. A35) on the gearbox flange and align the holes.
 - h. Install the two hex bolts and washers and tighten them firmly.
2. Handle on the 3" pump (Figure A.)
 - i. Remove the two hex nuts (ref. no. A14) from the pump housing.
 - j. Place the handle under the pump housing.
 - k. Replace the two hex nuts and washers and tighten them firmly.

ROTATING SUCTION/DISCHARGE PORTS

(See fig. A.W.P.)

In some applications, it may be preferable to have suction/discharge ports rotated 90 degrees to be in line with driver. If so, proceed as follows:

- Remove four hex screws (ref. no. A9), hex nuts (ref. A13 & A14), and washers (ref. nos. A11 & A12) from the pump assembly to separate the pump housing (ref. no. A3) from the pump base (ref. no. A8).
- Turn the pump 90 degrees clockwise, so that the driver is positioned above the discharge plate (Reference no. W7).
- Ensure that the pump housing and diaphragm of the pump (ref. P17) are properly aligned. Then replace the four hex screws, hex nuts, and washers.

GEAR BOX OIL (see fig. A & G)

3. Place the pump on a flat surface.

Fill the gearbox (ref. no. A1) with gear oil before using the pump. The oil must meet the requirements of API GL-5 and specification MIL-L-2105B. Remove the filler plug from the gearbox housing (ref. no. G6). Remove the level plug (ref. G5). Slowly pour oil into the gearbox until the oil emerges from the level plug.

The warranty on this equipment is only valid when the gearbox is lubricated with the appropriate gear oil as specified above. DO NOT OVER FILL!

INSTALLATION

NOTE: In any installation where property damage can occur by pumps not operating due to power outages, discharge line freezing or any other reason, a backup system(s) and/or warning system(s) should be used.

1. Place the pump on a level, solid foundation, locating it as close to the liquid as possible, making the suction line as short and direct as possible.
2. Install pipe nipples (Ref. No. A36) so the smoother side of pipe end faces the suction and discharge hose.

⚠ CAUTION

The maximum discharge height is 7 meters. Exceeding this height will cause the pump to stop functioning or damage the gearbox. Use only rigid hoses, not coiled hoses.

3. Attach the suction hose to the pump's suction port (Ref. W2) and the discharge hose to the discharge port (Ref. W7). The suction hose should be positioned so that there is an upward slope of the liquid towards the pump. Try to minimize bends, loops, and similar bends to prevent air from becoming trapped in the hoses.

NOTE: If hose is used, be sure to use reinforced hose on both the suction and discharge. DO NOT USE canvas or similar collapsible materials. NEVER USE PIPE REDUCER; PIPE SIZE MUST BE EQUAL TO OR LARGER THAN PUMP PORT SIZE. Suction line must be airtight so that air cannot leak in and destroy priming vacuum. On a permanent installation where piping is used, always connect a piece of flexible hose between pump and piping so pump is free to move slightly.

4. It is advisable to place a suction strainer on the suction hose. (Ref. W16). Keep the suction strainer clean. If possible, prevent it from becoming clogged with mud and debris during use. Keep the hose free of kinks. This prevents unnecessary strain on the pump and damage to the hoses.
5. Pump inlet RPM: between 1750 and 2750 rpm.
The final pump speed will be between 40 strokes at 1750 rpm and 60 strokes at 2750 rpm.

It is up to the end user to install a bypass pressure relief valve in the piping system.

Do not exceed 60 strokes per minute with a diaphragm pump.

OPERATION

Operate the diaphragm pump in an upright position only.

1. This diaphragm pump is capable of priming "dry" up to 4,5 meter. it will prime much faster when it is filled with clean water through priming cap (See W6). Primed, it can lift to 7 meter.
2. Activate the unit according to the electrical motor operating instructions.

⚠ CAUTION

Do not control discharge capacity with a valve or similar device.

CLEARING JAM-UP

If large objects, or a buildup of sand or other debris in the pump housing blocks the plunger arm from making a full stroke, the pump should be thoroughly cleaned as described in "If Pump Stalls" shown below.

⚠ CAUTION

If pump has stopped or stalled for any unknown reason, clean out pump cavity thoroughly. Failure to comply with the "caution" could result in damage to crank (Ref. No. P5/P9), plunger arm (Ref. No. P1) or other parts of assembly.

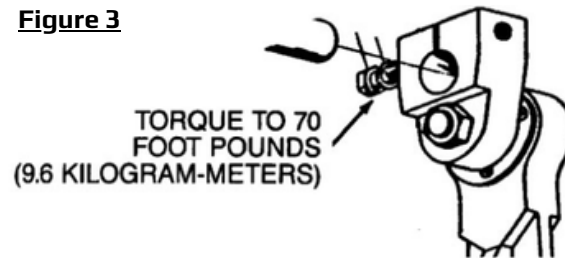
2. IF PUMP STALLS:

- e. Remove the handle (ref. no. A35)
- f. Remove the 4 bolts (ref. no. A9 & A10)
- g. Remove any blockages and clean the pump. (Ref. no. A3)
- h. Then reassemble the pump.

3. IF PLUNGER ARM (Ref. No. P1) SEIZES AND GEAR BOX OUTPUT SHAFT (Ref. No. G8) TURNS IN CRANK (Ref. No. P5):

- a. Remove guard (Ref. No. A4) by loosening screws (Ref. No. A5).
- b. Disassemble pump and clean as described in steps above for clearing jam-up.
- c. Tighten the crankshaft locking screw (ref. P6) to 95 Nm using a suitable torque wrench.
- d. Reassemble the pump in the reverse order.

Figure 3



⚠ WARNING

Pump jamming with an over-torqued lock screw may cause internal damage. Under torqueing may allow the output shaft to spin and wear parts necessitating replacement.

MAINTENANCE

⚠ WARNING

Make certain that unit is disconnected from power source before attempting to service or remove any component.

1. Check gear box oil level every 20 hours of operation or at least once a week; more often if any leakage is detected around the gear box. Change gearbox oil after the first 40 hours of operation. Fill to the oil level plug. Change gearbox oil every 350 hours of operation.
2. The plunger bearing (Ref. No. P3) must be greased (any automotive grease) after every 8 hours of use. This can be done by turning the plunger bearing to the 12 o'clock position. At this point, the grease fitting will be visible through the hole in the guard. (Ref. no. A4) Bearing may be cleaned and kept well lubricated by pumping grease slowly into fitting until new grease oozes out between bearing and journal.
3. During freezing weather, be sure to drain the pump when it is not running. Remove discharge hose and tip unit towards discharge side.
4. Keep pump clean. After use with liquids containing foreign materials, flush with clean water.

REPLACEMENT OF VALVES (Ref. no. W15)

5. Remove the two bolts (ref. no. W3) and remove the suction priming plate (ref. no. W2). Replace the valve (ref. no. W15).
6. Remove the two bolts (ref. no. W8) and remove the discharge plate (ref. no. W7). Replace the flap valve on the pump well.

REPLACEMENT OF DIAPHRAGM (Ref. nr. P17)

7. Remove the guard (ref. no. 4) by loosening the screws. (Ref. A5)
8. Rotate pump until plunger arm (ref. no. A2) is in the down position.
9. Remove the handle (ref. no. A35)
10. Remove the pump well (ref. no. A3) by removing the screws. (Ref. no. A9/A10)
11. Remove the diaphragm by removing four nuts (Ref. No. P12) from studs (Ref. No. P11).
12. Replace the diaphragm and repeat the above steps in reverse order.

GEAR BOX OVERHAULING

A completely assembled gear box is available as a replacement part (Ref. No. G28).

DISASSEMBLY

1. Remove the diaphragm (ref. P13) as described in "Replacement of Diaphragm."
2. Remove the crank (ref. no. P5) by removing the screw. (Ref. no. P6). Use a screwdriver in the slot of the crank to release clamp from the output shaft.
3. Drain the oil from the gearbox by removing the drain plug. (Ref. no. G4)
4. Remove the driver (ref. no. A28/A32) from the adapter (ref. no. G26) by removing the four bolts. (Ref. no. A27)
5. Remove the adapter by removing the four bolts. (Ref. no. G27)
6. Remove the gearbox from the pump base (ref. no. A8) by removing the four bolts.
7. Remove the gear from pump base (ref. nos. G15, G24, G20) by pulling it straight out. Use a slide hammer puller.
8. Remove the twelve screws (ref. no. G3) holding the gearbox halves (ref. nos. G1/G2) together.
9. Carefully separate the gearbox halves.
10. Remove the gasket (ref. no. G22).
11. Remove the output shaft/bearing assembly (ref. nos. G8, G9, G12, G11, G12, G13) and the idler pinion/bearing assembly (ref. nos. G13, G14, G17, G18, G19).
12. Remove the output shaft oil seal. (Ref. no. G23)
13. Remove the bearings (ref. no. G15 and G16) from the input housing.
14. Remove the bearings (ref. no. G13/G14) from the ends of the idler pinion shaft (ref. no. G17)
15. Remove internal spur gear (Ref. No. G19) and key (Ref. No. G18) from idler pinion shaft.
16. Remove retaining ring (Ref. No. G10) and bearings (Ref. Nos. G12 & G13) from ends of output shaft (Ref. No. G8).
17. Remove output gear (Ref. No. G11) and key (Ref. No. G9) from output shaft.

REASSEMBLY

1. Assemble input pinion/bearing assembly, idler pinion/bearing assembly and output shaft/bearing assembly.
2. Install output shaft oil seal into gearbox output half. Lubricate lip seal.
3. Slide output shaft through lip seal. Start output bearing in bore in gear box output half. Position idler pinion bearing assembly in its bore in output half. Simultaneously press both assemblies into output half.
4. Install the gasket.
5. Position gear box input half; align shaft bearings with bearing bores. Press gear box halves together, align pins in output half with pin bore in input half.
6. Secure halves together with twelve screws.
7. Slide input pinion/bearing assembly into bore in gear box input half. Rotate pinion during installation to make sure gear teeth align with internal spur gear teeth.
8. Install the O-ring (Ref. No. G25) on the outside of the gear bearing.
9. Reassemble gear box to pump base with four bolts.
10. Reassemble adapter to gear box with four bolts.
11. Align driver shaft key (Ref. No. A26) with keyway in pinion. Slide driver into pinion, secure to adapter with four bolts (Ref. No. A27).
12. Reassemble crank to output shaft as described under "Operation" section.
13. Replace diaphragm as described under "Replacement of Diaphragm" section.
14. Fill gear box with oil as described under "Assembly" section.
15. Pump should be checked daily, weekly, monthly for proper operation.

NOTE: Only qualified service personnel should attempt to repair this unit. Improper repair and/or assembly can cause pump damage, driver damage and/or an electrical shock hazard depending on model.

FAULT FINDING

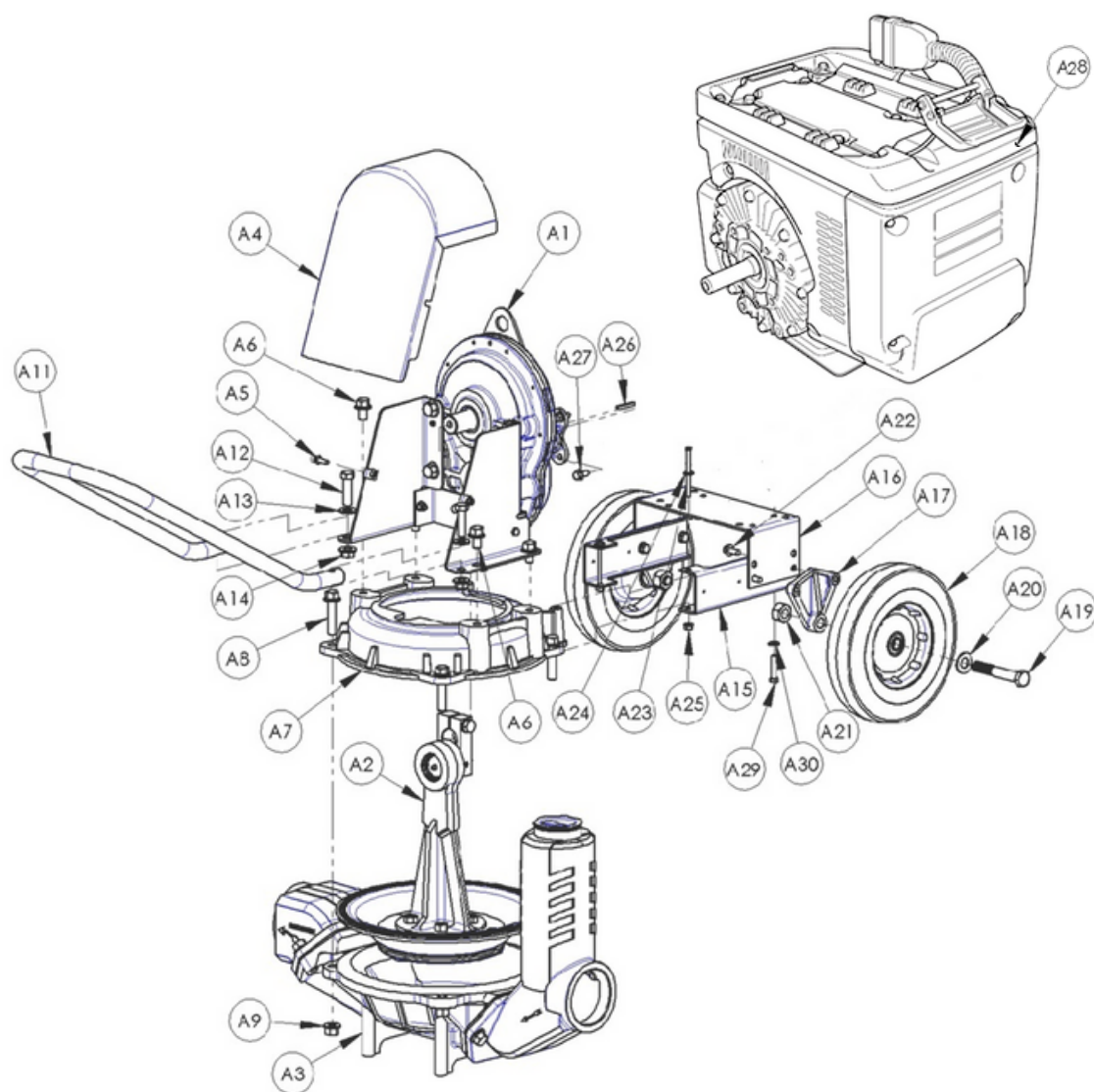
SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Pump will not prime or retain prime after operating	1. Air leak in suction line 2. Defective flapper valves 3. Clogged foot valve or strainer 4. No liquid in suction line 5. Material jammed in pump well	1. Repair or replace 2. Replace 3. Clean or replace 4. Fill suction line & pump with liquid 5. Clean (See Maintenance)
Flow rate is slow	1. Incorrect driver speed 2. Piping is fouled or damaged 3. Clogged pump 4. Discharge line restricted or undersized 5. Collapsible discharge hose 6. Too many bends 7. Lines are too long	1. Increase speed (see Specifications) 2. Clean or replace 3. Clean 4. Flush out piping or replace 5. Replace with rigid or non-collapsible hose 6. Straighten hose 7. Shorten lines
Pump runs but no fluid	1. Faulty suction piping 2. Pump located too far from fluid source 3. Gate valve closed 4. Clogged strainer 5. Discharge height too great	1. Replace 2. Place pump closer to source 3. Open gate valve 4. Clean or replace 5. Lower discharge height
Pump starts and stops pumping	1. Leak in suction line 2. Leak in foot valve 3. Diaphragm has a crack or hole 4. Defective or clogged flapper valves	1. Repair 2. Repair or replace 3. Replace 4. Clean or replace
Excessive noise while pump in operation	1. Pump not secured to firm foundation 2. Restricted suction line	1. Secure properly 2. Clean or correct
Pump stalls repeatedly or stops for no apparent reason	1. Discharge height over 25 feet of head 2. Material jammed in pump well	1. Lower height (see Specifications) 2. Clean out pump well (See Operation & Maintenance section)

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number as shown in parts list.



Assembled Pump - Figure A

REPAIR PARTS LIST - ASSEMBLED PUMP (FIGURE A)

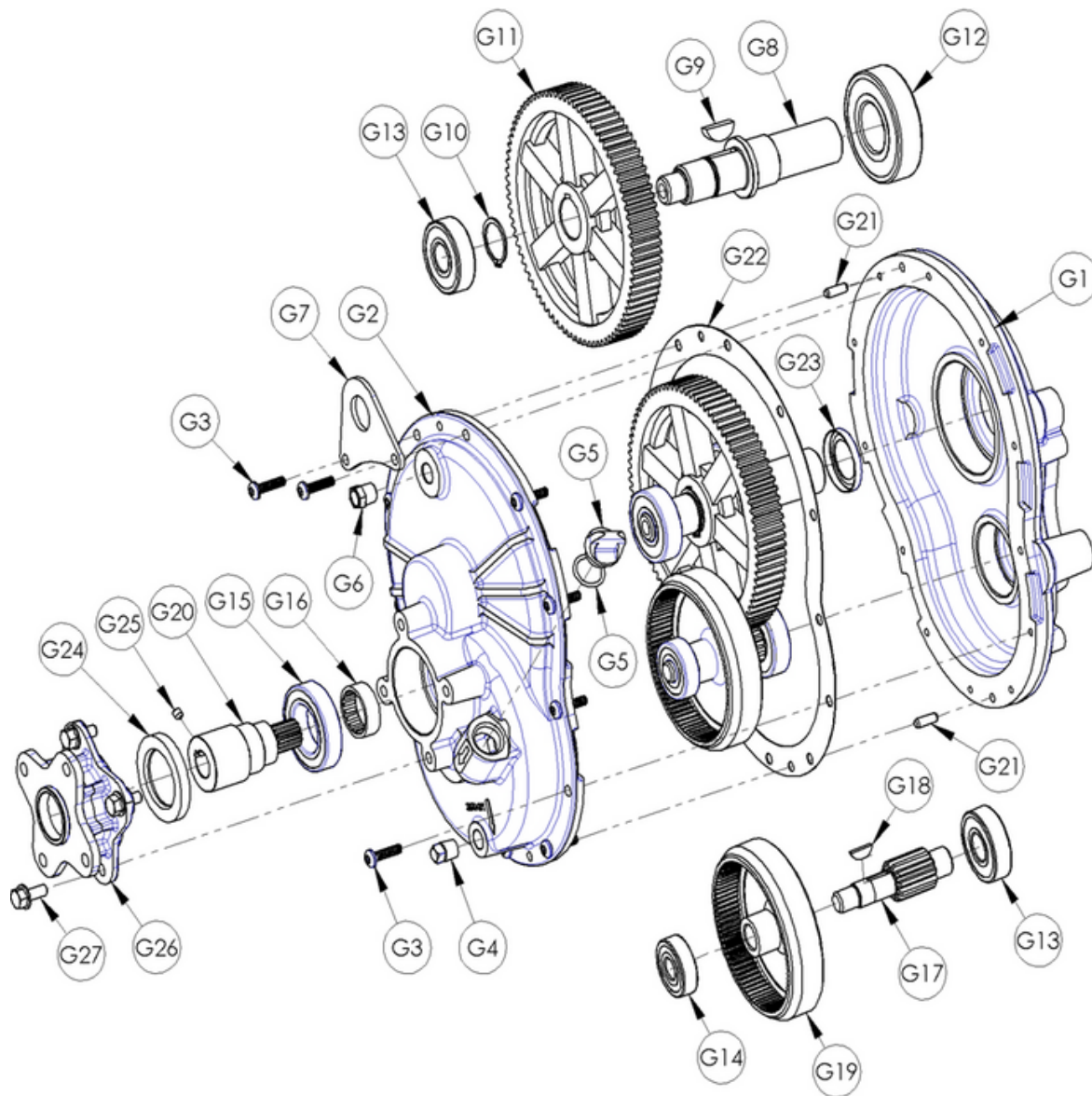
Ref No.	Description	Part Number for Models		Qty
		3" Motor Driven Pump	2" Motor Driven Pump	
A1	Gearbox/Gearbox Feet Assembly	Ref. Page 8 to 11	Ref. Page 8 to 11	1
A2	Plunger Diaphragm Assembly	Ref. Page 12 & 13	Ref. Page 12 & 13	1
A3	Well Assembly	Ref. Page 14 & 15	Ref. Page 14 & 15	1
A4	Plunger Guard / Kit	3370-102-92	3370-102-92	1
A5	1/4-20x3/4 Screw	Incl. w/Ref. A4	Incl. w/Ref. A4	2
A6	1/2-13x3/4 Hex Flange Screw	1766-065-00	1766-065-00	4
A7	Base	3354-001-00	3360-020-01	1
A8	1/2-13x2-1/4 Hex Head Bolt Grade-5	1766-066-00	1766-066-00	4
A9	1/2-13 Hex Nut	1782-004-00	1782-004-00	4
A10	Not Used	N/A	N/A	-
A11	Handle / Kit	3370-116-90	3370-116-90	1
A12	1/2-13x1-3/4 Hex Head Bolt	incl w/A11	incl w/A11	2
A13	1/2 Flat Washer	incl w/A11	incl w/A11	2
A14	1/2-13 Hex Nut	incl w/A11	incl w/A11	2
A15	Mount Brace	3354-107-00	3354-107-00	2
A16	Engine Mount	3354-108-00	3354-108-00	1
A16	Engine Mount Kit for Hatz Diesel	N/A	N/A	1
A17	Wheel Bracket	3354-109-00	3354-109-00	2
A18	Wheel	1663-000-00	1663-000-00	2
A19	5/8-11x4 Hex Head Bolt	1769-000-00	1769-000-00	2
A20	5/8 Flat Washer	1799-000-00	1799-000-00	2
A21	5/8-11 Hex Nut	1782-022-00	1782-022-00	2
A22	5/16-18x3/4 Hex Flange Screw	1745-002-00	1745-002-00	4
A23	1/4-20x3 Hex Bolt	1734-013-00	1734-013-00	2
A24	1/4 Flat Washer	1789-000-00	1789-000-00	2
A25	1/4-20 Hex Nut	1776-000-00	1776-000-00	2
A26	3/16x1-1/2 Square Key	1517-001-00	1517-001-00	1
A27	5/16-24x1 Hex Flange Screw	N/A	N/A	4
A27	3/8-16x1 Hex Flange Screw	1755-002-00	1755-002-00	4
A28	Honda GX'e 2.0 motor	12001000055	12001000055	1
A29	5/16-18x1-1/2 Hex Bolt	N/A	N/A	4
A30	5/16 Flat Washer	N/A	N/A	4
A34	Switch Assembly (not shown)	335E-350-90	335E-350-90	1
A35	Nipple Pack (2 NPT nipples) (not shown)	3270-173-90	C366-999-90	1
	NPT x BSPT Nipple pack (2 nipples)	C370-999-90	C369-999-90	opt
A36	Suction Strainer (not shown)	1680-000-00	C230-170-00	1

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number as shown in parts list.



Gearbox - Figure G

REPAIR PARTS LIST - GEARBOX - FIGURE G

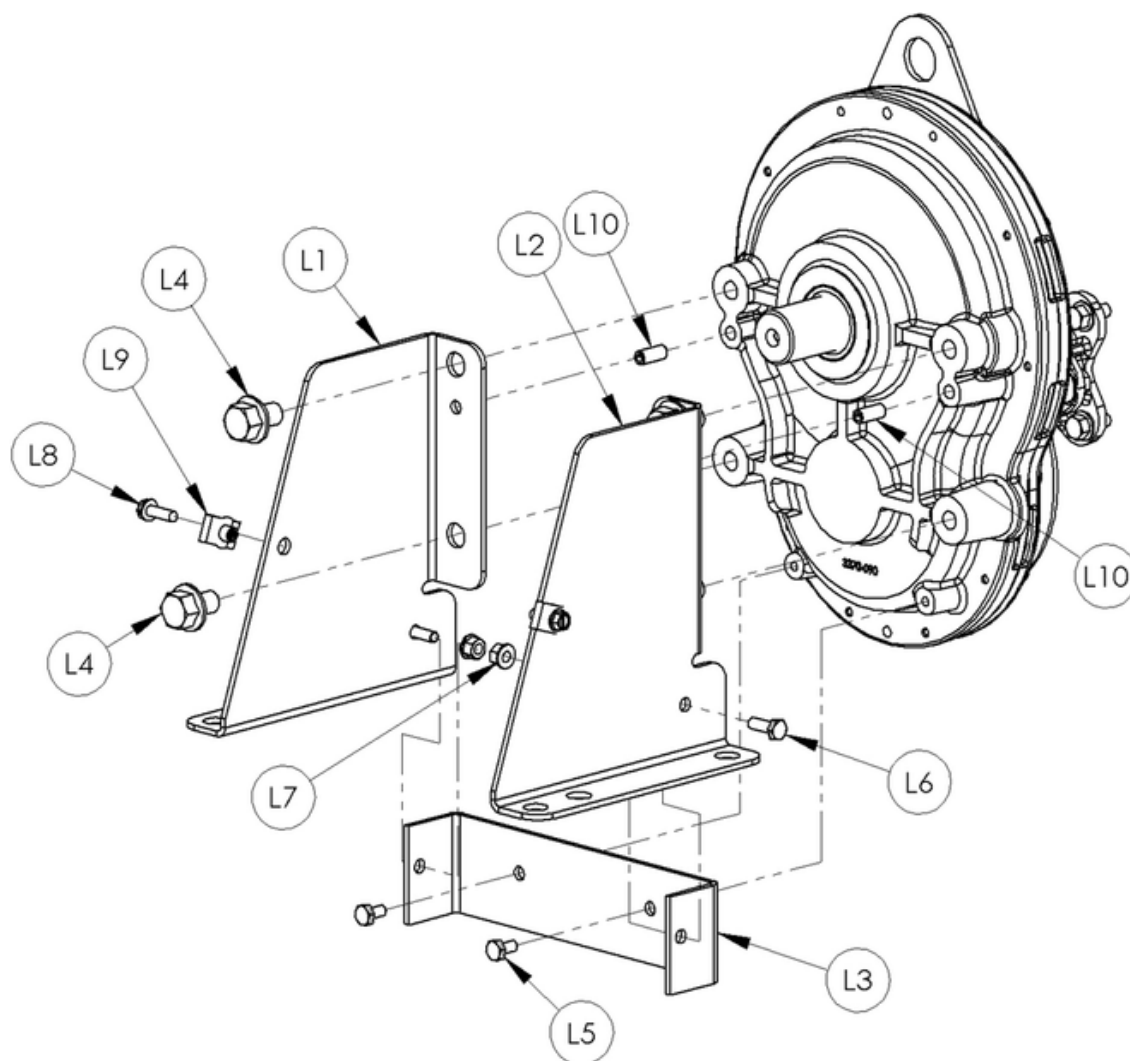
Ref No.	Description	3" Pumps Part Number	2" Pump Part Number	Qty
G1	Gearbox Output Half	3370-090-01	3370-090-01	1
G2	Gearbox Input Half	3370-091-01	3370-091-01	1
G3	1/4-20x1 Screw	1718-007-00	1718-007-00	12
G4	1/4 NPT Plug (drain)	1767-002-00	1767-002-00	1
G5	1/2 NPT Plug and Oring (fill / oil level)	3SXB-170-90	3SXB-170-90	1
G6	1/4 NPT Vented Plug	1767-009-00	1767-009-00	1
G7	Lift Bracket	3354-106-00	3354-106-00	1
G8	Output Shaft	3354-140-00	3354-141-00	1
G9	Woodruff Key #1008	2141-000-00	2141-000-00	1
G10	External Retaining Ring SH-112	1806-064-00	1806-064-00	1
G11	Output Gear	3354-120-00	3354-120-00	1
G12	Bearing-Open 35x80x21 #6307 JEM	3354-190-00	3354-190-00	1
G13	Bearing-Open 20x52x15 #6304 JEM	3354-191-00	3354-191-00	2
G14	Bearing-Open 15x42x13 #6302 JEM	3354-192-00	3354-192-00	1
G15	Bearing-Open 35x62x14 #6007 JEM	3354-194-00	3354-194-00	1
G16	Bearing-Open 30x37x12 Needle	3370-094-00	3370-094-00	1
G17	Idler Pinion Shaft	3354-121-00	3354-121-00	1
G18	Woodruff Key #406	2157-000-00	2157-000-00	1
G19	Internal Spur Gear	2149-000-00	2149-000-00	1
G20	Input Pinion (3/4 keyed battery version)	3370-122-00	3370-122-00	1
G20	Input Pinion (5/8 keyed 56C motor)	3370-123-00	3370-123-00	1
G21	1/4x1 Dowel Pin	1717-002-00	1717-002-00	2
G22	Gasket	3354-300-00	3354-300-00	1
G23	Oil Lip Seal 1-1/4x1-3/4x1/4	2148-000-00	2148-000-00	1
G24	Oil Lip Seal 40x62x8	2148-001-00	2148-001-00	1
G25	1/4-20x1/4 Set Screw	1711-001-00	1711-001-00	1
G26	Adapter (engine)	3370-093-01	3370-093-01	1
G26	Adapter (56C motor)	3370-092-00	3370-092-00	1
G27	5/16-18x3/4 Hex Flange Screw	1745-002-00	1745-002-00	4
G28	Assembled Gearbox for battery Models (includes Ref. Nos. G1 thru G25)	3370-090-96	3380-090-96	1

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number as shown in parts list.



Gearbox Feet - Figure L

REPAIR PARTS LIST - GEARBOX FEET (FIGURE L)

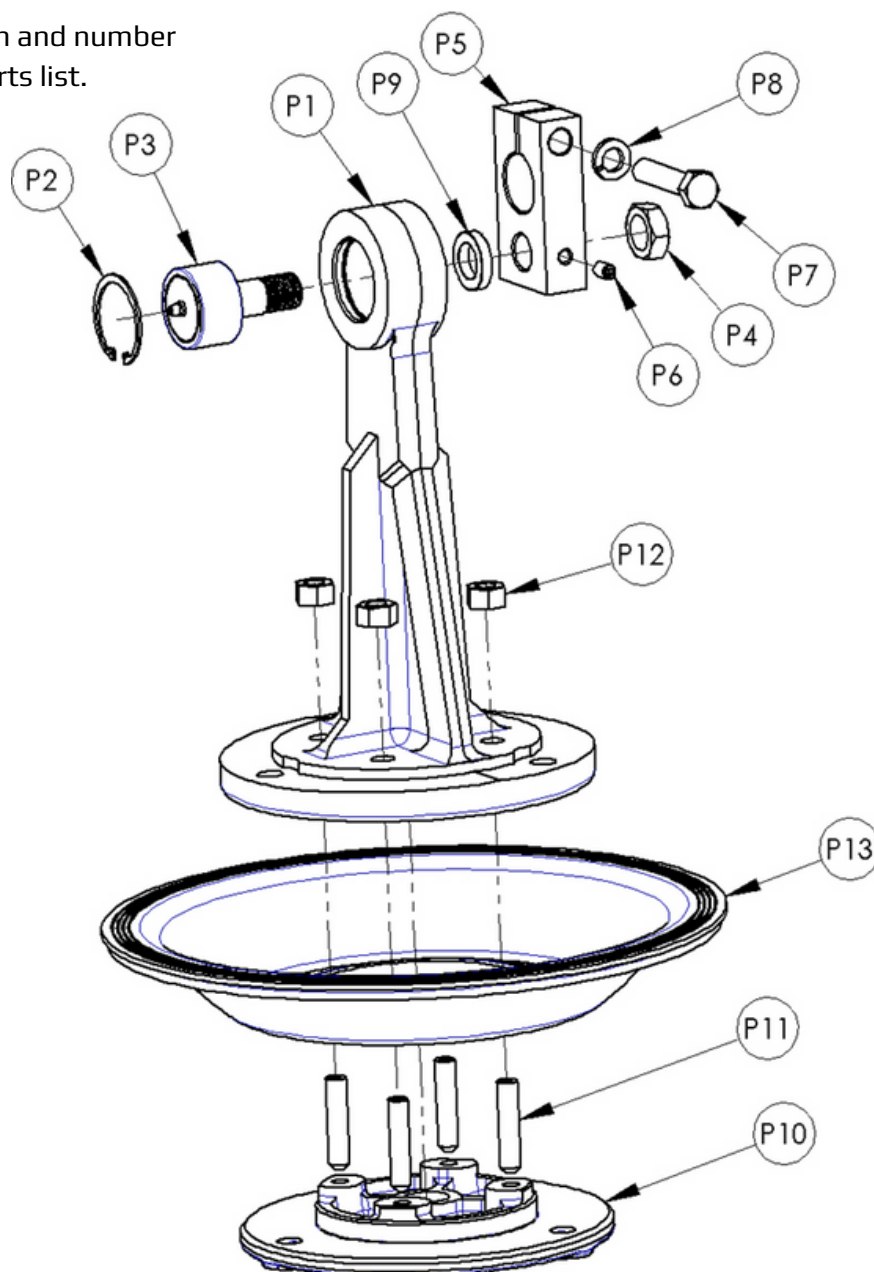
Ref No.	Description	3" Pumps Part Number	2" Pump Part Number	Qty
L1	Steel leg - Left	3370-101-00	3370-101-00	1
L2	Steel leg - Right	3370-100-00	3370-100-00	1
L3	Guard Bracket	3370-102-00	3370-102-00	1
L4	1/2-13x3/4 Hex flange screw	1766-065-00	1766-065-00	4
L5	1/4-20X1/2 Screw	1715-001-00	1715-001-00	2
L6	1/4-20x3/4 Screw	1719-000-00	1719-000-00	2
L7	1/4-20 Flange nut	1776-000-00	1776-000-00	2
L8	1/4-20x3/4 Hex flange screw	1722-000-00	1722-000-00	2
L9	1/4-20 Clip nut	1769-011-00	1769-011-00	2
L10	5/16x3/4 Spring pin	1769-010-00	1769-010-00	2

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number
as shown in parts list.



Plunger Assembly - Figure P

REPAIR PARTS LIST - PLUNGER ASSEMBLY (FIGURE P)

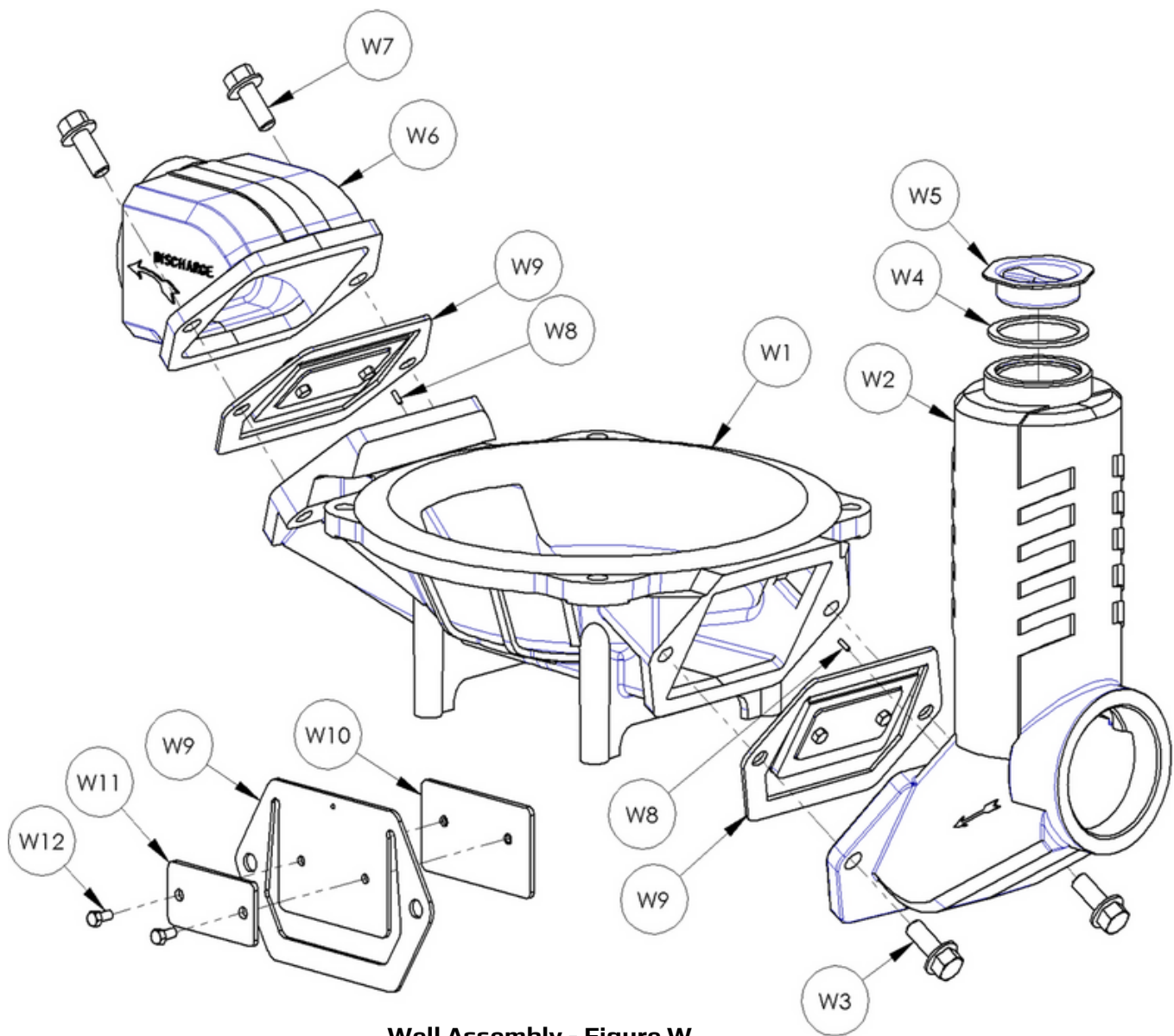
Ref No.	Description	3" Pumps Part Number	2" Pump Part Number	Qty
P1	Plunger	2134-000-02	3360-090-02	1
P2	Retaining Ring	3350-190-00	3360-191-00	1
P3	Plunger Bearing (includes Ref. No. P4)	2138-000-90	3360-190-90	1
P4	Bearing Lock Nut	Incl. w/Ref. P3	Incl. w/Ref. P3	1
P5	Crank / Crank Assembly Kit (Includes Ref. Nos. P6, P7, P8, & P9)	2140-000-90	3360-094-90	1
P6	5/16-18x1/2 Socket Set Screw	Incl. w/ Ref.P5	Incl. w/ Ref.P5	1
P7	1/2-13 Hex Head Cap Screw Grade-5	Incl. w/Ref. P5	Incl. w/Ref. P5	1
P8	1/2 Lock Washer	Incl. w/Ref. P5	Incl. w/Ref. P5	1
P9	Bearing Shim	Incl. w/Ref. P5	Incl. w/Ref. P5	1
P10	Diaphragm Retaining Plate	3370-020-00	3380-092-00	1
P11	7/16-14x2 Stud	1766-007-00	N/A	4
P11	3/8-16x2 Stud	N/A	1760-012-00	4
P12	7/16 Heavy Hex Nut	1766-036-00	N/A	4
P12	3/8-16 Hex Nut	N/A	1780-000-00	4
P13	Diaphragm	3370-300-00	3380-300-00	1

FOR REPAIR PARTS CONTACT DEALER WHERE PUMP WAS PURCHASED.

Please provide following information:

- Model Number
- Serial Number (if any)

Part description and number as shown in parts list.

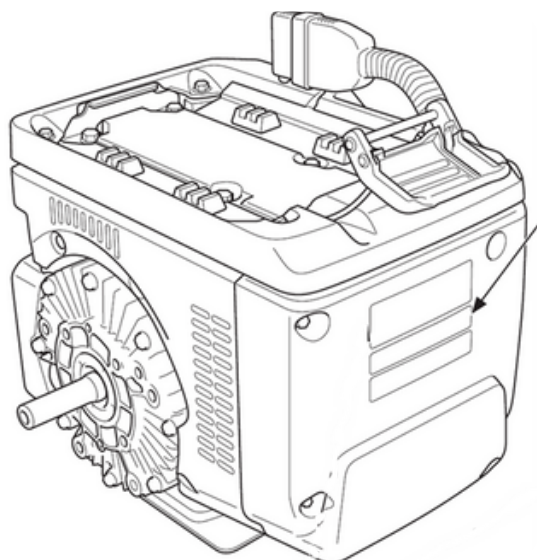


Well Assembly - Figure W

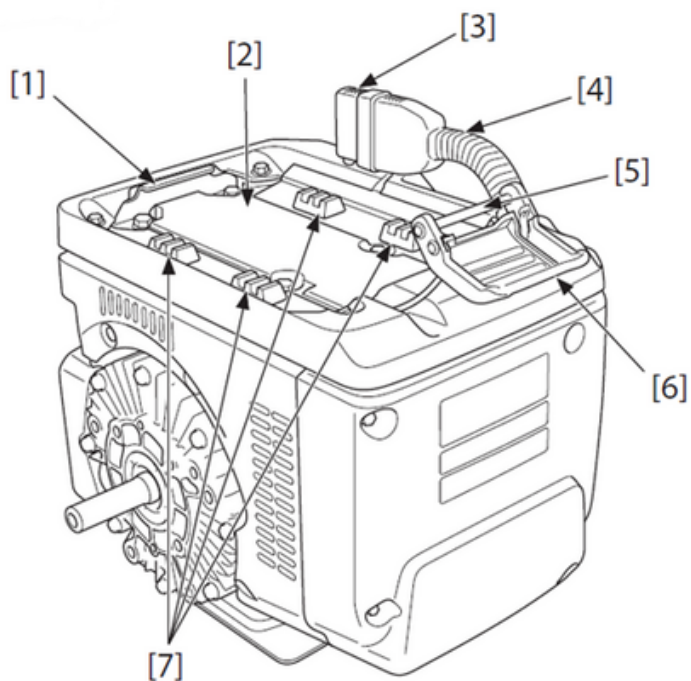
Repair Parts List - Well Assembly (Figure W)

Ref No.	Description	3" Pumps Part Number	2" Pump Part Number	Qty
W1	Well	2120-001-00	3360-001-00	1
W2	Suction Plate	2123-000-00	3360-050-00	1
W3	1/2-13x1-1/4 Hex Flange Screw Grade-5	1766-010-00	N/A	2
W3	3/8-16x1-1/4 Hex Flange Screw Grade-5	N/A	1757-007-00	2
W4	Gasket	Incl. w/Ref. W5	Incl. w/Ref. W5	1
W5	Fill Cap (includes Ref. Nos. W5, & W6)	2124-000-00	2124-000-00	1
W6	Discharge Plate	2131-000-00	3360-052-01	1
W7	1/2-13x1-1/4 Hex Flange Screw Grade-5	1766-010-00	N/A	2
W7	3/8-16x1-1/4 Hex Flange Screw Grade-5	N/A	1757-007-00	2
W8	1/8 Diameter x 3/8 Pin	2121-000-00	2121-000-00	2
W9	Check Valve (neoprene) / Assembly Kit (includes Ref. Nos. W9, W10, W11, & W12)	3354-070-90	3360-070-90	2
W10	Check Valve Weight Top	Incl. w/Ref. W9	Incl. w/Ref. W9	1
W11	Check Valve Weight Bottom	Incl. w/Ref. W9	Incl. w/Ref. W9	1
W12	1/4-20x1/2 Hex Head Cap Screw	Incl. w/Ref. W9	Incl. w/Ref. W9	2

Part 3 : HONDA eGX BATTERY POWERED MOTOR



In the position indicated by the arrow you will find the engine serial number.

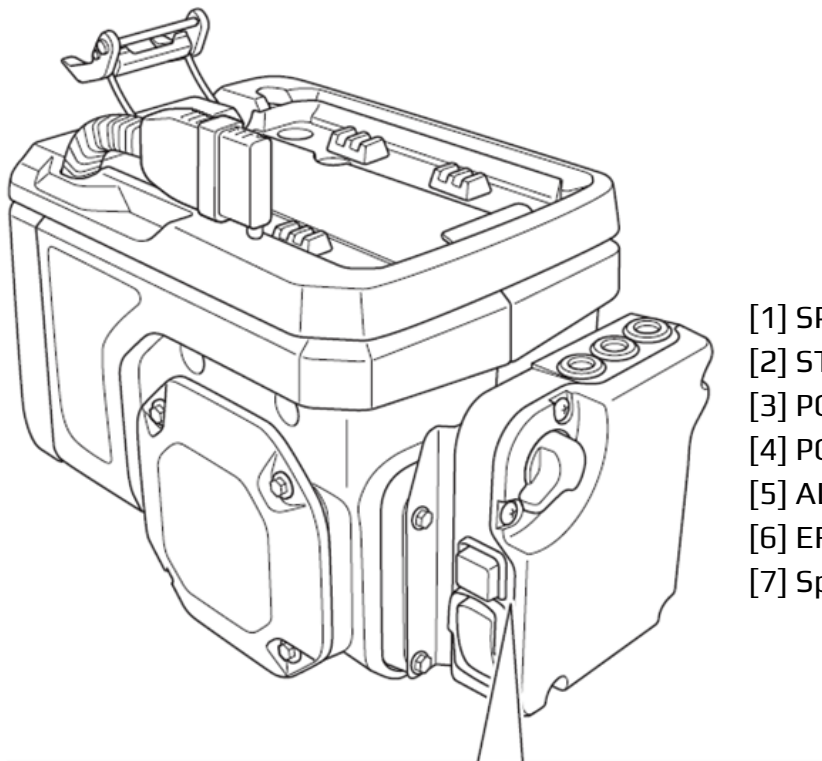


- [1] Battery Hook
- [2] Battery Tray
- [3] Battery Connector Cap
- [4] Power Cable
- [5] Battery Fastener
- [6] Battery Fastener Lever
- [7] Rubber Support

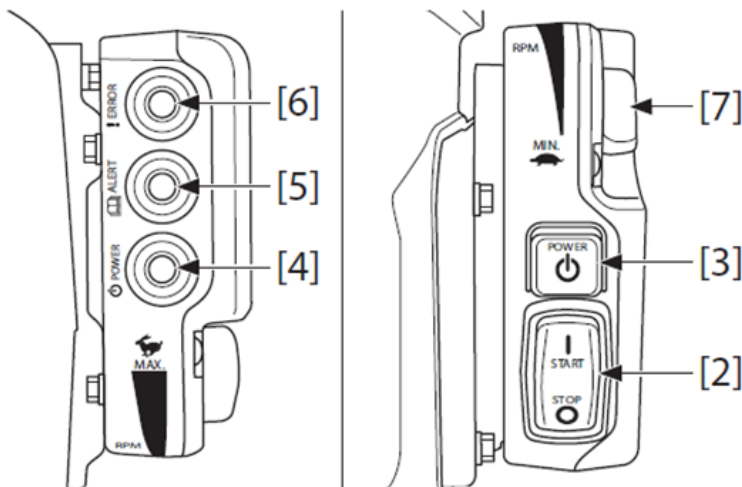
OPERATION

The AMT 337/338B-96 battery-powered pumps feature intuitive controls.

The controls are located on the left side of the pump set, when viewed from the suction side.



- [1] SPEED CHANGE button
- [2] START/STOP switch
- [3] POWER button
- [4] POWER indicator light
- [5] ALERT indicator light
- [6] ERROR indicator light
- [7] Speed control lever (applicable types)

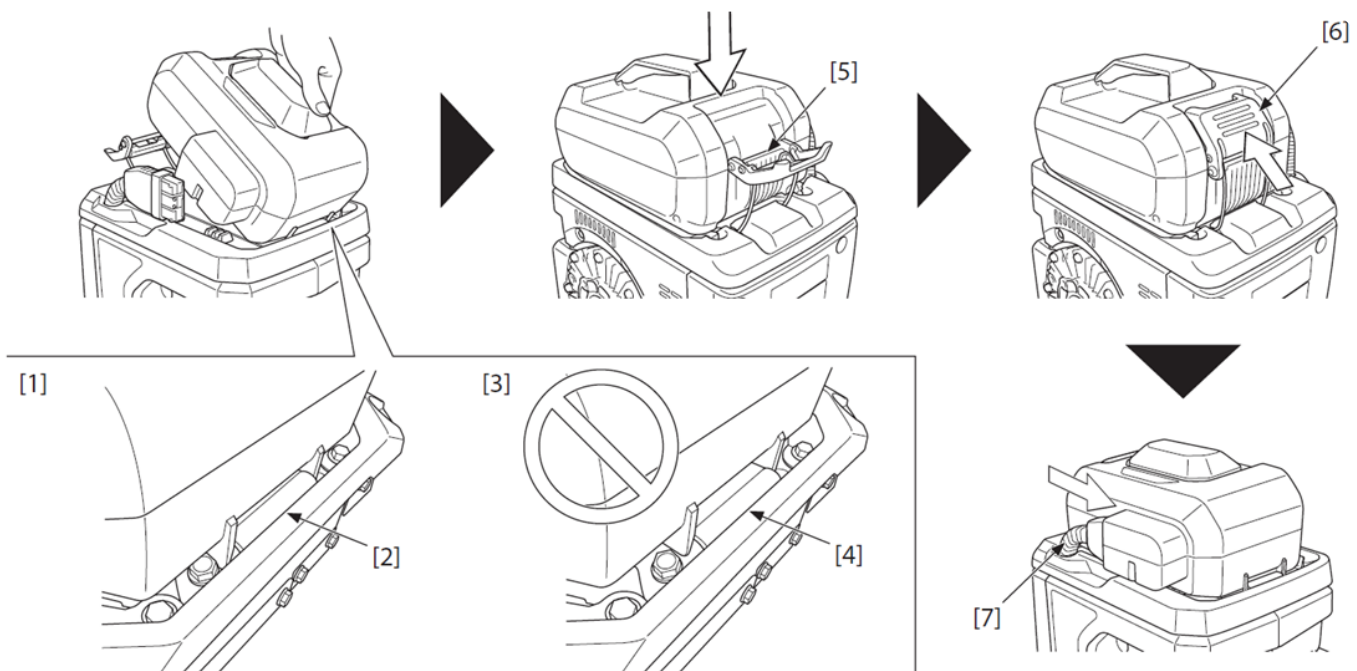


Note: The AMT 337B and 338B are equipped with a speed limiter on position 7. Removing this will void the warranty.

INSTALLING AND CONNECTING THE BATTERY

See the images below for installing the battery.

Do not use excessive force or tools. Installation should be normally possible with both hands without excessive force. If in doubt, consult your dealer or the manufacturer.



- [1] Correct
- [2] Claw of the Battery Pack is securely inserted into the battery hook.
- [3] Incorrect
- [4] Claw of the Battery Pack is not inserted into the battery hook.
- [5] Battery Fastener
- [6] Battery Fastener Lever
- [7] Power Cable

INTRODUCTION

Thank you for purchasing a Honda DC Power Unit.

This manual contains information on how to use it; please carefully read the manual before using the DC Power Unit.

Battery Pack and Battery Charger are provided with each owner's manual. Follow them when you operate the Battery Pack or Battery Charger.

If a problem should arise, or if you have any questions about your product, consult your servicing dealer.

The product pictured in this owner's manual may not match your actual product.

This manual should be considered a permanent part of the DC Power Unit and should remain with the DC Power Unit if resold.

We suggest you read the warranty policy to fully understand its coverage and your responsibilities of ownership.

You need a genuine Battery Pack and genuine Battery Charger to use the DC Power Unit.

- Do not use a non-genuine Battery Pack.

Using a non-genuine Battery Pack could damage itself and the DC Power Unit because of poor protection functions, etc.

CONTENTS

INTRODUCTION.....	40
SAFETY MESSAGES.....	40
DC POWER UNIT SAFETY.....	40
IMPORTANT SAFETY INFORMATION.....	40
SAFETY LABEL LOCATION	41
COMPONENT & CONTROL LOCATIONS.....	41
PRE-OPERATION CHECKS	41
OPERATION	41
CHARGING THE BATTERY PACK	41
ATTACHING THE BATTERY PACK	41
STARTING THE DC POWER UNIT	42
CHECKING THE CHARGE LEVEL OF THE BATTERY PACK	42
STOPPING THE DC POWER UNIT	42
REMOVING THE BATTERY PACK	42
SERVICING YOUR DC POWER UNIT	43
THE IMPORTANCE OF MAINTENANCE	43
MAINTENANCE SCHEDULE	43
TRANSPORTING	43
CLEANING	43
STORAGE	43
DISPOSAL	44
TROUBLESHOOTING	44
SPECIFICATIONS	44
CONSUMER INFORMATION	45

SAFETY MESSAGES

Your safety and the safety of others are very important. We have provided important safety messages in this manual. Please read these messages carefully. A safety message alerts you to potential hazards that could hurt you or others. Each safety message is preceded by a safety alert symbol  and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

DANGER

You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

WARNING

You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

CAUTION

You CAN be HURT if you don't follow instructions.

You will also see other important messages that are preceded by the word NOTICE.

This word means:

NOTICE

Information to help you avoid damage to your DC Power Unit, other property, or the environment.

DC POWER UNIT SAFETY

IMPORTANT SAFETY INFORMATION

For your safety and the safety of others, always follow the instructions below.

- Before you start operations, review and understand these instructions and the instructions provided with the equipment powered by this DC Power Unit.
- Get yourself familiar with the operation of all controls and learn how to stop the DC Power Unit quickly.
- Do not allow anyone to operate the DC Power Unit without proper instructions. Also, do not allow children to touch the DC Power Unit. Failure to do so can cause serious injury or damage to the DC Power Unit.
- Do not remove the cover, label and other parts. Also, do not disassemble or modify the DC Power Unit, which may result in malfunction or injuries.
- Do not operate the DC Power Unit if you are under the influence of alcohol or drugs. Impaired judgement can cause serious injuries.
- Always perform a pre-operation inspection before each operation and correct any problems.
- Use a genuine Battery Pack.
DP72104Z
- To avoid electric shock, fire and serious injury, always remove the Battery Pack from the DC Power Unit when carrying or checking it.
- Do not place objects on the top of the DC Power Unit even if it is turned off. DC Power Unit may be deformed or can cause a malfunction or injuries.
- Keep the Battery Pack clean and dry.
- Do not allow them to come into contact with water.
- Do not couple the DC Power Unit to an equipment before consulting with qualified personnel. Improper coupling may lead to injuries or operation concerns.

SAFETY LABEL LOCATION

See figure 1 on page 37.

Safety labels are affixed to the DC Power Unit for your instruction.

Carefully read these safety labels and the safety precautions in this manual.

If the labels affixed to the product become unreadable, such as if they are torn, or lost, replace them with new labels.

Contact your Honda dealer to purchase a replacement.

COMPONENT & CONTROL LOCATIONS

See figure 2 on page III and figure 3 on page IV.

PRE-OPERATION CHECKS

Check the following points before you operate the DC Power Unit. Before beginning your pre-operation checks, be sure the DC Power Unit is on a level surface and stopped.

Also, perform a test run during the checks.

WARNING

Failure to properly maintain the DC Power Unit, or failing to correct a problem before operation, could result in a significant malfunction.

Some malfunctions can cause serious injuries or death.

Always perform a pre-operation inspection before each operation and correct any problems.

- Before attaching the Battery Pack, make sure that:

- Exterior cover is not damaged.
- Switches are not damaged.
- Rubber support is not damaged.
- Battery hook is not loose or damaged.
- Battery fastener is not damaged.
- Battery connector is not damaged.
- Motor wire harness is not damaged. (For GXE2.0S only)
- There are no debris or excessive dirt on the DC Power Unit or the Battery Pack.

- During the test run

- Check that all switches work (start and stop) properly.
- Check that all indicators light when the DC Power Unit is turned on.

OPERATION

CHARGING THE BATTERY PACK

Refer to the Battery Charger manual for instructions to charge the Battery Pack.

ATTACHING THE BATTERY PACK

Make sure to use a genuine Battery Pack.

See figure 4 on page V and figure 5 on page VI.

1. Make sure there are no debris or dirt on the battery tray.
2. Tilt the Battery Pack and insert its claw into the battery hook.
3. Push down the Battery Pack and hook the battery fastener to it.
4. Push the battery fastener lever up and lock the Battery Pack.
Be careful not to catch your fingers.
5. Remove the battery connector cap from the power cable.
Connect the power cable to the battery connector of the Battery Pack.

After attaching the Battery Pack, make sure the battery hook and fastener are securely attached.

STARTING THE DC POWER UNIT

See figure 3 on page IV.

1. Press STOP on the START/STOP switch.
2. Press the POWER button.
All the indicators should illuminate for a few seconds, and then only the POWER indicator remains illuminated.
3. Press the START/STOP switch to the START position to start the DC Power Unit.
4. Change the Power Unit speed as needed.
GXE2.0H: Operate the speed control lever (applicable types).
GXE2.0S: Push the SPEED CHANGE button.

- If the POWER button is pressed when the START/STOP switch is in the START position, the POWER indicator remains off and the ALERT indicator flashes. In this case, the DC Power Unit cannot start. Press the START/STOP switch to the STOP position and then press the POWER button.
- It may take some time for the indicators to light after the POWER button is pressed. If the indicators do not light, press the POWER button again.
- If the DC Power Unit is not operated for about one minute after the POWER button is pressed, the POWER indicator turns off. Press the POWER button again to start the DC Power Unit.
- If the control switch is installed on the equipment powered by the DC Power Unit, refer to the manual that came with the equipment for instructions on how to start the DC Power Unit.

CHECKING THE CHARGE LEVEL OF THE BATTERY PACK

While the DC Power Unit is operating, the charge level indicator lights or flashes so you can confirm the charge level of the Battery Pack. While the DC Power Unit is stopped, press the charge level check button to confirm the charge level of the Battery Pack. See figure 4 on page V.

Indicator Display	Charge Level	
	High ↓ Low	Fully charged.
		Sufficiently charged.
		Remaining battery power is low. Charge the Battery Pack.
		
		

■: On, ✱: Flashing, □: Off

STOPPING THE DC POWER UNIT

See figure 3 on page IV.

1. Press the START/STOP switch to the STOP position.
The DC Power Unit stops and the POWER indicator turns off.
- You can also stop the DC Power Unit by pressing the POWER button, but it may take some time to stop.
 - If the control switch is installed on the equipment powered by the DC Power Unit, refer to the manual that came with the equipment for instructions on how to stop the DC Power Unit.

REMOVING THE BATTERY PACK

1. Remove the power cable from the Battery Pack.
When removing the power cable, grab the battery connector and pull it out. Do not pull by the power cable.
2. Pull the battery fastener down to unlock, tilt the Battery Pack up and pull the Battery Pack claw out from the battery hook, and remove the Battery Pack.
3. Attach the battery connector cap to the power cable.

SERVICING YOUR DC POWER UNIT

THE IMPORTANCE OF MAINTENANCE

Proper maintenance is essential for safe, economical, reliable, and environmentally friendly operation.

⚠ WARNING

Failure to properly maintain the DC Power Unit, or failing to correct a problem before operation, could result in a significant malfunction.

Some malfunctions can cause serious injuries or death.

Always follow the inspection and maintenance recommendations and schedule in this manual.

MAINTENANCE SCHEDULE

GXE2.0H

ITEM	REGULAR SERVICE PERIOD (1)		Every 5 years or 500 hrs.
		Each use	
Exterior cover	Check	o	
Switch, speed control lever (applicable types)	Check	o	
LED (applicable type)	Check	o	
Power cable	Check	o	
Wires harness	Check		o(2)(4)
Battery fastener	Check	o	
	Replace		o(2)
Rubber support	Check	o	
	Replace		o(2)
Battery hook	Check	o	
	Replace		o(2)
Rubber mount	Replace		o(2)
Stopper bolt	Replace		o(2)
Stopper rubber	Replace		o(2)
Drain hole	Clean		o(2)
Set speed	Check	When required(3)	

(1) Perform at every indicated time or operating hours interval, whichever comes first.

(2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient.

Consult an authorized Honda dealer.

(3) If the DC Power Unit makes an unusual sound, have it inspected by your servicing dealer.

(4) Replace if necessary.

GXE2.0H

ITEM	REGULAR SERVICE PERIOD (1)		Every 5 years or 250 hrs.
		Each use	
Exterior	Check	o	
Switch (applicable type)	Check	o	
LED (applicable type)	Check	o	
Power cable	Check	o	
Motor wire harness	Check	o	
Wires harness	Check		o(2)(4)
Battery fastener	Check	o	
	Replace		o(2)
Rubber support	Check	o	
	Replace		o(2)
Battery hook	Check	o	
	Replace		o(2)
Drain hole	Clean		o(2)
Set speed	Rated speed	Check	When required(3)
	Medium speed	Check	
	Low speed	Check	

(1) Perform at every indicated time or operating hours interval, whichever comes first.

(2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient.

Consult an authorized Honda dealer.

(3) Set speed is set to 3600 min-1(rpm) (rated speed), 3300 min-1(rpm) (medium speed) or 3000 min-1(rpm) (low speed). If the DC Power Unit makes an unusual sound, have it inspected by your servicing dealer.

(4) Replace if necessary.

TRANSPORTING

- Make sure the DC Power Unit has cooled down.
- Remove the Battery Pack.
- Keep the DC Power Unit level during transportation.

CLEANING

Do not use a hose or pressure washer to spray water on the Battery Pack while cleaning it. Water entering the components may cause a malfunction.

STORAGE

- Before storing the DC Power Unit, remove the Battery Pack to prevent unintended operation.
- Store the DC Power Unit on a level surface.
- Avoid storage areas with high temperature and high humidity, or environments with severe temperature changes. Keep away from direct sunlight and rain.

DISPOSAL

To protect the environment, do not dispose of this product using standard waste collection. Observe the local laws and regulations or consult your authorized Honda dealer for disposal.



Do not dispose of electric equipment together with household waste material. If electrical appliances are disposed of in landfills or dumps, substances can leak and react and enter into the foodchain, damaging your health and well-being. For further information on the disposal of this product, please contact your dealer or your nearest domestic waste collection service.

TROUBLESHOOTING

Check the following points if there is a malfunction. If a problem is not resolved or the symptoms do not improve, consult an authorized Honda servicing dealer.

DC Power Unit does not operate

Possible Cause	Solution
Battery Pack is not attached correctly.	Refer to "ATTACHING THE BATTERY PACK" (P. 2) and check that the power cable and Battery Pack are attached correctly.
Battery power is low.	Charge the Battery Pack.
Battery Pack has malfunctioned.	Replace the Battery Pack.

ALERT indicator is flashing

Possible Cause	Solution
Protection function is engaged.	Consult an authorized Honda dealer.
When starting the DC Power Unit, the POWER button was pressed while the START/STOP switch was in the START position.	Press the START/STOP switch to the STOP position and then press the POWER button.
DC Power Unit becomes hot. (POWER indicator lights)	Stop using the DC Power Unit and wait for it to cool down.

ERROR indicator is lit

Possible Cause	Solution
Protection function is engaged.	Consult an authorized Honda dealer.

SPECIFICATIONS

GXE2.0H (Type: S3, model with speed control lever)

Model	GXE2.0H
Description code	GMABK
Length × Width × Height*1	294 × 418 × 296 mm
Mass*1	19.7 kg
Cooling system	Forced air
Continuous rated power (factory setting)	1.6 kW (2.1 HP, 2.2 PS) / 3,600 min ⁻¹ (rpm)
Torque	4.3 N·m (0.44 kgf·m) / 3,600 min ⁻¹ (rpm)
Current	27 A
Voltage	72 V
Net power	1.8 kW (2.4 HP, 2.4 PS) / 3,600 min ⁻¹ (rpm)
Torque	4.8 N·m (0.49 kgf·m) / 3,600 min ⁻¹ (rpm)
Voltage	72 V
Set speed	1,800 to 3,600 min ⁻¹ (rpm)
Operating temperature range	-15 to 40 °C (5 to 104 °F)

*1 Without Battery Pack

GXE2.0S (Type: V1)

Model	GXE2.0S
Description code	GMACK
Length × Width × Height*1	Controller: 351 × 299 × 127 mm Motor: 216 × 224 × 194 mm
Mass*1	Controller: 7.1 kg Motor: 8.7 kg
Cooling system	Forced air
Continuous rated power	1.6 kW (2.1 HP, 2.2 PS) / 3,600 min ⁻¹ (rpm)
Torque	4.3 N·m (0.44 kgf·m) / 3,600 min ⁻¹ (rpm)
Current	27 A
Voltage	72 V
Net power	1.8 kW (2.4 HP, 2.4 PS) / 3,600 min ⁻¹ (rpm)
Torque	4.8 N·m (0.49 kgf·m) / 3,600 min ⁻¹ (rpm)
Voltage	72 V
Set speed	Rated speed 3,600 min ⁻¹ (rpm) Medium speed 3,300 min ⁻¹ (rpm) Low speed 3,000 min ⁻¹ (rpm)
Operating temperature range	-15 to 40 °C (5 to 104 °F)

*1 Without Battery Pack

CONSUMER INFORMATION

Warranty and Distributor/Dealer Locator Information

United States, Puerto Rico, and U.S. Virgin Islands:

Visit our website: www.engines.honda.com

Canada:

Call (888) 9HONDA9

or visit our website: www.honda.ca

For European Area:

Visit our website: <http://www.honda-engines-eu.com>

Customer Service Information

Servicing dealership personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your dealer does not solve to your satisfaction, please discuss it with the dealership's management. The Service Manager, General Manager, or Owner can help. Almost all problems are solved in this way.

United States, Puerto Rico, and U.S. Virgin Islands:

If you are dissatisfied with the decision made by the dealership's management, contact the Honda Regional Engine Distributor for your area. You can find their name, address, and phone number using the distributor/dealer locator on our website at www.engines.honda.com

If you are still dissatisfied after speaking with the Regional Engine Distributor, you may contact the Honda Office.

American Honda Motor Co., Inc.

Power Equipment Division

Customer Relations Dept.

4900 Marconi Drive

Alpharetta, GA 30005-8847

Or telephone: (770) 497-6400, M-F 9:00 am - 7:30 pm ET

All Other Areas:

If you are dissatisfied with the decision made by the dealership's management, contact the Honda Office.

Honda DC Power Unit International Warranty

The Honda DC Power Unit (including Battery Pack and Battery Charger) installed on this brand product is covered by a Honda DC Power Unit Warranty, on the following assumptions.

- The warranty conditions conform to those for the DC Power Unit established by Honda for each country.
- The warranty conditions apply to DC Power Unit failures caused by any manufacturing or specification problem.
- The warranty does not apply to countries where there is no Honda distributor who deals DC Power Unit.

To obtain warranty service: You must take your Honda DC Power Unit, or the equipment in which it is installed, together with proof of original retail purchase date to the dealer who you purchased your product from or a Honda dealer authorized to sell that product in your country. To locate a Honda distributor/dealer near you or check warranty condition in your country, visit our global service information website <https://www.hondappsv.com/ENG/> or contact distributor in your country.

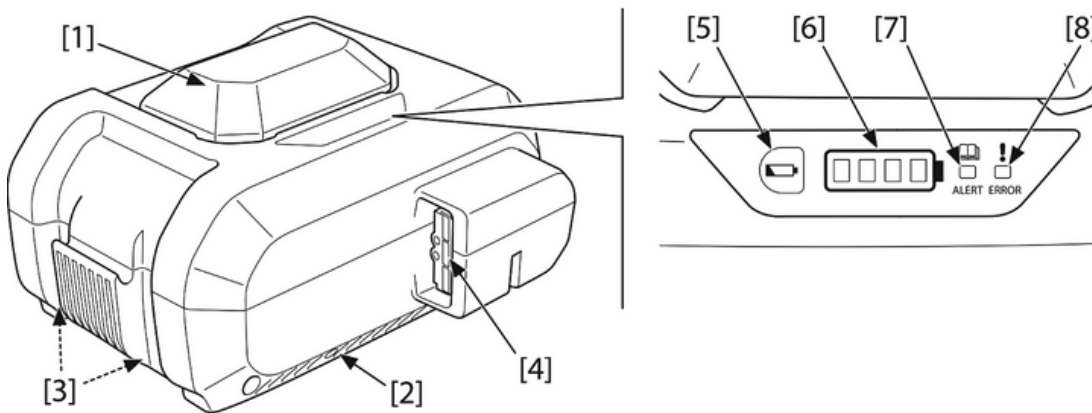


<https://www.hondappsv.com/ENG/>

Exclusions: This DC Power Unit warranty does not include the following:

1. Any damage or deterioration resulting from the following:
 - Neglect of the periodic maintenance as specified in the DC Power Unit owner's manual
 - Improper repair or maintenance
 - Operating methods other than those indicated in the DC Power Unit owner's manual
 - Damage caused by the product on which the DC Power Unit is installed
 - The use of non-genuine Honda parts and accessories, other than those approved by Honda
 - Exposure of the product to soot and smoke, chemical agents, bird droppings, sea water, sea breeze, salt or other environmental phenomena
 - Collision, neglect, unauthorized alteration, or misuse
 - Natural wear and tear (natural fading of painted or plated surfaces, sheet peeling and other natural deterioration)
2. Consumable parts: Honda does not warrant normal decrease of battery full-charge capacity due to usage and storage, and parts deterioration due to normal wear and tear.
3. Cleaning, adjustment, and normal periodic maintenance work.
4. Use of the Honda DC Power Unit for racing or competition.
5. Any DC Power Unit that is part of a product that has ever been declared a total loss or sold for salvage by a financial institution or insurer.

Part 3B : HONDA eGX BATTERY BACK (OPTIONAL)



- [1] Grip
- [2] Intake Port (both sides)
- [3] Exhaust Port (bottom)
- [4] Battery Connector
- [5] Charge Level Check Button
- [6] Charge Level Indicator
- [7] ALERT Indicator
- [8] ERROR Indicator

SAFETY MESSAGES

Your safety and the safety of others are very important. We have provided important safety messages in this manual. Please read these messages carefully. A safety message alerts you to potential hazards that could hurt you or others. Each safety message is preceded by a safety alert symbol  and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

DANGER

You **WILL** be KILLED or SERIOUSLY HURT if you don't follow instructions.

WARNING

You **CAN** be KILLED or SERIOUSLY HURT if you don't follow instructions.

CAUTION

You **CAN** be HURT if you don't follow instructions.

You will also see other important messages that are preceded by the word NOTICE. This word means:

NOTICE

Information to help you avoid damage to your DC Power Unit, other property, or the environment.

BATTERY PACK SAFETY

IMPORTANT SAFETY INFORMATION

Read this manual carefully before using this product. Before using this product, you must understand how to handle the product properly.

DANGER

Failure to follow the instructions below may result in excessive heat, fire and/or bursting (explosion), etc.
Do not heat or place into fire. Do not use, charge, or leave in a hot place.

WARNING

Failure to follow the instructions below may result in the Battery Pack excessive heat, fire, or electric shock, etc.

- Do not drop or impact the Battery Pack.
- Only use the specified charger when charging.
- Do not disassemble, modify, or repair the Battery Pack.
- Do not allow water to contact the battery terminals or get inside the Battery Pack.

- Only use the genuine Honda Battery Charger (CV7285Z) when charging.
- Do not touch the Battery Pack's connectors with metal objects or insert metal objects through openings into the Battery Pack.
- If the Battery Pack leaks fluid or smells strangely, immediately move it away from any heat sources or flame. There is a risk of fire or rupturing if the leaked liquid or gas ignites. Also, if the liquid gets into your eyes, rinse them with plenty of water. After that, immediately seek medical care. Battery Pack contains combustible organic solvents as an electrolyte solution.
- Do not allow children to use the Battery Pack. Store the Battery Pack out of the reach of children.
- Do not store the Battery Pack in a damp location. Doing so can cause a malfunction.
- When the Battery Pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- In case of fire, stop using the machine immediately and extinguish with dry chemical, sandy soil, carbon dioxide or appropriate foam.

SAVE THESE INSTRUCTIONS.

SAFETY LABEL LOCATION

See figure 1, page II.

Safety labels are affixed to the Battery Pack for your instruction so that it is used safely. Carefully read these safety labels and the safety precautions in this manual.

LOCATIONS OF COMPONENTS AND SWITCHES

See page 38.

OPERATION

SAFE OPERATING PRECAUTIONS

- Before using the Battery Pack, use an genuine Honda Battery Charger to charge it.
- Do not use a battery that is cracked or damaged.
- If a Battery Pack is cracked or damaged, do not use it.
- Make sure there is no dust or dirt on the battery connector. Using it while it is dirty can cause a malfunction.
- The battery deteriorates if it is repeatedly charged and discharged, , as well as if it is stored and not used.
- As the Battery Pack deteriorates, its full-charge capacity decreases and the length of time it can be used shortens. Once the full-charge capacity is reduced by deterioration, it cannot be recovered and cannot reach the charging capacity of a new Battery Pack.

CHECKING THE CHARGE LEVEL

See Figure 1, page III.

When the charge level check button is pressed, the charge level indicator lights or flashes so you can confirm the charge level of the Battery Pack.

Indicator Display	Charge Level
	Fully charged.
	Sufficiently charged.
	Remaining battery power is low. Charge the Battery Pack.
	
	

■: On, : Flashing, □: Off

CHARGING THE BATTERY

For how to charge the Battery Pack, refer to the manual for the Battery Charger.

ATTACHING THE BATTERY

For how to attach the Battery Pack, refer to the manual for the specified device.

TRANSPORTING

CARRYING THE BATTERY PACK

Note the following precautions when carrying the Battery Pack.

- To carry the Battery Pack, remove it from the specified device or Battery Charger.
- Hold the grip of the Battery Pack and grasp it firmly so your fingers do not slip from the grip.
- Do not swing the Battery Pack around or throw it.

LOADING IN A VEHICLE

When loading the Battery Pack in a vehicle, place it in a level location inside the vehicle or load bed, and secure it so it does not move. If there are regulations that stipulate transportation methods, such as requirements for storage in a specified storage case, then follow those regulations.

Also, note the following precautions when loading the Battery Pack into a vehicle.

- Remove the Battery Pack from the specified device or Battery Charger and protect it with cushioning materials.
- Face the intake/exhaust port downward when loading and securing the Battery Pack, so rainwater does not get inside.
- Do not throw the Battery Pack into or out of the load bed of a vehicle.
- Avoid direct sunlight, and do not load or secure the Battery Pack in a location that can become very hot, such as in an enclosed vehicle.
- Do not stack Battery Packs when loading them.
- Do not place baggage on top of the Battery Pack. Also, be careful that other baggage does not slide and collide with the Battery Pack.

WHEN TRANSPORTING BY SHIP OR AIRCRAFT

When shipping by third parties(e.g.: by air transport or forwarding agency), special requirements on packaging and labelling must be observed.

For preparation of the item being shipped, consulting an expert for hazardous material is required.

Ship Battery Packs only when undamaged.

Please also observe the possibility of more detailed national regulations.

CLEANING

- Before cleaning the Battery Pack, remove it from the specified device or the Battery Charger.
- If the Battery Pack and connector are dirty, wipe them off with a clean dry cloth.

STORAGE

Inappropriate long-term storage can cause the Battery Pack to deteriorate quickly. And, it may become unusable.

- Before storing the Battery Pack, remove it from the specified device or the Battery Charger, to prevent unintended operation.
- Storing the Battery Pack in a very warm location can cause the Battery Pack to deteriorate quickly.
 - Optimal storage at room temperature. See "SPECIFICATIONS" for the storage temperature range.
- Before putting the battery in long-term storage, refer to the following table to confirm whether the charge level of the Battery Pack is suitable for long-term storage. Also, check the charge level of the Battery Pack once a year while it is in storage.

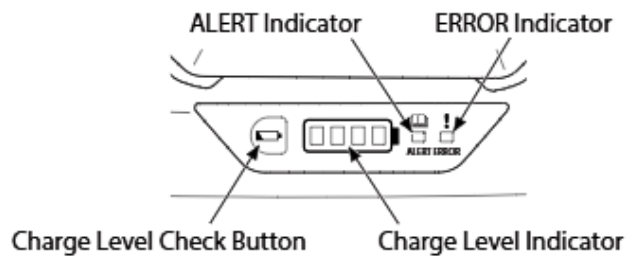
Indicator Display	Charge Level
	Long-term storage is not possible. The Battery Pack will deteriorate if it is stored like this. Use the Battery Pack to discharge it to a charge level suitable for long-term storage.
	Long-term storage is possible. Check the charge level once a year. If only 1 charging level indicator is flashing, replenish the charge until from 1 to 3 indicators are lit.
	
	
	Long-term storage is not possible. The Battery Pack will over-discharge if it is put in storage in this state, and it may become unusable. Charge the Battery Pack until from 1 to 3 charging level indicators are lit.

■: On, ✱: Flashing, □: Off

TROUBLESHOOTING

Check the indicators and follow the instructions below when there is a malfunction.

If a problem is not resolved or the symptoms do not improve, contact an authorized Honda servicing dealer.



Indicator			Possible Cause	Solution
ALERT	ERROR	Charge Level		
Flash	—	—	Problem was detected.	Remove all equipment connected to the Battery Pack, wait for about 5 minutes and press the Charge Level Check Button. • When the ALERT indicator does not flash, the Battery Pack can be used normally.
		4 indicators flash	Problem was detected. (Overvoltage protection)	After following the instructions for the Battery Pack problem, connect the specified device and check if it works properly. • When the device works, the Battery Pack can be used normally.
		1 indicator flashes	Problem was detected. (Low voltage protection)	After following the instructions for the Battery Pack problem, connect the Battery Charger and check if the charging starts properly. • When the charging starts, the Battery Pack can be used normally.
—	Illuminate	—	Problem with the specified device or Battery Charger, or malfunction in the Battery Pack was detected.	Remove all equipment connected to the Battery Pack, wait until all indicators turn off and press the Charge Level Check Button. • When the ERROR indicator does not illuminate, the Battery Pack can be used normally. Check that there is no foreign material around the Battery Pack. Connect the specified device or Battery Charger. • When the ERROR indicator illuminates, there is a problem with the specified device or Battery Charger.
	Flash	—	Malfunction was detected.	Battery Pack is dead.

SPECIFICATIONS

Model	DP72104Z
Description code	UABC
Length	233 mm (9.2 in)
Width	268 mm (10.6 in)
Height	150 mm (5.9 in)
Mass	6.4 kg (14.1 lbs)
Type	Rechargeable lithium ion battery
Voltage	DC 72 V
Power capacity	720 Wh
Rated capacity	10.0 Ah
Charging temperature range	5 to 30 °C (41 to 86 °F) Battery Packs cannot be charged at temperatures of 5 °C (41 °F) or colder
Operating temperature range	-15 to 40 °C (5 to 104 °F)
Optimum storage temperature range	-5 to 30 °C (23 to 86 °F)

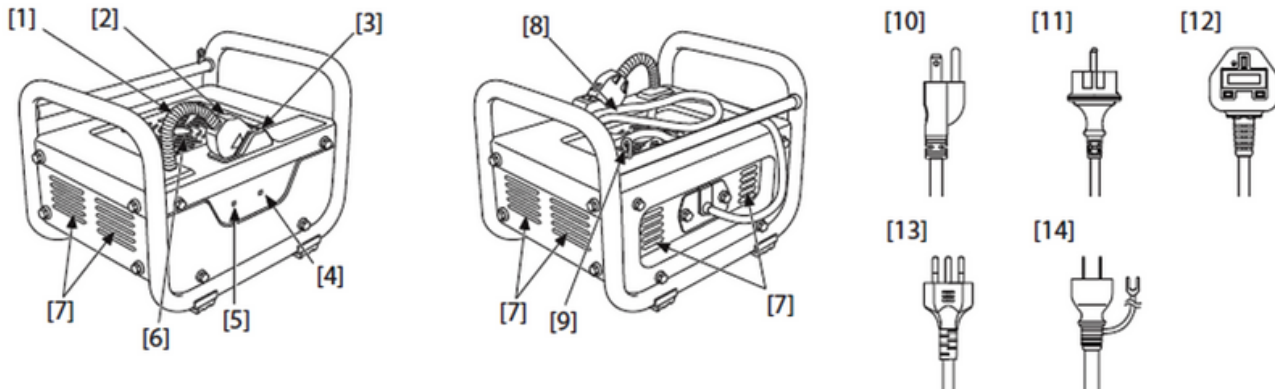
DISPOSAL

To protect the environment, do not dispose of this product using standard waste collection. Observe the local laws and regulations or consult your authorized Honda dealer for disposal.



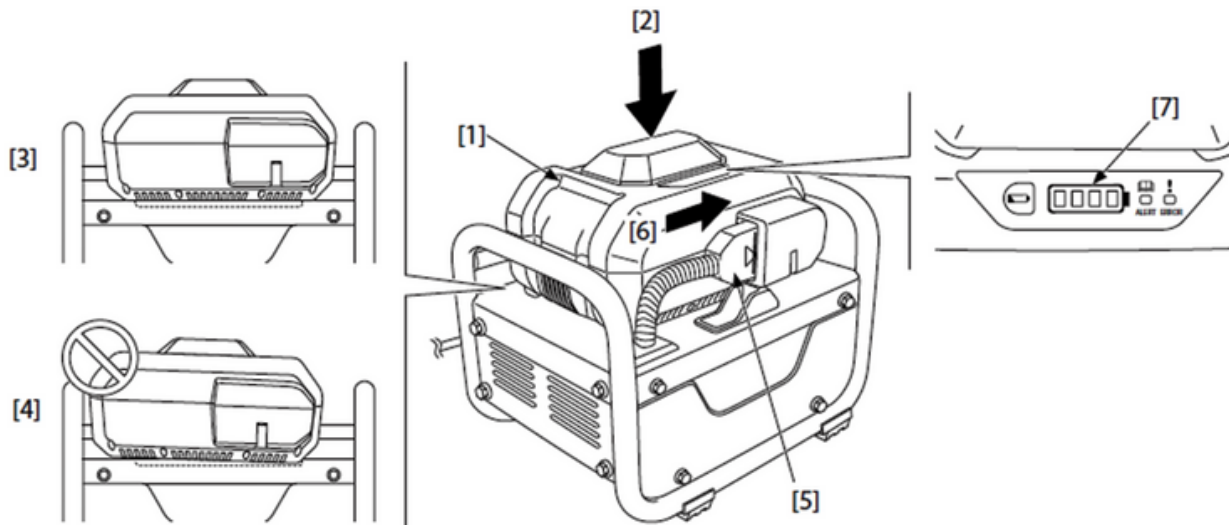
Do not dispose of electric equipment together with household waste material. If electrical appliances are disposed of in landfills or dumps, substances can leak and react and enter into the foodchain, damaging your health and well-being. For further information on the disposal of this product, please contact your dealer or your nearest domestic waste collection service.

Part 3C : HONDA eGX BATTERY CHARGER (OPTIONAL)



- [1] Charging Cable
- [2] Charging Connector
- [3] Charging Connector Holder
- [4] ERROR Indicator
- [5] POWER Indicator
- [6] Intake Port
- [7] Exhaust Port
- [8] AC Cable
- [9] AC Plug Holder
- [10] AC Plug (for North America)
- [11] AC Plug (for Europe)
- [12] AC Plug (for United Kingdom)
- [13] AC Plug (for Switzerland)
- [14] AC Plug (for Japan)

CHARGING PROCEDURE



- [1] Battery Pack
- [2] Place the Battery Pack in the recess in the center of the Battery Charger.
- [3] Correct (the Battery Pack fits in the recess)
- [4] Incorrect
- [5] Charging Connector
- [6] Connect the charging connector to the battery connector.
- [7] Charge Level Indicator

INTRODUCTION

Thank you for purchasing a Honda Battery Charger. This manual contains information on how to use it; please carefully read the manual before using the Battery Charger.

If a problem should arise, or if you have any questions about your product, consult your servicing dealer.

The product pictured in this owner's manual may not match your actual product. This manual should be considered a permanent part of the Battery Charger and should remain with the Battery Charger if resold.

We suggest you read the warranty policy to fully understand its coverage and your responsibilities of ownership. The warranty policy is written on the owner's manual for Honda DC Power Unit.

CONTENTS

INTRODUCTION.....	56
SAFETY MESSAGES.....	56
BATTERY CHARGER SAFETY	56
IMPORTANT SAFETY INFORMATION	56
SAFETY LABEL LOCATION	57
COMPONENT & CONTROL LOCATIONS	57
BEFORE YOU START.....	57
WHERE TO CHARGE.....	57
ABOUT THE POWER SOURCE.....	58
CHARGING TIME.....	58
PRECAUTIONS WHEN CHARGING.....	58
CHARGING PROCEDURE.....	58
TRANSPORTING.....	58
CLEANING.....	58
STORAGE.....	58
TROUBLESHOOTING.....	59
SPECIFICATIONS.....	59
DISPOSAL.....	59
REFERENCE INFORMATION.....	59

SAFETY MESSAGES

Your safety and the safety of others are very important. We have provided important safety messages in this manual. Please read these messages carefully. A safety message alerts you to potential hazards that could hurt you or others.

Each safety message is preceded by a safety alert symbol  and one of three signal words, DANGER, WARNING, or CAUTION. These signal words mean:

DANGER

You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

WARNING

You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

CAUTION

You CAN be HURT if you don't follow instructions.

You will also see other important messages that are preceded by the word NOTICE.

This word means:

NOTICE

Information to help you avoid damage to your DC Power Unit, other property, or the environment.

BATTERY CHARGER SAFETY IMPORTANT SAFETY INFORMATION

SAVE THESE INSTRUCTIONS.

1. This manual contains important safety and operating instructions for Battery Charger Models CV7285Z.
2. Before using the Battery Charger, read all instructions and cautionary markings on Battery Charger, Battery Pack, and product using Battery Pack.
3. **CAUTION** - To reduce risk of injury, charge only DP72104Z type rechargeable batteries. Other types of batteries may burst causing personal injury and damage.
4. This Battery Charger is not intended for use by children or persons with physical, sensory or mental limitations or a lack of experience or knowledge. Do not allow children to play with this Battery Charger.
5. Charge only lithium-ion Honda Battery Packs that have a capacity of 10 Ah with 80 battery cells. The battery voltage must match the battery charging voltage of the Battery Charger. Do not charge non-rechargeable Battery Packs. Otherwise there is danger of fire and explosion.
6. Continued use of the Battery Charger under unusual conditions could result in fire or electric shock, which may kill or seriously hurt you.
 - Smoke, strange smells, or extreme heat
 - Water or metal object have got into the Battery Charger
 If you notice such an abnormality, disconnect the AC plug. Then contact your servicing dealer.

7. Modifying, disassembling or repairing the Battery Charger could result in fire or electric shock, which can cause death or serious injury. Do not modify the Battery Charger. Also, do not disassemble or repair it by yourself. Disassembly and repairs require specialized knowledge, contact your servicing dealer.
 8. Before using the Battery Charger, people who are using an electronic medical device must confirm how their device might be affected. The electromagnetic radiation produced during charging may affect the operation of electronic medical devices, which may kill or seriously hurt you. Before charging a Battery Pack, people using electronic medical devices, such as implanted cardiac pacemakers or implanted cardioverter defibrillators, should check with their physician or the manufacturer of the electronic medical device about the effects of charging.
 9. If the Battery Pack leaks fluid or smells strangely, stop using it and contact your servicing dealer. Battery Pack contains combustible organic solvents as an electrolyte solution. Mistakenly handling them may result in burns or serious injuries. For details on how to handle the battery pack, refer to the manual for the Battery Pack.
- Do not charge while the AC cable is wound up.
 - Do not stand on or place heavy objects on the Battery Charger or AC cable.
 - Do not pull or repeatedly bend the AC cable or charging cable with an excessive force.
 - Do not touch the Battery Charger or AC cable if your hands are wet.
 - Do not splash or submerge the Battery Charger or AC cable in water.
 - If the Battery Charger or AC cable is submerged in water while you are charging, do not touch the Battery Charger or AC cable. Contact your servicing dealer.
 - Do not leave the AC plug plugged into the electric outlet after you finish charging.
 - Do not pull on the cable when you pull out the AC plug.
 - Do not subject the Battery Charger to excessive physical shock, such as by dropping or hitting it.
 - Do not use the Battery Charger to charge anything except Honda Battery Packs. Use only authentic Battery Packs. Charging a non-authentic Battery Pack could damage it and the charger because of poor protection functions, etc.
 - Do not touch the Battery Pack terminals with metal. Mishandling them could result in electric shock or fire, which may kill or seriously hurt you. Follow the procedures and instructions provided in this manual.

SAVE THESE INSTRUCTIONS.

Prohibitions When Using the Battery Charger

Do not use the Battery Charger in the following situations.

- Locations where the Battery Charger becomes unstable.
- Locations where there is flammable gas or combustible materials.
- Locations that are very cold or very hot, such as in direct sunlight or near a heater.
- Locations exposed to water or excessive humidity.
- Locations where children or pets might play with it.

Follow the rules below.

- Do not charge Battery Packs if there is the risk of a lightning storm.
- Do not charge if the electric outlet is loose. • Do not charge if the Battery Charger, AC cable, or the electric outlet is damaged or deformed. If the AC cable is damaged, contact your servicing dealer for replacement.
- Do not charge while the Battery Charger, AC cable, or electric outlet is dusty, dirty, or rusty.
- Do not plug too many power cords into one electric outlet.

SAFETY LABEL LOCATION

See figure 1 on page II. Safety labels are affixed to the Battery Charger for your instruction so that it is used safely. Carefully read these safety labels and the safety precautions in this manual.

COMPONENT & CONTROL LOCATIONS

See figure 2 on page III.

BEFORE YOU START WHERE TO CHARGE

- Level location indoors where the Battery Charger is stable
- Dry and well-ventilated location
- Optimal charging at room temperature. See "SPECIFICATIONS" for the charging temperature range.
 - Battery Packs cannot be charged at temperatures of 5 °C (41 °F) or colder.

ABOUT THE POWER SOURCE

Model	Power Source
For North America	AC 120V
For Europe and Switzerland	AC 230V
For United Kingdom	AC 240V
For Japan	AC 100V

CHARGING TIME

Charging time from zero to full charge: about 1.5 hours

- Charging may take longer when a Battery Pack is charged immediately after being used in a specified device. This is because the Battery Pack needs to be cooled before it can charge.
- Charging time for a low-temperature Battery Pack is shorter because its capacity to charge is smaller. When this happens, the time the Battery Pack can be used is also shorter.

PRECAUTIONS WHEN CHARGING

- When charging, keep the Battery Charger at least 50 mm away from a wall.
- When you plug the AC plug into the electric outlet, be sure to plug it all the way in.
- The Battery Charger and AC cable become warm during charging, but this is not abnormal.
- Charging stops during a power outage.

CHARGING PROCEDURE

Check Before Charging

- No foreign material is in the intake/exhaust port of the Battery Charger and the Battery Pack.
- Charging cable, AC cable and Battery Pack to be charged are not damaged.
- There is no dirt or foreign matter in the charging connector or the battery connector.

Procedure to Start Charging

See figure 3 on page IV.

- Place the Battery Charger in a level and stable location.
- Plug the AC plug into an electric outlet. The Battery Charger's POWER indicator lights.
- Place the Battery Pack in the recess in the center of the Battery Charger. If the Battery Pack is not positioned correctly, the Battery Pack cannot be cooled while it charges, so charging may be stopped by the high-temperature protection function.
- Connect the charging connector to the battery connector. All the indicators on the Battery Charger and the Battery Pack light for about one second. After that, just the Battery Charger's POWER indicator lights, and charging starts automatically. The charge level indicator on the Battery Pack lights or flashes according to the state of the charge.

Indicator Display	Charge Level	
	Fully charged.	
	High ↑ Low	Charging.
		
		
		
	Charging has stopped.	

■: On, ✱: Flashing, □: Off

Procedure After Charging

When the Battery Pack is fully charged, charging stops automatically and the charge level indicator on the Battery Pack turns off.

- Remove the charging connector from the battery connector. When removing the charging connector, grab the charging connector and pull it out. Do not pull by the charging cable.
- Unplug the AC plug from the electric outlet.
- Put the charging connector and AC plug back in their holders.

Procedure to Stop Charging

You can also stop charging and remove the Battery Pack before it is fully charged.

- Remove the charging connector from the battery connector. When removing the charging connector, grab the charging connector and pull it out. Do not pull by the charging cable.
- Unplug the AC plug from the electric outlet.
- Put the charging connector and AC plug back in their holders.

TRANSPORTING

Before transporting the Battery Charger, remove the Battery Pack from the Battery Charger.

CLEANING

- Before cleaning, always unplug the AC plug from the electric outlet.
- Use a soft dry cloth.

STORAGE

Before storing the Battery Charger, remove the Battery Pack from the Battery Charger, and unplug the AC plug from the electric outlet.

TROUBLESHOOTING

Check the following points when there is a malfunction.
If a problem is not resolved or the symptoms do not improve, consult an authorized Honda servicing dealer.

Charging does not start

Cause	Solution
The AC plug is not connected to an electric outlet.	Connect the AC plug to an electric outlet correctly.
The charging connector is not connected to the battery connector.	Connect the charging connector to the battery connector correctly.

Charging stops midway

Cause	Solution
The Battery Pack is not being cooled correctly, so charging is stopped by the high-temperature protection function.	Position the Battery Pack so there are no gaps between the intake port of the Battery Charger and the exhaust port of the Battery Pack.

ERROR indicator is lit

Cause	Solution
Protection function is engaged.	Consult an authorized Honda dealer.

SPECIFICATIONS

Model	CV7285Z			
Type	AM	EM	SWM	BM JM
Description code	UAAC			
Length	272 mm (10.7 in)			
Width	352 mm (13.9 in)			
Height	270 mm (10.6 in)			
Mass	11.2 kg (24.7 lbs)			
Input voltage	AC 100 V to 240 V			
Input frequency	50/60 Hz			
Output voltage	DC 82.8 V			
Output current	8.5 A			
Batteries that can be charged	DP72104Z			
Charging temperature range	5 to 30 °C (41 to 86 °F)			

DISPOSAL

To protect the environment, do not dispose of this product using standard waste collection. Observe the local laws and regulations or consult your authorized Honda dealer for disposal.



Do not dispose of electric equipment together with household waste material. If electrical appliances are disposed of in landfills or dumps, substances can leak and react and enter into the foodchain, damaging your health and well-being. For further information on the disposal of this product, please contact your dealer or your nearest domestic waste collection service.

REFERENCE INFORMATION

For USA:

FCC COMPLIANCE STATEMENT

This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

American Honda Motor Co., Inc.
Power Equipment Division
Customer Relations
4900 Marconi Dr.
Alpharetta, GA 30005-8847
(770) 497-6400

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



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Productinformatie is aan verandering onderhevig; raadpleeg de fabriek voor details.
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