Operator's Instruction Manual

FLOOR GRINDING & SURFACE PREPARATION

Gasoline • Electric • Propane

SEC

2EC, 2GC, 2GC-P

4EC, 4GC, 4GC-P

Manual - Portable

EDCO
A Division of Equipment Development Company, Inc.
CONTRxSystems

100 Thomas Johnson Drive, Frederick, MD 21702-4600 USA
Phone (301) 663-1600 • 1-800-638-3326
Fax (301) 663-1607 • 1-800-447-3326
Website: www.contrxsystems.com
Email: sales@contrxsystems.com

Printed in USA

READ AND UNDERSTAND THE OPERATORS INSTRUCTION MANUAL *THOROUGHLY* BEFORE ATTEMPTING TO OPERATE THIS EQUIPMENT.
Death or serious injury could occur if this machine is used improperly.

SAFETY MESSAGES

• Safety Instructions are proceeded by a graphic alert symbol of DANGER, WARNING, or CAUTION.

DANGER Indicates an imminent hazard which, if not avoided, will result in death or serious injury.

WARNING Indicates an imminent hazard which, if not avoided, can result in death or serious injury.

CAUTION Indicates hazards which, if not avoided, could result in serious injury and or damage to the equipment.

GASOLINE/PROPANE POWERED EQUIPMENT

WARNING

• Engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

• Gasoline is extremely flammable and poisonous. It should only be dispensed in well ventilated areas, and with a cool engine.

- Small gasoline engines produce high concentrations of carbon monoxide (CO) example: a 5 HP 4 cycle engine operation in an enclosed 100,000 cu. ft. area with only one change of air per hour is capable of providing deadly concentrations of CO in less than fifteen minutes. Five changes of air in the same area will produce noxious fumes in less than 30 minutes. Gasoline or propane powered equipment should not be used in enclosed or partially enclosed areas. Symptoms of CO poisoning include, headache, nausea, weakness, dizziness, visual problems and loss of consciousness. If symptoms occur - get into fresh air and seek medical attention immediately.

ELECTRICAL POWERED EQUIPMENT

Extreme care must be taken when operating electric models with water present: Ensure power cord is properly grounded, is attached to a Ground-Fault-Interrupter (GFI) outlet, and is undamaged.

- Check all electrical cables - be sure connections are tight and cable is continuous and in good condition. Be sure cable is correctly rated for both the operating current and voltage of this equipment.
- Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with qualified electrician or service person if there is any doubt as to whether the outlet is properly grounded. Adhere to **all** local codes and ordinances.
- **NOTE:** In the event of a malfunction or breakdown, grounding provides a path of least resistance for the electric current to dissipate. The motor is equipped with a grounded plug and must be connected to an outlet that is properly installed and properly grounded. DO NOT modify the plug provided on the motor. If the plug does not fit the outlet have a qualified electrician install the proper receptacle.
- Switch motor OFF **before** disconnecting power.
- Do not disconnect power by pulling cord. To disconnect, grasp the plug, not the cord.
- Unplug power cord at the machine when not in use and before servicing.

GENERAL INSTRUCTIONS

- Equipment should only be operated by trained personnel in good physical condition and mental health (not fatigued). The operator and maintenance personnel must be physically able to handle the bulk weight and power of this equipment.
- This is a one person tool. Maintain a safe operating distance to other personnel. It is the **operators' responsibility** to keep other people (workers, pedestrians, bystanders, etc.) away during operation. Block off the work area in all directions with roping, safety netting, etc. for a safe distance. Failure to do so may result in others being injured by flying debris or exposing them to harmful dust and noise.
- This equipment is intended for commercial use only.
- For the operator's safety and the safety of others, always keep all guards in place during operation.
- Never let equipment run unattended.

- Personal Protection Equipment and proper safety attire must be worn when operating this machinery. The operator must wear approved safety equipment appropriate for the job such as hard hat and safety shoes when conditions require. Hearing protection MUST be used (operational noise levels of this equipment may exceed 90db). Eye protection MUST be worn at all times.

Keep body parts and loose clothing away from moving parts. Failure to do so could result in dismemberment or death.

- Do not modify the machine.
- Stop motor/engine when adjusting or servicing this equipment.

Maintain a safe operating distance from flammable materials. Sparks from the cutting-action of this machine can ignite flammable materials or vapors.

DUST WARNING

WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints, and
- Crystalline silica from bricks and concrete and other masonry products.

Your risk of exposure to these chemicals varies depending on how often you do this type of work. To reduce your risk: work in a well ventilated area, use a dust control system, such as an industrial-style vacuum, and wear approved personal safety equipment, such as a dust/particle respirator designed to filter out microscopic particles.

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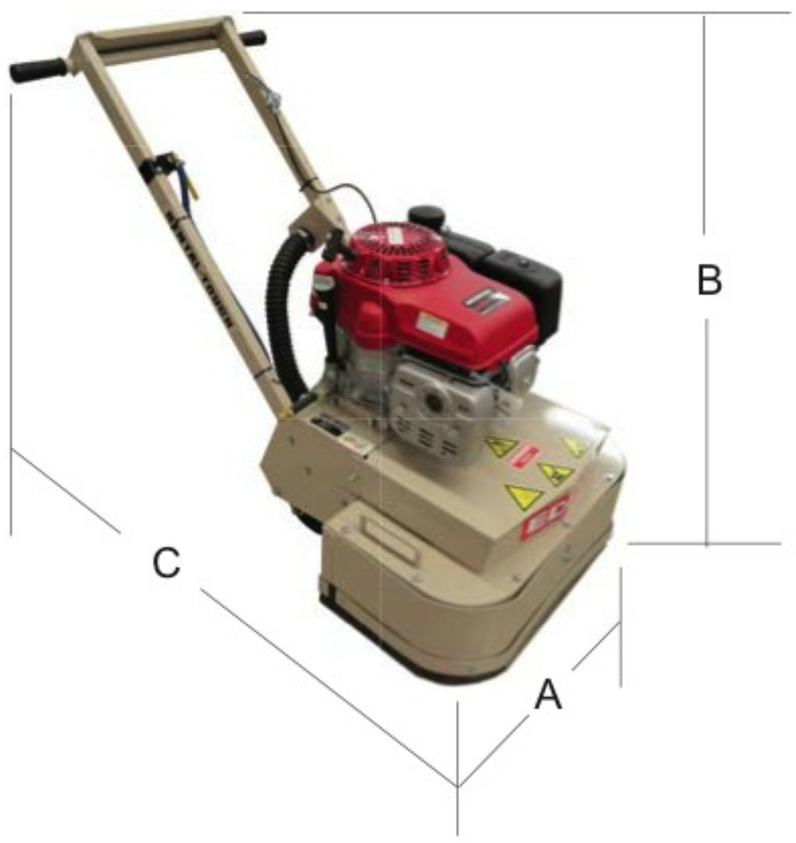
SPECIFICATIONS

Table of Contents

Note:
All dimensions and weights are for **reference only** and subject to change at any time.



2GC Shown

Figure 1

HOW TO ORDER REPAIR PARTS

To insure product safety and reliability, always use genuine EDCO replacement parts when making repairs to the equipment.

When ordering parts, please specify the MODEL and SERIAL NUMBER of the machine as given on the NAMEPLATE. In addition, give part number, description and quantity as listed on the parts list.

Please note: Due to improvements and changes in the equipment the illustrations shown may be different from the actual machine.

Toll Free: Phone 1-800-638-3326 • Fax 1-800-447-3326

	SEC	2EC 2GC 2GC-P	4EC 4GC 4GC-P
"A"	21 1/4"	24 1/2"	40"
"B"	37 1/2"	43"	41"
"C"	43"	44"	48"
--	--	--	--
--	--	--	--
Weight	200 lbs.	240 lbs.	435 lbs.
Model	SEC	2GC/EC	4GC

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Operating Controls

Please Note:

Controls shown are for the model indicated.

The location of these controls may vary on the different models.

Due to improvements and changes in the equipment, the illustration shown may vary from the actual machine.

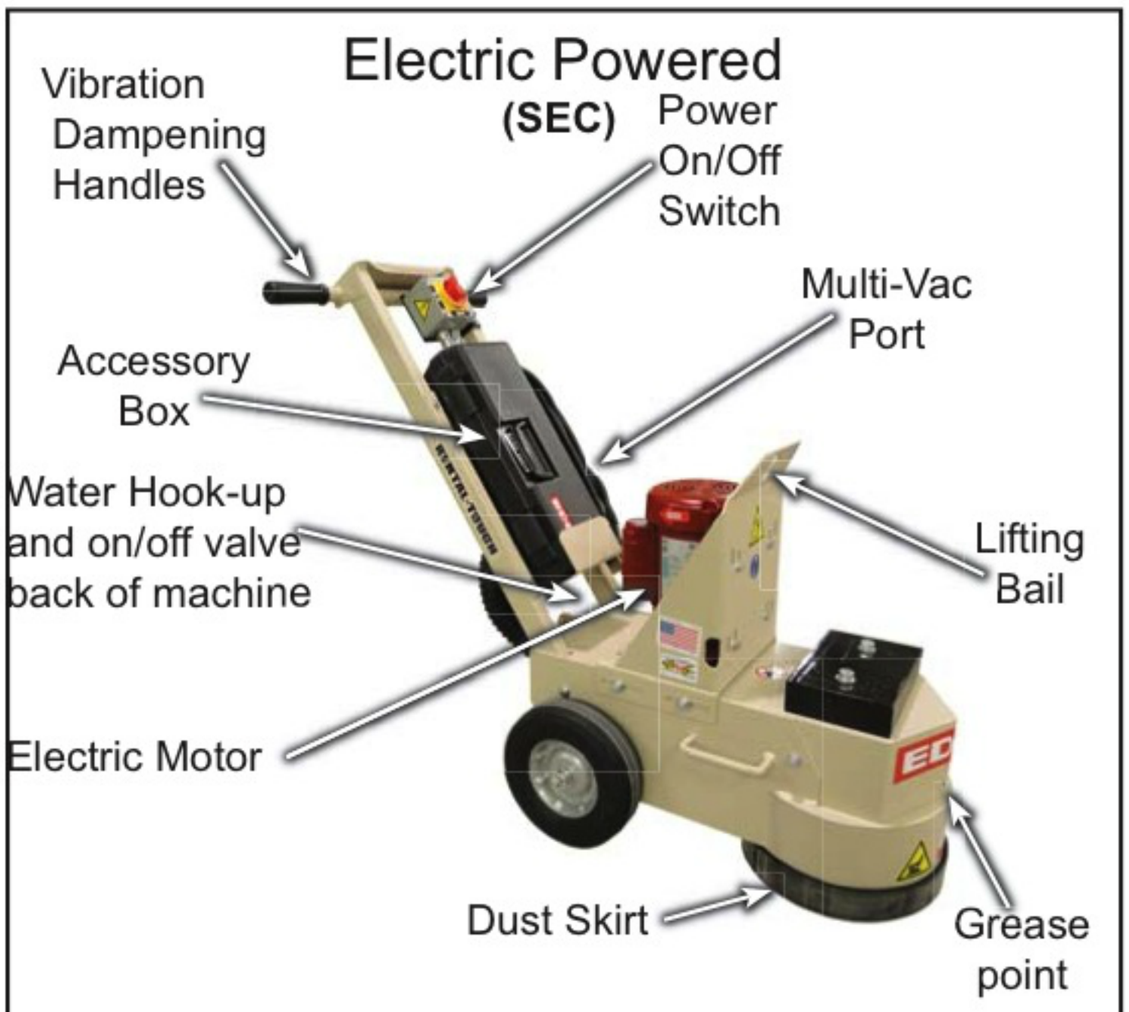


Figure 2

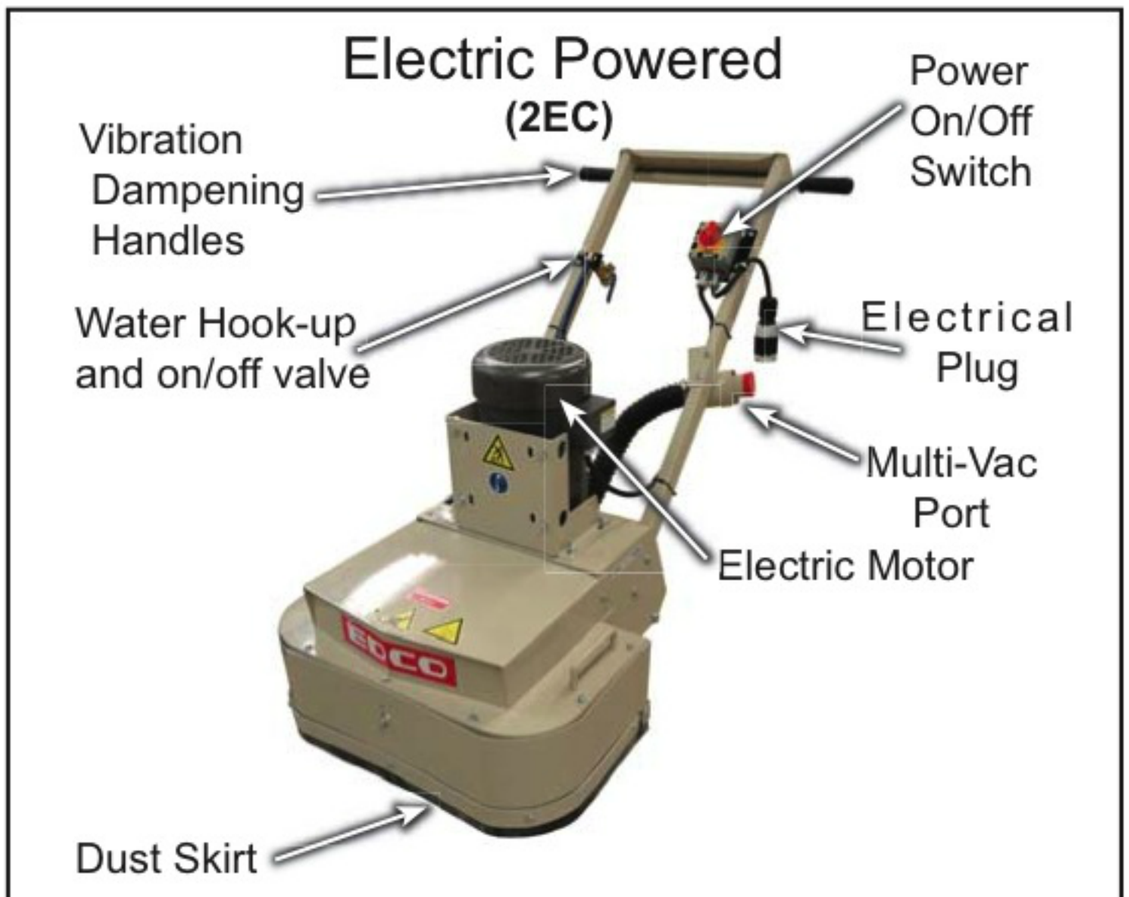
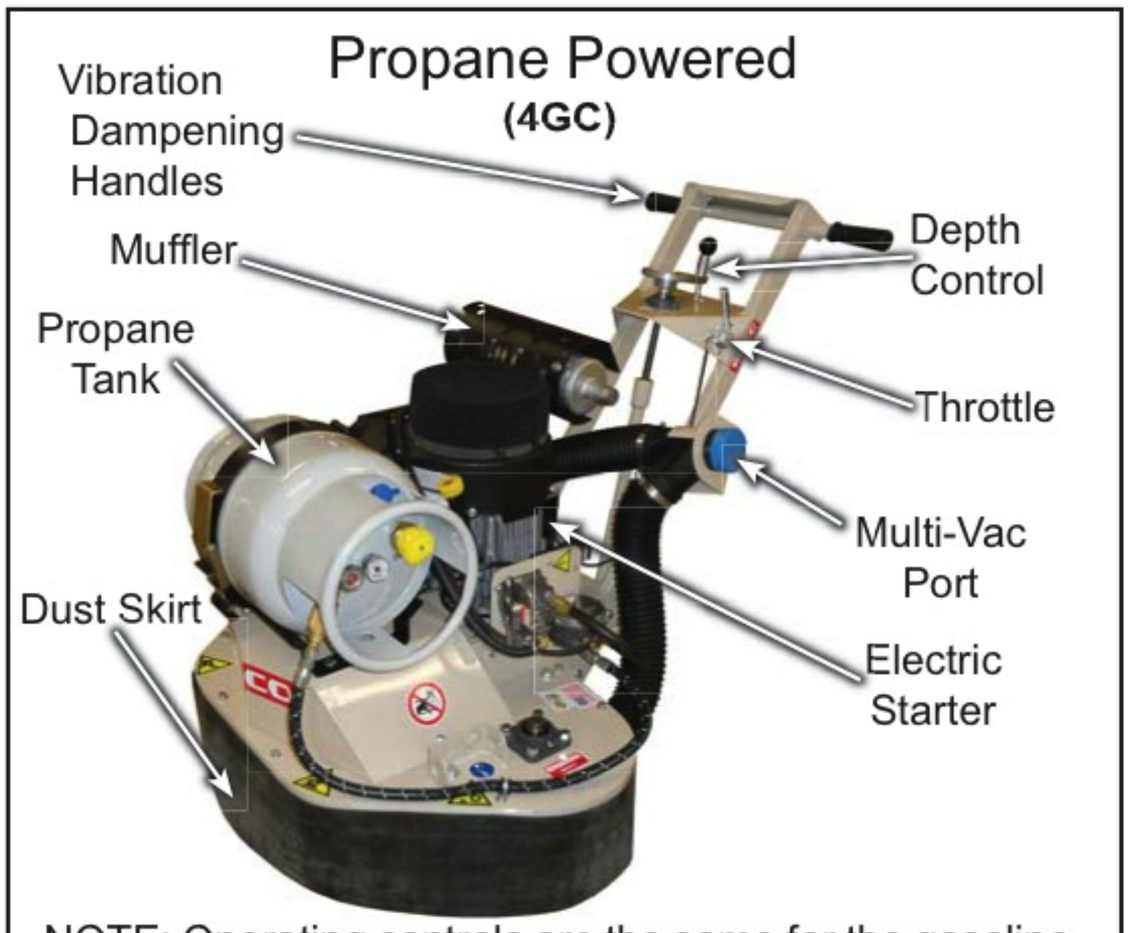


Figure 3

NOTE: Operating controls are the same for the gasoline and propane models.

Figure 4



NOTE: Operating controls are the same for the gasoline and propane models.

Figure 5

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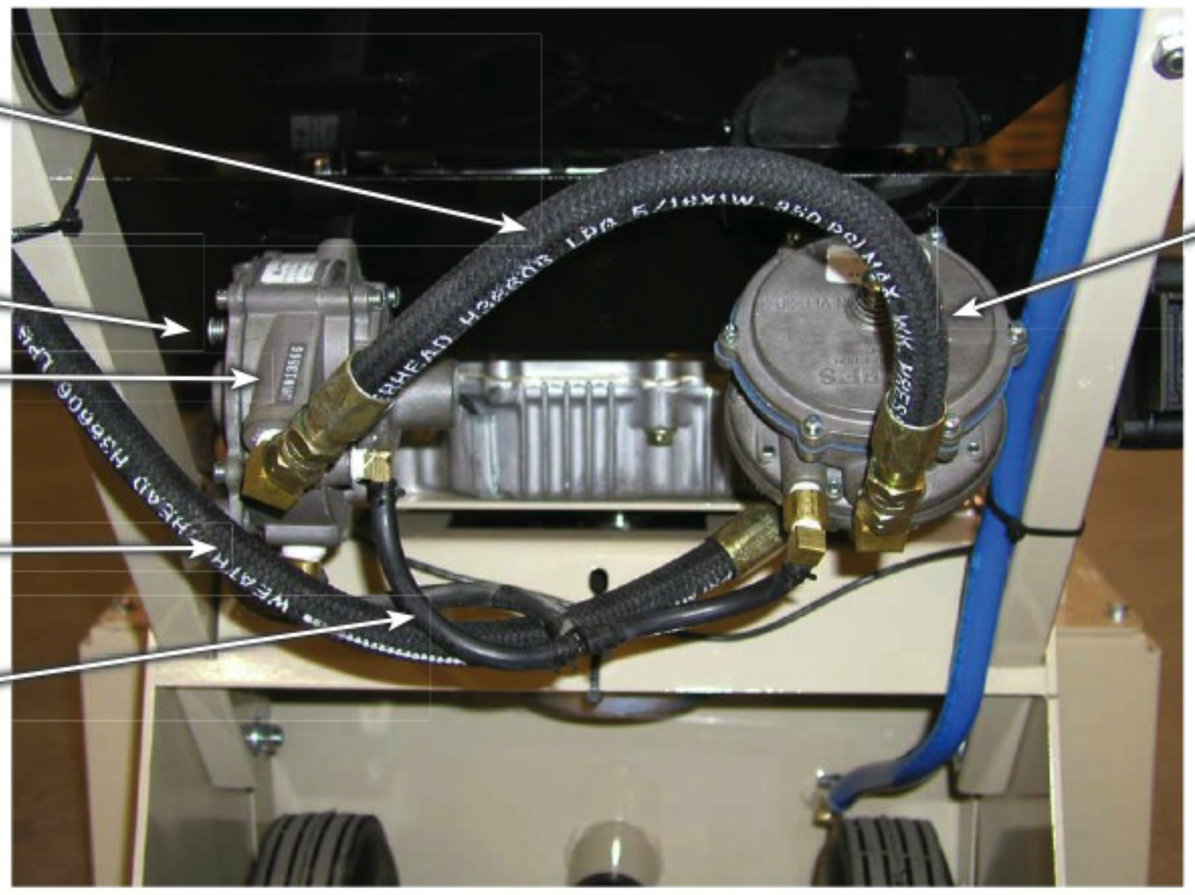
Propane System

Red Arrow Pointing "Up" Tank Bottom

Propane Tank (20 lb horizontal)

#1 Main Power Adjustment

Vapor Hose (Low Pressure)



High Pressure LP Hose

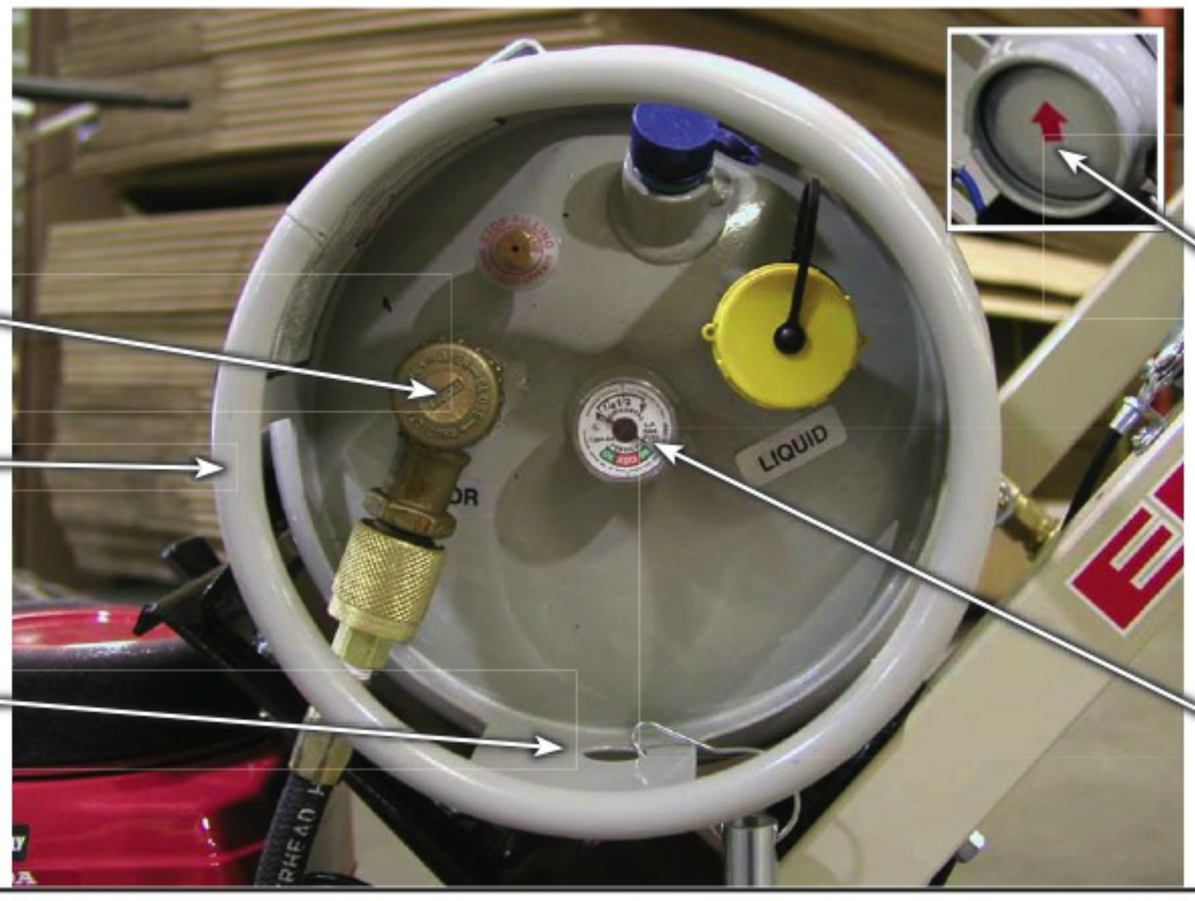
#2 Idle Mixture Screw

Vacuum Fuelock - Filter

Dry-Gas Regulator

High Pressure LP Hose

Vacuum Hose



Propane Tank (P/N 5130) Horizontal Mount (Vapor Withdrawal)

Main Fuel Valve

Propane Tank (20 lb horizontal)

Locating Hole

NOTE: The Red arrow on the tank will be pointing "up". The locating hole is oriented under the gauge as viewed in the photo on the left.

Fuel Gauge

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Operating Instructions

WARNING

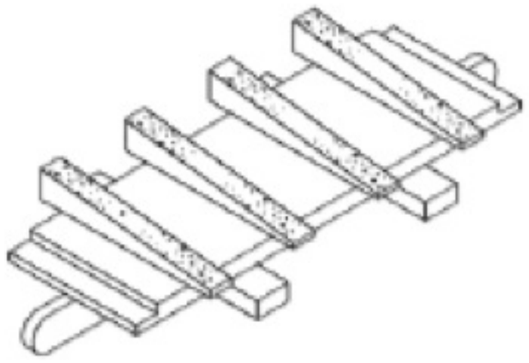
- Read and understand all operating instructions before operating this equipment. Death or serious injury can result if this machine is used improperly.
- Concrete grinders are designed to be used to grind flat horizontal concrete slabs using EDCO approved accessories.
- The machines are equipped with gasoline/propane engines and electric motors.
- They are designed to be controlled by a single operator from a position at the rear of the machine.
- When operating equipment maintain a safe distance from other personnel in the area.

Be sure to read the complete instructions supplied with your machine.

IMPORTANT: Perform Pre-Start Check.

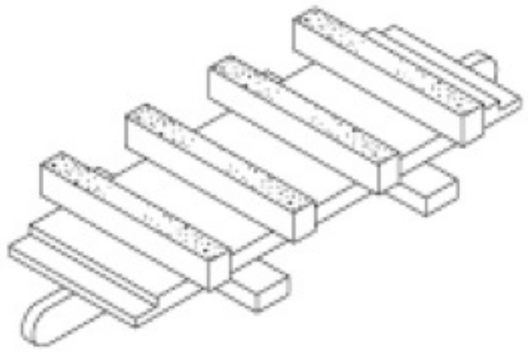
- Visually inspect the equipment for wear or damage.
- Be sure all guards are in place and functioning properly. Do not operate unless all guards are in place and secure.
- Perform all daily maintenance.
- Check to be sure water tubes are functioning properly if performing wet-grinding operations.
- Inspect accessories - Be sure the correct accessory is installed properly on the machine, mounting arrangement and its intended use.
- Check accessories for damage (see figure 6, below), the type of wear or damage will vary with the type if accessory.
- Inspect work area to determine the presence and location of deck inserts, pipes, columns and objects protruding from the slab surface so that they may be avoided during the grinding operation.
- **FOR WET GRINDING:** Attach the water supply. A flow rate of approximately 1/2 gallon per minute is recommended.

EXAMPLE OF SEVERELY WORN DYMA-SERT



The above in an example of a DYMA-SERT that has not been rotated after every four hours of use. To get maximum life out of a DYMA-SERT they should be rotated 180º every four hours of use.

EXAMPLE OF AN EVENLY WORN DYMA-SERT



The above in an example of a DYMA-SERT that has been rotated after every four hours of use, as you can see the wear is *even* across all segments.

Figure 6

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Operating Instructions

- **BEFORE STARTING THE ENGINE:** Raise the front of the machine clear of the working surface.

- **START ENGINE AND ALLOW IT TO REACH OPERATING SPEED.** Position the grinder at the starting point. Bring the engine to full speed. Lower the machine onto the slab surface. Use a slow sweeping motion from left right and back continously, and do not force the machine into the work, the engine or motor should not strain when grinding.

- **WHEN WET GRINDING:** Water is required. Attach the water hose to the water hook-up valve. Use the valve to control the flow of water.

- **FOR DRY GRINDING:** Provide a respirator and dust control system.

- **FOR GASOLINE MODELS:** Put the engine stop switch in the "RUN" position. Consult the engine manufacturers operating instructions and follow the directions for starting and breaking in the engine.

- **TO STOP THE MACHINE:** Stop forward motion. On gasoline models push the throttle to idle. Turn ignition or power switch off and let the engine come to a complete stop. Turn off the water supply.

- **WHEN MANEUVERING THE GRINDER:** Tilt grinder back enough so it does not strike the slab surface. Damage to accessories may occur with inadvertent contact with the slab.

- **DO NOT FORCE GRINDER WHILE GRINDING.**

- **IF THE POWER SOURCE FAILS:** Raise the grinder off of the floor. Disconnect the power source (i.e. the spark plug wire on a gasoline engine). Inspect the accessories for damage. Replace damaged (or questionable) accessories immediately.

- **WHEN TRANSPORTING THE GRINDER:** Disconnect the power source before lifting or removing any guard. See the directions for changing accessories on **page 9**.

- **WHEN HOISTING OR LIFTING A GRINDER :** Always inspect frame and attaching hardware for damage **before** lifting. Use proper safe hoisting and lifting techniques and hardware.

SMI Dust and Silica Warning

Grinding/cutting/drilling of masonry, concrete, metal and other materials can generate dust, mists and fumes containing chemicals known to cause serious or fatal injury or illness, such as respiratory disease, cancer, birth defects or other reproductive harm. If you are unfamiliar with the risks associated with the particular process and/or material being cut or the composition of the tool being used, review the material safety data sheets and/or consult your employer, the manufacturers/suppliers, governmental agencies such as OSHA and NIOSH and other sources on hazardous materials. California and some other authorities, for instance, have published lists of substances known to cause cancer, reproductive toxicity, or other harmful effects.

Control dust, mist and fumes at the source where possible. In this regard use good work practices and follow the recommendations of the manufacturers/suppliers, OSHA/NIOSH, and occupational and trade associations. Water should be used for dust suppression when wet grinding/cutting/drilling is feasible. When the hazards from inhalation of dust, mists and fumes cannot be eliminated, the operator and any bystanders should always wear a respirator approved by NIOSH/MSHA for the material being used.

Grinding/cutting/drilling of masonry, concrete and other materials with silica in their composition may give off dust or mists containing crystalline silica. Silica is a basic component of sand, quartz, brick clay, granite and numerous other minerals and rocks. Repeated and/or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory diseases, including silicosis. In addition, California and some other authorities have listed respirable crystalline silica as a substance known to cause cancer. When grinding/cutting/drilling such materials, always follow the respiratory precautions mentioned above.

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PROCEDURE FOR ADJUSTING OR REPLACING DRIVE BELT

NOTE: The following applies to all machines. They all adjust in the same manner.

To adjust the drive belt loosen four (4) cap screws securing the motor mount to the frame.

Slide the motor mount to the rear of the machine to increase belt tension.

Tighten the four (4) cap screws loosened earlier maintaining pressure on the motor mount to prevent loosening.

To replace the belt, remove the hood by removing two (2) cap screws, one on each side of the machine.

Loosen the four (4) cap screws as in the first step and slide the motor mount all the way forward.

Remove the belt from the motor and pinion shaft sheaves as shown in the photo on the left.

Reverse the previous step to install new belt. Slide motor mount towards the rear of the machine and adjust belt tension, tighten all four (4) cap screws as explained above. Replace hood and tighten bolts.

New belts should be retensioned after grinder has been used for 4 hours.

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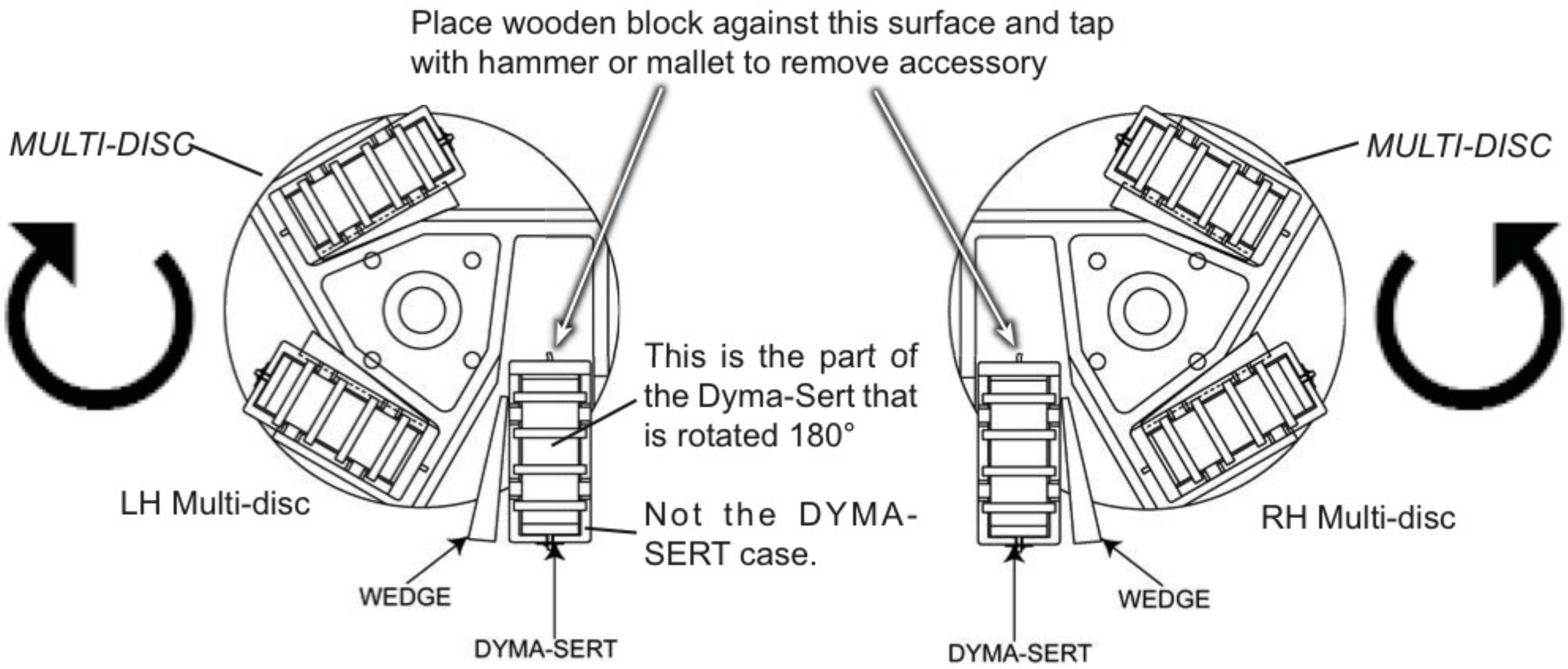
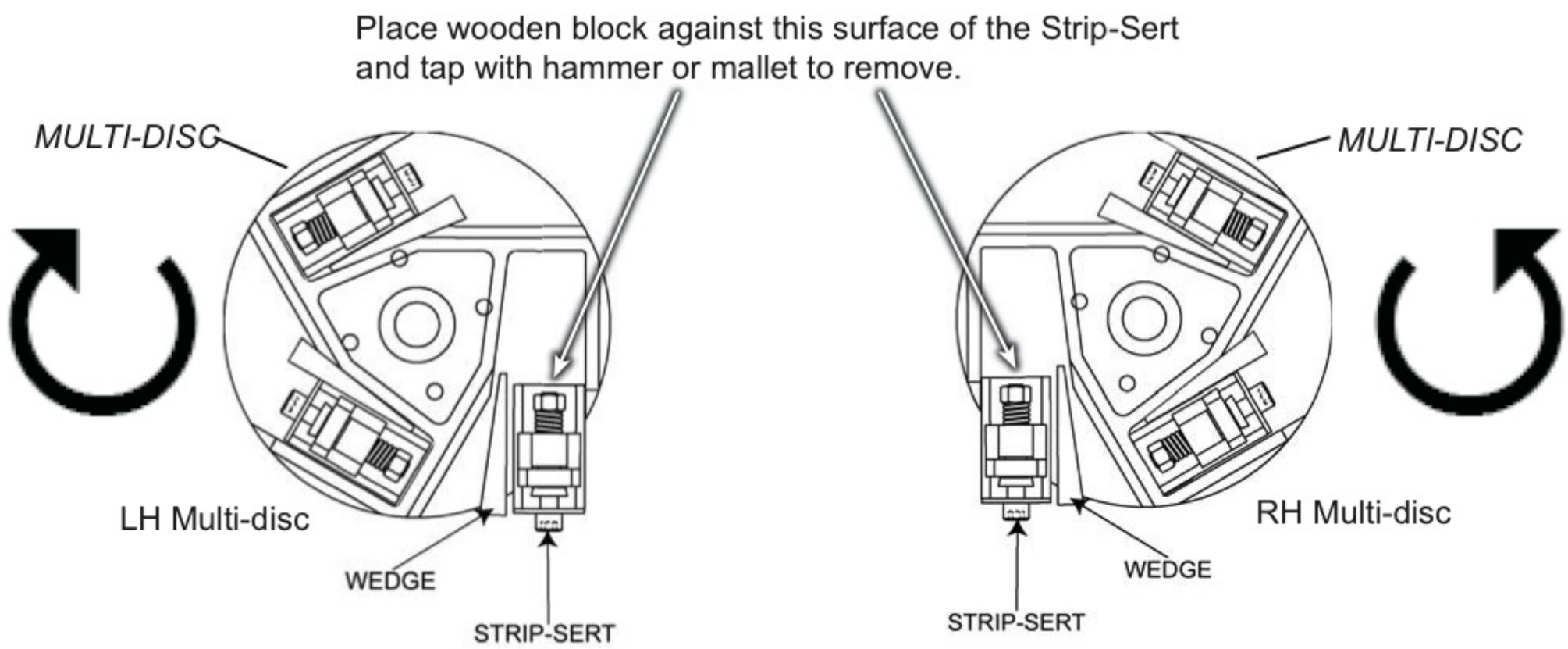
PROCEDURE FOR INSTALLING AND REMOVING ACCESSORIES



To install an accessory, there are several different types but all install in the same manner, use a brass rod or similar malable material to drive the wooden wedge into place as shown in the above and below illustrations, note on which side of the accessory the wooden wedge is positioned (near center of disc). Never mix worn or used accessories with new ones. It will cause vibration and an uneven work surface. Replace accessories in complete sets, never mix sets.



To remove an accessory, there are several different types, all are removed in the same manner, use a wooden block as explained in the above illustration. Never hammer directly on any accessory, damage to the self adjusting system will result and the accessory will have to be replaced.

NOTE: THE ABOVE ILLUSTRATIONS ARE VIEWING THE MACHINE FROM THE FRONT BOTTOM. NOTE THE DIRECTION OF ROTATION AND *MULTI-DISC* STYLE. IF DISCS ARE REPLACED AND INSERTS FALL OUT WHEN BEING USED THE DISCS HAVE BEEN INSTALLED INCORRECTLY.

INSTRUCTIONS FOR CHANGING ACCESSORIES

1. DANGER Disconnect the machine from the power source before performing any work on the equipment. To disconnect the power source remove the spark plug lead on gasoline and propane models or unplug the electrical models at the grinder.

2. Tip Grinder back on the handle until handle remains on contact with the slab. **NOTE: FOR GASOLINE MODELS, TAKE CARE THAT GASOLINE OR OIL DOES NOT SPILL FROM THE ENGINE, Turn gasoline cutoff valve off.** Brace securely or have someone hold the handle against the slab. The grinding discs will be visible and accessable for inspection and installation of accessory items.

3. Installing Multi-disc assemblies (for use with scarafiers, silabide pads, wire brushes and Dyma-Serts). The multi-discs are designed as lefthand (LH) or righthand (RH) depending on the direction of rotation: the LH is on the left side (clockwise) and RH is on the right side (counter clockwise) as viewed from the bottom side of the machine. The single disc grinders use the RH disc. NOTE: Multi-Discs come standard with the EDCO grinders in this manual. The multi-disc assemblies use a 3/8" dia. x 2" long roll pin to attach them to the shaft(s) under the grinder (refer to page 11).

4. When installing the surfacer disc assemblies instead of the Multi-disc assemblies (refer to figure 7). The discs are triangular and must be allowed to pass each other without colliding.

5. Installing grinding stones. Grinding stones are used on the multi-disc assembly. A total of 3 stones are used with each multi-disc and are held in place with a hardwood wedge. The wedges are placed on the inside of the stone (refer to page 10). Use a second wedge and hammer or mallet to drive the wedge securely ito place.

6. Installing wire brushes. The steel wire brushes are used on the multi-disc assembly (3 per multi-disc). They are held in place with a hardwood wedge driven in on the inside of the brush toward the center of the disc, refer to the previous page. All accessories are held in place in the same manner.

7. Installing Scarifiers. The scarifier assemblies consist of disposable scarifiers and a reusable scarifier case. The case is held into the multi-disc assembly with a hardwood wedge driven in on the inside of the case toward the center of the disc, refer to the previous page. All inserts are held in place in the same manner.

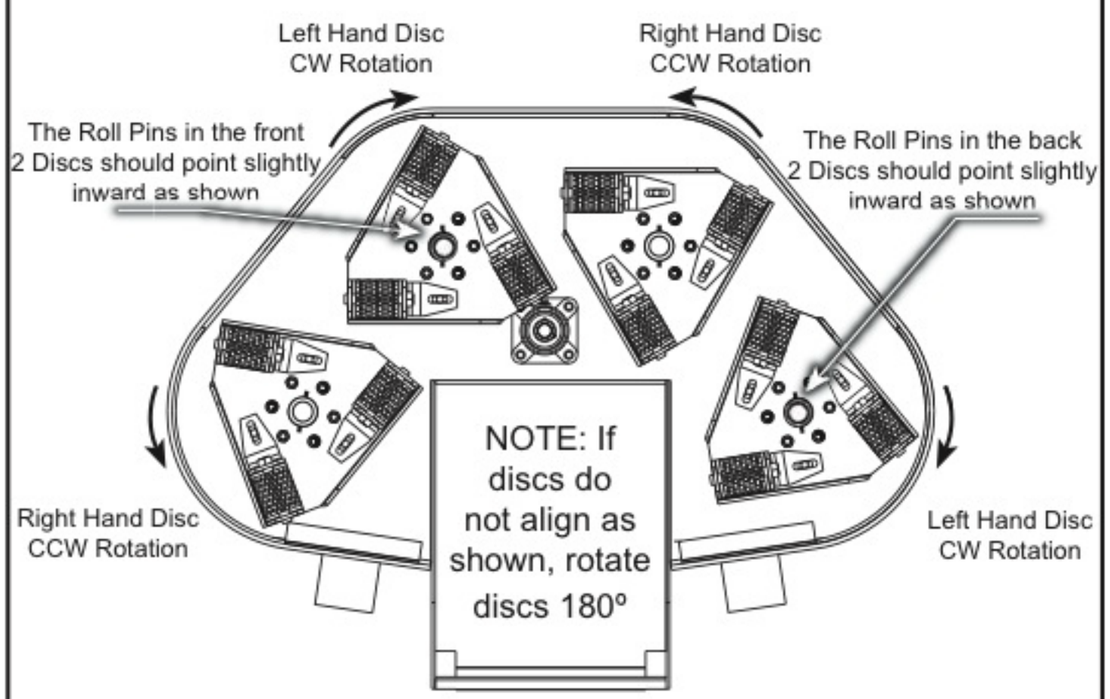
The scarifiers can be added or removed from the case without disturbing the case. One end of the scarifier is short and has a tab. The tab is simply inserted under the lip of the case and the other end is pressed into the spring loaded slot and seated firmly. Refer to diagram on page 11.

To remove the scarifier from the case, simply pry the rounded end of the frame out of the spring loaded slot.

Installing Dyma-Serts: The Dyma-Sert assembly consists of a disposable Dyma-Sert cutter, a shock absorbing rubber block, and a reusable Dyma-Sert case. Three Dyma-Sert assemblies are used on each multi-disc. The case is held on the multi-disc assembly by using a hardwood wedges driven in on the inside of the case. Refer to diagram on page 11.

The Dyma-Serts can be added added or removed from the reusable case. One end of the Dyma-Sert has a lip. The lip is simply inserted under the lip of the case and the other end is pressed into the spring loaded slot at the other end and seated firmly. Refer to page 11.

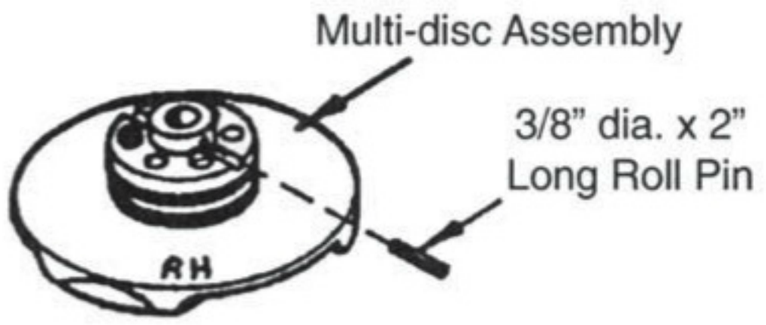
Alignment of Surfacer Disc Assemblies on the 4GC Models



Bottom View

Figure 7

Multi-disc Assembly



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