

HOSS 700 Rotary Cleaning Tool

Owner's Manual

Sapphire Scientific • Sales: 866-445-3030 • Technical Support: 866-445-3030.

Congratulations on your purchase of a HOSS 700 Rotary Cleaning Tool from Sapphire! With a durable design and innovative cleaning features, the HOSS 700 makes carpet cleaning easier, more effective and more profitable.

Patents pending

READ AND SAVE THESE INSTRUCTIONS

SAFETY INSTRUCTIONS

WARNING



WARNING! Electric shock hazard, rotating parts, hot surface hazards. Unplug unit before opening cover for cleaning or servicing. Unit must be properly grounded.

- Inspect the power cord before use. If cord is damaged, do not use. Always grasp the plug (not the cord) to unplug.
- The unit must be operated on a 110V/60Hz circuit.
- Keep motor and wiring dry.
- Do not operate in standing water

- Do not operate in rain or snow. If electrical components become wet, allow them to dry before using.
- Do not attempt to repair the unit. For technical support, call Sapphire at 866-445-3030.

NOTICE: Protect from freezing during storage and transport. Damage caused by freezing is not covered by the product warranty.

INTRODUCTION

The HOSS 700 Rotary Cleaning Tool greatly improves cleaning performance and efficiency on a wide variety of carpet types.

- High-flow solution orifices and high efficiency vacuum plates
- ½ HP 1725 RPM motor
- Sealed low-maintenance gear box
- 6 in. non-scuffing wheels for easy transport
- Fully adjustable handle for maximum operator comfort and control

PARTS IDENTIFICATION

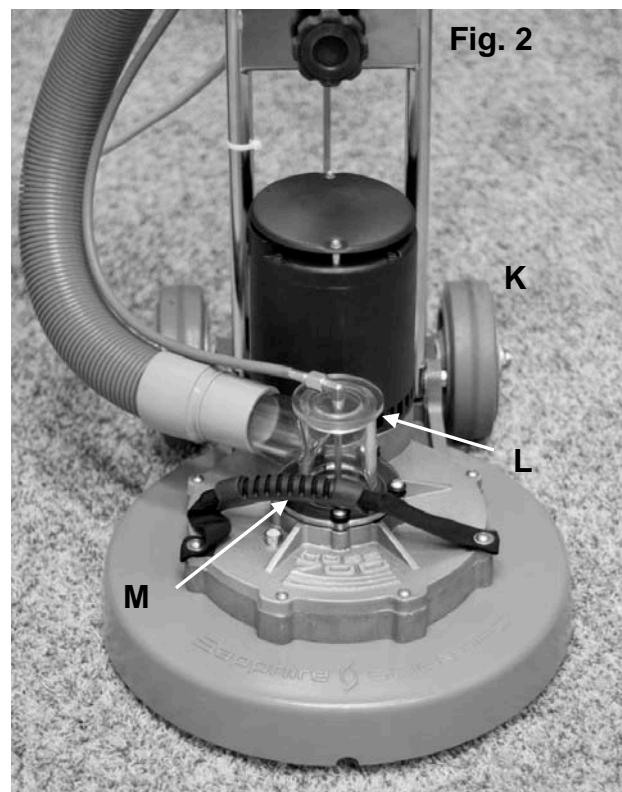
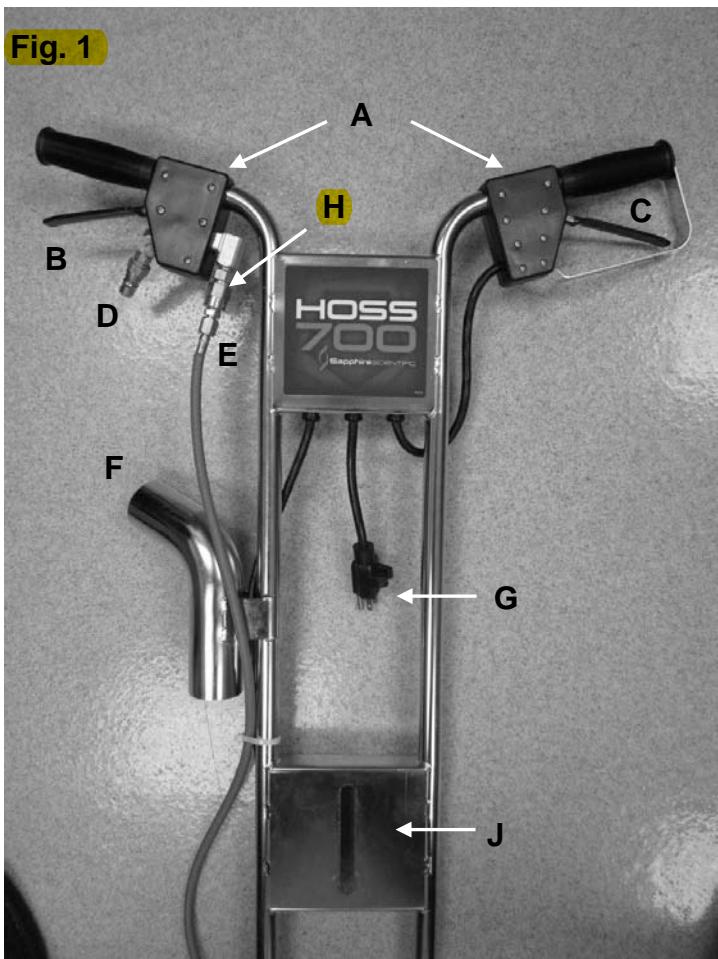
IMPORTANT: The HOSS 700 is shipped with the handle and electrical cord unattached. Attach these items before using. See “Handle Installation Instructions,” p. 4.

Figure 1

- A. Handles.
- B. Solution control lever. Squeeze to start solution flow.
- C. Motor control lever. Squeeze to start head rotation.
- D. Solution line inlet connection. Attach to solution line coming from solution pump.
- E. Connection for rotary head solution line. Factory installed.
- F. Vacuum hose attachment. Connect to 2 in. vacuum hose, or use adaptor for 1½ in. hose.
- G. Power cord connection. Use with a heavy duty extension cord with suitable amp rating.
- H. Inline solution filter. Dissassemble for cleaning. See “Clean Inline Filter,” p. 8. A **flow control orifice**, when installed, is located here. See “Cleaning and Operational Tips,” p. 8.
- J. Handle height adjustment slot. Loosen knob to raise or lower handle. Tighten firmly after adjustment.

Figure 2

- K. Transport wheels. Tip unit back on wheels to easily move unit from room to room.
- L. Vacuum Inlet Cleanout Cap. Lift out for quick cleaning.
- M. Carry handle. Use only when handle is in upright position and locked into position.

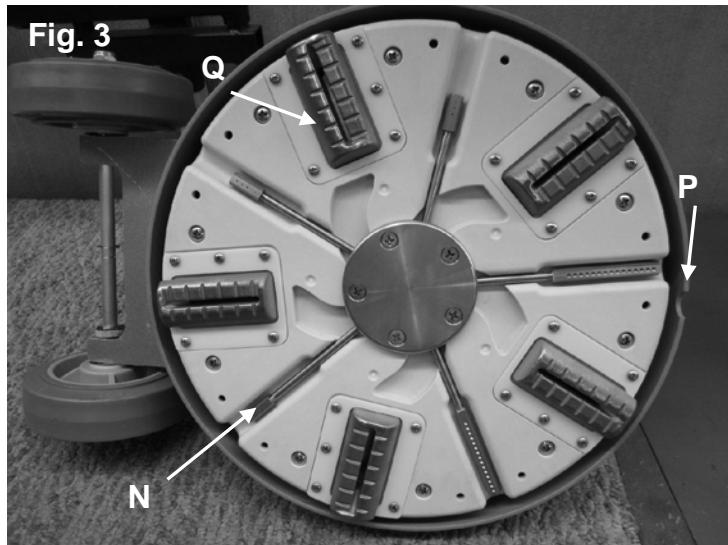


PARTS IDENTIFICATION (cont.)

Figure 3

N. Solution orifices (x5). May be removed with a $\frac{1}{8}$ in. socket or nut driver for cleaning or replacement. Align rotor with **Access Notch P** in housing to access each orifice.

Q. Vacuum feet Q (x5). May be removed for cleaning or replacement.

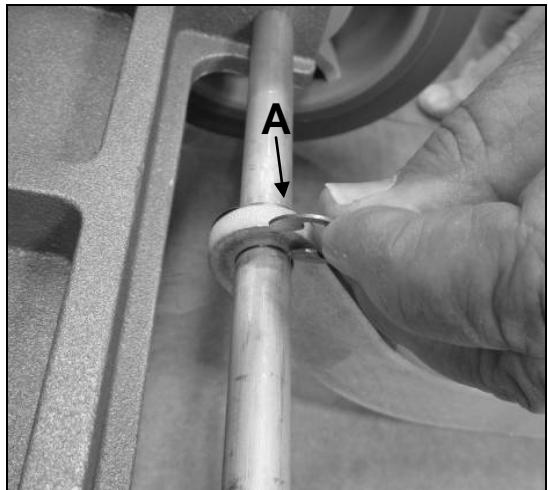


HOSS 700 Assembly Instructions

IMPORTANT! Complete these steps before using the HOSS 700 for the first time.

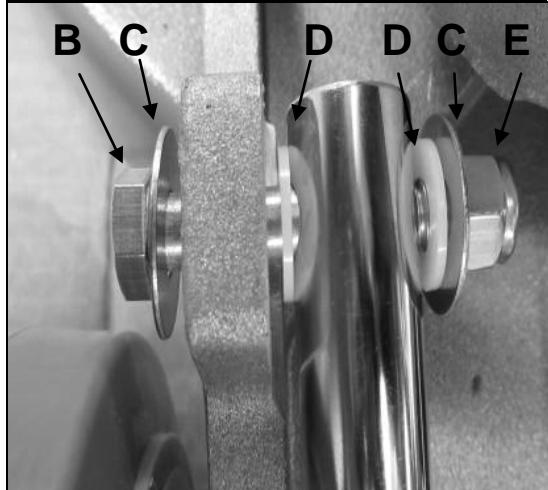
Tools required:

- Pliers
- Phillips head screwdriver
- $\frac{1}{4}$ in. ratchet
- Two 9/16 in. wrenches.

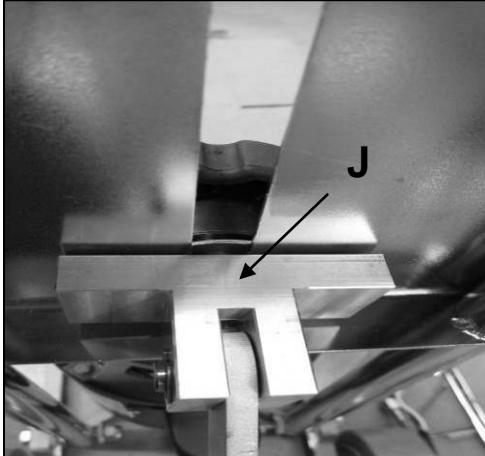
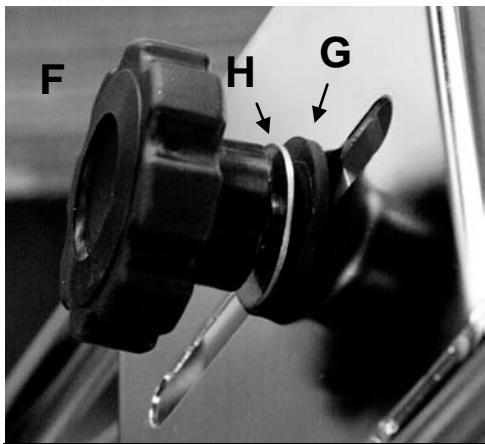


1. Slide the handle brace to the center of the axle and attach E clip **A** retaining ring to the axle.

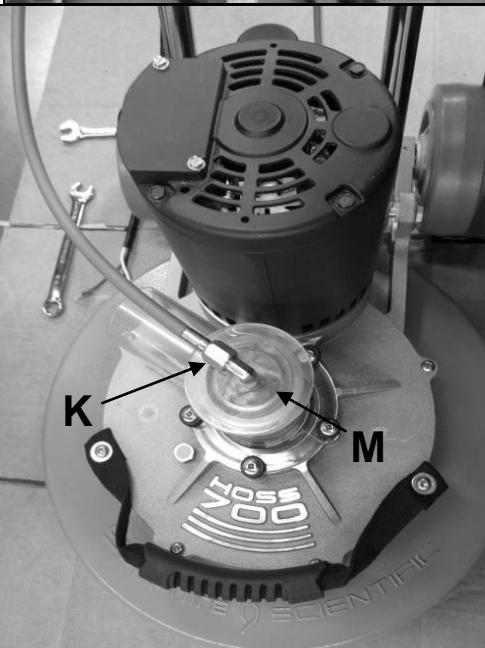
Tip: Pliers may be needed to compress washer between bar and pre-installed E clip.



2. Attach handle assembly using bolts **B**, metal washers **C**, nylon washers **D** and lock nuts **E** as shown. Attach both sides.



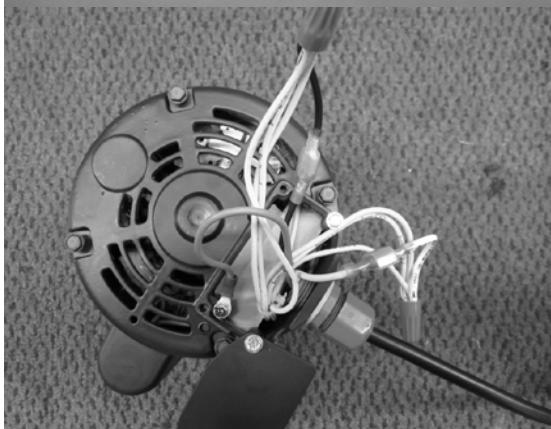
3. Attach handle brace to handle assembly. Place flat washer **H** and rubber washer **G** on the threaded shaft of knob **F** as shown. Insert knob **F** through slot in handle and thread into T-bracket **J**.



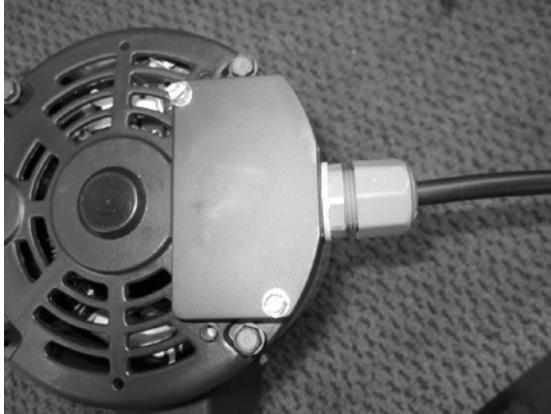
4. Attach the blue solution line **K** to the top of vacuum inlet cap **M**.



5. Place nut, rubber gasket as shown over the end of the power cord. Insert the three wires through the retainer ring one at a time, starting with the black wire, then the white wire, then the green wire. After inserting the wires, reseat the rubber gasket inside the retainer ring.



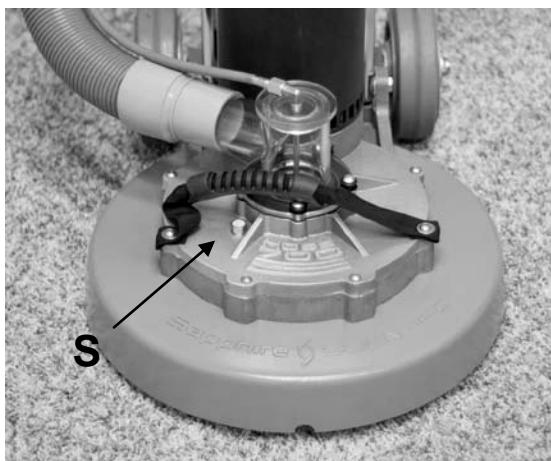
6. Loosen both junction cover plate screws and rotate the plate away from the junction cavity. Insert end of cord through threaded hole in side of motor, starting with the black wire, then the white wire, then the green wire. Connect black-to-black and white-to-white with the blade connectors. Attach the green ground wire to the ground screw.



7. Thread strain relief nut over fitting and tightened. Carefully coil wires and tuck into junction cavity and rotate junction cover plate back into place. Tighten screws.



8. Attach the cover plate **O** with the two sets of screws **P** and spacers **R**.



9. IMPORTANT: Replace temporary gear box plug (**S**) with vent plug provided.

SETUP

1. Adjust handle height for operator comfort. Loosen black knob, move handle up or down to desired height, and retighten. See Fig. 1.

TIP: To maximize control and operator comfort, position the handles at hip height.

2. Attach vacuum hose to vacuum outlet. The HOSS 700 is fitted with a 2 in. O.D. vacuum outlet, Fig. 1, F.

3. Attach solution hose to quick-connect fitting, Fig. 1, D.

4. Connect to a 115V/15 amp supply power source (Fig. 1, G), using a suitable extension cord. Cords up to 50 ft. long should be at least 14 gauge 3-wire; longer cords, up to 100 ft. maximum, should be 12 gauge 3-wire..

WARNING: Electrical shock hazard. Unit must be properly grounded. Do not remove grounding prong or otherwise alter the grounding system.

OPERATION

WARNING: Rotating parts. **Keep hands, feet and all cords and hoses clear.** Make sure the area to be cleaned is free from obstructions and place power cords and hoses well away from the unit.

1. Turn on the carpet cleaning extractor vacuum and solution pump.

2. Start the flow of solution first. Grasp handles firmly and squeeze right trigger (Fig. 1, B).

3. Balance the unit with the head flat on the carpet. Then squeeze left trigger (Fig. 1, C) to start rotary head.

WARNING: Rotary head starts abruptly. Be prepared to raise or lower the handle to control the unit. Only slight adjustments are required.

Controlling the unit

- To move to the **right**, **LIFT the handle with both hands** slightly.

- To move to the **left**, **LOWER the handle with both hands** slightly.

Tip: Only small adjustments in handle position are needed to control the unit. If you are unfamiliar with maneuvering this cleaning tool, practice first in an open and unobstructed area.

Tip: Do not tip the unit to the left or right, as this will impair vacuum performance and make the unit difficult to control.

Cleaning and Operational Tips

Do not operate the HOSS 700 on dry carpets, as this may damage carpet fibers.

Do not operate the HOSS 700 on hard surfaces, as this may damage the vacuum heads and/or floor surfaces.

For best results, **vacuum the carpet thoroughly** before using the HOSS 700.

Adjust solution flow. The flow of solution can be customized to soiling conditions and type of cleaning equipment used. To provide maximum solution flow, the HOSS is shipped without a restrictor installed. The Hoss 700 is supplied with .048, .052, and .057 in. flow-restricting orifices. Customers who wish to restrict flow may add one of the restrictors provided to the inline filter assembly (Fig. 1, H). To install a restrictor, disassemble the in-line filter, place the restrictor in position between the filter screen and the nut, and reassemble.

For best results, **always groom the carpet after cleaning**.

Always **establish adequate drying conditions** after cleaning.

MAINTENANCE

WARNING: Electrical shock hazard. Unplug unit before performing any maintenance task.

Before each use

Inspect the electrical cord for damage. Look for fraying, cuts, etc. Do not use the unit if you find any damage.

Inspect vacuum hoses, solution lines and all fittings for proper function. Repair or replace as needed.

Check manifolds for proper flow. With solution hose attached and pressurized, lay unit on its side and briefly squeeze the solution control lever. Solution should flow freely and equally from each manifold. If flow is reduced from any manifold, inspect for blockage. Remove the manifold, and with a sharp pointed object, clean the orifices. Take care not to damage the orifices.

After each use

Rinse rotary head clean.

Clear vacuum inlet. Remove the vacuum inlet cap from the vacuum inlet housing and remove any debris. For best results, keep unit on the vacuum while withdrawing the inlet cap. Replace cap securely when finished.

Inspect rotary head and vacuum feet for damage.

Replace worn or damaged parts as needed.

Monthly

Clean exterior housing. To maintain appearance, wipe exterior surfaces with clean with a damp cloth.

Check solution valve. Check for leaks and replace seals as necessary.

Check orifice and inline filter screen. Loosen the strainer assembly nut (Fig. 1, H) and remove the orifice, strainer and strainer washer. Rinse these items in clean water and reassemble. Take care not to over-tighten the strainer assembly nut.

Check gearbox oil levels. Remove vented gear case plug (S). While looking into vent plug hole, tilt unit back onto its wheels to allow rotary head to be turned. Turn the head until vent plug hole is aligned with the hole in the gear web. Now place the unit flat on floor or table and insert a screwdriver or similar tool to gauge the oil level. If the oil level is less than $\frac{1}{8}$ in. (.3 cm), add Sapphire gear oil (part number 13-053). Do not overfill. Reinstall vent plug when finished.

As needed

Lubricate the solution line quick-connect couplings (Fig. 1, D, E) with a small amount of rust-inhibiting oil such as LPS-3.

Clean inline strainer (Fig. 1, H) when solution flow is visibly reduced. To clean the filter, loosen the strainer assembly nut, and remove the strainer and strainer washer. Rinse these items in clean water and reassemble the strainer. It is not normally necessary to replace the inline filter element. Be sure to include the nylon washer when reassembling, and take care not to over-tighten the strainer assembly nut.

To maintain appearance, wipe exterior surfaces with a damp cloth.

TRANSPORT AND STORAGE

NOTICE: Handle the unit carefully. Do not drop, or place the unit where it could fall. Rough treatment can damage this equipment and may create a hazardous condition or void warranty.

1. Do not expose electrical components to moisture when transporting in uncovered vehicles.
2. Store and transport securely to avoid any damaging impact to internal parts.
3. Protect from freezing. Store unit in heated area.

TROUBLESHOOTING

FAULT	CAUSE	SOLUTION
Unit does not operate	No power to machine. Supply circuit breaker tripped.	Reset supply circuit breaker.
Solution leaks at trigger control valve.	Valve seal has failed.	Install valve rebuilt kit.
Poor vacuum performance on carpet.	1. Uptake tube clogged with debris 2. Vacuum slot feet gouged or damaged 3. Vacuum inlet clogged	1. Remove lower end and remove obstruction 2. Replace damaged vacuum slot feet 3. Remove vacuum inlet cap and remove debris
Inadequate solution output	1. Plugged strainer or orifice 2. Incorrect orifice installed 3. Manifolds plugged or damaged	1. Rinse strainer and/or orifice clean 2. Install correct orifice 3. Clean manifolds; replace any damaged manifolds
<i>If the problem you are experiencing is not listed here, call the Sapphire Service Department at 800-932-3030. Contact your Sapphire distributor for replacement parts and rebuild kits.</i>		

WARRANTY

Warranty information is available from your dealer or at www.sapphirescientific.com.

Warranty registration

Visit warranty.sapphirescientific.com to register your purchase. Registration allows us to better assist you with using, maintaining or servicing your equipment, as well as to contact you in case we have important safety information concerning your Sapphire Scientific product. If you determine service is required, have your equipment model, serial number and original proof of purchase available and call your distributor for assistance with obtaining a return material authorization (RMA).

HOSS 700 SPECIFICATIONS

Model	HOSS 700 Rotary Cleaning Tool
Cleaning width	15 in. 38 cm diameter head
Use weight	68 lbs. 31 kg
Power	110V / 60Hz
Motor	½ HP 1725 RPM
Construction	Lightweight machined aluminum gear box. Stainless steel handle. 6 in. non-scuffing wheels.
Rotary system	Gear-driven rotor with five replaceable long life floating heads.
Vacuum system	2 in. tube with clear view vacuum inlet cap.
<i>Specifications are subject to change without notice. Some values may be approximate.</i>	

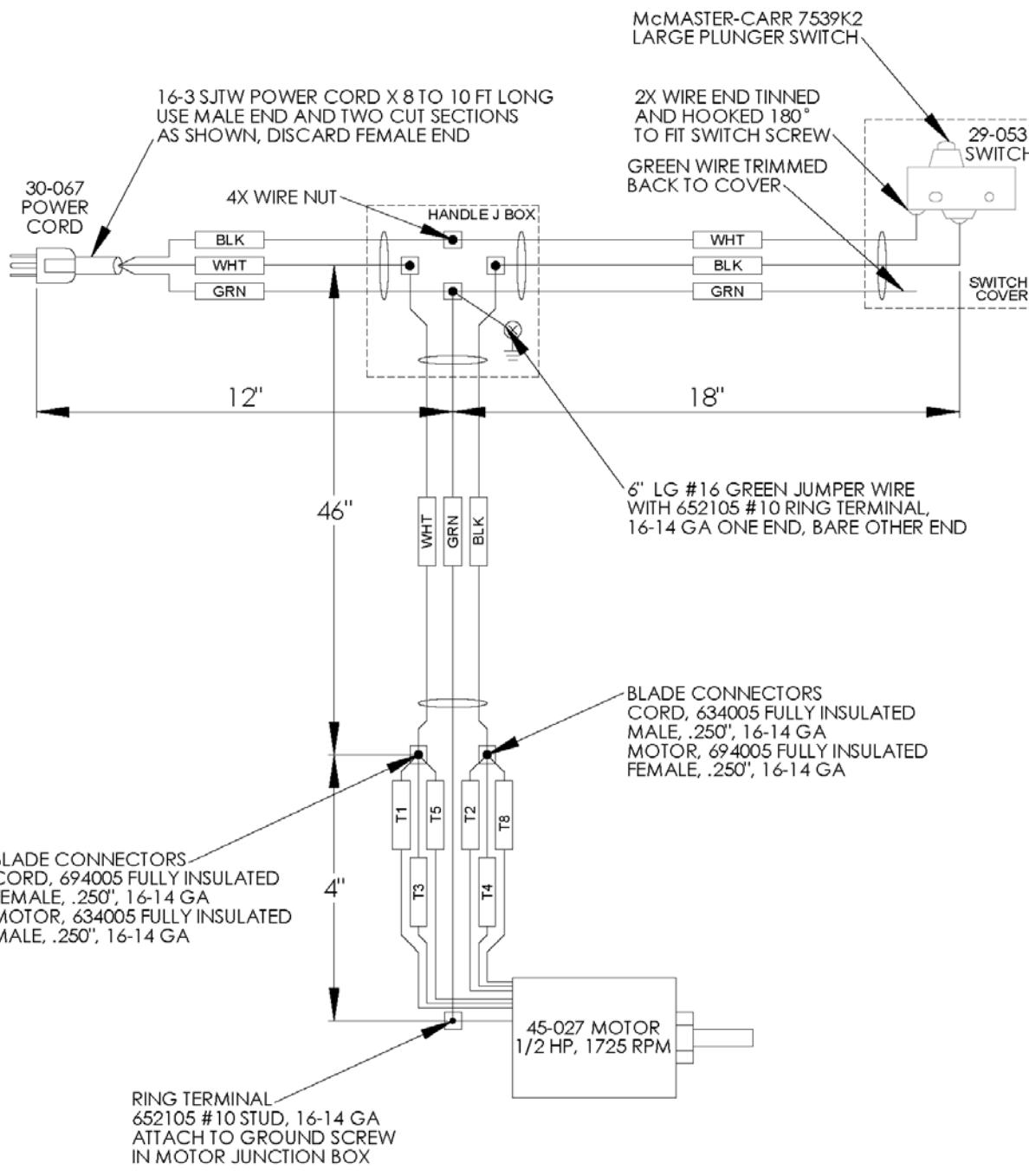
CONTACT

Sapphire Scientific
2604 Liberator • Prescott, AZ 86301
Sales: 866-445-3030 • Technical Support: 866-445-3030

PARTS DIAGRAMS

Wiring Schematic

67-025 ROTARY TOOL WIRING SCHEMATIC



Handle Assembly

REV	ECO	DESCRIPTION	CHG'D	DATE
01	159-S1	RELEASE TO PRE-PRODUCTION	BR	03/15/11
02	159-S3	ADDED 18-215-20	BR	8/15/11
REVISIONS				
QTY	ITEM	PART NO.	DESCRIPTION	
-	1	14	18-215-20 HOSE, ASSY, FHC X FJC W/SS & COVER	
②	1	13	10-204 SCREW, 4-WAY HEAD 10-32 X 3/8 GROUND	
	1	12	44-112 DECAL PRODUCT HOS5700	
	1	11	10-196 SCREW, MACH 10-32 X .500 PHP SS	
	3	10	31-200 CORD BUSHING	
	1	9	30-076-03 POWER CORD SEGMENT	
	1	8	30-076-02 POWER CORD SEGMENT	
	1	7	30-076-01 POWER CORD SEGMENT	
	4	6	10-195 SCREW, MACH .25-.20 X .500 PHP SS	
	1	5	58-507 COVER, ELECTRICAL BOX ELECTROPOULISHED	
	2	4	40-029 GRIP, CUSHIONED .875 ID X 4.562 LG	
	1	3	69-335 ASSY, MOTOR SWITCH WITH COVERS	
	1	2	69-334 ASSY, ANGLE VALVE WITH COVERS	
	1	1	61-675 WELDMENT, HANDLE ELECTROPOULISHED	
LIST OF MATERIALS				
-	UNLESS OTHERWISE SPECIFIED:		SAPPHIRE SCIENTIFIC, INC.	
	ALL AMERICAN ARE INCHES & FEET.		2604 UBER AVE	
	INCHES & FEET		PRESCOTT, AZ 86301	
	TOLERANCES:		PH: (602) 445-3030	
	1A/C +.01-.04			
	2A/C +.02-.03 [7A]			
	3A/C +.01-.02 [13A]			
	4A/C +.01-.02 [13A]			
	5A/C +.01-.02 [13A]			
	6A/C +.01-.02 [13A]			
	7A/C +.01-.02 [13A]			
	8A/C +.01-.02 [13A]			
	9A/C +.01-.02 [13A]			
	10A/C +.01-.02 [13A]			
	11A/C +.01-.02 [13A]			
	12A/C +.01-.02 [13A]			
	13A/C +.01-.02 [13A]			
	14A/C +.01-.02 [13A]			
	15A/C +.01-.02 [13A]			
	16A/C +.01-.02 [13A]			
	17A/C +.01-.02 [13A]			
	18A/C +.01-.02 [13A]			
	19A/C +.01-.02 [13A]			
	20A/C +.01-.02 [13A]			
	21A/C +.01-.02 [13A]			
	22A/C +.01-.02 [13A]			
	23A/C +.01-.02 [13A]			
	24A/C +.01-.02 [13A]			
	25A/C +.01-.02 [13A]			
	26A/C +.01-.02 [13A]			
	27A/C +.01-.02 [13A]			
	28A/C +.01-.02 [13A]			
	29A/C +.01-.02 [13A]			
	30A/C +.01-.02 [13A]			
	31A/C +.01-.02 [13A]			
	32A/C +.01-.02 [13A]			
	33A/C +.01-.02 [13A]			
	34A/C +.01-.02 [13A]			
	35A/C +.01-.02 [13A]			
	36A/C +.01-.02 [13A]			
	37A/C +.01-.02 [13A]			
	38A/C +.01-.02 [13A]			
	39A/C +.01-.02 [13A]			
	40A/C +.01-.02 [13A]			
	41A/C +.01-.02 [13A]			
	42A/C +.01-.02 [13A]			
	43A/C +.01-.02 [13A]			
	44A/C +.01-.02 [13A]			
	45A/C +.01-.02 [13A]			
	46A/C +.01-.02 [13A]			
	47A/C +.01-.02 [13A]			
	48A/C +.01-.02 [13A]			
	49A/C +.01-.02 [13A]			
	50A/C +.01-.02 [13A]			
	51A/C +.01-.02 [13A]			
	52A/C +.01-.02 [13A]			
	53A/C +.01-.02 [13A]			
	54A/C +.01-.02 [13A]			
	55A/C +.01-.02 [13A]			
	56A/C +.01-.02 [13A]			
	57A/C +.01-.02 [13A]			
	58A/C +.01-.02 [13A]			
	59A/C +.01-.02 [13A]			
	60A/C +.01-.02 [13A]			
	61A/C +.01-.02 [13A]			
	62A/C +.01-.02 [13A]			
	63A/C +.01-.02 [13A]			
	64A/C +.01-.02 [13A]			
	65A/C +.01-.02 [13A]			
	66A/C +.01-.02 [13A]			
	67A/C +.01-.02 [13A]			
	68A/C +.01-.02 [13A]			
	69A/C +.01-.02 [13A]			
	70A/C +.01-.02 [13A]			
	71A/C +.01-.02 [13A]			
	72A/C +.01-.02 [13A]			
	73A/C +.01-.02 [13A]			
	74A/C +.01-.02 [13A]			
	75A/C +.01-.02 [13A]			
	76A/C +.01-.02 [13A]			
	77A/C +.01-.02 [13A]			
	78A/C +.01-.02 [13A]			
	79A/C +.01-.02 [13A]			
	80A/C +.01-.02 [13A]			
	81A/C +.01-.02 [13A]			
	82A/C +.01-.02 [13A]			
	83A/C +.01-.02 [13A]			
	84A/C +.01-.02 [13A]			
	85A/C +.01-.02 [13A]			
	86A/C +.01-.02 [13A]			
	87A/C +.01-.02 [13A]			
	88A/C +.01-.02 [13A]			
	89A/C +.01-.02 [13A]			
	90A/C +.01-.02 [13A]			
	91A/C +.01-.02 [13A]			
	92A/C +.01-.02 [13A]			
	93A/C +.01-.02 [13A]			
	94A/C +.01-.02 [13A]			
	95A/C +.01-.02 [13A]			
	96A/C +.01-.02 [13A]			
	97A/C +.01-.02 [13A]			
	98A/C +.01-.02 [13A]			
	99A/C +.01-.02 [13A]			
	100A/C +.01-.02 [13A]			
	101A/C +.01-.02 [13A]			
	102A/C +.01-.02 [13A]			
	103A/C +.01-.02 [13A]			
	104A/C +.01-.02 [13A]			
	105A/C +.01-.02 [13A]			
	106A/C +.01-.02 [13A]			
	107A/C +.01-.02 [13A]			
	108A/C +.01-.02 [13A]			
	109A/C +.01-.02 [13A]			
	110A/C +.01-.02 [13A]			
	111A/C +.01-.02 [13A]			
	112A/C +.01-.02 [13A]			
	113A/C +.01-.02 [13A]			
	114A/C +.01-.02 [13A]			
	115A/C +.01-.02 [13A]			
	116A/C +.01-.02 [13A]			
	117A/C +.01-.02 [13A]			
	118A/C +.01-.02 [13A]			
	119A/C +.01-.02 [13A]			
	120A/C +.01-.02 [13A]			
	121A/C +.01-.02 [13A]			
	122A/C +.01-.02 [13A]			
	123A/C +.01-.02 [13A]			
	124A/C +.01-.02 [13A]			
	125A/C +.01-.02 [13A]			
	126A/C +.01-.02 [13A]			
	127A/C +.01-.02 [13A]			
	128A/C +.01-.02 [13A]			
	129A/C +.01-.02 [13A]			
	130A/C +.01-.02 [13A]			
	131A/C +.01-.02 [13A]			
	132A/C +.01-.02 [13A]			
	133A/C +.01-.02 [13A]			
	134A/C +.01-.02 [13A]			
	135A/C +.01-.02 [13A]			
	136A/C +.01-.02 [13A]			
	137A/C +.01-.02 [13A]			
	138A/C +.01-.02 [13A]			
	139A/C +.01-.02 [13A]			
	140A/C +.01-.02 [13A]			
	141A/C +.01-.02 [13A]			
	142A/C +.01-.02 [13A]			
	143A/C +.01-.02 [13A]			
	144A/C +.01-.02 [13A]			
	145A/C +.01-.02 [13A]			
	146A/C +.01-.02 [13A]			
	147A/C +.01-.02 [13A]			
	148A/C +.01-.02 [13A]			
	149A/C +.01-.02 [13A]			
	150A/C +.01-.02 [13A]			
	151A/C +.01-.02 [13A]			
	152A/C +.01-.02 [13A]			
	153A/C +.01-.02 [13A]			
	154A/C +.01-.02 [13A]			
	155A/C +.01-.02 [13A]			
	156A/C +.01-.02 [13A]			
	157A/C +.01-.02 [13A]			
	158A/C +.01-.02 [13A]			
	159A/C +.01-.02 [13A]			
	160A/C +.01-.02 [13A]			
	161A/C +.01-.02 [13A]			
	162A/C +.01-.02 [13A]			
	163A/C +.01-.02 [13A]			
	164A/C +.01-.02 [13A]			
	165A/C +.01-.02 [13A]			
	166A/C +.01-.02 [13A]			
	167A/C +.01-.02 [13A]			
	168A/C +.01-.02 [13A]			
	169A/C +.01-.02 [13A]			
	170A/C +.01-.02 [13A]			
	171A/C +.01-.02 [13A]			
	172A/C +.01-.02 [13A]			
	173A/C +.01-.02 [13A]			
	174A/C +.01-.02 [13A]			
	175A/C +.01-.02 [13A]			
	176A/C +.01-.02 [13A]			
	177A/C +.01-.02 [13A]			
	178A/C +.01-.02 [13A]			
	179A/C +.01-.02 [13A]			
	180A/C +.01-.02 [13A]			
	181A/C +.01-.02 [13A]			
	182A/C +.01-.02 [13A]			
	183A/C +.01-.02 [13A]			
	184A/C +.01-.02 [13A]			
	185A/C +.01-.02 [13A]			
	186A/C +.01-.02 [13A]			
	187A/C +.01-.02 [13A]			
	188A/C +.01-.02 [13A]			
	189A/C +.01-.02 [13A]			
	190A/C +.01-.02 [13A]			
	191A/C +.01-.02 [13A]			
	192A/C +.01-.02 [13A]			
	193A/C +.01-.02 [13A]			
	194A/C +.01-.02 [13A]			
	195A/C +.01-.02 [13A]			
	196A/C +.01-.02 [13A]			
	197A/C +.01-.02 [13A]			
	198A/C +.01-.02 [13A]			
	199A/C +.01-.02 [13A]			
	200A/C +.01-.02 [13A]			
	201A/C +.01-.02 [13A]			
	202A/C +.01-.02 [13A]			
	203A/C +.01-.02 [13A]			
	204A/C +.01-.02 [13A]			
	205A/C +.01-.02 [13A]			
	206A/C +.01-.02 [13A]			
	207A/C +.01-.02 [13A]			
	208A/C +.01-.02 [13A]			
	209A/C +.01-.02 [13A]			
	210A/C +.01-.02 [13A]			
	211A/C +.01-.02 [13A]			
	212A/C +.01-.02 [13A]			
	213A/C +.01-.02 [13A]			
	214A/C +.01-.02 [13A]			
	215A/C +.01-.02 [13A]			
	216A/C +.01-.02 [13A]			
	217A/C +.01-.02 [13A]			
	218A/C +.01-.02 [13A]			
	219A/C +.01-.02 [13A]			
	220A/C +.01-.02 [13A]			
	221A/C +.01-.02 [13A]			
	222A/C +.01-.02 [13A]			
	223A/C +.01-.02 [13A]			
	224A/C +.01-.02 [13A]			
	225A/C +.01-.02 [13A]			
	226A/C +.01-.02 [13A]			
	227A/C +.01-.02 [13A]			
	228A/C +.01-.02 [13A]			
	229A/C +.01-.02 [13A]			
	230A/C +.01-.02 [13A]			
	231A/C +.01-.02 [13A]			
	232A/C +.01-.02 [13A]			
	233A/C +.01-.02 [13A]			
	234A/C +.01-.02 [13A]			
	235A/C +.01-.02 [13A]			
	236A/C +.01-.02 [13A]			
	237A/C +.01-.02 [13A]			
	238A/C +.01-.02 [13A]			
	239A/C +.01-.02 [13A]			
	240A/C +.01-.02 [13A]			
	241A/C +.01-.02 [13A]			
	242A/C +.01-.02 [13A]			
	243A/C +.01-.02 [13A]			
	244A/C +.01-.02 [13A]			
	245A/C +.01-.02 [13A]			
	246A/C +.01-.02 [13A]			

Trigger Valve Assembly

REV	ECO	REVISIONS RELEASED TO PRODUCTION	DESCRIPTION	CHGD BR	DATE (09/14/11)
A	159-34				

NOTES:

1. DO NOT OVER TIGHTEN ITEM 6 SCREW THAT GOES THRU ITEM 8 TUBE OR HANDLE MAY NOT MOVE

QTY	ITEM	PART NO.	DESCRIPTION
-			LIST OF MATERIALS
1	9	15-046	SPRING, CONICAL
1	8	27-031	ASSY, HANDLE WITH SAFETY LEVER
4	7	10-228	SCREW, MACH 6-32 X 1-1/2 BHSSCS SS
4	6	10-227	SCREW, MACH 4-40 X 7/8 BHSSCS SS
1	5	6-6-342	TUBE, HANDLE SUPPORT
4	4	11-038	NUT, 6-32 SS NYLOK
1	3	29-063	SWITCH, 25 AMP LARGE PLUNGER
1	2	51-048	MOLDING, SWITCH COVER TOP
1	1	51-047	MOLDING, SWITCH COVER BOTTOM

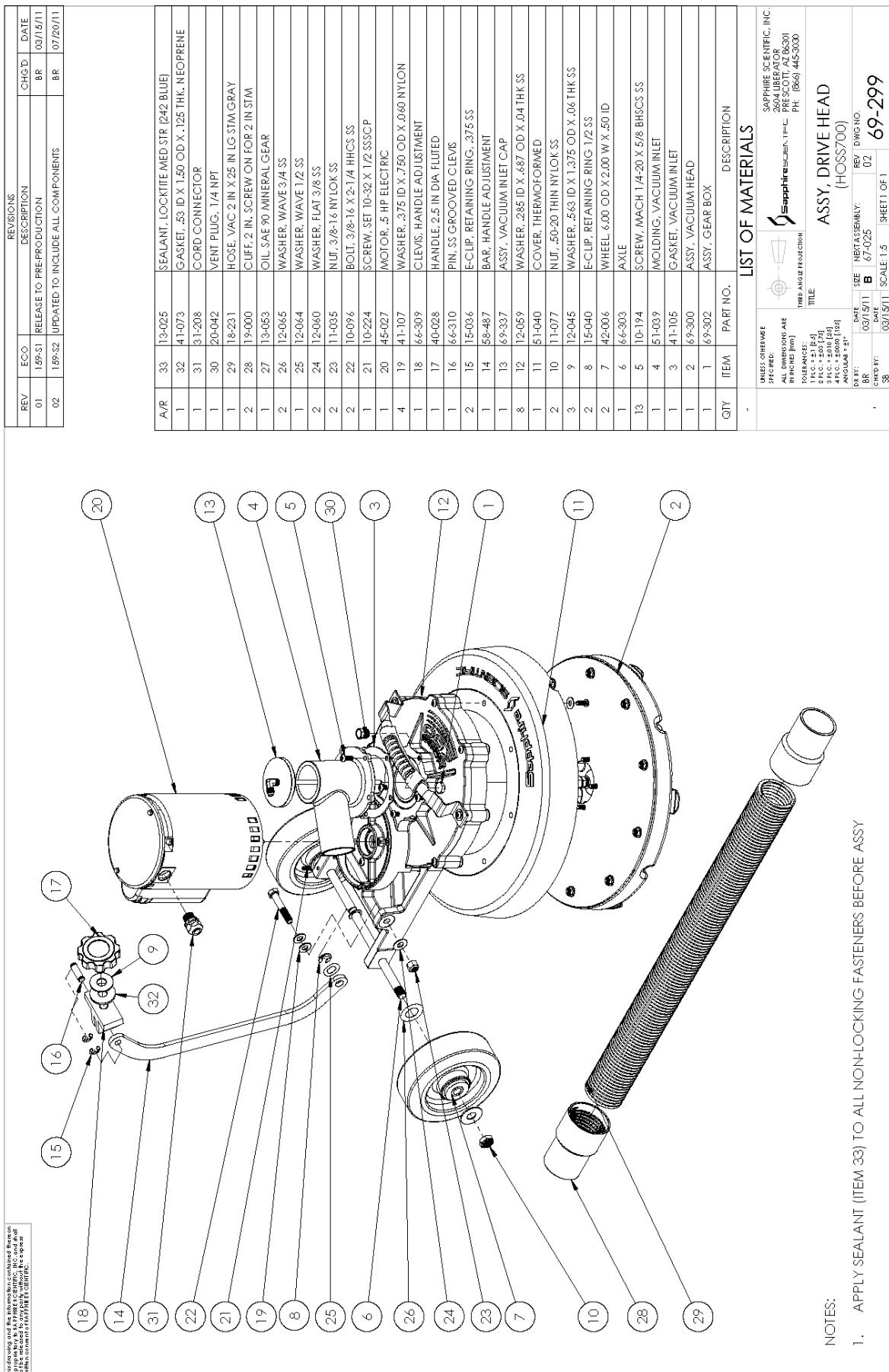
SAPPHIRE SCIENTIFIC, INC.
260 LIBERATOR, #1-L, PRESCOTT, AZ 86301
PH. (602) 445-3030

ASSY, MOTOR SWITCH WITH COVERS (HOSS700)

DATE BY: BR CHECKED: JJ	SIZE NET ASSEMBLY: 69-301	REV DWNO. A
09/12/11	B	69-335
09/12/11	SCALE: 1/2	SHEET 1 OF 1

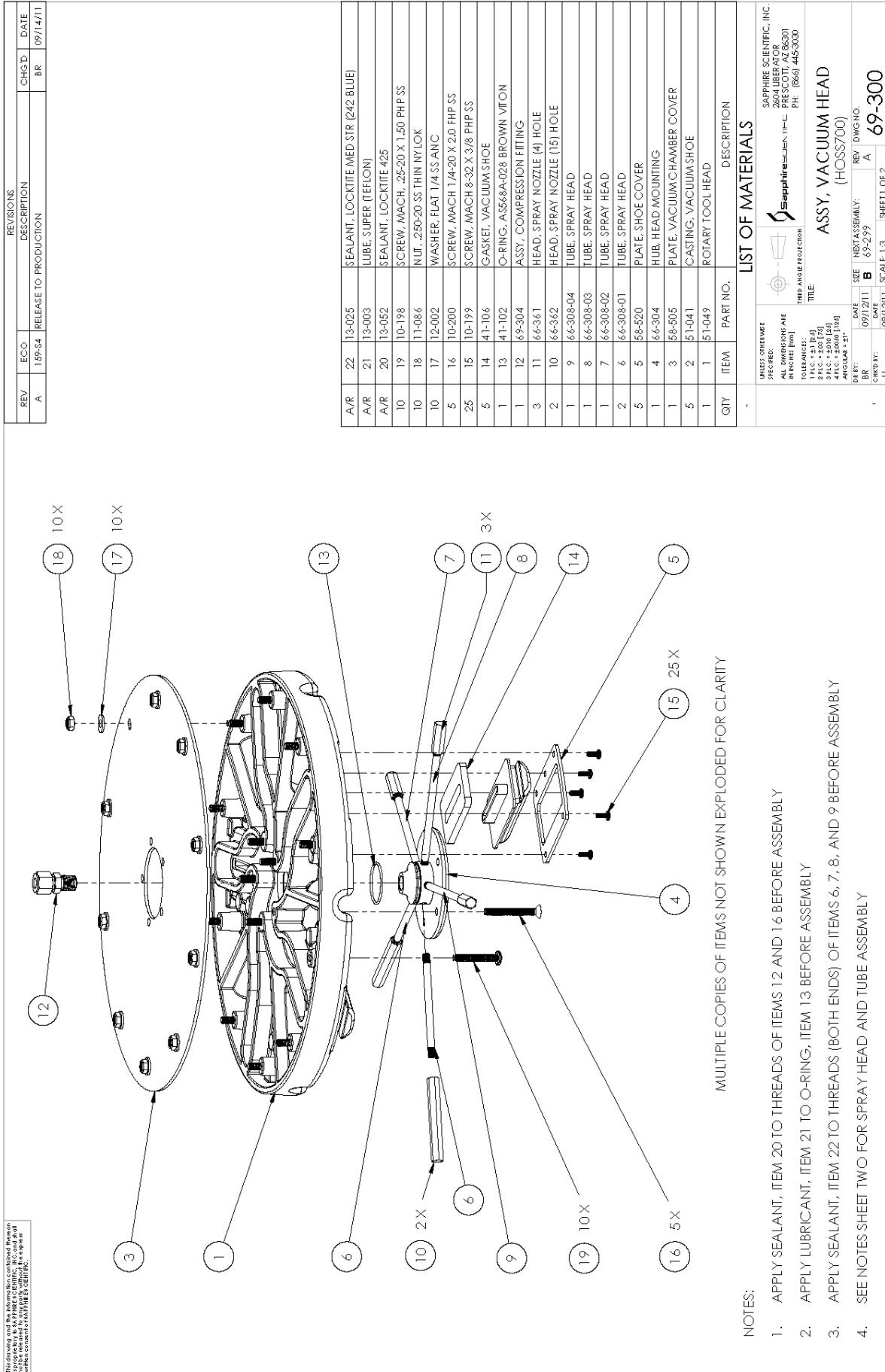
This drawing and its accompanying documents, including the revision history, are the sole property of Sapphire Scientific, Inc. They are to be returned to or destroyed, without prior written permission, if they are no longer required or if they are used for other purposes than those for which they were intended.

Drive Head Assembly



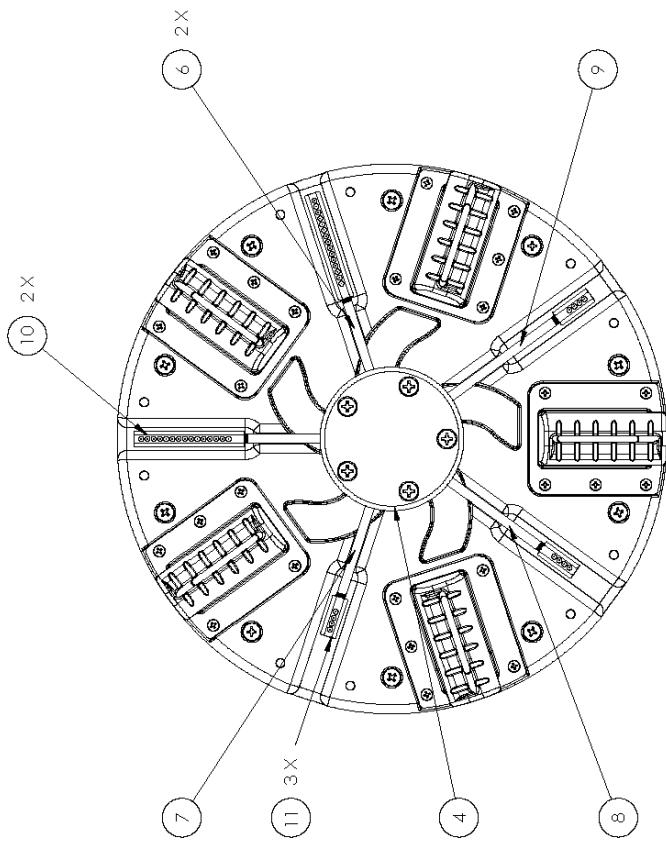
This drawing and the information contained herein are the property of Sapphire Scientific, Inc. and are held in confidence by the recipient. They are not to be reproduced or given to third parties without written consent of Sapphire Scientific, Inc.

Vacuum Head Assembly



This drawing and the information it contains are the sole property of Sapphire Scientific, Inc. and shall be held in confidence by the recipient. It is to be used only for the manufacture of parts for Sapphire Scientific, Inc. products. It is illegal to copy or disclose the contents of this drawing to anyone without the written consent of Sapphire Scientific, Inc.

Vacuum Head Assembly: Tube Length Detail



NOTE CCW PROGRESSION OF TUBE LENGTHS AROUND HEAD
ORIENTATE HOLES IN SPRAY HEADS (ITEM 10 & 11) TOWARDS FLANGE FACE OF HUB HEAD (ITEM 1)

LIST OF MATERIALS	
UNLESS OTHERWISE SPECIFIED: ALL COUNTERSINK ARE HARDENED PLATE	SAPPHIRE SCIENTIFIC, INC. 2604 LIBERTY ST., STE. 110-C PRESCOTT, AZ 86301 PH: (602) 445-3000
THICKNESS AND PROJECTION:	Sapphiress.com
ITEM NO.:	ASSY, VACUUM HEAD (HOSS700)
1	DATE: 09/11/2011 REV: B DRAWING NO.: 69-300
2	DATE: 09/11/2011 REV: A DRAWING NO.: 69-299
3	DATE: 09/11/2011 REV: B DRAWING NO.: 69-300
4	DATE: 09/11/2011 REV: A DRAWING NO.: 69-299
5	DATE: 09/11/2011 REV: B DRAWING NO.: 69-300
6	DATE: 09/11/2011 REV: A DRAWING NO.: 69-299
7	DATE: 09/11/2011 REV: B DRAWING NO.: 69-300
8	DATE: 09/11/2011 REV: A DRAWING NO.: 69-299
9	DATE: 09/11/2011 REV: B DRAWING NO.: 69-300
10	DATE: 09/11/2011 REV: A DRAWING NO.: 69-299
11	DATE: 09/11/2011 REV: B DRAWING NO.: 69-300

PURCHASE

Purchase date: _____

Serial number: _____

Distributor: _____ Tel. _____

MAINTENANCE