BCS Pressure Washer Attachment PW 4000-40 / PW 3600-35

Operator's Manual

Introduction



IMPORTANT: Read through the complete operator's manual prior to the initial use of your pressure washer attachment.

Using the Operator's Manual

The operating manual is an important part of your pressure washer attachment. It should be read thoroughly before initial use and referred to often to ensure adequate safety and service concerns are being addressed. Reading the owner's manual thoroughly will help avoid any damage to the attachment or tractor and injury to yourself and others. The information in this manual will also provide you with the safest and most effective guidelines for cleaning and maintaining your pressure washer. By reading and understanding the operator's manual, you will be better positioned to show others how to safely operate and use this attachment. This manual is organized in order starting from the safety requirements to operating functions. The operator's manual should be stored with the pressure washer and referred to whenever you have safety or operating questions or concerns.

Note

"Pressure Washer" and "Attachment" refer to the BCS tractor's Pressure Washer attachment. "Tractor" refers to the BCS tractor. "Machine" refers to the BCS tractor and pressure washer as a complete unit.

Notice

Actual pressure released at the point of discharge may vary by machine due to a variety of factors, including the volume of water being fed to the attachment by the water source, the inclusion of a chemical injector in the line, or variations in the performance of the tractor's engine.

Warranty Information

5-Year Warranty on pump components

3-Year Warranty on Frame and other non-wearable BCS components

90-Day Warranty on wearable parts, including gun, hose, fittings and hose tips

Product Identification

Record Identification Numbers

For warranty and service assistance, please contact either your regional BCS dealer or BCS technical assistance at **1-800-543-1040**.

To locate your nearest servicing dealer, refer to the "find a dealer" section at http://www.bcsamerica.com

You will need to locate the model and serial number for the pressure washer attachment and record the information in the places provided below. The serial number can be located.......

| Date of Purchase: | | |
|-------------------|--|--|
| Dealer Name: | | |
| Dealer Phone: | | |
| Model Number: | | |
| Serial Number: | | |

Safety

Understanding the Pressure Washer attachment's Safety Labels

The safety labels shown below are placed on the attachment to draw attention to potential safety hazards.



Safety Rules



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

WARNING indicates a hazard which, if not avoided, could result in death or serious injury.

NOTICE indicates a situation that could result in equipment damage. Follow safety messages to avoid or reduce the risk of injury or death.

<u>Safety</u>

AWARNING



During operation, the tractor's engine gives off carbon monoxide, an odorless, colorless, poisonous gas.

Breathing carbon monoxide can cause headache, fatigue, dizziness, vomiting, confusion, seizures, nausea, fainting, or death.

Some chemicals or detergents may be harmful if inhaled or ingested, causing severe nausea, fainting, or death.

- Operate pressure washer ONLY outdoors.
- Keep exhaust gas from entering a confined area through windows, doors, ventilation intakes, or other openings.
- DO NOT start or run the engine indoors or in an enclosed area, even if windows and doors are open
- Use a respirator or mask whenever there is a chance that vapors may be inhaled.
- Check the specifications of the mask so you are certain the mask will provide the necessary protection against inhaling harmful vapors.

AWARNING



Pressure washer use can create puddles and slippery surfaces.



Kickback from spray gun can cause you to fall.

- Operate pressure washer on a relatively level surface.
- The cleaning area should have adequate slope and drainage to reduce the possibility of a fall due to slippery surfaces.
- Be extremely careful if you must use the pressure washer from a ladder, scaffolding, or other similar location.
- Firmly grasp spray gun and wand with both hands when using high pressure spray to avoid injury when spray gun kicks back.

Safety

AWARNING



The high pressure stream of water that this attachment produces can cut through skin and its underlying tissues, leading to serious injury and possible amputation.

Spray gun traps high water pressure, even when the tractor's engine is stopped and water is disconnected from the attachment, which can cause injury.

- ALWAYS point spray gun in safe direction and squeeze spray gun trigger, in order to release high pressure, every time you stop the tractor's engine.
- DO NOT allow CHILDREN to operate pressure washer.
- NEVER repair high pressure hose. Replace it.
- NEVER repair leaking connections with sealant of any kind. Replace o-ring or seal.
- NEVER connect high pressure hose to nozzle extension.
- ALWAYS keep high pressure hose connected to pump and spray gun while system is pressurized.
- NEVER aim spray gun at people, animals, or plants.
- DO NOT secure spray gun in open position.
- DO NOT leave spray gun unattended while machine is running.
- NEVER use a spray gun which does not have a trigger lock or trigger guard in place and in working order.
- ALWAYS be certain spray gun, nozzles, and accessories are correctly attached.

AWARNING



Risk of eye injury.

Spray can splash back or propel objects.

- Always wear safety goggles when using this machine or in the vicinity of where this machine is being used.
- Before starting the pressure washer, be sure you are wearing adequate safety goggles.
- NEVER substitute safety glasses for safety goggles.

<u>Safety</u>

NOTICE

High pressure spray may damage fragile items including glass.

- DO NOT point spray gun at glass when using red 0° spray tip.
- NEVER aim spray gun at plants, animals or people.

NOTICE

Improper treatment of the pressure washer can damage it and shorten its life.

- If you have questions about intended use, contact your nearest authorized dealer.
- NEVER operate the pressure washer with broken or missing parts, or without protective housing or covers.
- DO NOT by-pass any safety device on this machine.
- DO NOT tamper with governed speed.
- DO NOT operate pressure washer above rated pressure.
- DO NOT modify pressure washer in any way.
- Before starting pressure washer in cold weather, check all parts of the machine to be sure ice has not formed there.
- NEVER move machine by pulling on hoses.
- Before use, check for leaks or signs of deterioration, such as chafed or spongy hose, and correct all defects before operating pressure washer.

Pre-Operation Checklist

** Water must be turned on prior to starting the pressure washer. Pull the spray trigger to ensure water is moving through the lines and out the nozzle without any leaks before starting the pressure washer.**

Review the safety guidelines in the manual prior to starting the machine. If you have any issues operating the pressure washer, call the customer service line at 1-800-543-1040.

A WARNING



Always check the oil level in the tractor's engine and in the pressure washer pump prior to starting. (See AR pump manual.)

• Failure to do so could cause the engine and/or pump to seize if the oil is low or empty.

Connect Hose and Water Supply to Pump Before Starting

A WARNING



DO NOT engage the pressure washer without the water supply turned on.

- Failure to do so will result in damaging the pump from overheating and void the warranty.
- Attach BCS power cradle to the tractor's PTO studs, with the third hole on the top side.
- The power cradle is serviced with SAE80-90 gear oil. Once the cradle is mounted to the tractor, the oil should be checked by removing the check plug located on the lower right side of the housing. If the oil level is low, add it through the top plug, which also serves as a vent for the gearbox. When adding oil, fill until oil begins to flow out the check plug hole. Replace the plugs do not overfill.
- Mount the female bushing of the quick hitch (92290827) to the two studs located on either side of the power cradle's output shaft.
- Insert the tang attached to the water pump into the bushing of the power cradle. Lock into position by lowering the red lever.

Starting Your Washer

How to Start Your Pressure Washer

To start your pressure washer for the first time, follow these instructions step-by-step. This starting information also applies if you have let the pressure washer sit idle for at least a day.

- 1. Place pressure washer near an outside water source capable of supplying water at a flow rate greater than 3.8 gallons per minute and no less than 20 PSI at pressure washer end of garden hose. DO NOT use a siphon supply water.
- 2. Make sure machine is in a level position.
- 3. Connect Garden hose to water inlet on pressure washer pump.

NOTICE

DO NOT run the pressure washer without the water supply connected and turned on.

- Damage to equipment resulting from failure to follow this instruction will void warranty.
- 4. Attach wand extension to spray gun. Tighten by hand.
- 5. Choose desired spray tip, pull back nozzle extension collar, insert spray tip and release collar. Tug on spray tip to make sure it is securely in place. See *Spray Tips*.









Starting Your Washer (Continued...)

6. Uncoil high pressure hose and attach quick connect end of hose to base of spray gun. Pull down on collar of quick connect, slide onto spray gun and let go of collar. Tug on hose to be sure of tight connection.







AWARNING



The high pressure stream of water that this equipment produces can cut through skin and its underlying tissues, leading to serious injury and possible amputation.

- NEVER connect high pressure hose to nozzle extension.
- Keep high pressure hose connected to pump and spray gun while system is pressurized.
- Always be certain spray gun, nozzles and accessories are correctly attached.
- 7. Attach other end of high pressure hose to high pressure outlet on pump. Pull down on collar of quick connect, slide onto pump, and let go of collar. Pull on hose to ensure a tight connection.







Starting Your Washer (Continued...)

- 8. Connect the garden hose to the water inlet. Tighten by hand.
- 9. Turn water supply on, point gun in a safe direction and squeeze the trigger to purge the pump of air and debris. Do this for at least 30 seconds.

IMPORTANT: DO NOT siphon standing water for the water supply. Use ONLY cold water (less than 140°F).

- 10. Take a look at all connections to make sure there are no leaks or loose connections.
- 11. Start your tractor's engine.
- 12. A lanyard with ring is (see below) is provided to ensure red OPC handle remains in operating mode.
 - For non-PowerSafe tractors, with the ring removed from the handlebar, the engine will stop. Restart the engine.
 - For PowerSafe tractors, with the ring removed from the handlebar, the engine will still run, but the PTO will disengage. Leave the engine running.
- 13. Engage your tractor's PTO.

NON-POWERSAFE UNITS



POWERSAFE UNITS





Shutting Down Your Washer

AWARNING



Direct contact with equipment during or directly after operation can result in serious burns.

- Allow equipment to cool before touching.
- Keep at least 5 feet (1.5 m) of clearance on all sides of pressure washer including overhead.

How to Shut Down Your Pressure Washer

- 1. Release spray gun trigger.
- 2. Disengage tractor's PTO.
- 3. ALWAYS point spray gun in a safe direction, squeeze spray gun trigger to release retained high water pressure.
- 4. Disconnect from water line.

IMPORTANT: Spray gun traps high water pressure, even when tractor's engine is stopped and water is disconnected. Couplings will not release if under pressure.

Spray Tips



How to Use Spray Tips

The quick-connect on the nozzle extension allows you to switch between five different quick connect spray tips. Spray tips can be changed while pressure washer is running once water pressure in the wand has been released and the spray gun trigger safety lock is engaged. The spray tips vary the spray pattern as shown above.

Spray Tips (Continued...)

AWARNING



The high pressure stream of water that this equipment produces can cut through skin and its underlying tissues, leading to serious injury and possible amputation.

- NEVER exchange spray tips without the trigger safety lock engaged on the spray gun.
- DO NOT twist spray tips while spraying.

Follow these instructions to change spray tips:

- 1. Pull back collar on quick-connect and pull current spray tip off. Store spray tips in holder provided on the frame. Storing nozzles in the designated holder will help prevent debris clogging the tip.
- 2. Select desired spray tip:
 - For gentle rinse, select white 40° spray tip.
 - To scour surface, select yellow 15°, green 25°, or red 0° spray tip.
 - To apply detergent, select black 65° spray tip.
- 3. Pull back on collar, insert new spray tip and release collar. Tug on spray tip to make sure it is securely in place.

Usage Tips

- For most effective cleaning, keep spray tip 8 to 24 inches away from cleaning surface.
- If you get the spray tip too close, especially using a high pressure spray tip, you may damage the surface being cleaned.

Using Black Soap Nozzle

To apply detergent, follow these steps:

- 1. Review use of spray tips
- 2. Prepare detergent solution as required by job.
- 3. Place small filter end of detergent siphoning tube into detergent container.

NOTE: Make sure the filter is fully submerged in detergent while applying detergent.

THIS WASHER WILL ONLY DRAW SOAP WITH THE BLACK SOAPER NOZZLE. WHITE, RED, YELLOW AND GREEN NOZZLES WILL NOT DRAW SOAP.

- 4. Make sure black spray tip is installed.
- 5. Make sure garden hose is connected to water inlet.

NOTICE

You must attach all hoses before you engage the tractor's PTO

- Engaging the PTO without all the hoses connected and without the water turned ON will damage the pressure washer.
- Damage to equipment resulting from failure to follow this instruction will void the warranty.
- 6. Start pressure washer following instructions in *Starting Your Washer*.
- 7. Apply detergent to surface, using long, even, overlapping strokes.
- 8. Allow detergent to "soak in" for 5 minutes before washing and rinsing. Reapply as needed to prevent surface from drying. DO NOT allow detergent to dry.

IMPORTANT: You must flush the detergent siphoning system after each use by placing the filter into a bucket of clean water, then run the pressure washer on low pressure for 1-2 minutes.

A CAUTION

Chemicals can cause bodily injury and/or property damage.

- NEVER use caustic liquid with pressure washer
- Use ONLY pressure washer safe detergent/soaps. Follow all manufacturers instructions.

Instructions for Adjusting AR Gymatic Unloader Valve

Please follow these easy steps to adjust the pressure:

Step 1: Remove black cap (pos. #1) from knob.

Step 2: Loosen bolt (pos. #2) with 6mm hex wrench.

Step 3: Loosen nut (pos. #3) to top of (pos. #2) bolt.

Step 4: Turn the black knob (pos. #4) clockwise until it stops.

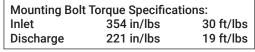
Step 5: Start pump, watch pressure gauge and turn (pos. #2) bolt until recommended/rated pressure is obtained (up to 4000 PSI).

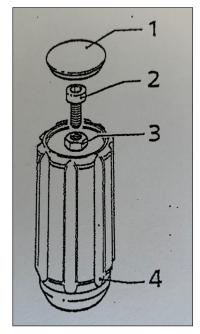
Step 6: Release trigger and make sure there is minimal spike (300-400 PSI). Repeat this step two or three more times.

Step 7: Spin (pos. #3) nut down. While holder (pos. #2) bolt in place with hex wrench, use special tool (AR1560590) or extended 13mm socket wrench to hand tighten (pos. #3) nut against (pos. #4) black knob.

Step 8: Replace (pos. #1) black cap.

NOTE: Now pressure can be decreased by turning black knob (pos. #4) counterclockwise, but the pressure cannot be increased to a rating higher than what max is set at by technician.





Using Soap Injector Kit (P/N 85.400.001)

The BCS Pressure Washer includes a hose that is fitted with one male and one female connector on each end. The Pressure Washer's pump is fitted with a male connector (see figure 1).



Fig. 1

In order to install the Soap Injector Kit with the flow of water going in the correct direction (figure 2), the female connector from the hose and the male connector from the pump need to be exchanged (figure 3).



Fig. 2



Fig. 3

Once the two connectors are exchanged, the Soap Injector Kit can be installed between the pump and the hose (figure 4).



Fig. 4

If you have questions, please contact BCS America at 1-800-543-1040, or email info@bcsamerica.com

Troubleshooting

| Problem | Cause | Correction |
|--|--|--|
| Pressure washer has following problems: failure to produce pressure, erratic pressure, chattering, loss of pressure, low water volume. | Low pressure spray tip installed. Water inlet is blocked. Inadequate water supply. Inlet hose is kinked or leaking. Clogged inlet hose screen. Water supply is over 140°F (38°C). High pressure hose is blocked or leaks. Spray gun leaks. Spray tip is obstructed. Pump is faulty. | Replace with high pressure spray tip. Clear inlet. Provide adequate water flow. Straighten inlet hose, patch leak. Check and clean inlet hose screen. Provide cooler water supply. Clear blocks in outlet hose. Replace spray gun. Clean spray tip. Contact local BCS dealer or BCS Technical Service |
| Detergent fails to mix with spray. | Detergent siphoning tube is not submerged. Detergent siphoning tube/filter is clogged or cracked. High pressure spray tip installed (Red, Yellow, Green or White nozzle). | Insert detergent siphoning tube into detergent. Clean or replace filter/detergent siphoning tube. Replace with low pressure spray tip (Black nozzle). |
| No low pressure detergent delivery | Using wrong nozzle Siphon hose or filter is plugged | Insert black 65° nozzle Unplug siphon hose |
| Unit does not reach required pressure | Restricted or insufficient water supply Unsuitable or worn out nozzle The tractor's PTO is not engaged | Check supply hose, faucet and inlet water filter. Must be connected to water source which provides a minimum of 3.8 gpm and 20 psi. Replace nozzle Engage the tractor's PTO |
| Leak in the fittings | 1. Water leak in high pressure fittings, hose or gun | 1. Use teflon tape or pipe sealant to tighten hose fitting, replace hose or gun **If problem continues, take to your BCS dealer or call BCS technical support. |

<u>Storage</u>

Winter Storage

NOTICE

You must protect the pressure washer from freezing temperatures.

- Failure to do so will permanently damage the pump and render the pressure washer inoperable.
- Freeze damage is not covered under warranty.

To protect the pressure washer from freezing temperatures:

1. Use Pump Saver to treat pump. This minimizes freeze damage and lubricates pistons and seals. Contact your local dealer for Pump Saver Solution.

NOTE: Pump Saver is sold separately. It is not included with the pressure washer. Contact a BCS dealer to purchase Pump Saver.

- 2. To use Pump Saver, make sure the pressure washer is turned off and disconnected from water supply. Read and follow all instructions and warnings given on the Pump Saver container.
- 3. If Pump Saver is not available, connect a 3ft section of garden hose to water inlet of the pressure washer. Pour RV-antifreeze (antifreeze without alcohol) into hose. Engage your tractor's PTO. For tractors with a recoil start, pull recoil handle twice. For tractors with an electric start, start motor with key turn, then immediately shut off. Disconnect 3ft. hose.
- 4. Cover unit with a suitable protective cover that does not retain moisture.

AWARNING



Storage covers can be flammable

- DO NOT place a storage cover over a hot pressure washer.
- Let equipment cool for a sufficient time before placing the cover on the equipment.
- 5. Store unit in a clean, dry area (heated area preferred).

Pressure Washer Components (3600 PSI)

BCS AMERICA PARTS

PWC-FRAME: Frame F/Pressure Washer
 PWC-FLANGE: Flange F/Pump to Coupler
 PWC-WAND TUBE: Wand Tube W/Hose Holder

PWC-SPACER 125: Spacer 1.25 in
 PWC-SPACER 150: Spacer 1.50in

6. PWC-CABLE STOP: Stop F/Cable (Qty Needed: 2)7. PWC-FERREL: Ferrel F/Cable (Qty Needed: 2)

8. PWC-OPC RING: OPC Ring

9. PWC-12 WR332: Wire Rope 12in 3/32
 10. PWC-24 WR332: Wire Rope 32in 3/32

PWC-NZ GROMMET: Grommet F/Nozzles (Qty Needed: 6)
 PWC-NZ BUMPER: Bumper F/Nozzle (Qty Needed: 1)
 PWC-TANGSHAFT: Dog Welded to 1in. Keyed Shaft

14. PWC-KEY: Key ¼ X ¼ X 1.75

15. PWC-M8C40SHCS: Screw 8X40 Hex Socket (Qty Needed: 4)

16. PWC-TUBE RING: Ring on Top of Wand Tube

 17. PWC-M8ETWZ
 External Star Washer (Qty Needed: 4)

 18. 31411084:
 Washer Flat M8 Flanged (Qty Needed: 4)

 19. 31241084:
 Locknut M8 4x17 (Qty Needed: 4)

 20. 31112171:
 Screw M8x16 (Qty Needed: 4)

21. 92290826: Tang for Quick Hitch22. 012600000: Wheel Caster Assy

23. 53093088: BCS Logo

24. 58057724 Decal Warning/Instruction Manual

GHA, 1/2"w/Spring,w/Filter

25. 41300002: Pin Release X1

26. PWC-MANUAL: Manual Pressure Washer

AR NORTH AMERICA PARTS

3. AR7300

1. RRV35G36D-F16 Pump: 3.5/3600 3400RPM

2. AR20242 Unloader Gymatic

Gun:3/8 NPTF X 1/4 NPTF 4. MV2012 5. AR503840BLU Hose:50'3/8M X 3/8M 6. 5221 Lance 36" Aluminum 7. NZQC5P-035 Nozzle QC 5 Pack 035 QC Coupling 1/4F-1/4F(QC) 8. AL-QC1/4B QC Coupling, Plug3/8-3/8F 9. AL-PLUG3/8B QC Coupling, 3/8F-3/8F (QC)** 10. AL-QC3/8B QC Coupling,3/8F-3/8M(QC) 11. AL-QC3/8MB

12. 5280-1 Side Handle

PUMP REBUILD KITS

13. AR1828: Kit, Valves, XRV, RKV

14. AR2544: Kit, Piston 15mm:XM,XMA-V

15. AR42555: Kit, Oil Seal* 16. AR42550: Kit, O-Ring

17. AR2191: Kit, Support Rings, RSV

18. AR64511: Pump Saver 16oz Anti-freeze Solution

Pressure Washer Components (4000 PSI)

BCS AMERICA PARTS

PWC-FRAME: Frame F/Pressure Washer
 PWC-FLANGE: Flange F/Pump to Coupler
 PWC-WAND TUBE: Wand Tube W/Hose Holder

PWC-SPACER 125: Spacer 1.25 in
 PWC-SPACER 150: Spacer 1.50in

6. PWC-CABLE STOP: Stop F/Cable (Qty Needed: 2)7. PWC-FERREL: Ferrel F/Cable (Qty Needed: 2)

8. PWC-OPC RING: OPC Ring

9. PWC-12 WR332: Wire Rope 12in 3/32
 10. PWC-24 WR332: Wire Rope 32in 3/32

11. PWC-NZ GROMMET: Grommet F/Nozzles (Qty Needed: 6)
12. PWC-NZ BUMPER: Bumper F/Nozzle (Qty Needed: 1)
13. PWC-TANGSHAFT: 3 Dog Welded to 1in. Keyed Shaft

14. PWC-KEY: Key 1/4 X 1/4 X 1.75

15. PWC-M8C40SHCS: Screw 8X40 Hex Socket (Qty Needed: 4)

16. PWC-TUBE RING: Ring on Top of Wand Tube

 17. PWC-M8ETWZ:
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 20. 31112171:
 Screw M8x16 (Qty Needed: 4)

92290826: Tang for Quick Hitch
 012600000: Wheel Caster Assy

23. 53093088: BCS Logo

24. 58057324: Decal Warning/Instruction Manual

25. 41300002: Pin Release X1

26. PWC-MANUAL: Manual Pressure Washer

AR NORTH AMERICA PARTS

1. RRV4G40D-F16 Pump: 4/4000 3400RPM 2. AR24763 Unldr, VR35 4000 PSI NPT 3. AR7300 GHA, 1/2"w/Spring,w/Filter Gun:3/8 NPTF X 1/4 NPTF 4. MV2012 5. AR503840BLU Hose:50'3/8M X 3/8M 6. 5221 Lance 36" Aluminum 7. NZQC5P-040 Nozzle OC 5 Pack 040 QC Coupling 1/4F-1/4F(QC) 8. AL-QC1/4B QC Coupling, Plug3/8-3/8F 9. AL-PLUG3/8B QC Coupling, 3/8F-3/8F (QC)** 10. AL-QC3/8B QC Coupling,3/8F-3/8M(QC) 11. AL-QC3/8MB

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