WATER KIT INSTALLATION INSTRUCTIONS
P/N 99944700181

WARNING DANGER

You must read, understand, and obey all safety and operating instructions provided in the cut-off saw operator's manual, cutting wheel instructions, and in these instructions before installing this kit. Failure to follow all instructions may result in serious injury.

FOR MODELS: CSG-670, CSG-6700, CSG-680

Water Supply Requirements:
Standard residential cold-water supply line with external shut-off access. (Water supply pressure must not exceed 90 psi.)

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X7674100002

X767000062
11/04

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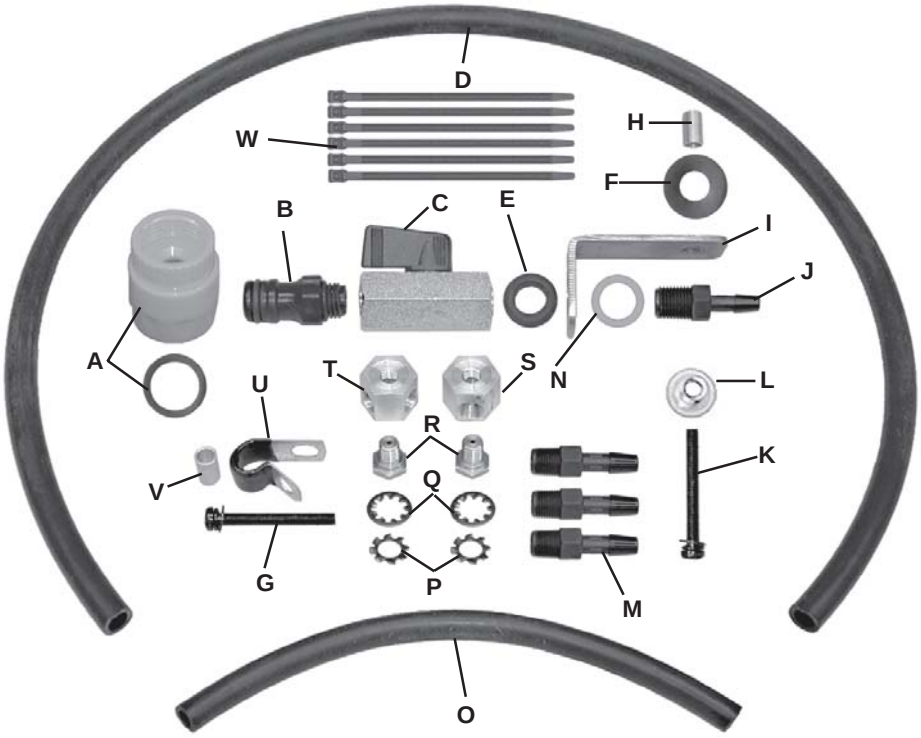
Item	Qty	Part No.	Description
	1	X767000062	Instruction Sheet
A	1	E231000020	Quick-connect Female Hose Fitting w/internal hose gasket
B	1	E231000010	Quick-connect Male Hose Fitting
C	1	E245000040	Water valve
D	1	V471001410	Tubing – 1/4” I.D. x 3/8” O.D. x 24 1/2” Long
E	1	V144000170	Rubber Grommet
F	1	V345000000	Rubber Flat Washer
G	1	9135805045	Screw, Pan Head, M5 x 45 mm long
H	1	V353000020	7 mm Long Spacer
I	1	E258000060	Water ball valve bracket
J	1	A373000070	1/4” NPT x 1/4” I.D. Barbed Tube Fitting
K	1	9135805050	Screw, Pan Head M5 x 50 mm Long
L	1	10491508260	Collar
M	3	A373000060	1/8” NPT x 1/4” ID. Barbed Tube Fitting
N	1	V310000070	Flat Washer
O	1	V471001420	Tubing – 1/4” I.D. x 3/8” O.D. x 7 1/2” Long
P	2	V340000150	External Tooth Lockwasher
Q	2	V340000160	Internal Tooth Lockwasher
R	2	E290000380	Nozzle
S	1	E292000050	Adapter, 1 Hole
T	1	E292000040	Adapter, 2- Holes
U	1	V490000290	Clamp with epdm cushion
V	1	V354000130	Spacer, 10 mm Long
W	6	17812143230	Plastic Ties



SAFETY INSTRUCTIONS

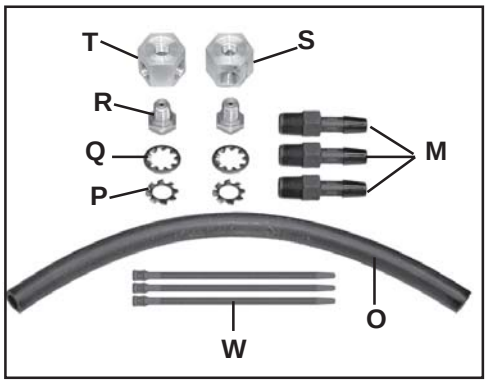
1. Do not allow run-off water or sludge to contact live electric wires. Run-off water and cutting sludge may cause short-circuiting, equipment damage, and risk of fire.
2. Do not touch electrical switches, conduit, wiring, or electrically operated equipment while standing in run-off. Touching any object that may have live current flow could result in shock or electrocution.
3. Hose leakage or pooling of run-off water and cutting sludge may make floors and walkways slippery. Use extreme care when walking on wet surfaces.
4. Only use water-cooling on wheels designed for this purpose. Use of water-cooling on wheels not approved for use with water could result in sudden wheel failure and serious injury to operator and bystanders.
5. Check nozzles periodically to make sure water is spraying normally on both sides of cutting wheel. Lack of cooling water on one or both sides could result in sudden cutting wheel failure, and serious injury to operator and bystanders.
6. Always be sure cutting wheel is rotating before turning water supply on. Applying water to a stationary wheel may cause wheel to absorb water, and result in an out-of-balance condition.
7. Always shut water off before wheel stops so that excess water will be spun off wheel.
8. Do not store or reuse a cutting wheel that has been used with water. Reusing a cutting wheel that has been used with water can result in sudden wheel failure, and serious injury to operator and bystanders.
9. Make sure area where wet cutting is to be performed will not be damaged by water run-off or sludge. Use care to avoid flooding areas that may leak through to other areas and cause hidden damage.
10. Only use water for coolant. Use of other coolants is not approved for this kit.
11. Periodically check discharge holes in nozzles for plugging. Normal use of the saw with water kit installed, but not used, could plug these holes with debris. This could result in a lack of cooling water to one or both sides of the cutting wheel, damage to the wheel or saw and possible injury to the user or bystanders.

ASSEMBLY

NOZZLE ASSEMBLIES

Tools Required: 11, 13, 14, 18, 19, & 21 mm (7/16, 1/2, 9/16, 11/16, 3/4, 13/16 in.) wrenches, screwdriver.

Parts Required: Two-hole adapter (T)
One-hole adapter (S)
(2) Water Nozzles (R)
(3) Barbed Tube fittings (M)
(2) Internal Tooth Lockwasher (P)
(2) External Tooth Lockwasher (Q)
Crossover Tubing – 7 1/2 in. Long (O)
(3) Plastic Ties (W)



IMPORTANT
Apply pipe sealant tape (not provided) to threads of plastic fittings before assembling.

IMPORTANT
Tighten tube fittings securely, but do not over-tighten.

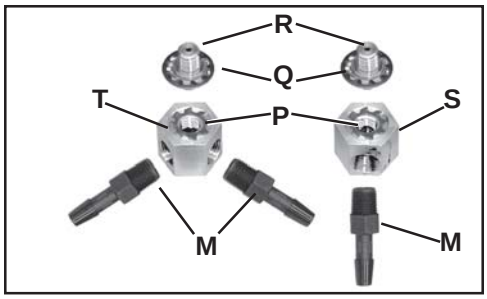
1. Remove cut-off wheel as instructed in cut-off saw operator's manual.

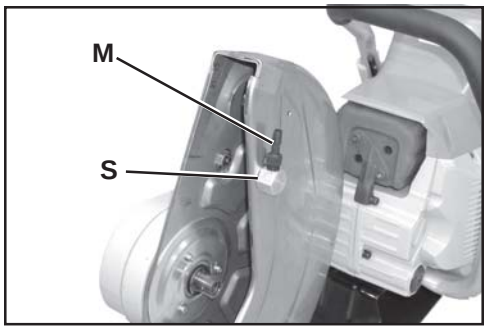
2. Loosen wheel shield locking knob, and rotate wheel shield back for ease of access.

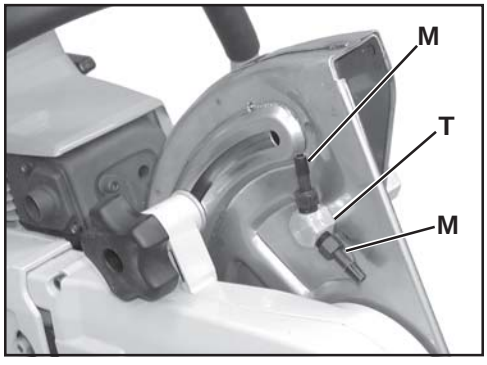
3. Attach adapters (T,S), nozzles (R), and lock washers (P,Q) to wheel shield using existing holes in shield. Position adapters as shown for proper tube fitting placement, and tighten nozzles securely.

NOTE
Large lock washers (Q) fit over shoulders on nozzles (R). Small lock washers (P) fit between aluminum adapters (T,S) and wheel cover. Hold adapter to prevent turning while tightening nozzle.

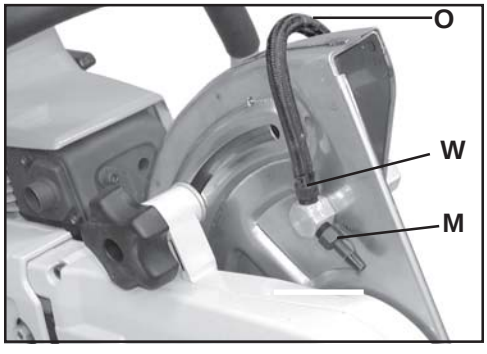
4. Screw (3) 1/8" NPT x 1/4 I.D. barbed tube fittings (M) into holes in adapters and tighten securely.



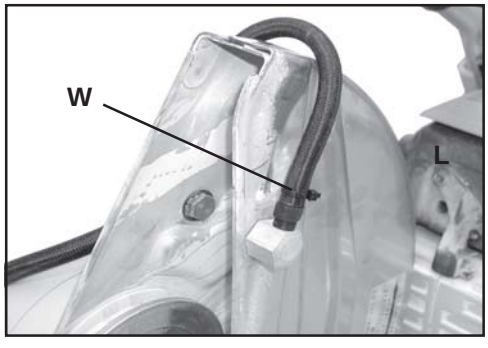




5. Slide ends of crossover tubing (O) onto barbed tube fittings, positioning tubing over top of blade cover.



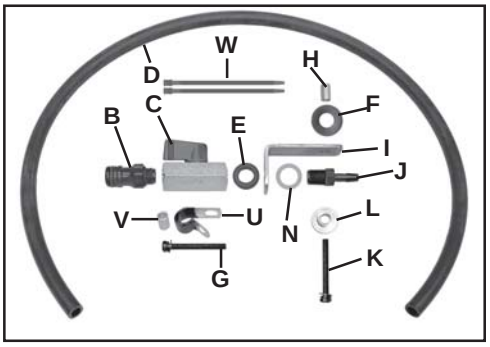
6. Secure tubing to fittings (M) with plastic ties (W), and cut excess.



WATER VALVE BRACKET ASSEMBLY

Parts Required:

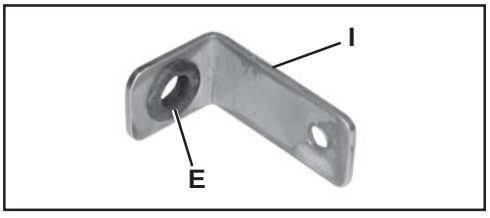
Water Valve Bracket (I)
Rubber Grommet (E)
Barbed Tube Fitting (J)
Male Quick-connect fitting (B)
Flat Washer (N)
(2) Plastic Ties (W)
5 mm x 45 mm Screw (G)
7 mm Spacer (H)
Rubber Washer (F)
5 mm x 50 mm Screw (K)
10 mm Spacer (V)
Long Tubing (D)
Water Valve (C)
Clamp (U)
Collar (L)



IMPORTANT
Apply pipe sealant tape (not provided) to threads of plastic fittings before assembling.

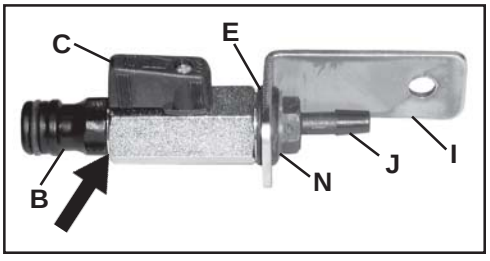
IMPORTANT
Tighten tube fittings securely, but do not over-tighten.

1. Install rubber grommet (E) in large hole in water valve bracket.



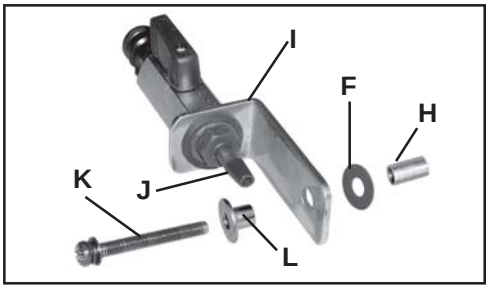
2. Place flat washer (N) over threaded end of barbed male 1/4" NPT x 1/4" I.D tube fitting (J), and insert threaded end through grommet (E).

NOTE
Rotate barbed tube fitting clockwise to fully seat fitting and washer against rubber grommet.

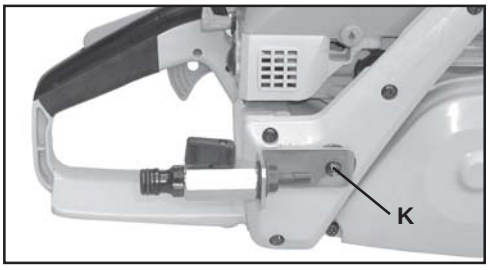


3. Screw water valve (C) onto threads of tube fitting (J). Water valve handle must be positioned as shown to allow proper valve handle operation. Hold water valve body and tighten fitting, but do not over-tighten.

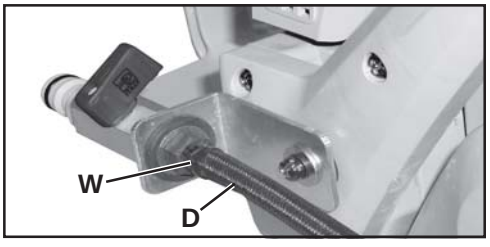
4. Screw male quick-disconnect 1/4" NPT x 1/4" I.D. hose connector fitting (B) into inlet side of water ball valve. Tighten securely.



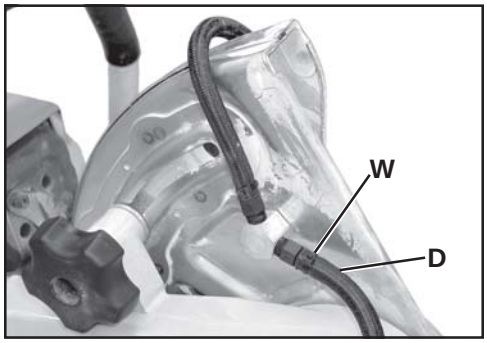
5. Remove existing screw from handle, and attach water valve bracket (I) to saw using 7 mm spacer (H), flat rubber washer (F), collar (L), and one M5 x 50 mm pan head screw (K). Tighten securely.



6. Slide one end of long tubing (D) over barbed tube fitting (J), and secure with plastic tie (W).

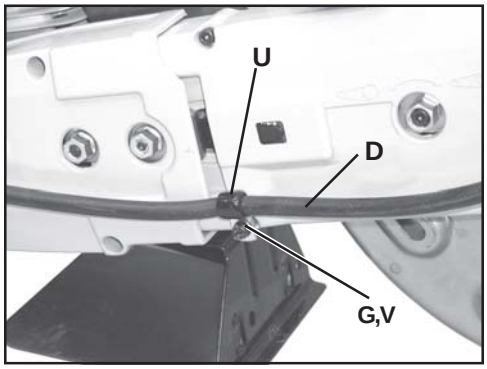


7. Attach opposite end of long tubing (D) to lower barbed tube fitting on adapter, and secure with plastic tie (W).



8. Remove lower screw from cut-off saw front arm cover.

9. Place clamp (U) over tube (D), insert M5 x 45 mm screw (G) through clamp and 10mm spacer (V), and assemble hose clamp and spacer to saw. Tighten securely. Tubing must move freely in clamp.



WATER SUPPLY HOSE

Parts Required: Female quick-connect hose fitting w/internal gasket

1. Install female quick-connect hose fitting w/internal gasket (A) on water supply hose.

2. Attach female quick-connect hose fitting to male fitting on water ball valve (C). Make sure water valve handle is in "OFF" position (90º to valve body).

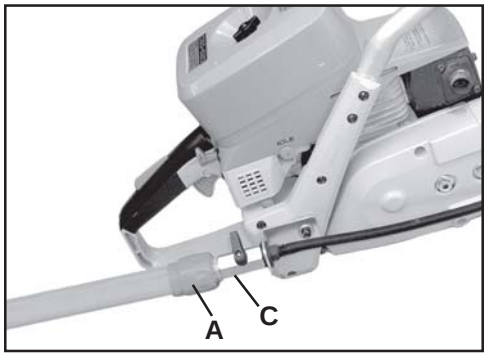
3. Turn water hose supply on, and check for leaks around male quick-connect hose fitting.

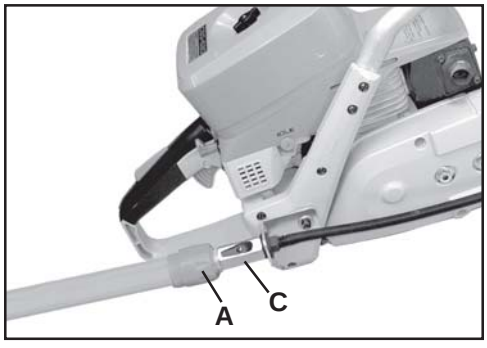
4. Turn handle on water ball valve to "OPEN" position (in-line with valve body), and check for leaks at all fittings and connections. Water should spray only at nozzle openings inside wheel cover.

5. Turn water ball valve handle to "OFF" position. Tighten connections as needed to prevent leaks.

6. Reinstall cut-off saw wheel as instructed in Cut Off Saw Operator's Manual.

7. Saw is ready for wet-cutting.





OPERATION

CAUTION!

1. Check all lines and fittings for cracks and leaks before each use, and replace worn or damaged parts.
2. Make sure there are no water leaks that spray on the engine or air filter.
3. Do not let water continuously spray on stopped cutting wheel.

OPERATION

1. Start engine and allow cutting wheel to rotate before turning water ball valve to “ON.”
2. Adjust water valve handle to control water flow to cutting wheel.
3. Hold cutoff saw securely, and cut at desired cut line. Keep blade perpendicular to cut at all times, and make sure spray from wheel does not spray on engine or air filter.
4. When cut is complete, turn water ball valve handle to “OFF” position before stopping engine to allow excess water to spin off wheel.
5. Turn water hose “OFF” at supply shut-off before disconnecting female quick-connect hose connector from water ball valve.

CLEANING

1. Remove cutting wheel as instructed in cut-off saw operator’s manual.
2. Use a stiff-bristled part cleaning brush to clean cutting debris from wheel shield, nozzles, and surrounding saw housing.
3. Flush nozzles with water to clear debris. Use a small diameter (.030 in./1 mm)wire to remove solid debris from nozzles.
4. Wipe shield and allow to dry prevent debris build-up inside shield.

STORAGE

Water kit components may be removed from unit for extended dry cutting or for storage. When storing parts, keep rubber tubing away from sources of heat.

ECHO CONSUMER PRODUCT SUPPORT

If you require assistance or have questions concerning the application, operation or maintenance of this product you may call the ECHO Consumer Product Support Department at 1-800-673-1558 from 8:30 am to 4:30 pm (Central Standard Time) Monday through Friday. Before calling, please know the model and serial number of your unit to help your Consumer Product Support Representative.

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