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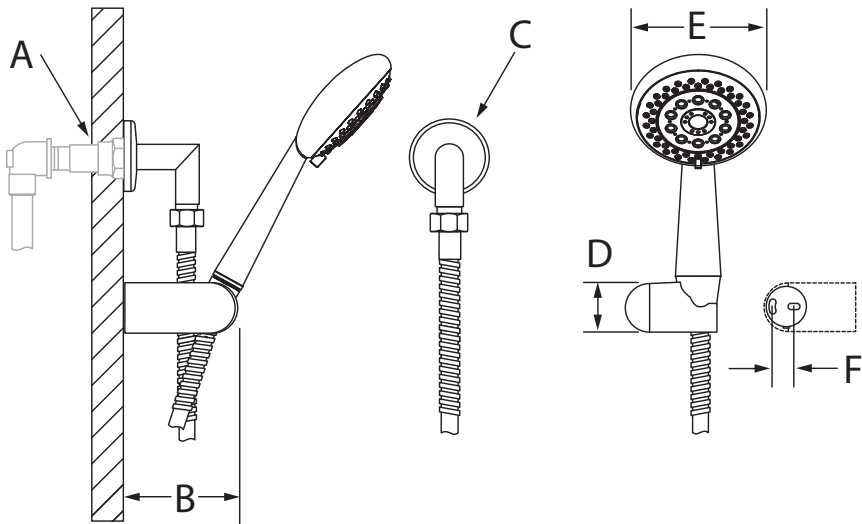
412HS, 412SH, 412W
Accessory Suite
Operation & Maintenance Manual



Model Numbers	Specification
<input type="checkbox"/> 412HS <i>Hand Shower Assembly</i> <input type="checkbox"/> 412SH <i>3 Mode Showerhead</i> <input type="checkbox"/> 412W <i>3 Mode Hand Shower Wand</i>	Hand shower assembly includes dual checks for back flow protection, 3 mode showerhead and 3 mode hand shower wand with standard 2.5 gpm (9.5 L/min) flow restrictor. Components are made from metal and nonmetallic materials plated in standard polished chrome finish.
Modifications	Compliance
<input type="checkbox"/> -1.5  <i>1.5 gpm (5.7 L/min) flow restrictor</i> <input type="checkbox"/> -2.0 <i>2.0 gpm (7.6 L/min) flow restrictor</i> <input type="checkbox"/> -PNL <i>Polished Nickel finish</i> <input type="checkbox"/> -STN <i>Satin Nickel finish</i>	-ASME A112.18.1/CSA B125.1 -WaterSense 1.5, 2.0 gpm (412SH only)  
<p>Note: Append appropriate -suffix to model number.</p>	<p>Warranty</p> <p>Limited Lifetime - to the original end purchaser in consumer installations. 5 Years - for commercial installations. Refer to www.symmons.com/warranty for complete warranty information.</p>

Dimensions

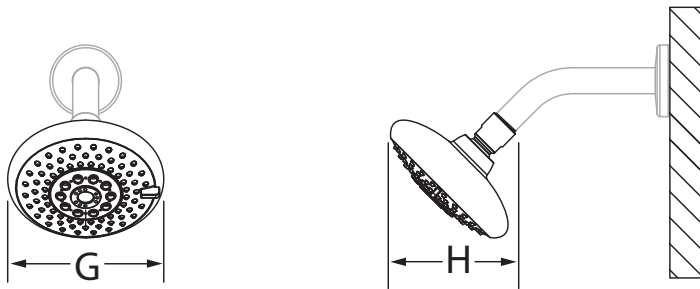
412HS



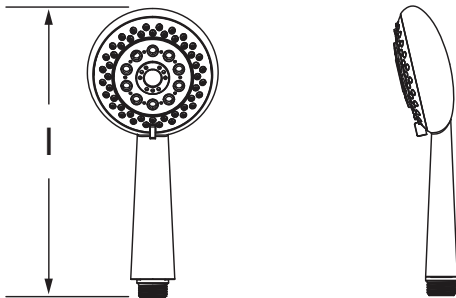
Measurements

A	Female 1/2" IPS thread must be recessed 7/8", 22 mm from finished wall
B	3-1/4", 83 mm
C	Ø 2-1/4", 57 mm
D	Ø 1-1/2", 38 mm
E	3-3/4", 95 mm
F	11/16" ± 1/8" 17 mm ± 3 mm
G	5", 127 mm
H	3-5/8", 92 mm
I	8-1/4", 210 mm

412SH



412W



Note: Dimensions subject to change without notice.


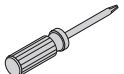

Parts Breakdown



Replacement Parts		
Item	Description	Part Number
A	Wall Elbow	T-444-KIT
B	Wall Elbow Flange	
C	60" Hose	EF-02976
D	Cradle Mount	T-545
E	Cradle Mounting Screws	
F	Anchor	
G	Washer	
H	Cradle Arm	
I	Set Screw	
J	Hand Shower	412W
K	Showerhead	412SH

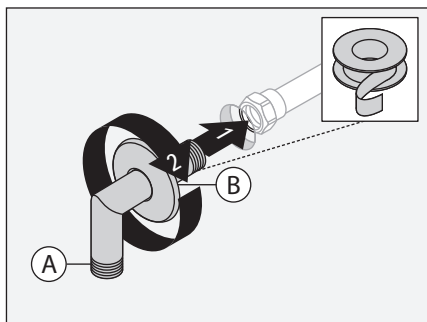
Notes:

- 1) Append -PNL to part number for polished nickel finish; -STN for satin nickel.
- 2) Append -1.5 or -2.0 to showerhead or hand shower for low flow.

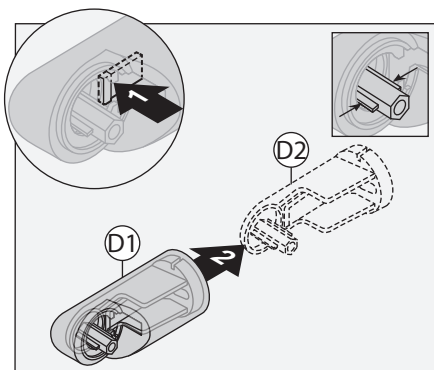
Required for Installation	
Adjustable wrench	
Phillips head screwdriver	
Plumber tape	

Installation

- 1) Install wall elbow (A) and flange (B) to recessed pipe fitting. Turn elbow clockwise to tighten (412HS only).

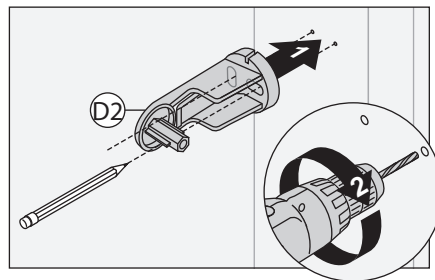


- 2) Press tab to remove mounting plate (D2) from cradle mount cover (D1).

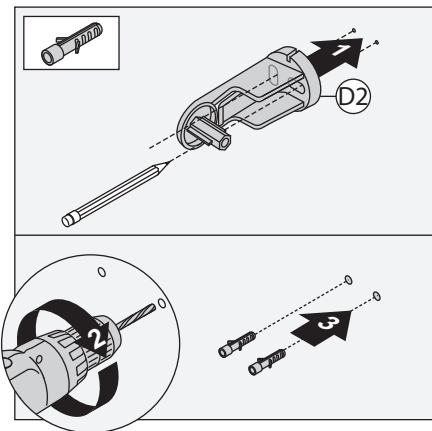


Note: Mounting plate (D2) center tabs must be horizontal for removal.

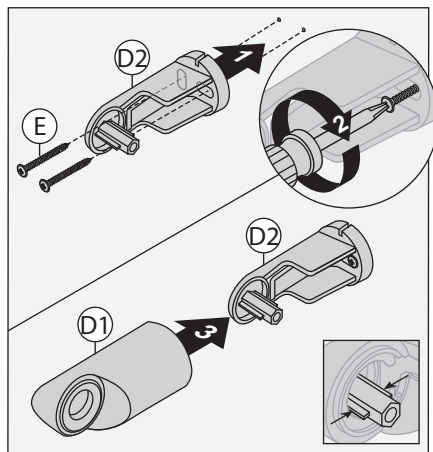
- 3a) Place mounting plate (D2) in position. Mark and drill 1/8" (3 mm) pilot holes into stud.



- 3b) **Option:** Place mounting plate (D2) in position. Mark and drill 1/4" (6 mm) holes into wall. Install anchors.

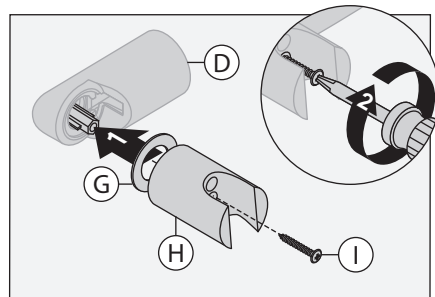


- 4) Install mounting plate (D2). Secure with two screws (E). Replace cradle mount cover (D1).



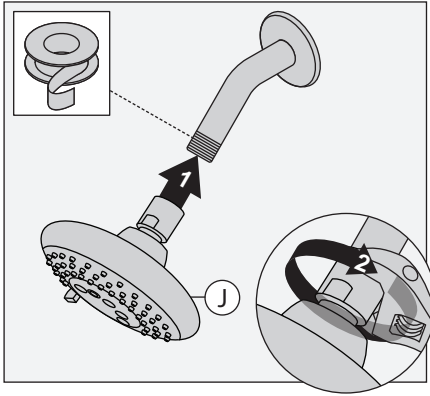
Note: Mounting plate (D2) center tabs must be horizontal for installation.

- 5) Attach cradle arm (H) and washer (G) to cradle mount (D). Secure with set screw (I).

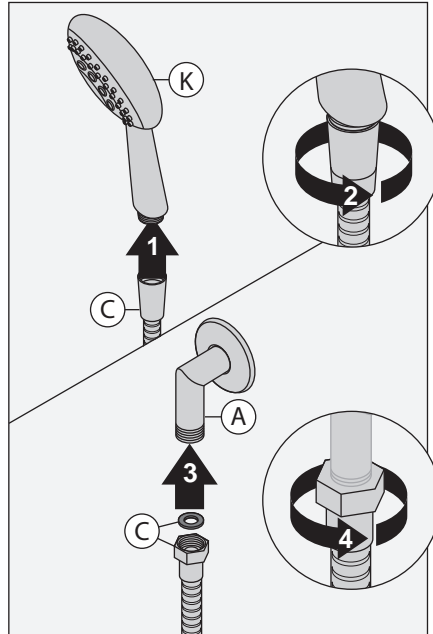


Installation Cont.

- 6) Install showerhead (J) to shower arm turning clockwise to tighten (412SH only).



- 7) Attach large end of hand shower hose (C) to hand shower wand (K). Attach small end of hand shower hose (C) and washer to wall elbow (A). Turn clockwise to tighten.



Notes:

- 1) DO NOT use plumber tape on fittings with face seal washers or o-ring seals.
- 2) DO NOT OVERTIGHTEN fittings with face seal washers or o-ring seals.

Troubleshooting Chart

Problem	Cause	Solution
Finish is spotting.	Elements in water supply may cause water staining on finish.	Clean finished trim area with a soft cloth using mild soap and water or a non-abrasive cleaner and then quickly rinse with water.