![Spring Air - Engineering Energy Savings]

# Water Wash Control Panel
## Continuous Cold Water Spray/Hot Water Wash

# AP20C
### Automatic Control, Two Sequence Wash for up to 100-ft (30 m) of water wash hood

**General Description**

Each water wash hood or group of hoods requires a control panel. The two-sequence water wash control panel model AP20C is for type "CD", "CF" & "CT" type water wash hoods.

These control panels contain the electrical and plumbing required to automatically operate the exhaust fan, continuous cold water spray, two wash cycles and fire damper (CF & CT types only). The model AP20C is two-sequence automatic control with an ON/AUTO/OFF selector switch. Each wash sequence wash can wash up to 50 feet (15 m) of water wash hood.
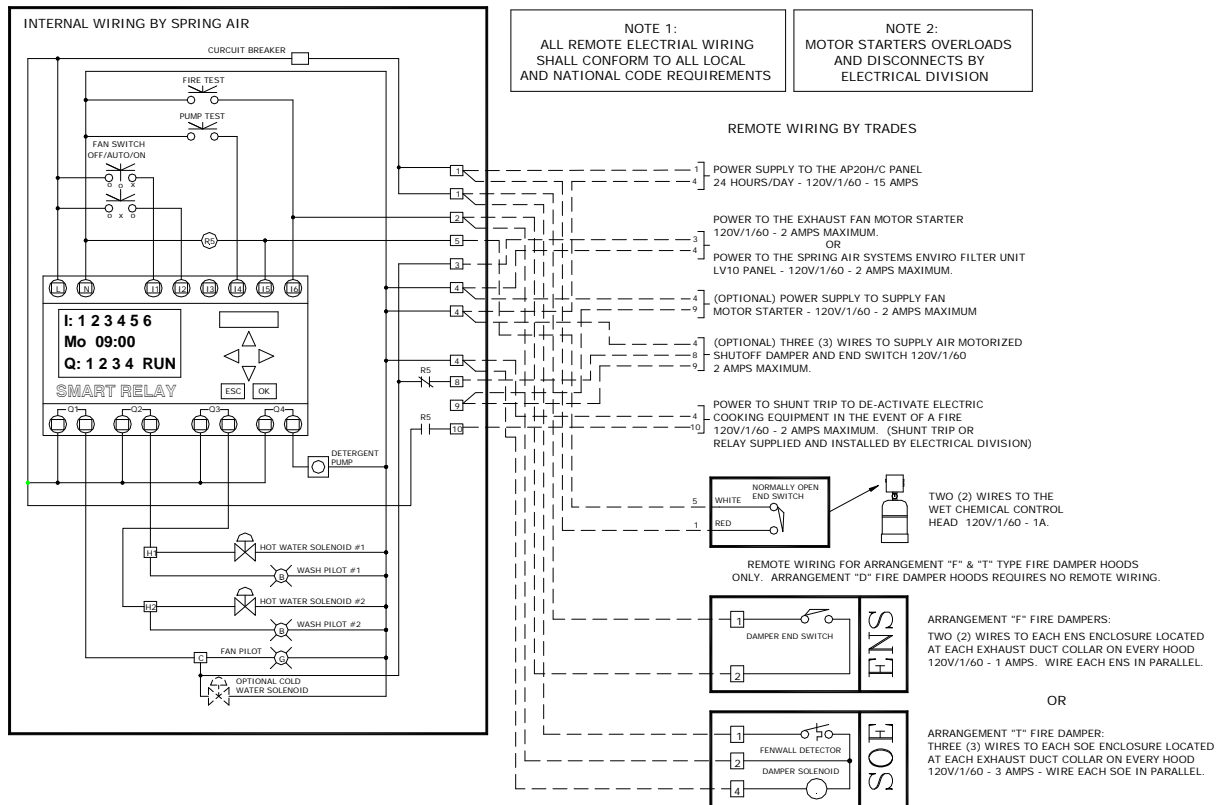
When the selector switch is in the AUTO position, on and off control is automatic depending on the times set on the 24-hour microprocessor clock. Each time

the exhaust fan is shut off manually or automatically, the groups of hoods connected to the control panel are washed. The hoods are connected to the first or second wash sequence. At the end of the wash cycle the panel remains idle unit the next ON and OFF sequence. Refer to the Spring Air Systems Hood Engineering Manual for detailed description of the control panel sequence of operation.
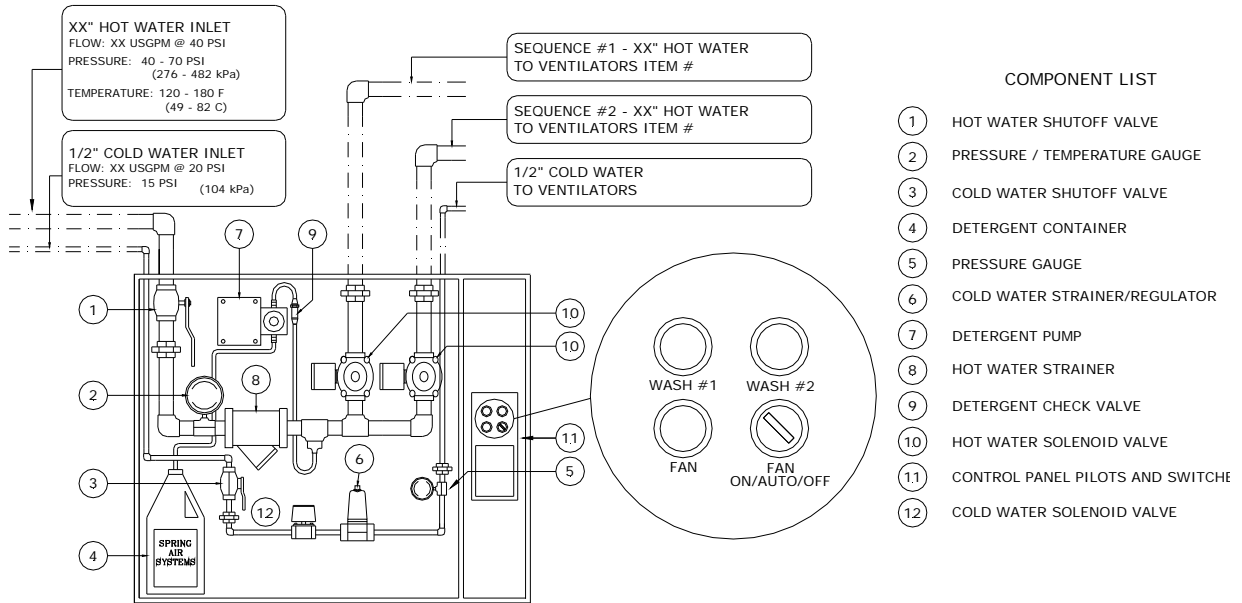
**Hoods with CF or CT Fire Dampers**

In the event that CF or CT UL/ULC listed fire damper assembly activates the fire damper closes, the exhaust and supply fans shut off, and both hot water wash solenoids turn on to flood the interior of the wash extractor with water.

## Water Wash Panel AP20C Electrical Schematic

# Water Wash Panel AP20C Plumbing

XX" HOT WATER INLET
FLOW: XX USGPM @ 40 PSI
PRESSURE: 40 - 70 PSI
(276 - 482 kPa)
TEMPERATURE: 120 - 180 F
(49 - 82 C)

1/2" COLD WATER INLET
FLOW: XX USGPM @ 20 PSI
PRESSURE: 15 PSI (104 kPa)

SEQUENCE #1 - XX" HOT WATER
TO VENTILATORS ITEM #

SEQUENCE #2 - XX" HOT WATER
TO VENTILATORS ITEM #

1/2" COLD WATER
TO VENTILATORS

WASH #1    WASH #2

FAN    FAN
ON/AUTO/OFF

COMPONENT LIST

| | |
|---|---|
| 1 | HOT WATER SHUTOFF VALVE |
| 2 | PRESSURE / TEMPERATURE GAUGE |
| 3 | COLD WATER SHUTOFF VALVE |
| 4 | DETERGENT CONTAINER |
| 5 | PRESSURE GAUGE |
| 6 | COLD WATER STRAINER/REGULATOR |
| 7 | DETERGENT PUMP |
| 8 | HOT WATER STRAINER |
| 9 | DETERGENT CHECK VALVE |
| 10 | HOT WATER SOLENOID VALVE |
| 11 | CONTROL PANEL PILOTS AND SWITCHE |
| 12 | COLD WATER SOLENOID VALVE |

SPRING AIR SYSTEMS

## Engineering Data

| Length of Ventilator per Wash Sequence | | Control Panel Hot Water Connections | |
|---|---|---|---|
| ft | m | in | mm |
| Up to 10 | Up to 3 | 0.75 | 19 |
| Up to 20 | Up to 6 | 1.00 | 25 |
| Up to 35 | Up to 10.5 | 1.25 | 32 |
| Up to 50 | Up to 15 | 1.50 | 3 |

Notes:
1. All control panels are 40" x 36" x 7" (1016 mm x 914 mm x 203 mm)
2. The DB ventilator has an equivalent length of 1.5 the actual length of purposes of using this chart.

**Spring Air Systems Model No. AP20C Wash Panel Specification**

The water wash control panel shall be a Spring Air Systems model no. AP20C automatic, two wash sequences, UL/ULC listed, and CSA certified.

The panel shall include an integral microprocessor with seven-day/24 hour timer with one weekday and one-weekend settings. The stainless steel water wash control panel shall contain all the electrical and plumbing components to operate the exhaust fan, continuous cold water spray and two water wash cycle.

The electrical section shall include a microprocessor with 24-hour clock, adjustable timers, an off/auto/on fan selector switch, and a wash #1 and wash #2 pilot lights. The plumbing section shall include a hot water solenoid value, hot water shut off valve, hot water line strainer, pressure/temp gauge, cold water pressure gauge, cold water

## Installation

- The total length of hood connected to the control panel determines the sizes of the inlet and outlet pipe connections. Refer to the Engineering Data Chart to the left for Pipe size Vs Hood length.
- The remote piping must meet all local plumbing codes. The control panel must be installed with protection to stop the flow of detergent back into the potable water supply. Spring Air Systems will always prepipe the detergent line inside the water wash, plumbing enclosure panel unless advised otherwise prior to shipment.
- The cold water inlet and outlet connections are always 0.5" (13mm). Each hood is connected to the panel with a 0.5" line.

strainer/regulator, detergent pump, detergent check valve, and one litre of detergent.

The panel shall be either wall mounted or recessed where shown ready for interconnection of the mechanical and electrical services by the mechanical and electrical divisions as per the manufacturer instructions.

**Engineering Data**

| | |
|---|---|
| Item Number | _____ |
| Model Number: | AP20C-_____ |
| Panel Dimensions | 40" X 36" X 7" |
| Cold Water Inlet & Outlet | 0.50" (13mm) |
| Hot Water Inlet: | _____ |
| Hot Water Outlet #1 | _____ |
| Hot Water Outlet #2 | _____ |
| No. of Sequences: | Two |
| Hot Water Flow @ 40 PSIG | _____ USGPM |
| Electrical: | 120v/1/60 - 15 AMPS. |

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