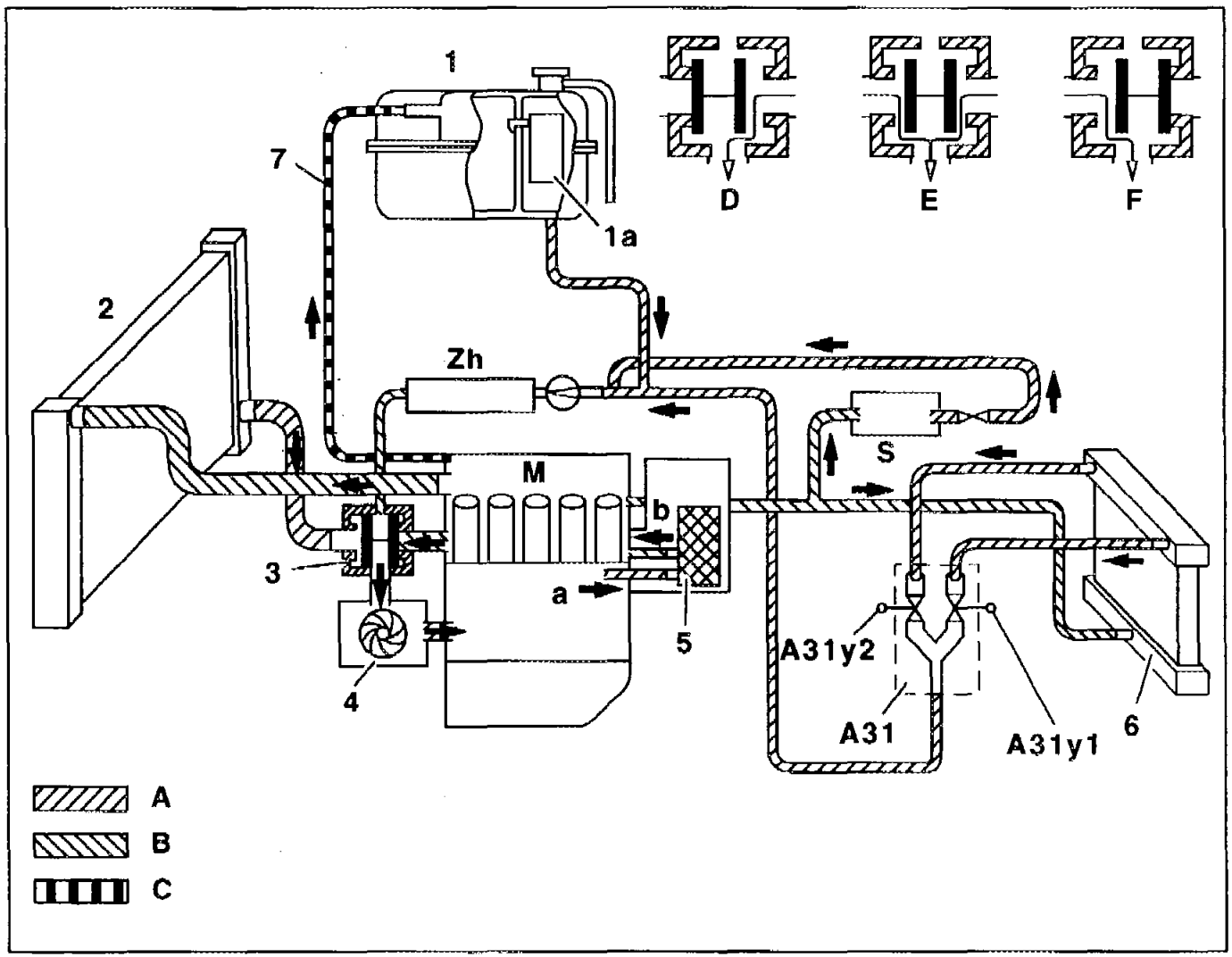
B5	GF20.00-P-1000A	Coolant circuit function	

ENGINE 602.982 /983, 605, 606 / (except , 606.964)

Diagram of coolant circuit engine 602.982

1	*Coolant expansion reservoir with single-stage cap 1.4 bar*
1a	*Silica gel reservoir*
2	*Radiator*
3	*Coolant thermostat*
4	*Coolant pump*
5	*Oil filter with oil-water heat exchanger*
6	*Heating system heat exchanger*
7	*Vent pipe to coolant expansion reservoir*
A31	*Heating system delivery unit*
A31y1	*Left duovalve*
A31y2	*Right duovalve*
A	*Coolant return flow*
B	*Coolant feed*
D	*Bypass mode temperature < 85 °C*



P20.00-0238-06

E *Mixed mode temperature > 85 °C and < 94 °C thermostat opens. Start of flow through radiator*

F *Cooling mode temperature > 94 °C thermostat open, full flow through radiator*

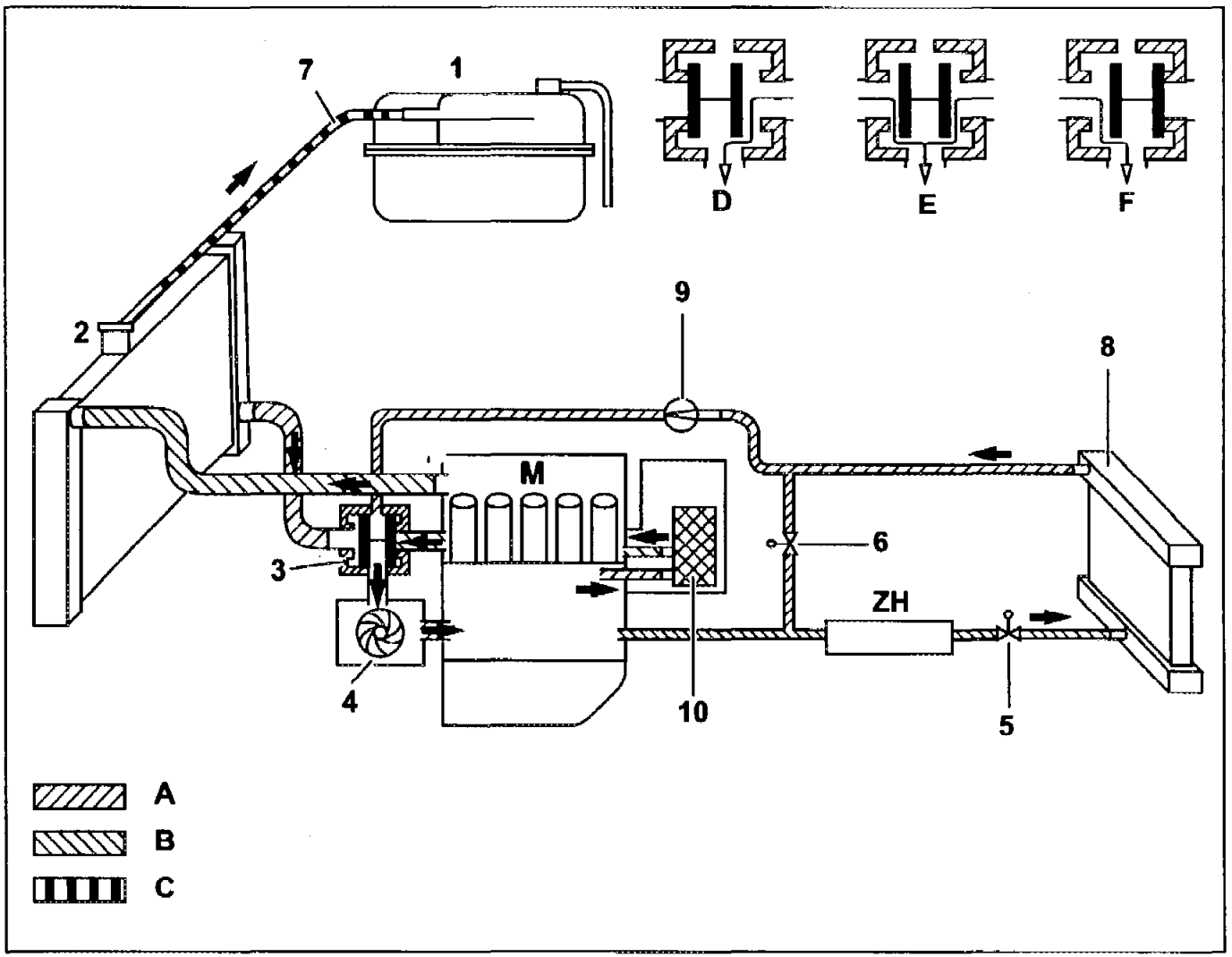
M *Engine*

S *Windshield washer fluid reservoir, coolant heated*

Zh *Heater booster < 5 °C and > 70 °C*

Diagram of coolant circuit engine 602.983

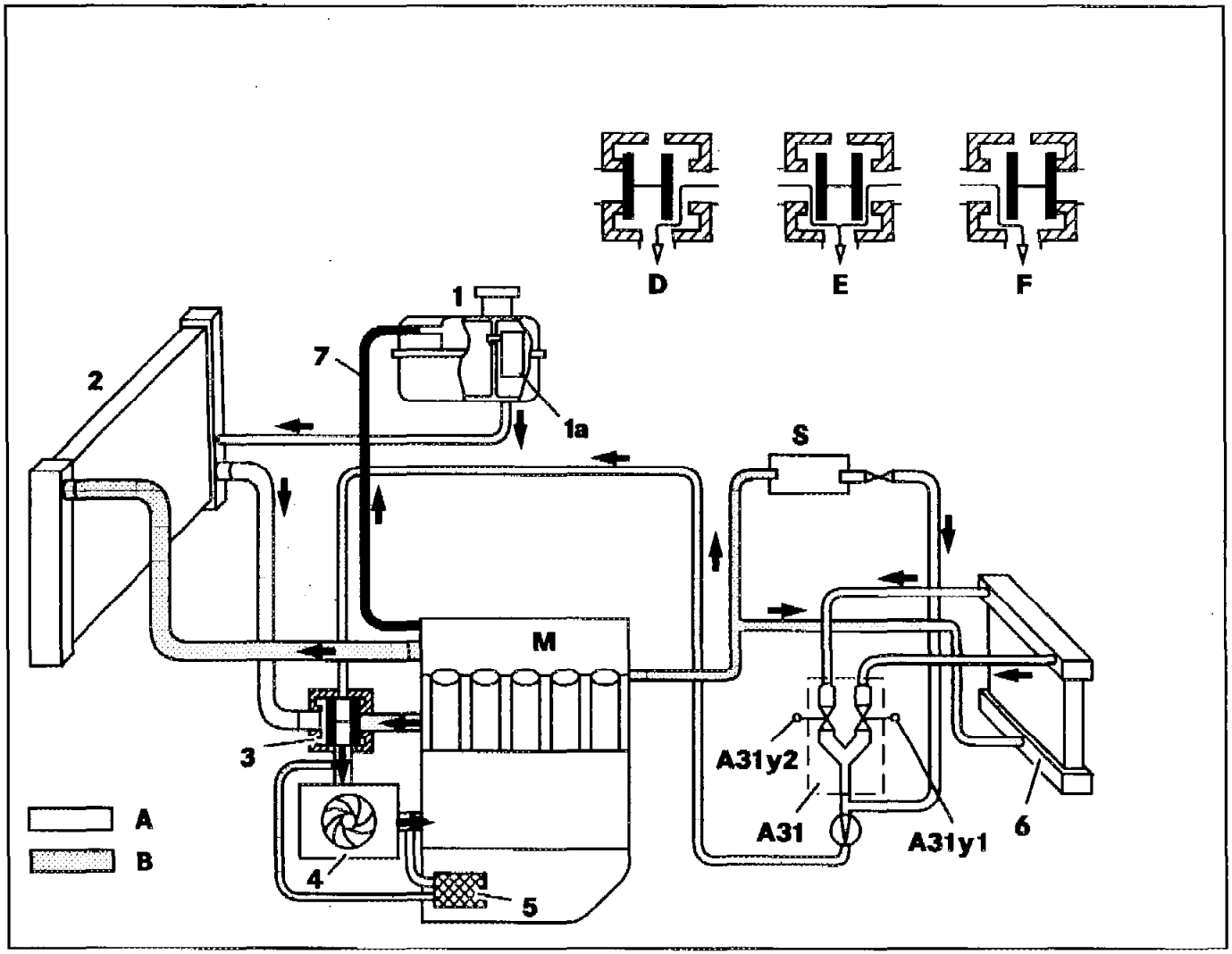
1	*Coolant expansion reservoir*
2	*Radiator*
3	*Thermostat*
4	*Coolant pump*
5	*Heating valve*
6	*Electric valve*
7	*Overflow hose*
8	*Heating system heat exchanger*
9	*Electric pump*
10	*Fuel heat exchanger*
A	*Coolant return flow*
B	*Coolant feed*
C	*Ventilation*
D	*Bypass mode temperature < 85° C*
E	*Mixed mode temperature >85° C and < 94° C*
F	*Cooling mode temperature > 94° C*
M	*Engine*
ZH	*Stationary heater*



P20.00-0398-06

Diagram of coolant circuit engine 605 with oil-water heat exchanger at oil pan

1	*Coolant expansion reservoir with silica gel reservoir (1a)*
2	*Radiator*
3	*Coolant thermostat (position: engine at operating temperature)*
4	*Coolant pump*
5	*Oil-water heat exchager at oil pan*
6	*Heating system heat exchanger*
7	*Vent pipe to coolant expansion reservoir*
A31	*Heating system delivery unit*
A31y1	*Left duovalve*
A31y2	*Right duovalve*
A	*Coolant return flow*
B	*Coolant feed*
D	*Bypass mode temperature < 85 °C*



P20.00-0236-06

E *Mixed mode temperature > 85 °C and < 94 °C thermostat opens. Start of flow through radiator*

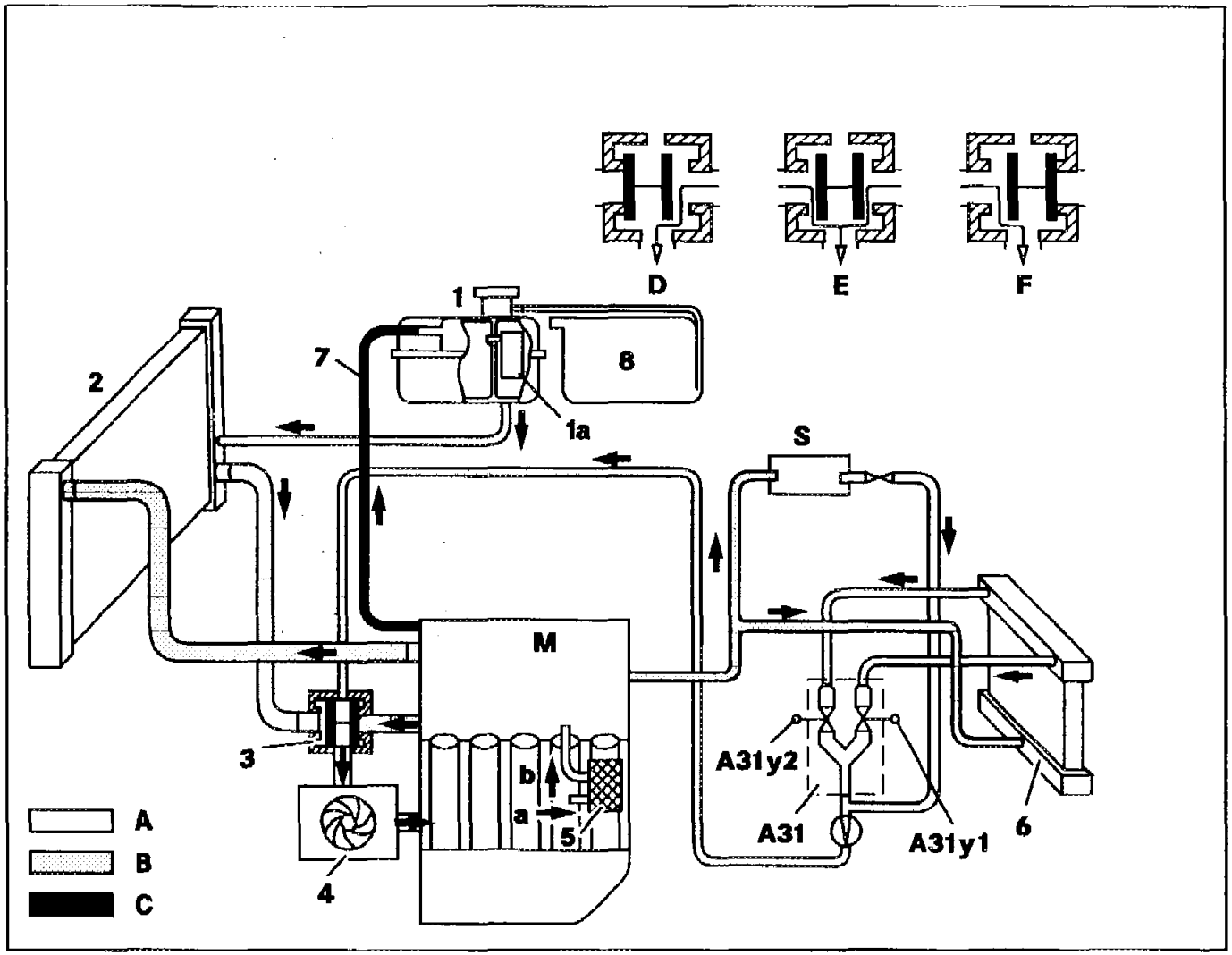
F *Cooling mode temperature > 94 °C thermostat open, full flow through radiator*

M *Engine*

S *Windshield washer fluid reservoir, coolant heated*

Diagram of coolant circuit engine 605 with oil-water heat exchanger at oil filter

1	*Coolant expansion reservoir with silica gel reservoir (1a)*
2	*Radiator*
3	*Coolant thermostat (position: engine at operating temperature)*
4	*Coolant pump*
5	*Oil filter with coolant heat exchanger*
6	*Heating system heat exchanger*
7	*Vent pipe to coolant expansion reservoir*
8	*Engine 605.960: overflow reservoir (is replaced by 2-stage cap at expansion reservoir as phased-in modification)*
A31	*Heating system delivery unit*
A31y1	*Left duovalve*
A31y2	*Right duovalve*
A	*Coolant return flow*
B	*Coolant feed*
C	*Vent pipe to coolant expansion reservoir*

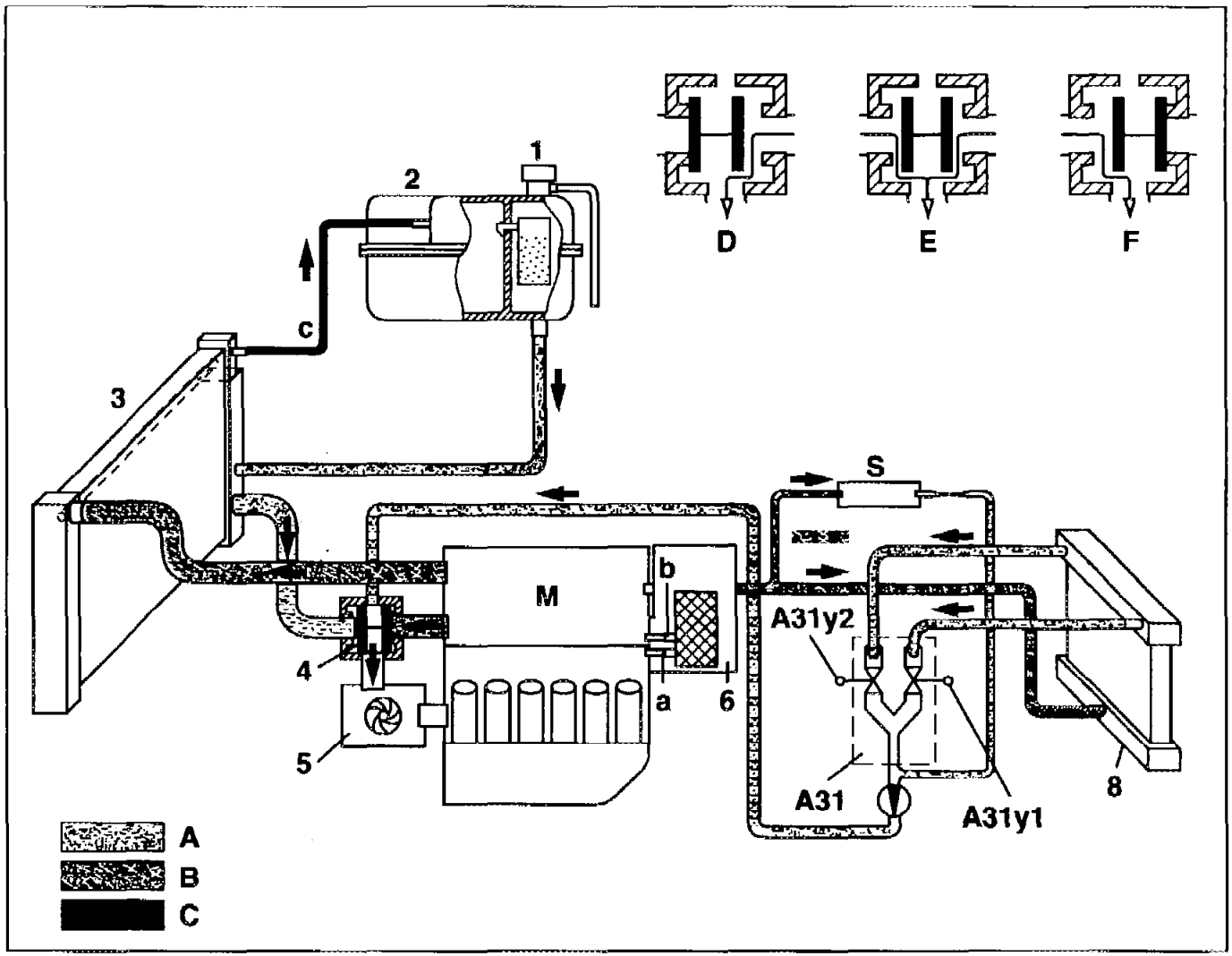


P20.00-0237-06

D *Bypass mode temperature < 80 °C*
E *Mixed mode temperature > 80 °C and < 94 °C thermostat opens. Start of flow through radiator*
F *Cooling mode temperature > 94 °C thermostat open, full flow through radiator*
M *Engine*
S *Windshield washer fluid reservoir, coolant heated*
a *From crankcase*
b *To cylinder head*

Diagram of coolant circuit engine 606.912 in model 210 with oil-water heat exchanger at oil filter

1	*2-stage cap*
2	*Coolant expansion reservoir with gel reservoir*
3	*Radiator*
4	*Coolant thermostat (position: engine at operating temperature)*
5	*Coolant pump*
6	*Oil filter with coolant heat exchanger*
8	*Heating system heat exchanger*
A31	*Heating system delivery unit*
A31y1	*Left duovalve*
A31y2	*Right duovalve*
A	*Coolant return flow*
B	*Coolant feed*
C	*Vent pipe to coolant expansion reservoir*
D	*Bypass mode temperature < 85 °C*



P20.00-0232-06

E *Mixed mode temperature > 85 °C and < 94 °C thermostat opens. Start of flow through radiator*

F *Cooling mode temperature > 94 °C thermostat open, full flow through radiator*

M *Engine*

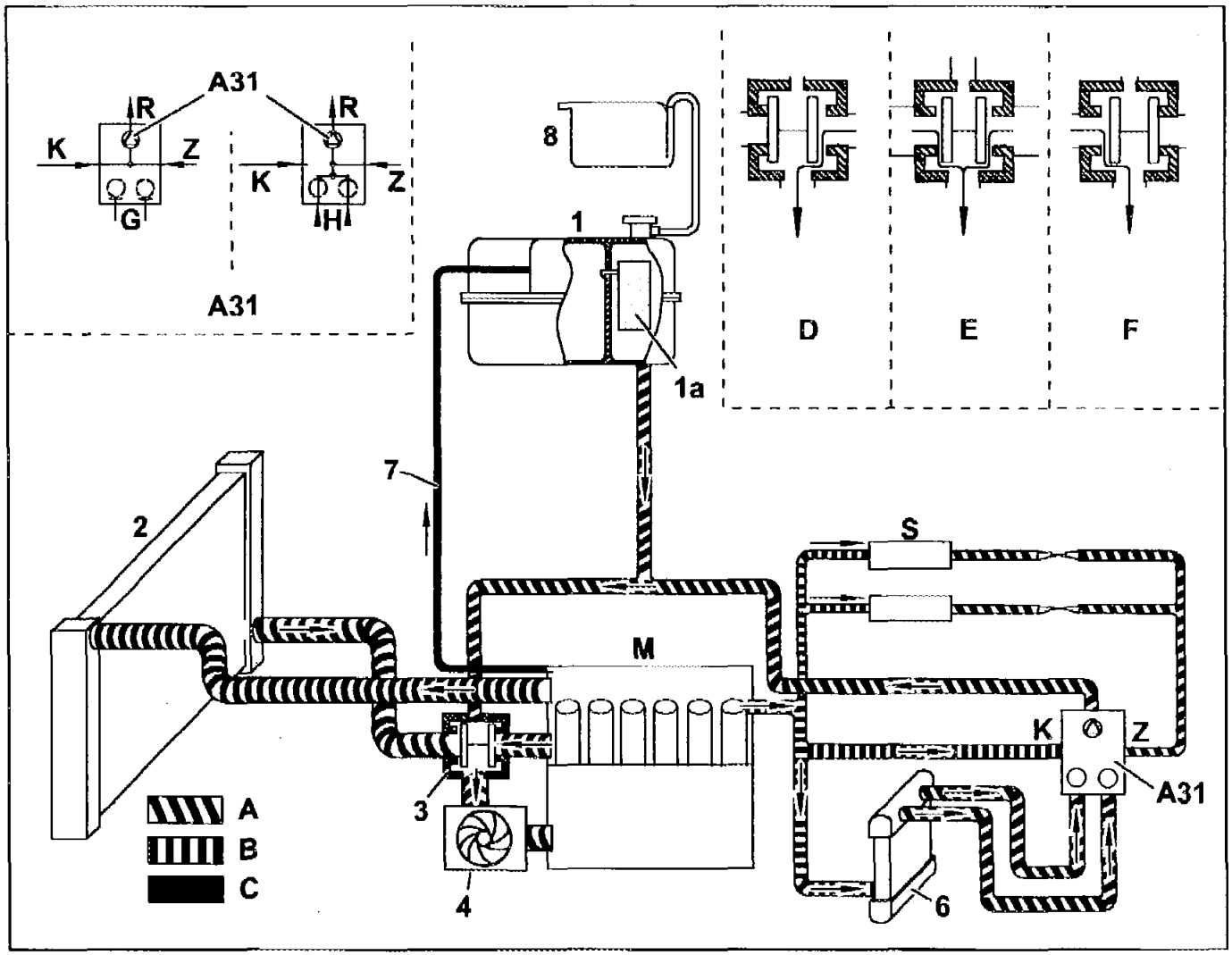
S *Windshield washer fluid reservoir, coolant heated*

a *From crankcase*

b *To cylinder head*

Diagram of coolant circuit engine 606.961 in model 140 with engine oil cooler in wheelhousing

1	*Coolant expansion reservoir with silica gel reservoir (1a)*
2	*Radiator*
3	*Coolant thermostat (position: engine at operating temperature)*
4	*Coolant pump*
6	*Heating system heat exchanger*
7	*Vent pipe to coolant expansion reservoir*
8	*Overflow reservoir*
A31	*Heating system delivery unit*
A31y1	*Left duovalve*
A31y2	*Right duovalve*
A	*Coolant return flow*
B	*Coolant feed*
C	*Vent pipe to coolant expansion reservoir*



P20.00-0275-06

D *Bypass mode temperature < 80 °C*

E *Mixed mode temperature > 80 °C and < 94 °C thermostat opens. Start of flow through radiator*

F *Cooling mode temperature > 94 °C thermostat open, full flow through radiator*

G *Heating mode off, valves pressurized (vehicle switched off, engine-off cooling)*

H *Heating mode, valves not pressurized*

K *Bypass*

M *Engine*

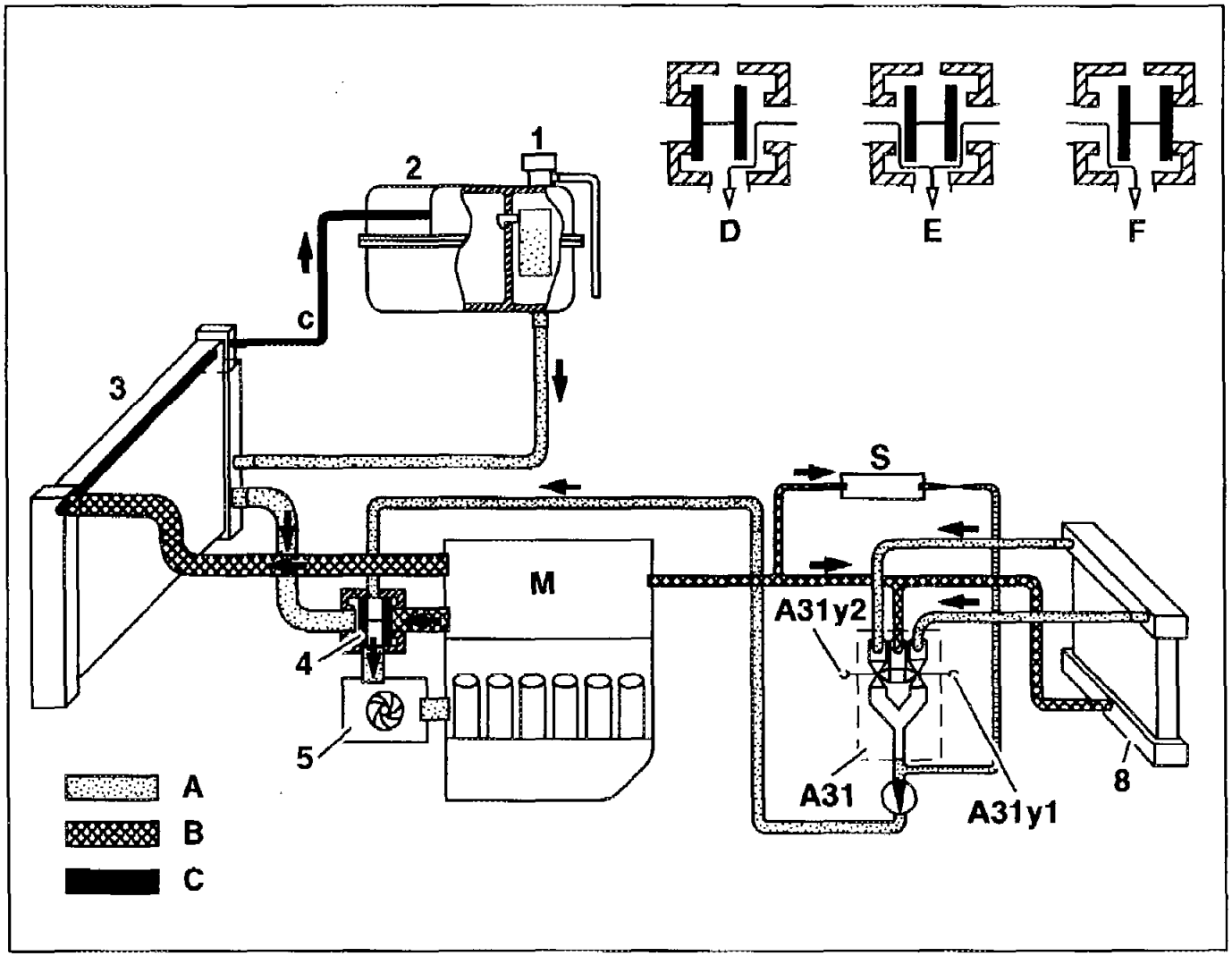
R *Return flow of heating system delivery unit (A31)*

S *Windshield washer fluid reservoir, coolant heated*

Z *Feed of heating system delivery unit (A31)*

Diagram of coolant circuit engine 606.962 in model 210 with engine oil cooler in wheelhousing

1	*2-stage cap*
2	*Coolant expansion reservoir with gel reservoir*
3	*Radiator*
4	*Coolant thermostat (position: engine at operating temperature)*
5	*Coolant pump*
8	*Heating system heat exchanger*
A31	*Heating system delivery unit*
A31y1	*Left duovalve*
A31y2	*Right duovalve*
A	*Coolant return flow*
B	*Coolant feed*
C	*Vent pipe to coolant expansion reservoir*
D	*Bypass mode temperature < 85 °C flow possible through passenger compartment*
E	*Mixed mode temperature > 85 °C and < 94 °C thermostat opens. Start of flow through radiator*



P20.00-0312-57

F *Cooling mode temperature > 94 °C thermostat open, full flow through radiator*

M *Engine*

S *Windshield washer fluid reservoir, coolant heated*