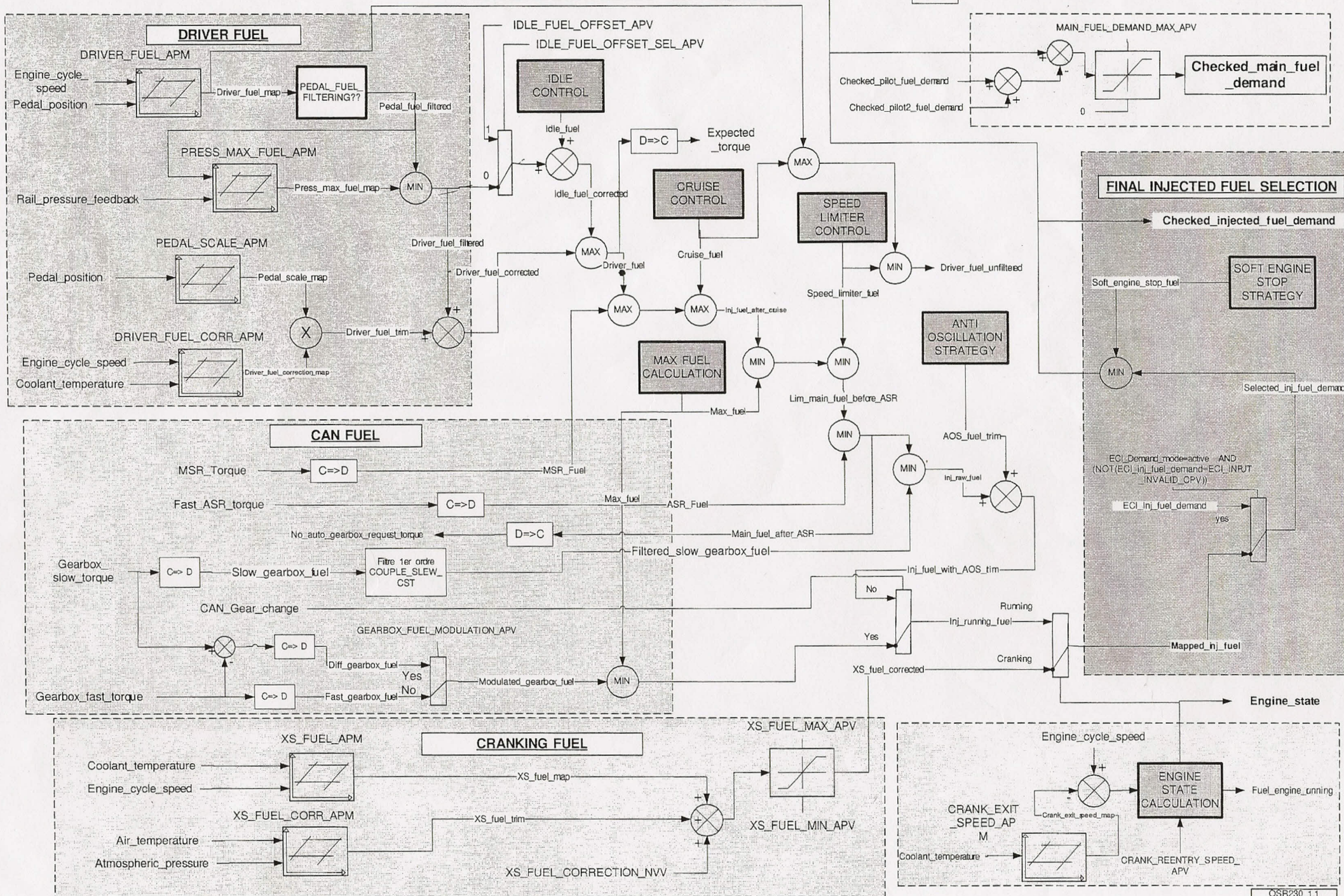


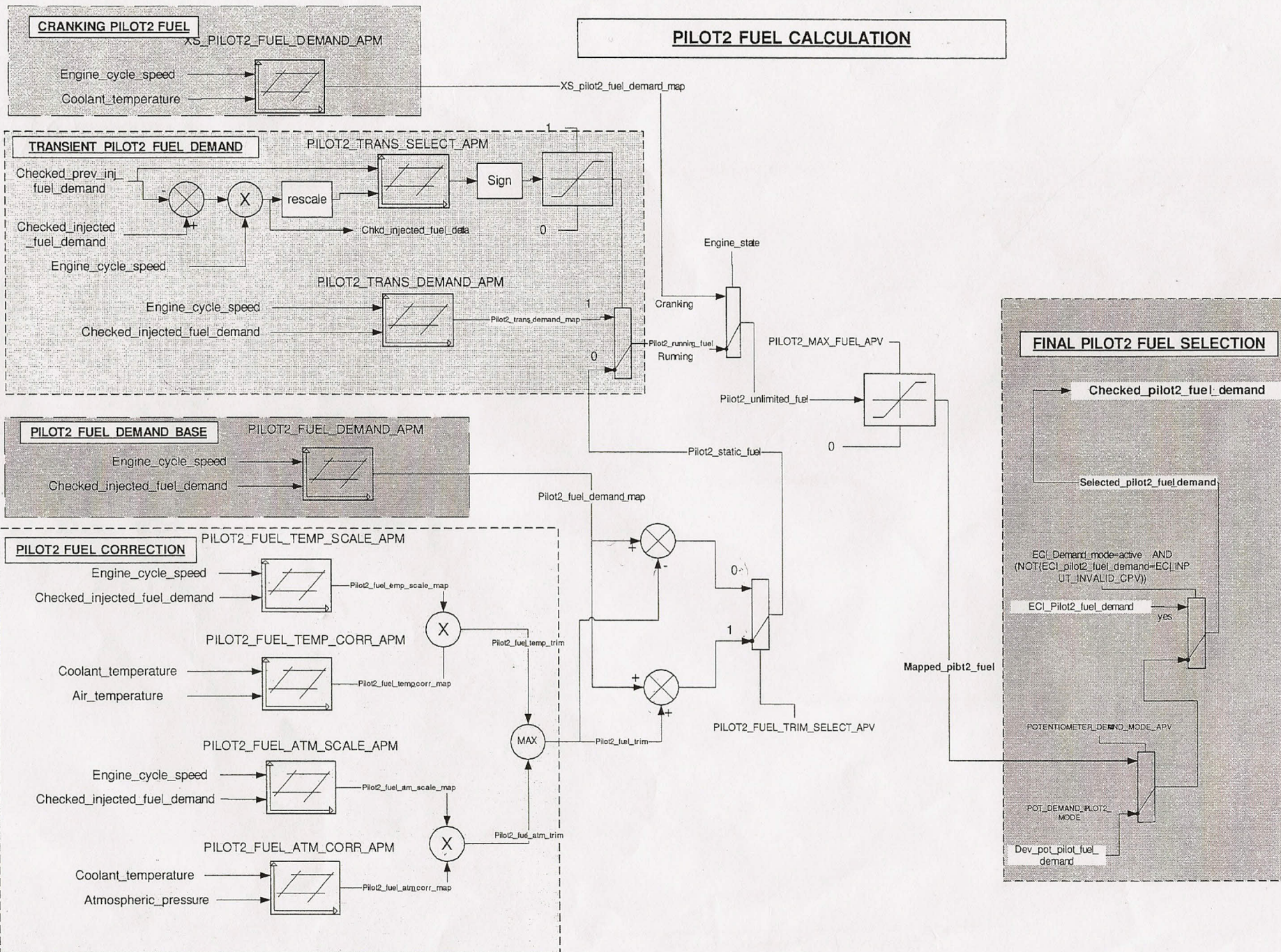
**RENAULT**

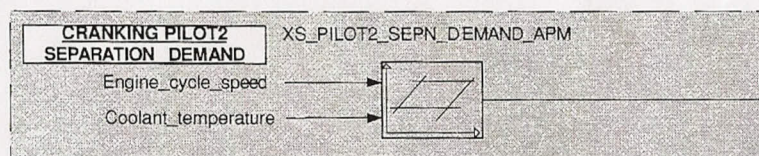
Delphi Diesel Systems



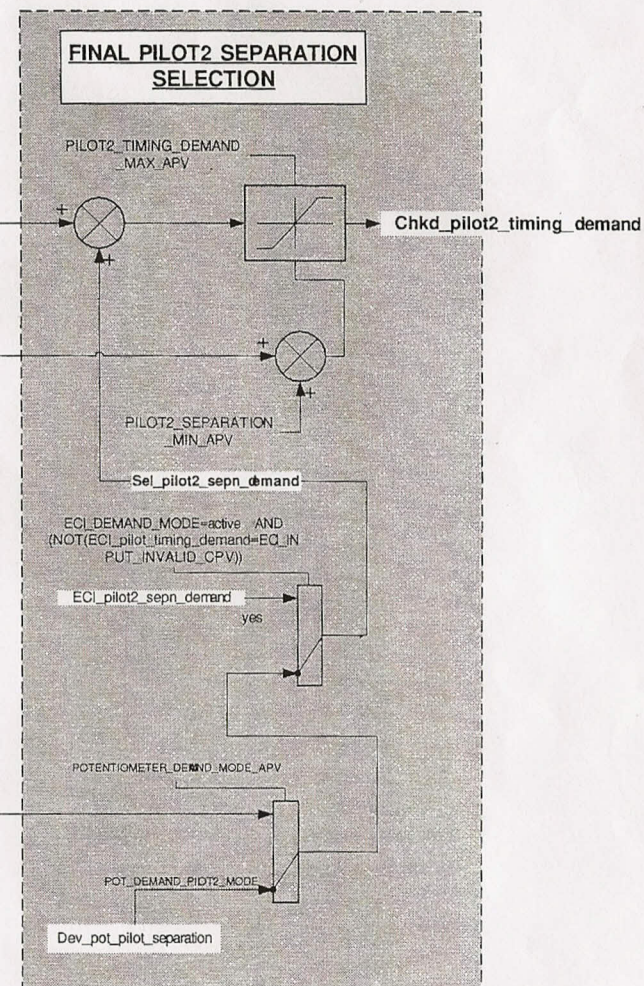
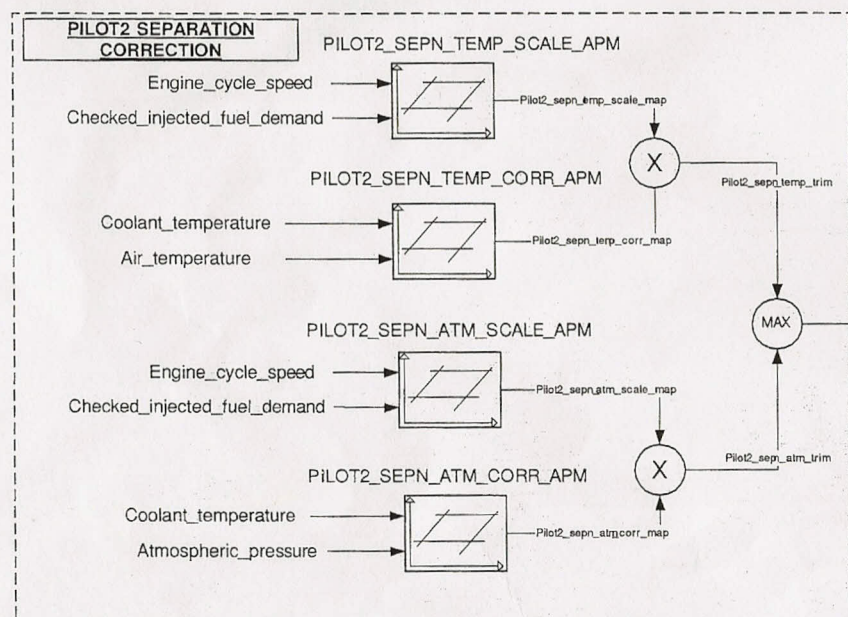
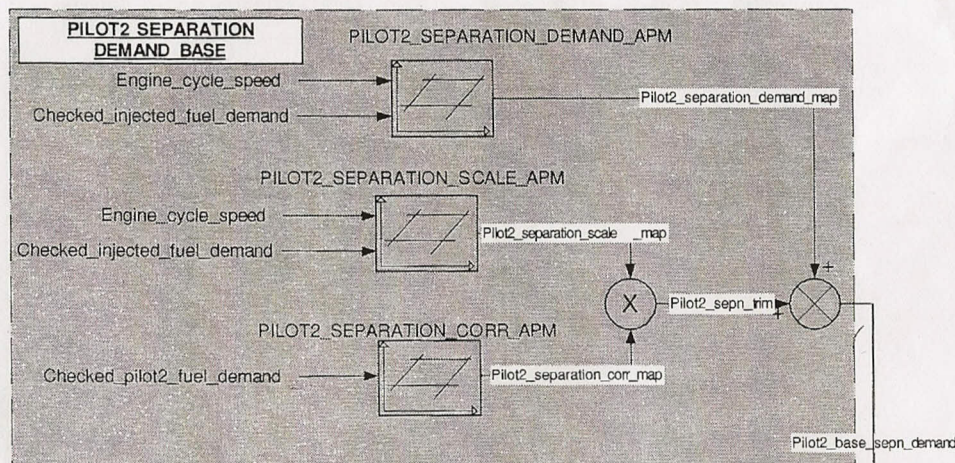
# GLOBAL INJECTED FUEL SELECTION



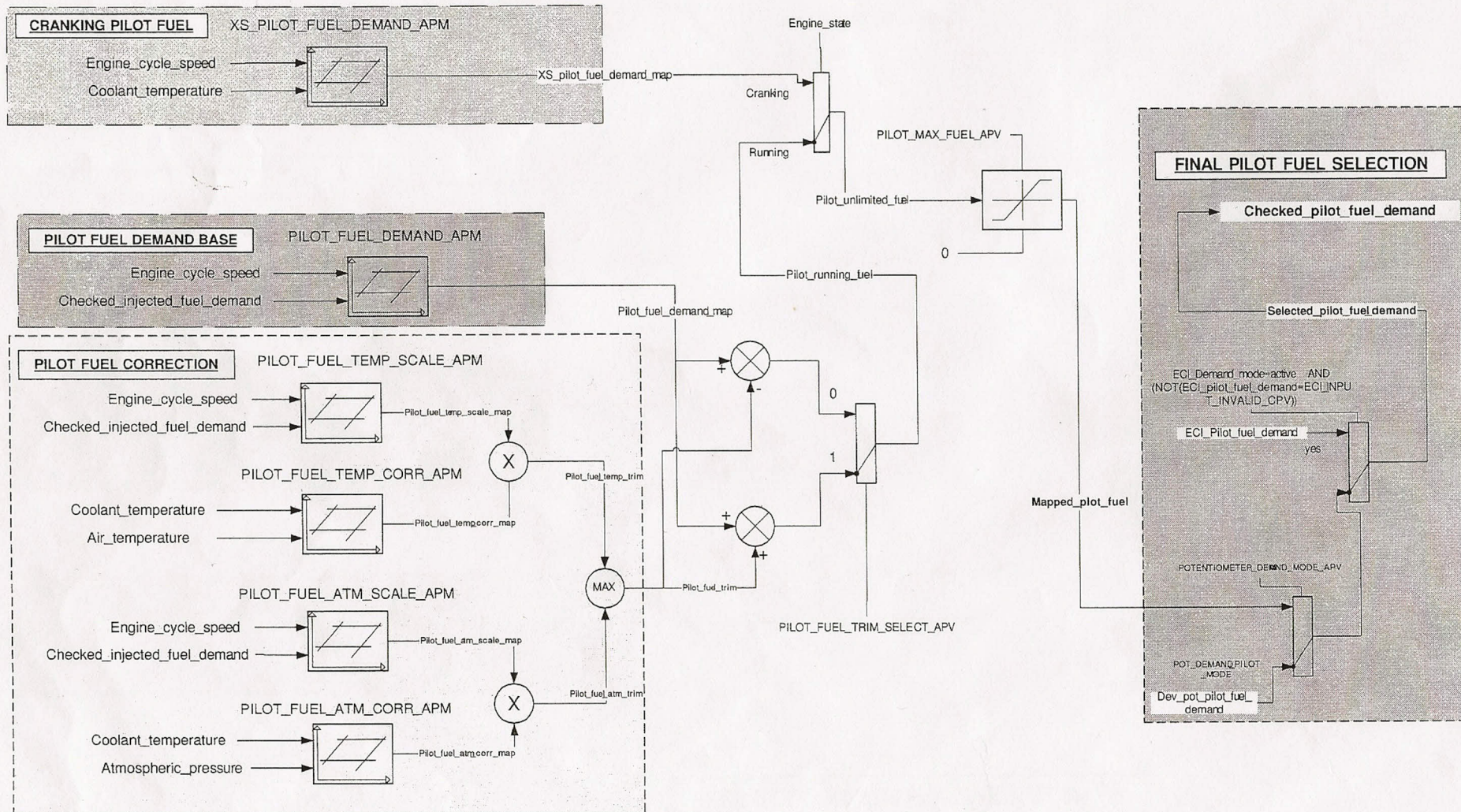




## PILOT2 TIMING CALCULATION



## PILOT FUEL CALCULATION

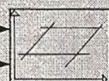


# PILOT TIMING DEMAND CALCULATION

## CRANKING PILOT TIMING

XS\_PILOT\_TIMING\_DEMAND\_APM

Engine\_cycle\_speed  
Coolant\_temperature

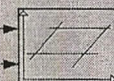


XS\_pilot\_timing\_demand\_map

## PILOT TIMING DEMAND BASE

PILOT\_TIMING\_DEMAND\_APM

Engine\_cycle\_speed  
Checked\_injected\_fuel\_demand

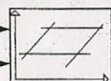


Pilot\_timing\_demandmap

## PILOT TIMING CORRECTION

PILOT\_TIMING\_TEMP\_SCALE\_APM

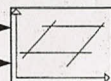
Engine\_cycle\_speed  
Checked\_injected\_fuel\_demand



Pilot\_timing\_temp\_scale\_map

PILOT\_TIMING\_TEMP\_CORR\_APM

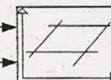
Coolant\_temperature  
Air\_temperature



Pilot\_timing\_temp\_corr\_map

PILOT\_TIMING\_ATM\_SCALE\_APM

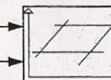
Engine\_cycle\_speed  
Checked\_injected\_fuel\_demand



Pilot\_timing\_atm\_scale\_map

PILOT\_TIMING\_ATM\_CORR\_APM

Coolant\_temperature  
Atmospheric\_pressure



Pilot\_timing\_atm\_corr\_map

X

Pilot\_timing\_temp\_trim

MAX

Pilot\_TIMING\_atm\_trim

X

PILOT\_TIMING\_TRIM\_SELECT\_APV

Engine\_state

Cranking

Running

Pilot\_running\_timing

## FINAL PILOT TIMING SELECTION

PILOT\_TIMING\_DEMAND\_MAX\_APV

Chkd\_pilot\_timing\_demand

Chkd\_pilot2\_timing\_demand

Sel\_pilot\_timing\_demand

ECI\_Demand\_mode=active AND  
(NOT(ECI\_pilot\_timing\_demand=EQ\_IN  
PUT\_INVALID\_CPV))

ECI\_pilot\_timing\_demand

yes

POTENTIOMETER\_DEMAND\_MODE\_APV

Pilot\_unlimited\_timing

POT\_DEMAND\_PILOT\_MODE

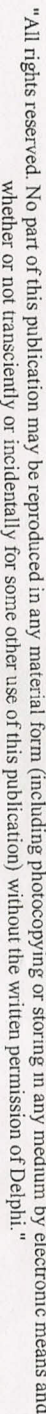
Dev\_pot\_pilot\_separation

# DELPHI

Engineering Department

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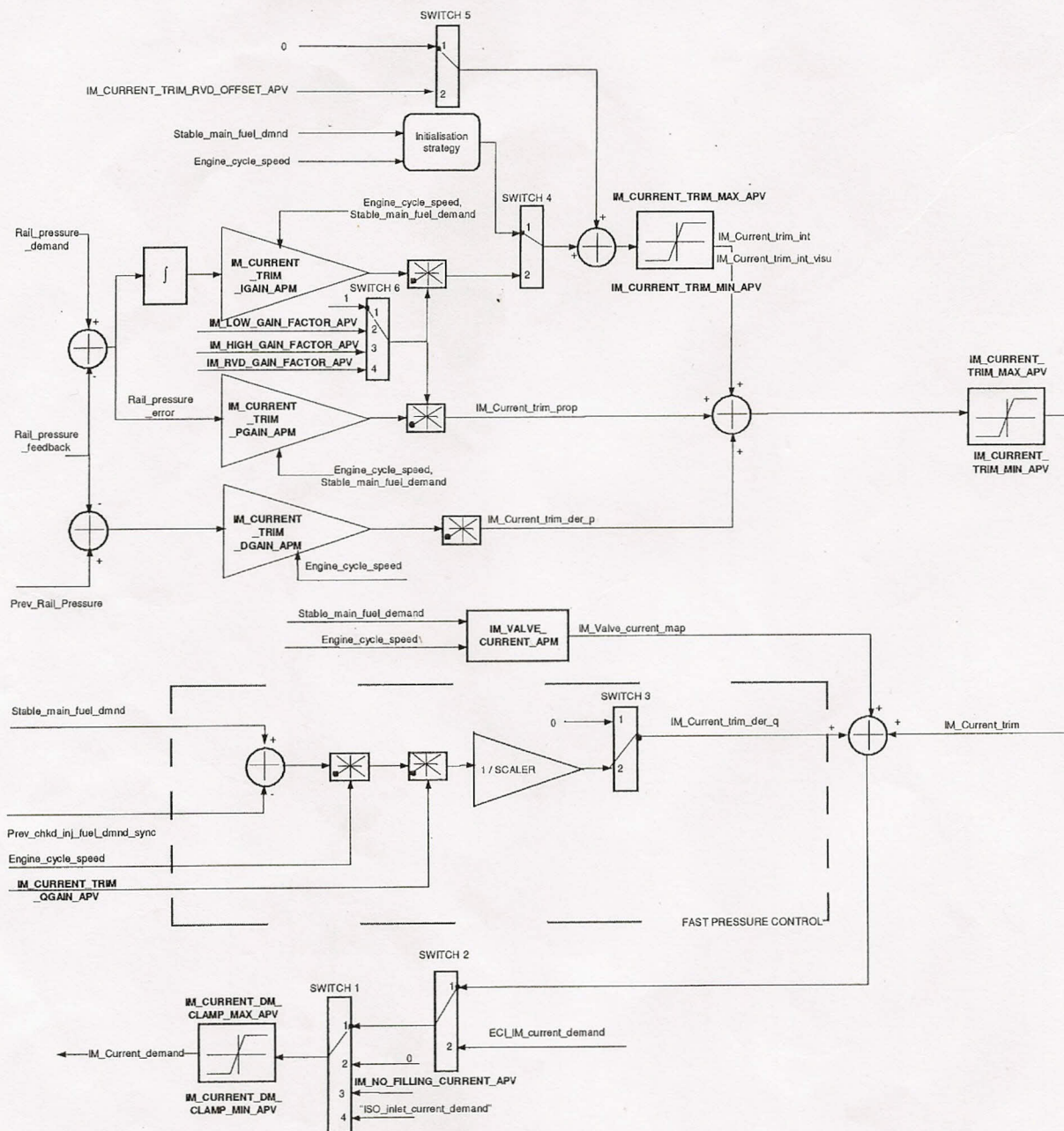


**DELPHI DIESEL SYSTEMS**

**LUCAS**  
Diesel systems  
Direction Technique

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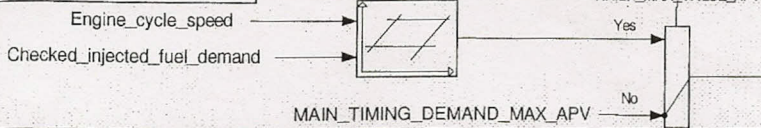
## 3.2.2.2. Flow chart



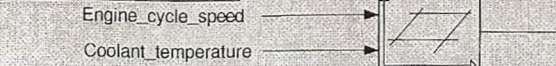
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# MAIN TIMING CALCULATION

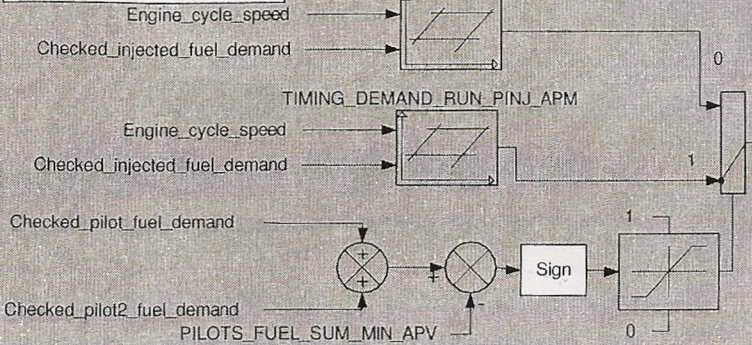
## RAILP FAULT MAIN TIMING



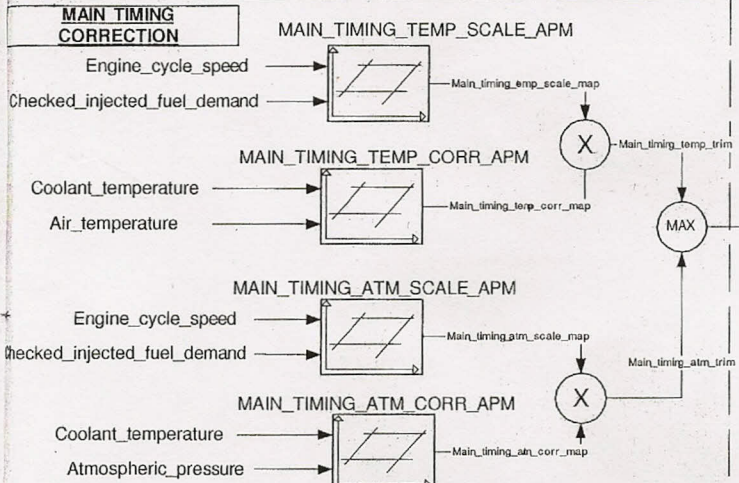
## CRANKING MAIN TIMING



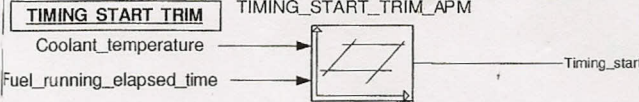
## MAIN TIMING DEMAND BASE



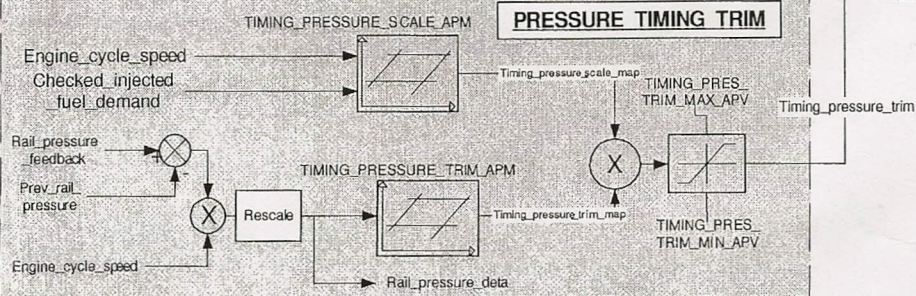
## MAIN TIMING CORRECTION



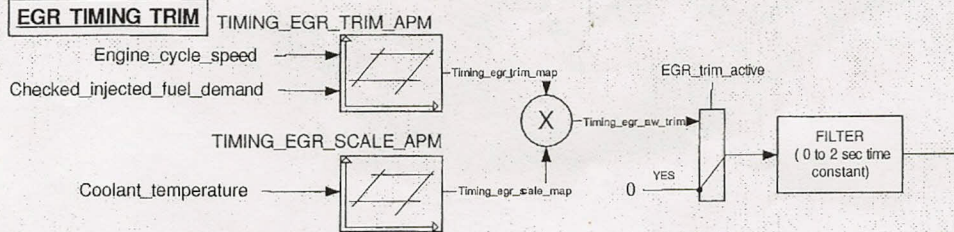
## TIMING START TRIM



## PRESSURE TIMING TRIM

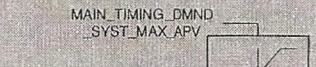


## EGR TIMING TRIM

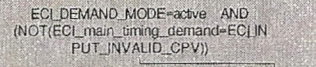


## FINAL MAIN TIMING SELECTION

### Chkd\_main\_timing\_demand



### Sel\_main\_timing\_demand



### POTENTIOMETER DEMAND MODE APV

### POT DEMAND INACTIVE MODE



### Mapped\_main\_timing\_dmd



### Engine\_state



### TIMING\_DEMAND\_MAX\_APV



### TIMING\_DEMAND\_MIN\_APV

### TIMING\_DEMAND\_MIN\_APV

# MAX FUEL CALCULATION

