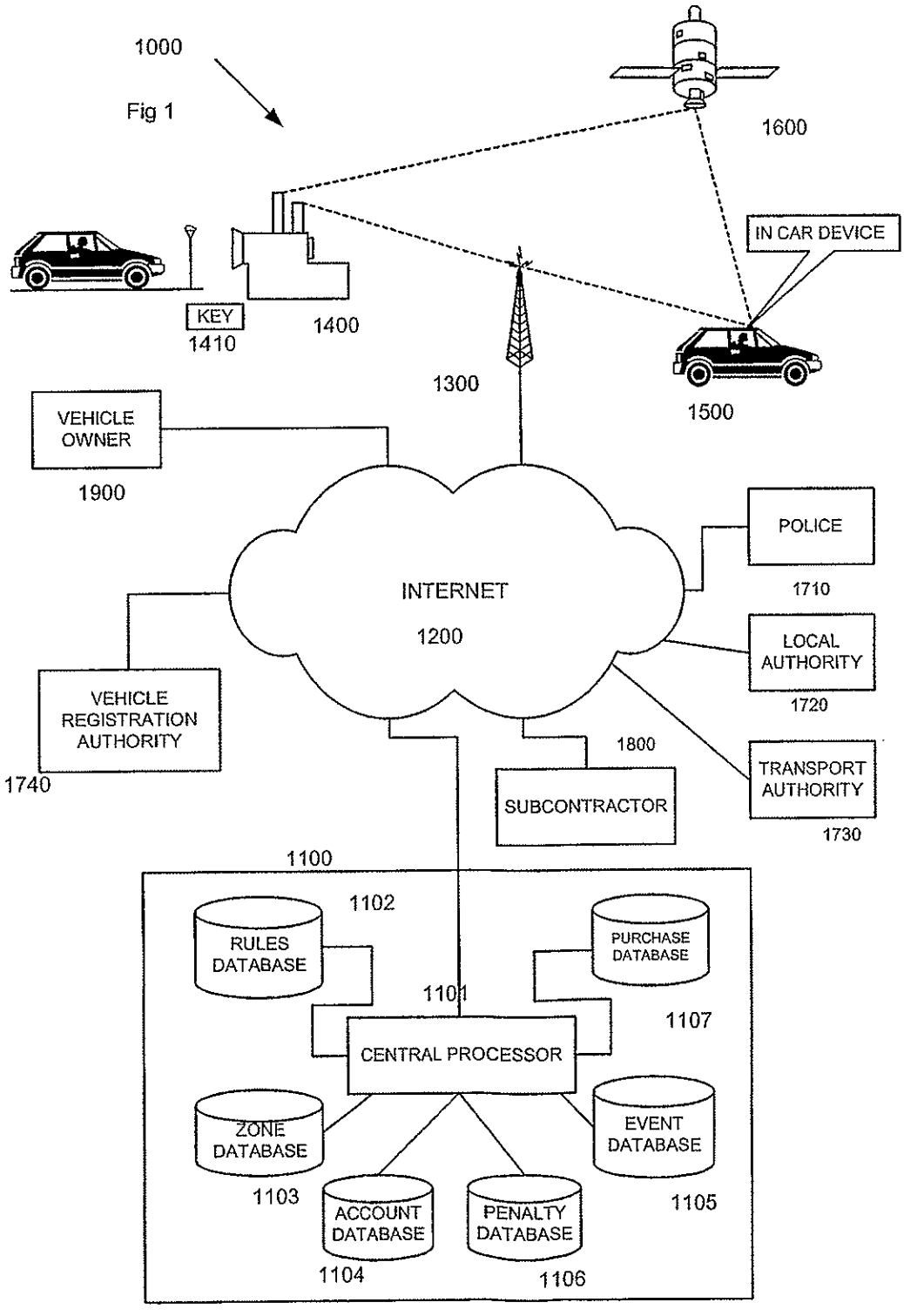
1/12

Fig 1


1000
1600
IN CAR DEVICE
KEY
1410
1400
1300
1500
VEHICLE OWNER
1900
INTERNET
1200
POLICE
1710
LOCAL AUTHORITY
1720
VEHICLE REGISTRATION AUTHORITY
1740
1800
SUBCONTRACTOR
TRANSPORT AUTHORITY
1730
1100
1102
RULES DATABASE
PURCHASE DATABASE
1107
1101
CENTRAL PROCESSOR
ZONE DATABASE
1103
EVENT DATABASE
1105
ACCOUNT DATABASE
1104
PENALTY DATABASE
1106

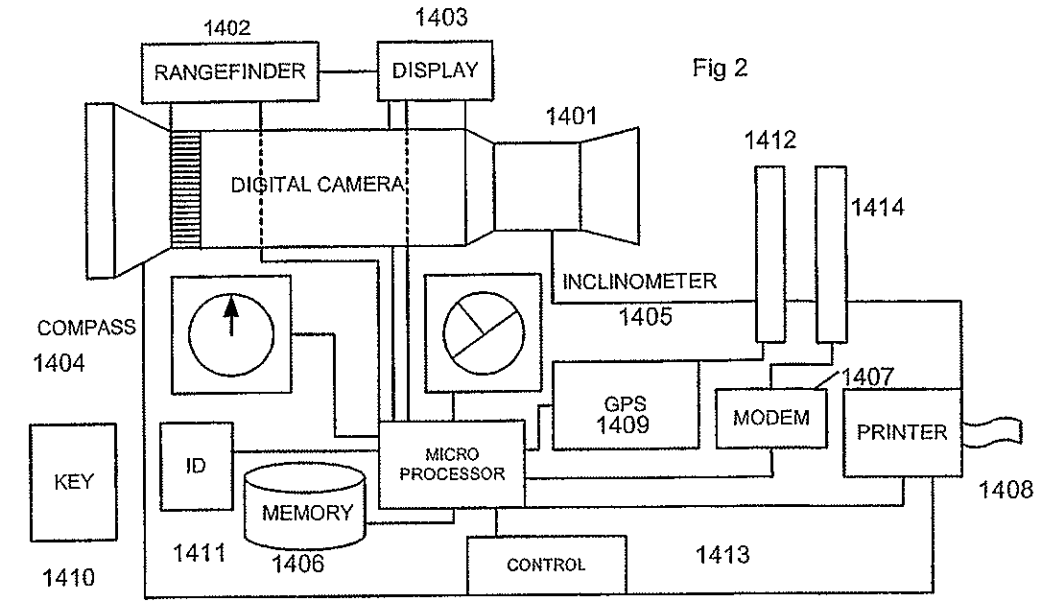

1402
RANGEFINDER
1403
DISPLAY
1401
DIGITAL CAMERA
1412
1414
INCLINOMETER
1405
COMPASS
1404
GPS
1409
1407
MODEM
PRINTER
1408
KEY
ID
MICRO
PROCESSOR
MEMORY
1411
1406
CONTROL
1413
1410

Fig 2

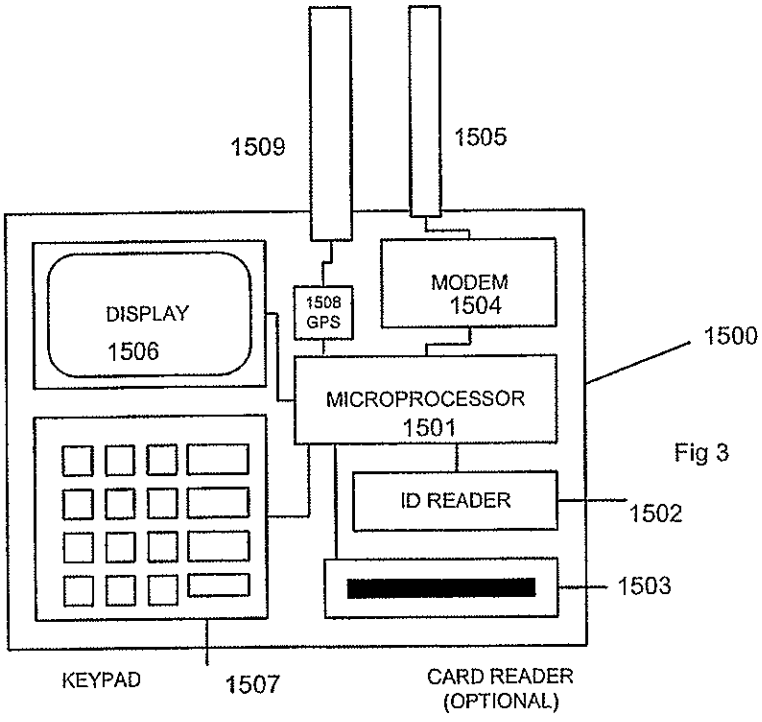

1509
1505
DISPLAY
1506
1508
GPS
MODEM
1504
1500
MICROPROCESSOR
1501
ID READER
1502
1503
KEYPAD
1507
CARD READER
(OPTIONAL)

Fig 3

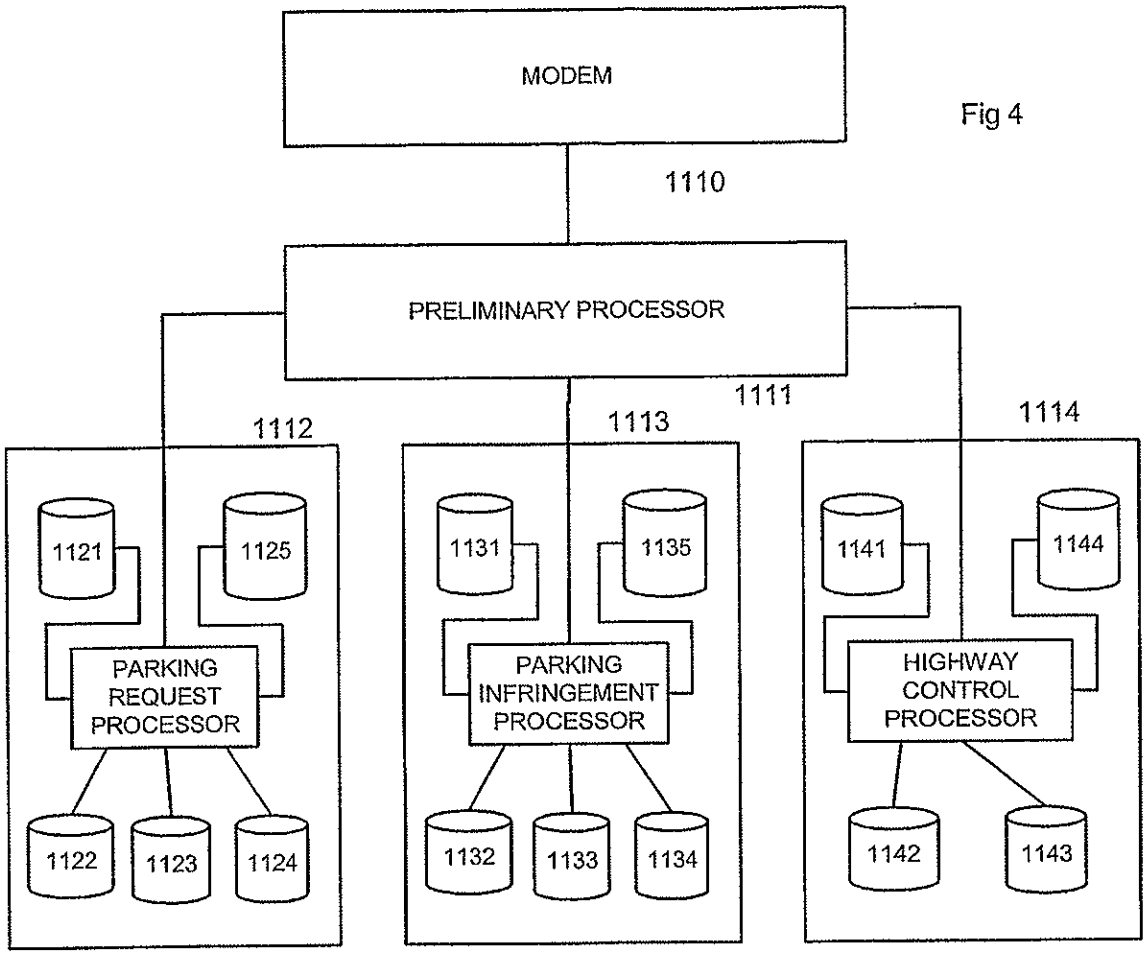


Fig 4

ZONE DATABASE

ZONE	GPS COORDINATES	RULES APPLICABLE
A		S1
B		S2
C		S6

Fig 5

ACCOUNT DATABASE

Fig 6

NAME	ID	BALANCE	HISTORY	ADDRESS	REGISTRATION

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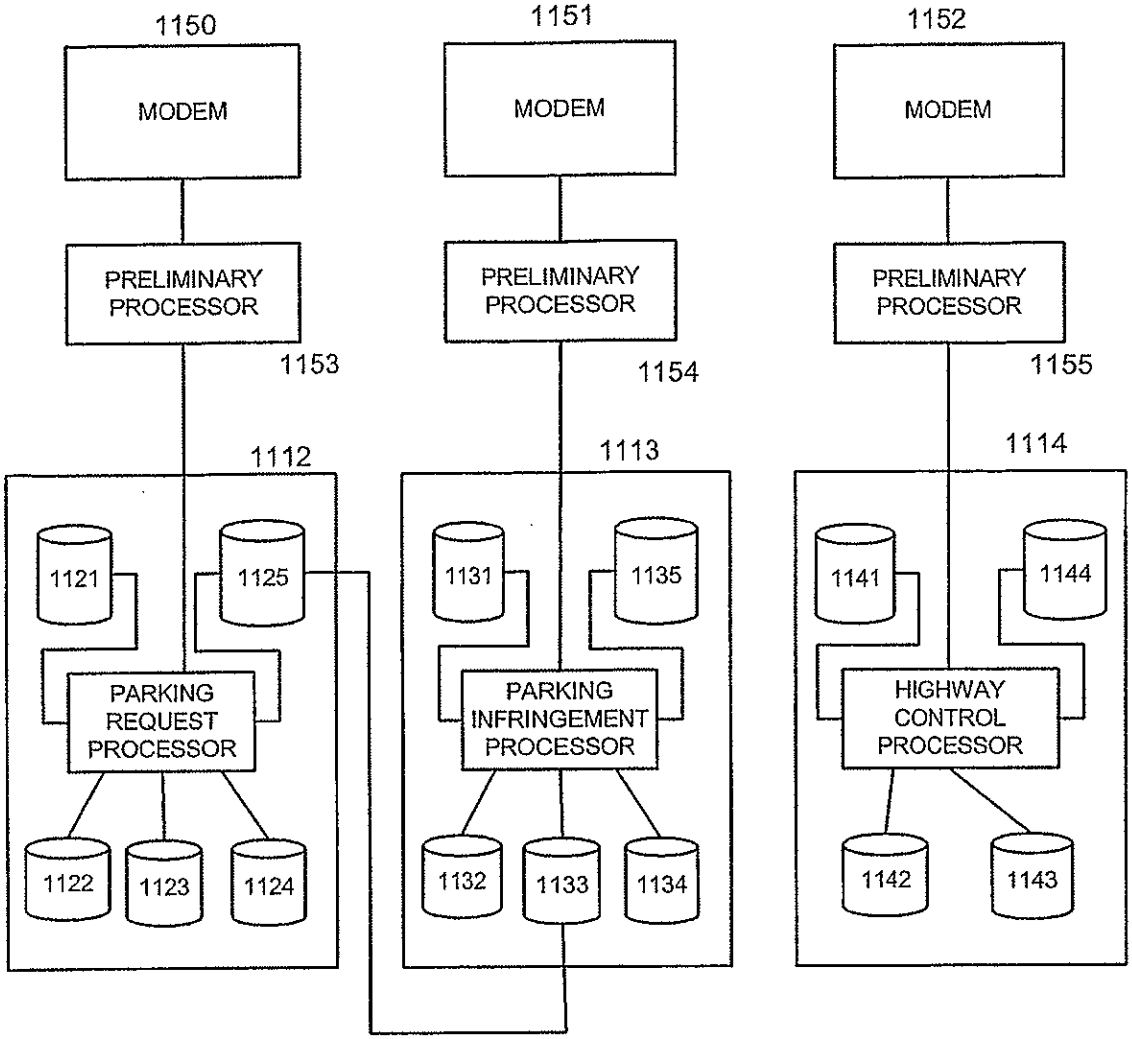


Fig 4A

Fig 7

RULE DATABASE

SUPER RULE	RULE ID	TYPE	INFRINGEMENT IF:	PENALTY	FINE/FEE	NOTIFY
S1 (RED ROUTE)	R1	A	VEHICLE PARKED	FINE AND REMOVE	£50 (£30 IF PAID IN A WEEK)	POLICE
S2 (BUS LANE)	R2	A	VEHICLE PARKED AND TIME IS BETWEEN 7.00 AND 18.00	FINE	£50 (£30 IF PAID IN A WEEK)	TRANSPORT AUTHORITY
	R3	A	VEHICLE PARKED AND NOT A WEEKEND	FINE	£50 (£30 IF PAID IN A WEEK)	TRANSPORT AUTHORITY
S3	R4	C	VEHICLE PARKED AT TIME T AND AT TIME T+ I HOUR OR MORE	FINE	£20	LOCAL AUTHORITY
S4	R5	C	VEHICLE LEAVES PARKING PLACE AT TIME T AND RETURNS AT TIME T+2 HOURS OR LESS	FINE	£20	LOCAL AUTHORITY
	R6	T	VEHICLE PARKED AND HAS NO VALID TICKET	FINE	£20/£1	LOCAL AUTHORITY
S6	R5	C	VEHICLE LEAVES PARKING PLACE AT TIME T AND RETURNS AT TIME T+2 HOURS OR LESS	FINE	£20	LOCAL AUTHORITY

EVENT DATABASE

DATE, TIME	POSITION DATA	POSITION ZONE	PHOTOGRAPHIC DATA	VEHICLE REG.	DETECTED BY	RULE INFRINGED
31.05.02, 12.00	GPS: BEARING: RANGE:	B	ABC 123R	ABC 123R	UNIT 3	R2
1.6.02 13.00		C	VVV456 R		UNIT 1	NONE

Fig 8

PENALTY DATABASE

DATE, TIME	ZONE	VEHICLE REG	RULE INFRINGED	FINE	ACTED ON	SENT TO	PAID
31.05.02, 12.00	B	ABC 123A	R1	£50	31.3.02	J SMITH	-

Fig 9

PURCHASE DATABASE

DATE TIME	USER ID	VEHICLE REG	LOCATION ZONE	RULE	PAID	EXPIRY	DEPART
1.6.02 12.00	KDS9	ABC 123 A	D	R5, R6	£1	2 HOURS	1.6.02 13.45

Fig 10

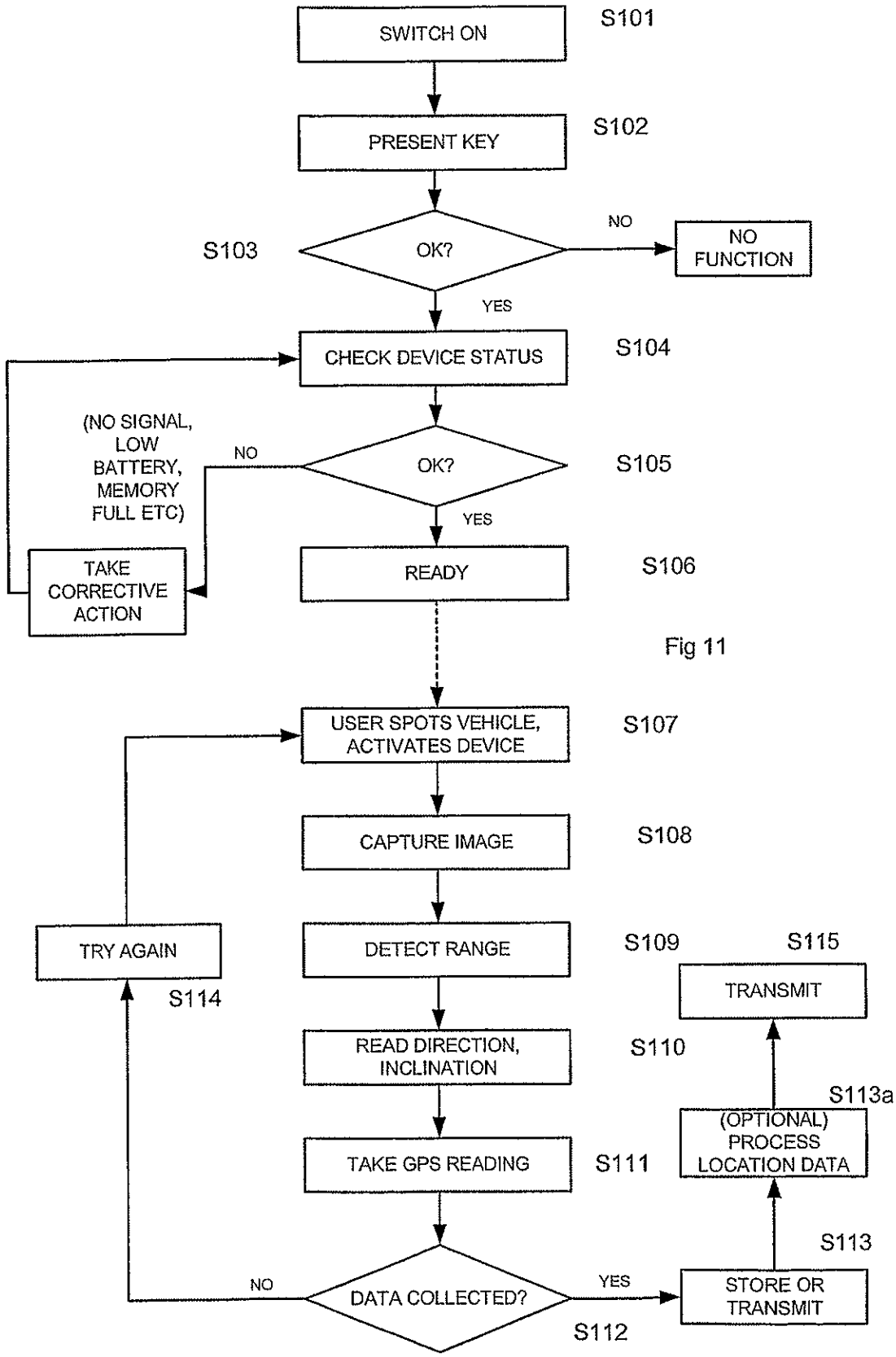

SWITCH ON
S101
PRESENT KEY
S102
S103
OK?
NO
NO FUNCTION
YES
CHECK DEVICE STATUS
S104
(NO SIGNAL, LOW BATTERY, MEMORY FULL ETC)
NO
OK?
S105
YES
TAKE CORRECTIVE ACTION
READY
S106
USER SPOTS VEHICLE, ACTIVATES DEVICE
S107
CAPTURE IMAGE
S108
TRY AGAIN
S114
DETECT RANGE
S109
S115
TRANSMIT
READ DIRECTION, INCLINATION
S110
S113a
(OPTIONAL) PROCESS LOCATION DATA
TAKE GPS READING
S111
S113
NO
DATA COLLECTED?
YES
STORE OR TRANSMIT
S112

Fig 11

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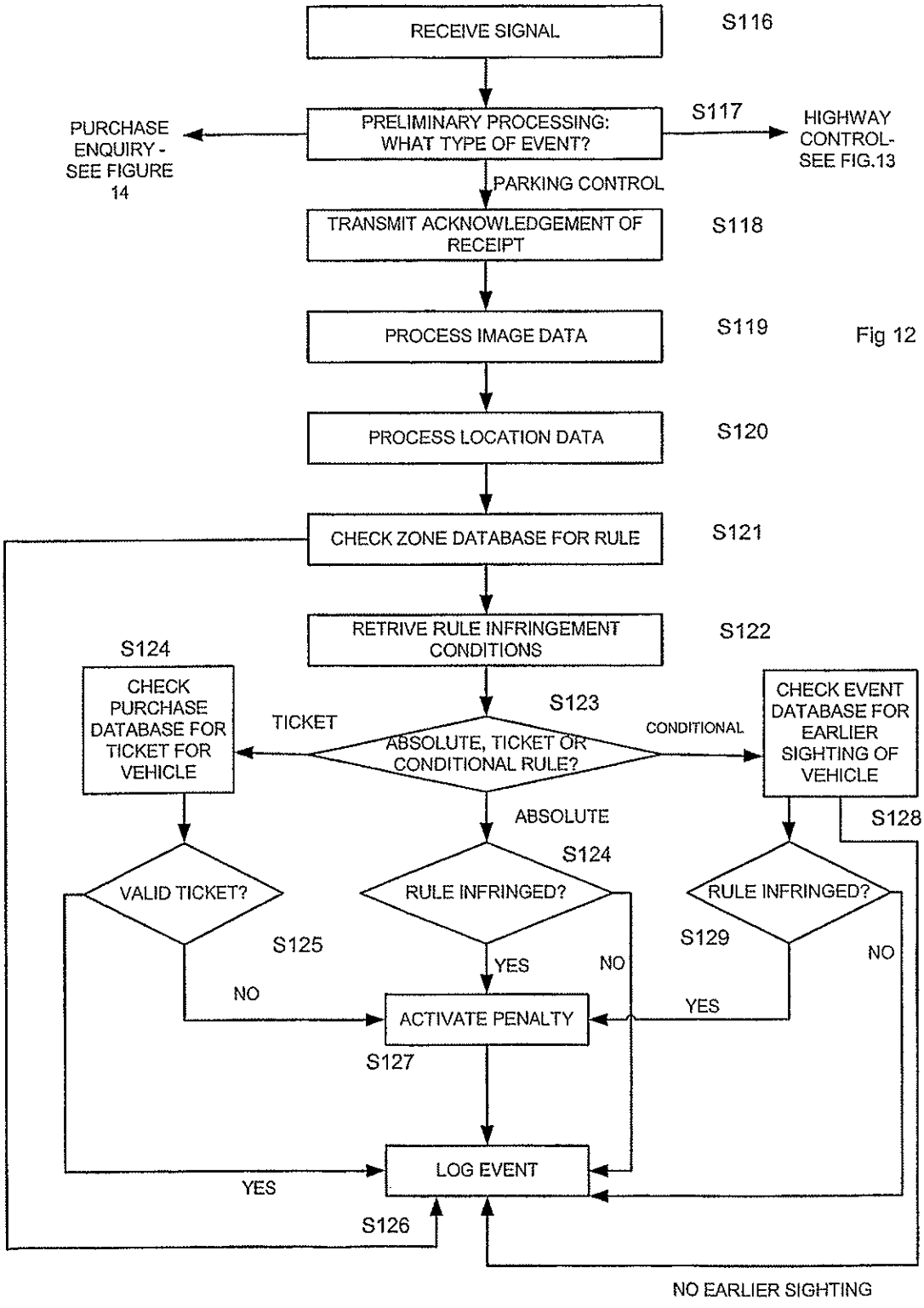


Fig 12

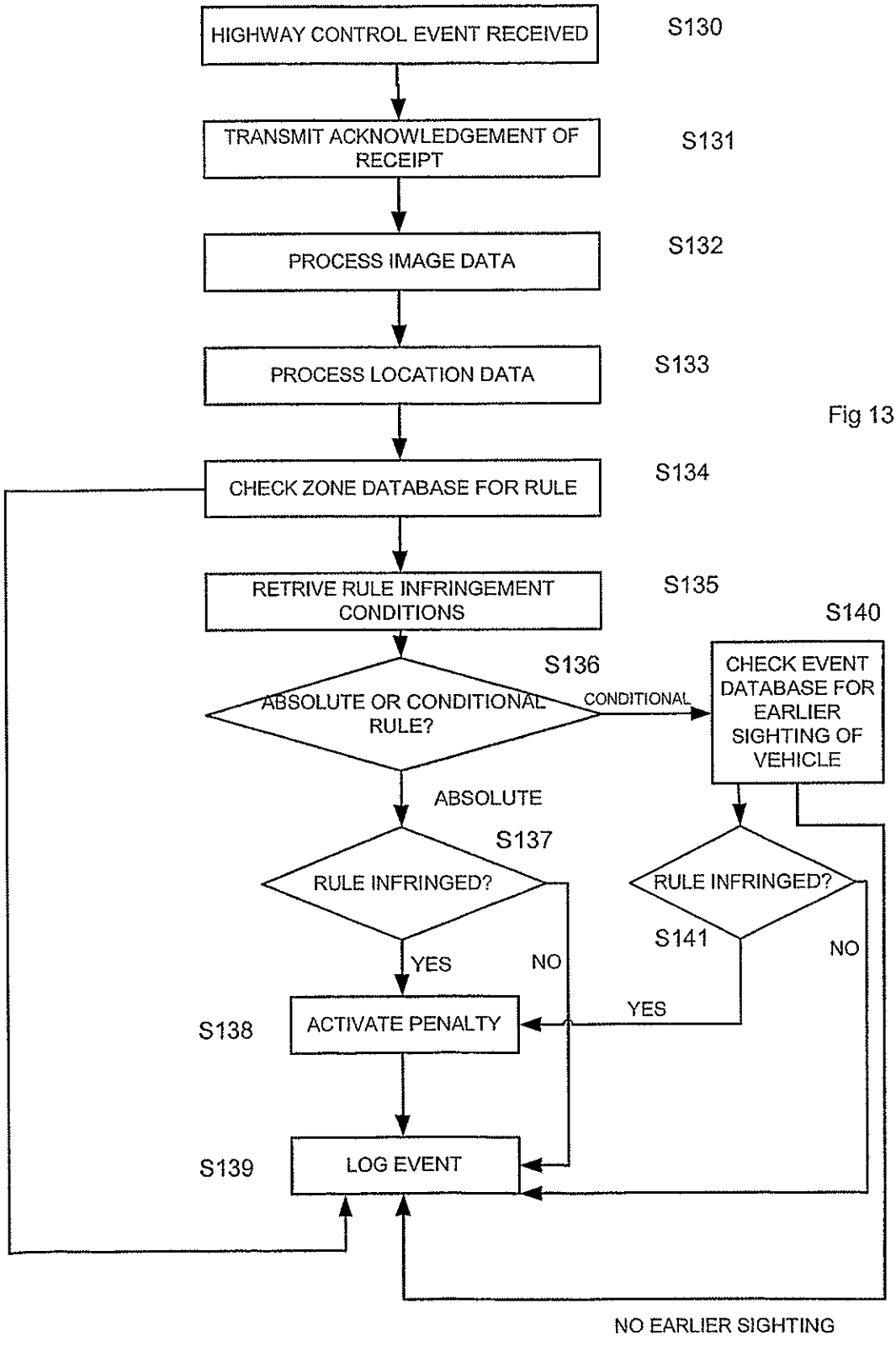

HIGHWAY CONTROL EVENT RECEIVED
S130
TRANSMIT ACKNOWLEDGEMENT OF RECEIPT
S131
PROCESS IMAGE DATA
S132
PROCESS LOCATION DATA
S133
CHECK ZONE DATABASE FOR RULE
S134
RETRIVE RULE INFRINGEMENT CONDITIONS
S135
S136
ABSOLUTE OR CONDITIONAL RULE?
CONDITIONAL
S140
CHECK EVENT DATABASE FOR EARLIER SIGHTING OF VEHICLE
ABSOLUTE
S137
RULE INFRINGED?
YES
NO
RULE INFRINGED?
S141
NO
YES
S138
ACTIVATE PENALTY
S139
LOG EVENT
NO EARLIER SIGHTING

Fig 13

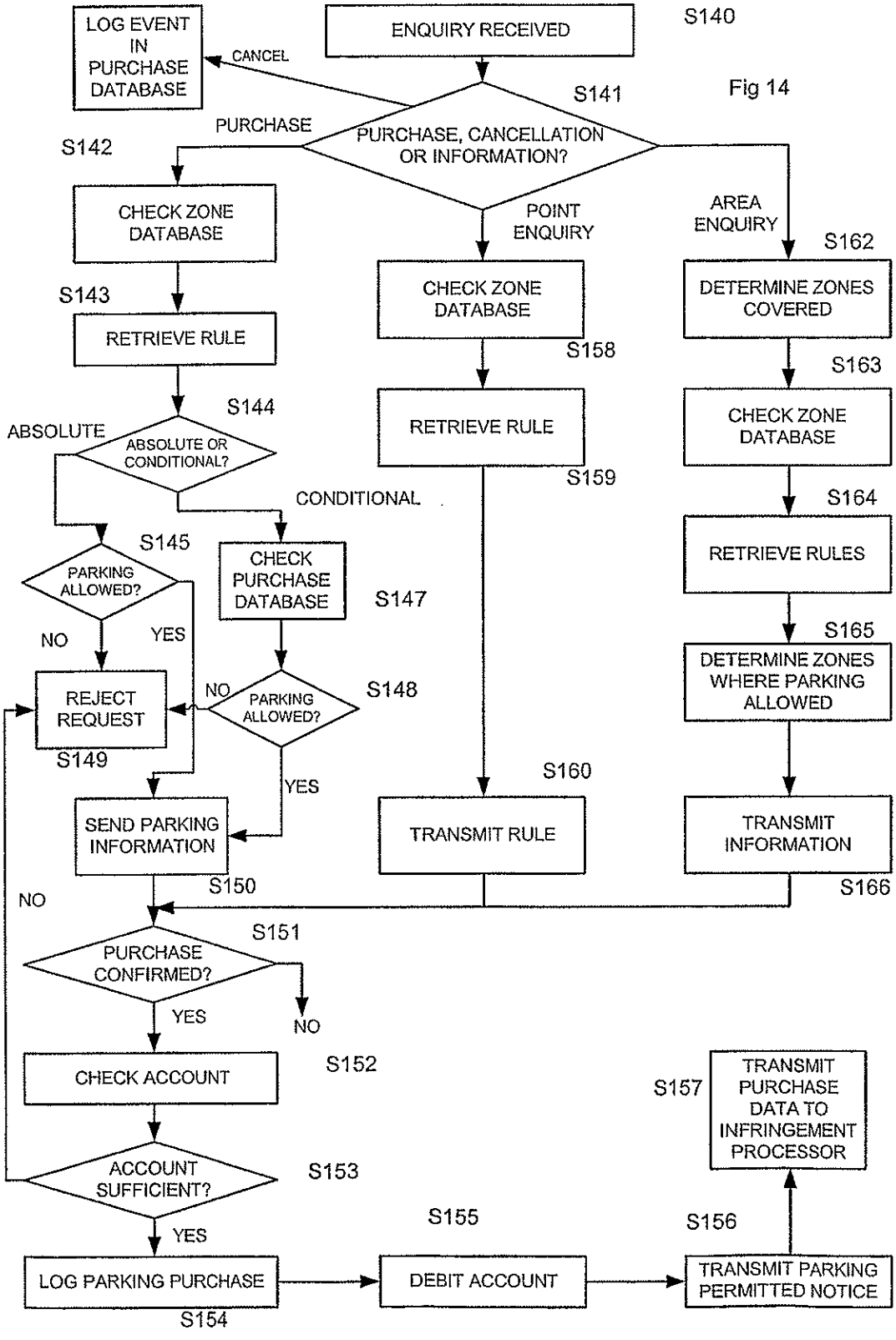

ENQUIRY RECEIVED
S140
LOG EVENT IN PURCHASE DATABASE
CANCEL
S141
PURCHASE, CANCELLATION OR INFORMATION?
PURCHASE
S142
POINT ENQUIRY
AREA ENQUIRY
CHECK ZONE DATABASE
S143
RETRIEVE RULE
S144
ABSOLUTE OR CONDITIONAL?
ABSOLUTE
CONDITIONAL
S145
PARKING ALLOWED?
NO
YES
REJECT REQUEST
S149
CHECK PURCHASE DATABASE
S147
NO
PARKING ALLOWED?
S148
YES
SEND PARKING INFORMATION
S150
NO
S151
PURCHASE CONFIRMED?
YES
NO
CHECK ACCOUNT
S152
ACCOUNT SUFFICIENT?
S153
YES
LOG PARKING PURCHASE
S154
CHECK ZONE DATABASE
S158
RETRIEVE RULE
S159
S160
TRANSMIT RULE
DEBIT ACCOUNT
S155
DETERMINE ZONES COVERED
S162
CHECK ZONE DATABASE
S163
RETRIEVE RULES
S164
DETERMINE ZONES WHERE PARKING ALLOWED
S165
TRANSMIT INFORMATION
S166
TRANSMIT PARKING PERMITTED NOTICE
S156
TRANSMIT PURCHASE DATA TO INFRINGEMENT PROCESSOR
S157

Fig 14

27 FEB 2004

Fig 15

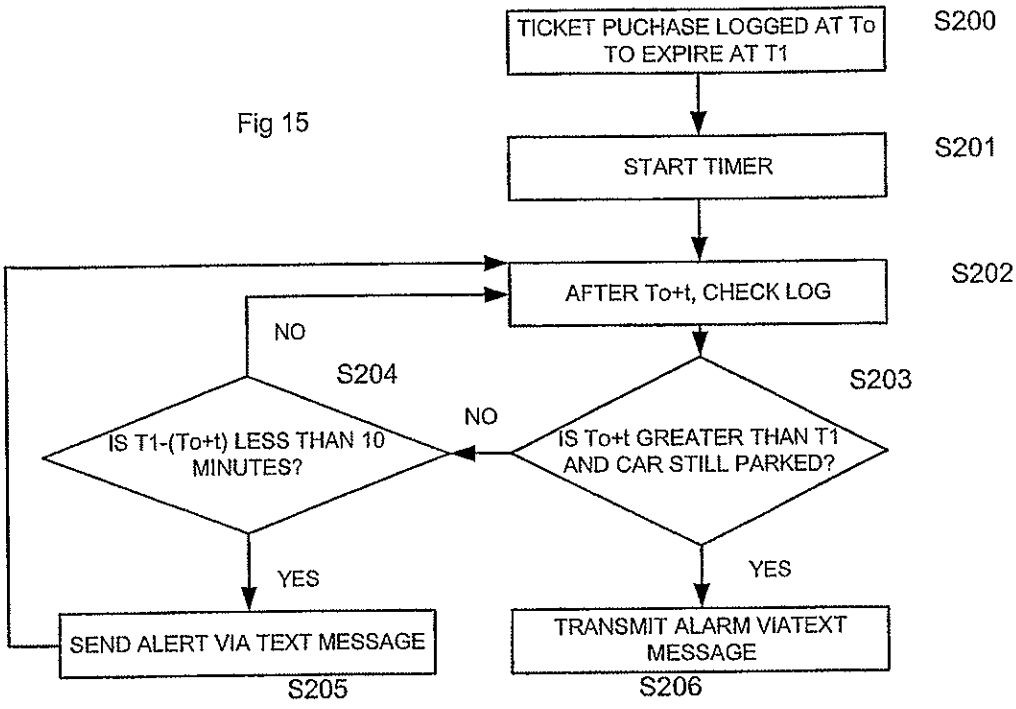
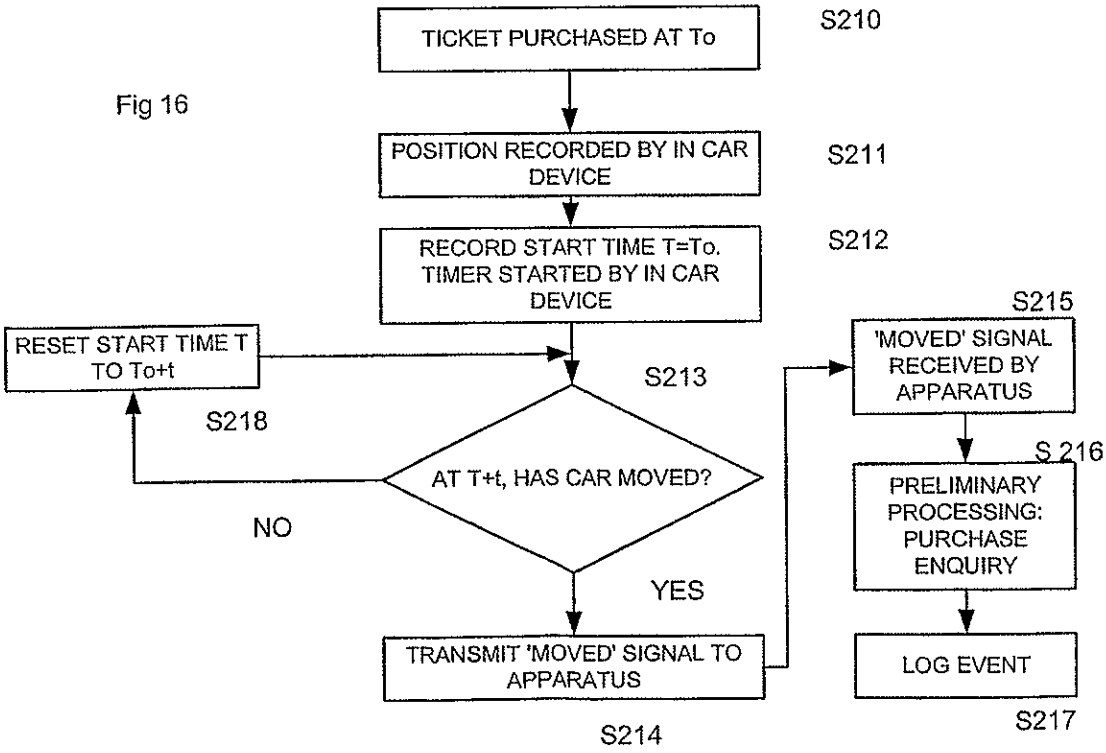


Fig 16



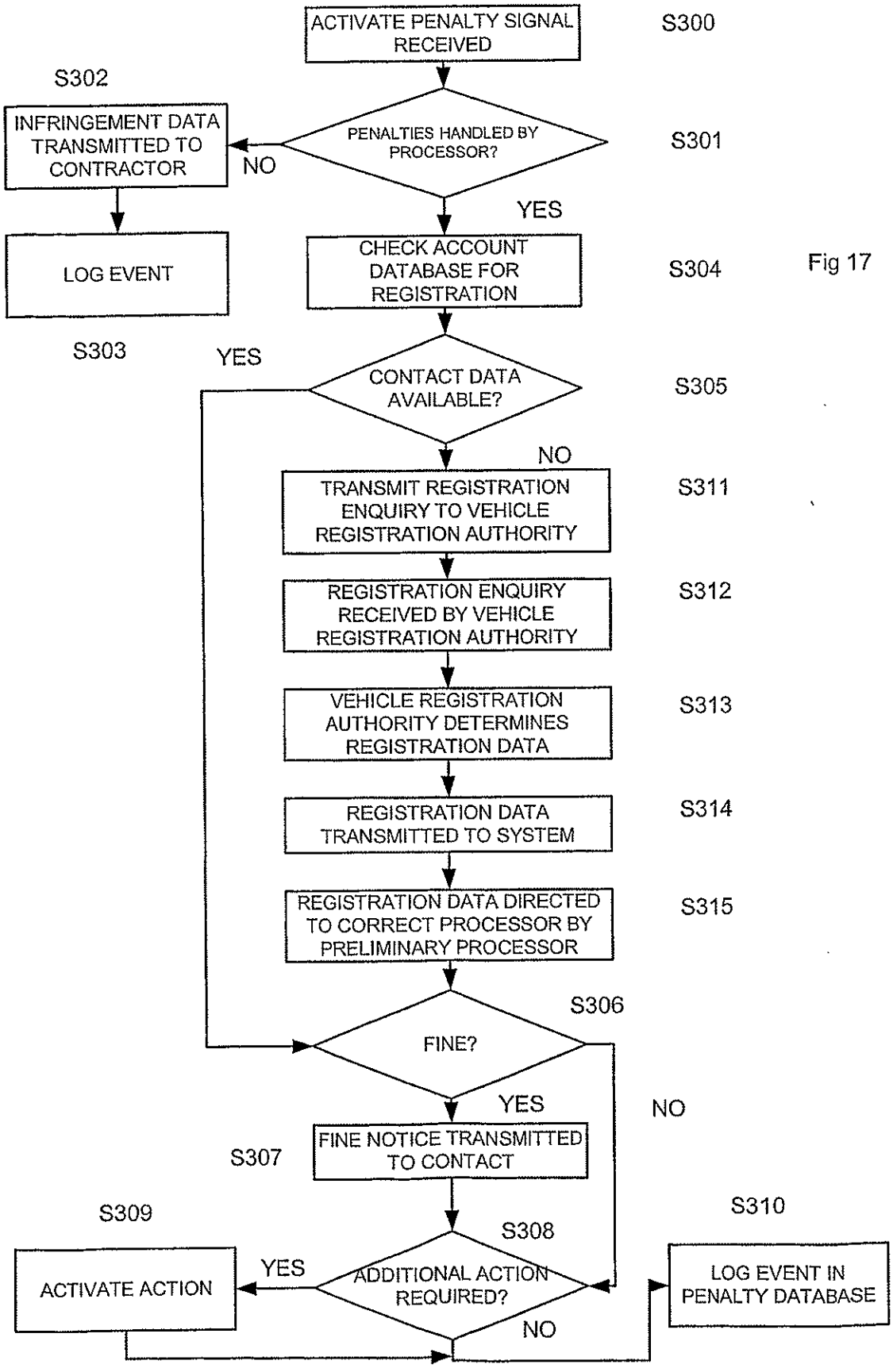

ACTIVATE PENALTY SIGNAL RECEIVED
S300
PENALTIES HANDLED BY PROCESSOR?
S301
NO
YES
S302
INFRINGEMENT DATA TRANSMITTED TO CONTRACTOR
LOG EVENT
S303
CHECK ACCOUNT DATABASE FOR REGISTRATION
S304
CONTACT DATA AVAILABLE?
S305
YES
NO
TRANSMIT REGISTRATION ENQUIRY TO VEHICLE REGISTRATION AUTHORITY
S311
REGISTRATION ENQUIRY RECEIVED BY VEHICLE REGISTRATION AUTHORITY
S312
VEHICLE REGISTRATION AUTHORITY DETERMINES REGISTRATION DATA
S313
REGISTRATION DATA TRANSMITTED TO SYSTEM
S314
REGISTRATION DATA DIRECTED TO CORRECT PROCESSOR BY PRELIMINARY PROCESSOR
S315
FINE?
S306
YES
NO
FINE NOTICE TRANSMITTED TO CONTACT
S307
ADDITIONAL ACTION REQUIRED?
S308
YES
NO
ACTIVATE ACTION
S309
LOG EVENT IN PENALTY DATABASE
S310

Fig 17

27 FEB 2007

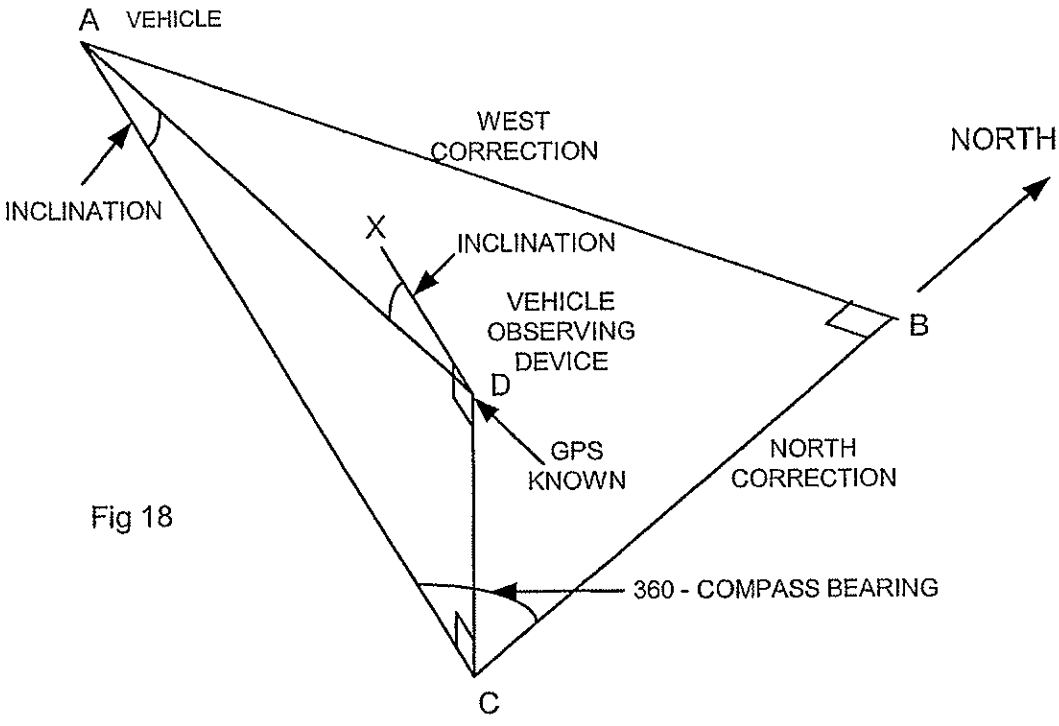


Fig 18