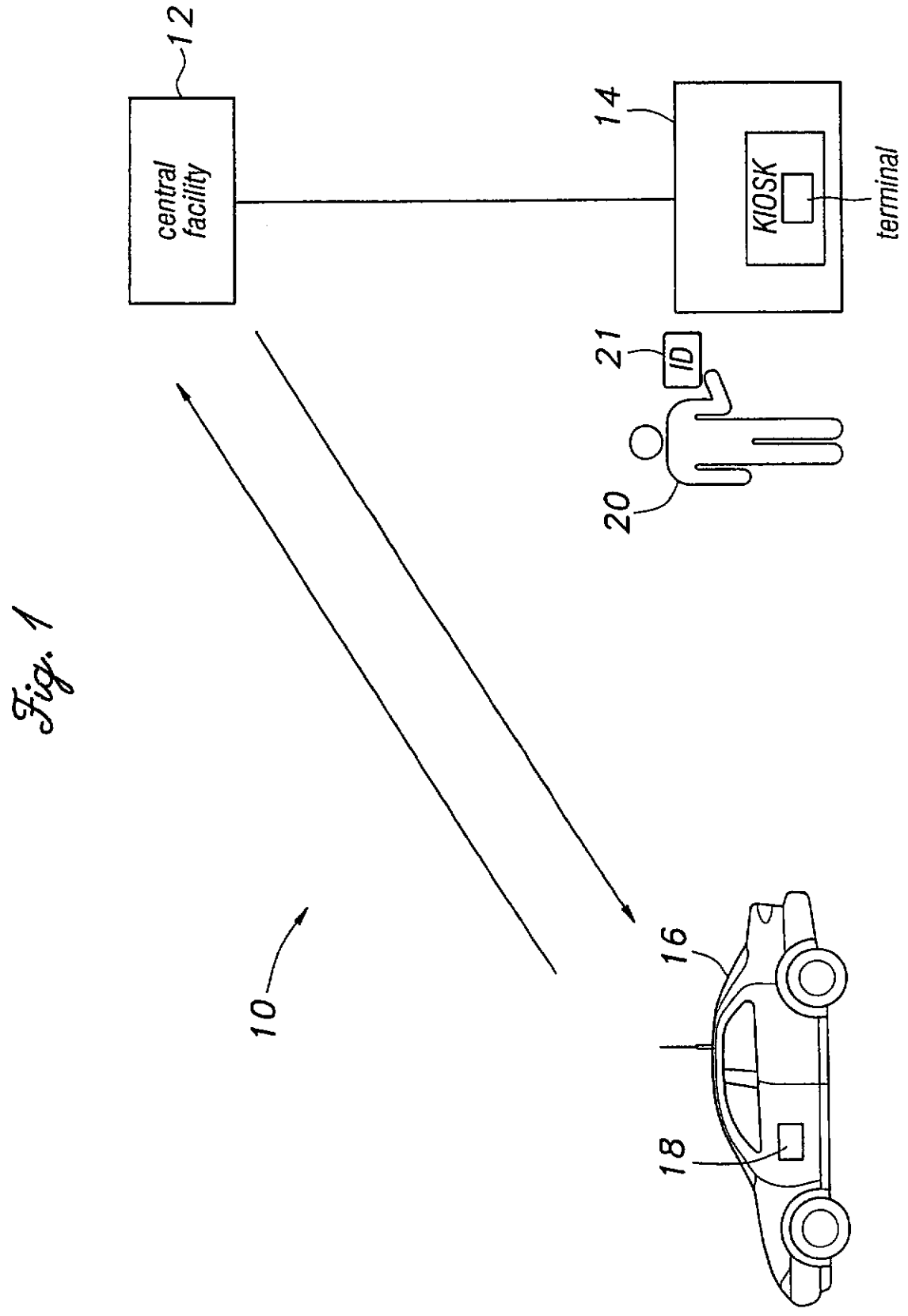



Fig. 1

Fig. 2

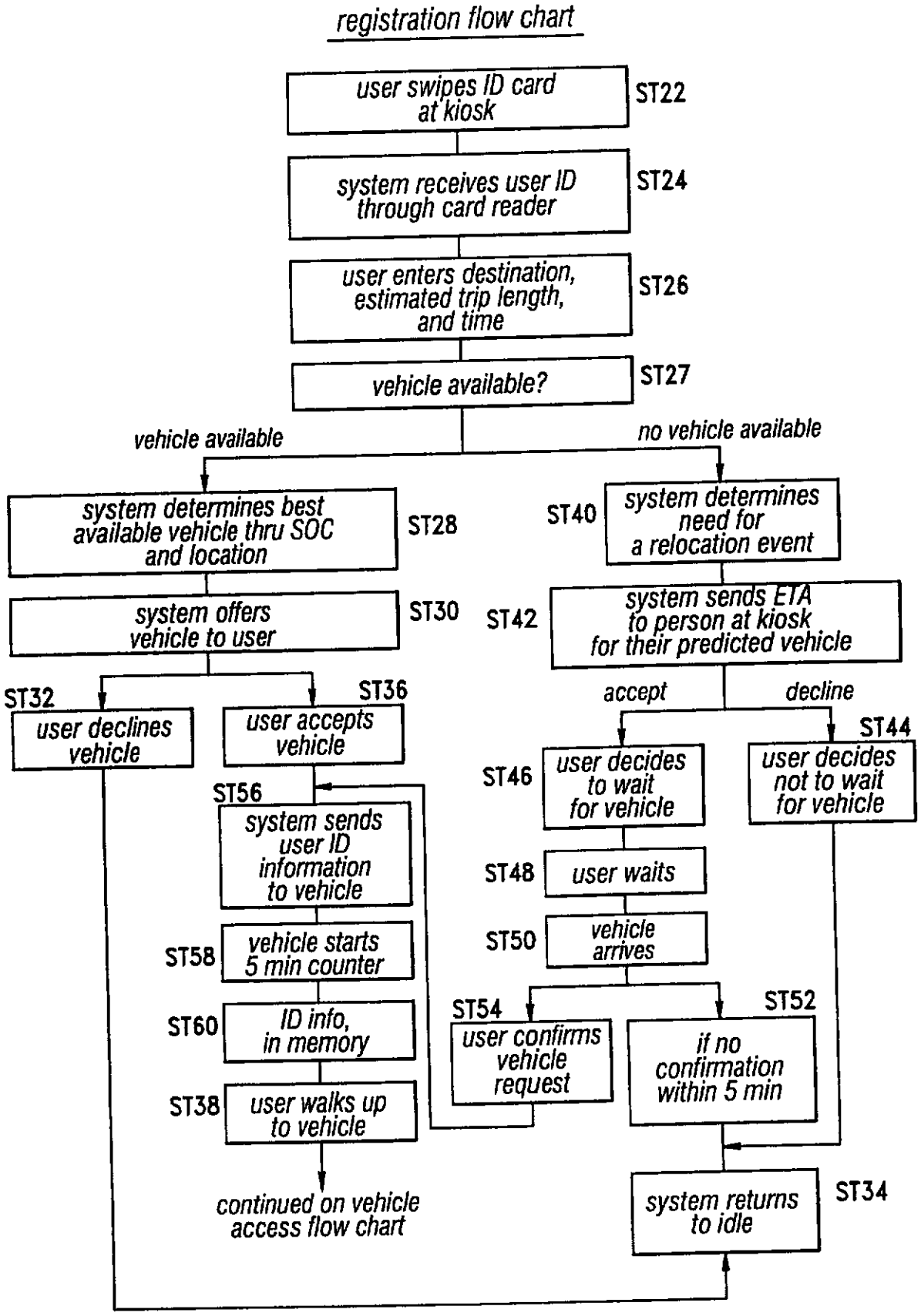

registration flow chart
user swipes ID card at kiosk
ST22
system receives user ID through card reader
ST24
user enters destination, estimated trip length, and time
ST26
vehicle available?
ST27
vehicle available
no vehicle available
system determines best available vehicle thru SOC and location
ST28
system offers vehicle to user
ST30
ST32
user declines vehicle
ST36
user accepts vehicle
ST56
system sends user ID information to vehicle
ST58
vehicle starts 5 min counter
ST60
ID info, in memory
ST38
user walks up to vehicle
continued on vehicle access flow chart
ST40
system determines need for a relocation event
ST42
system sends ETA to person at kiosk for their predicted vehicle
accept
decline
ST44
ST46
user decides to wait for vehicle
user decides not to wait for vehicle
ST48
user waits
ST50
vehicle arrives
ST54
user confirms vehicle request
ST52
if no confirmation within 5 min
system returns to idle
ST34

Fig. 3

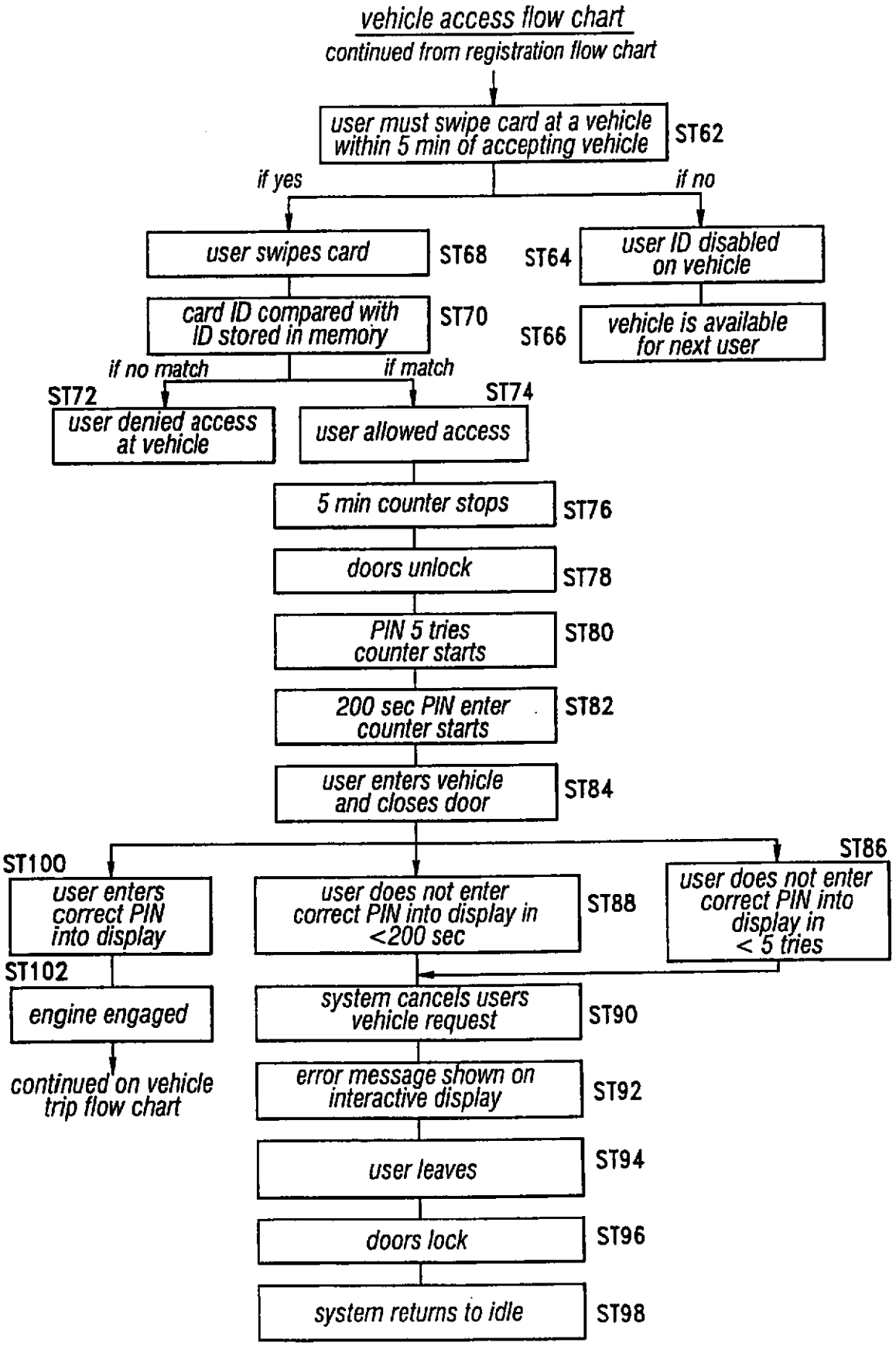
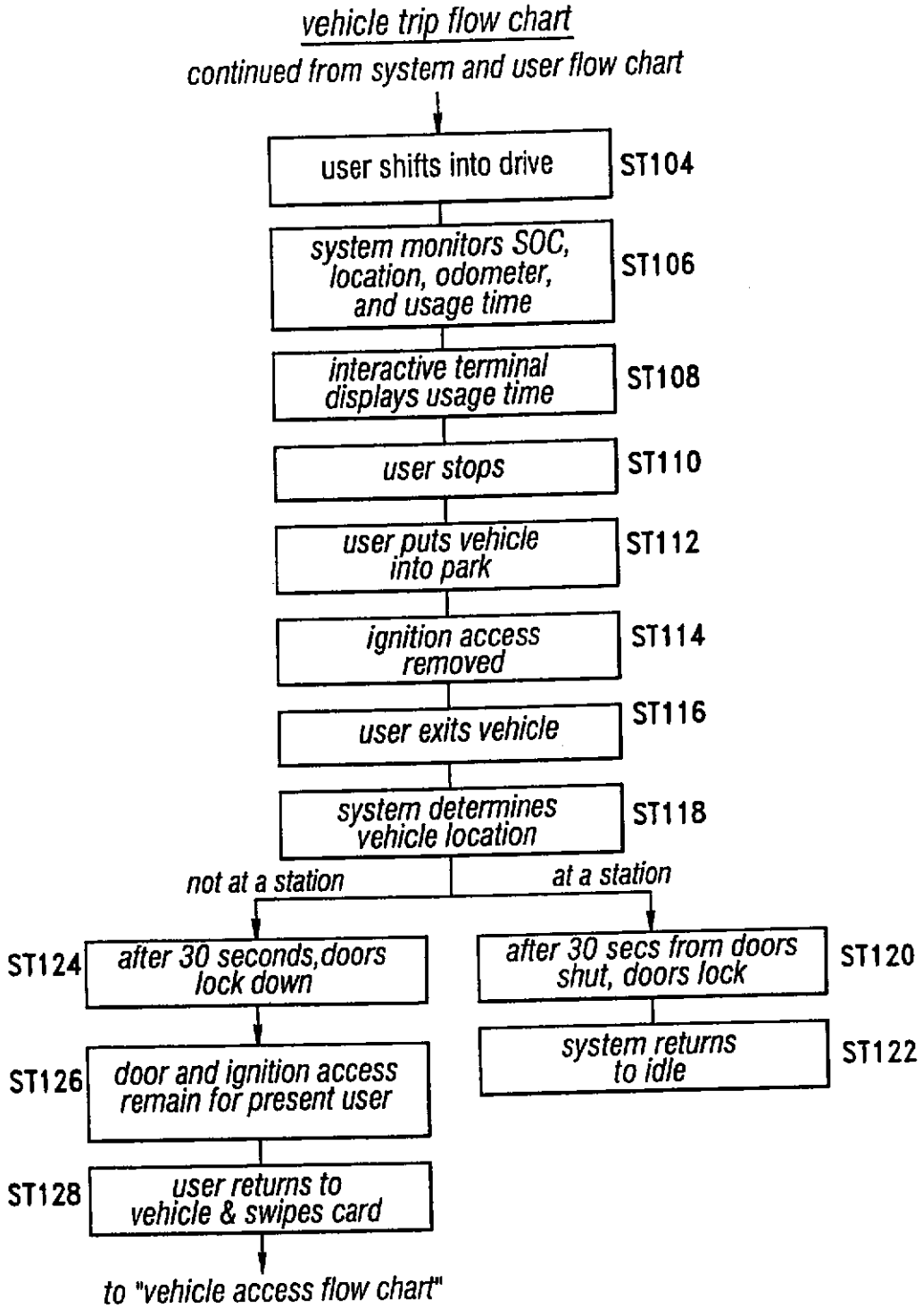

vehicle access flow chart
continued from registration flow chart
user must swipe card at a vehicle within 5 min of accepting vehicle
ST62
if yes
if no
user swipes card
ST68
ST64
user ID disabled on vehicle
card ID compared with ID stored in memory
ST70
ST66
vehicle is available for next user
if no match
if match
ST72
ST74
user denied access at vehicle
user allowed access
5 min counter stops
ST76
doors unlock
ST78
PIN 5 tries counter starts
ST80
200 sec PIN enter counter starts
ST82
user enters vehicle and closes door
ST84
ST100
ST86
user enters correct PIN into display
user does not enter correct PIN into display in <200 sec
ST88
user does not enter correct PIN into display in < 5 tries
ST102
engine engaged
system cancels users vehicle request
ST90
continued on vehicle trip flow chart
error message shown on interactive display
ST92
user leaves
ST94
doors lock
ST96
system returns to idle
ST98

Fig. 4


vehicle trip flow chart
continued from system and user flow chart
user shifts into drive
ST104
system monitors SOC, location, odometer, and usage time
ST106
interactive terminal displays usage time
ST108
user stops
ST110
user puts vehicle into park
ST112
ignition access removed
ST114
user exits vehicle
ST116
system determines vehicle location
ST118
not at a station
at a station
ST124
after 30 seconds, doors lock down
ST126
door and ignition access remain for present user
ST128
user returns to vehicle & swipes card
to "vehicle access flow chart"
after 30 secs from doors shut, doors lock
ST120
system returns to idle
ST122

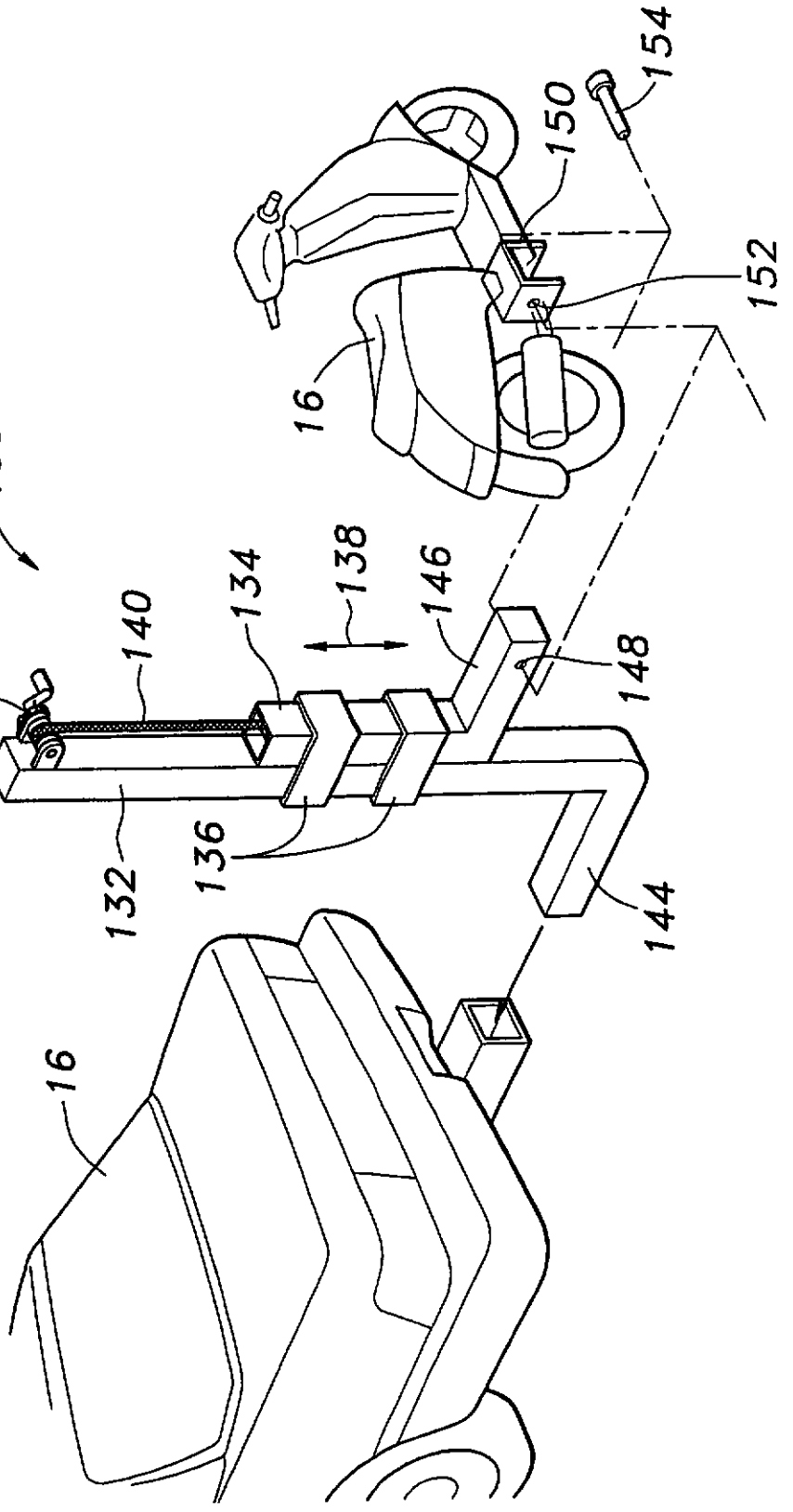



Fig. 5

Fig. 6

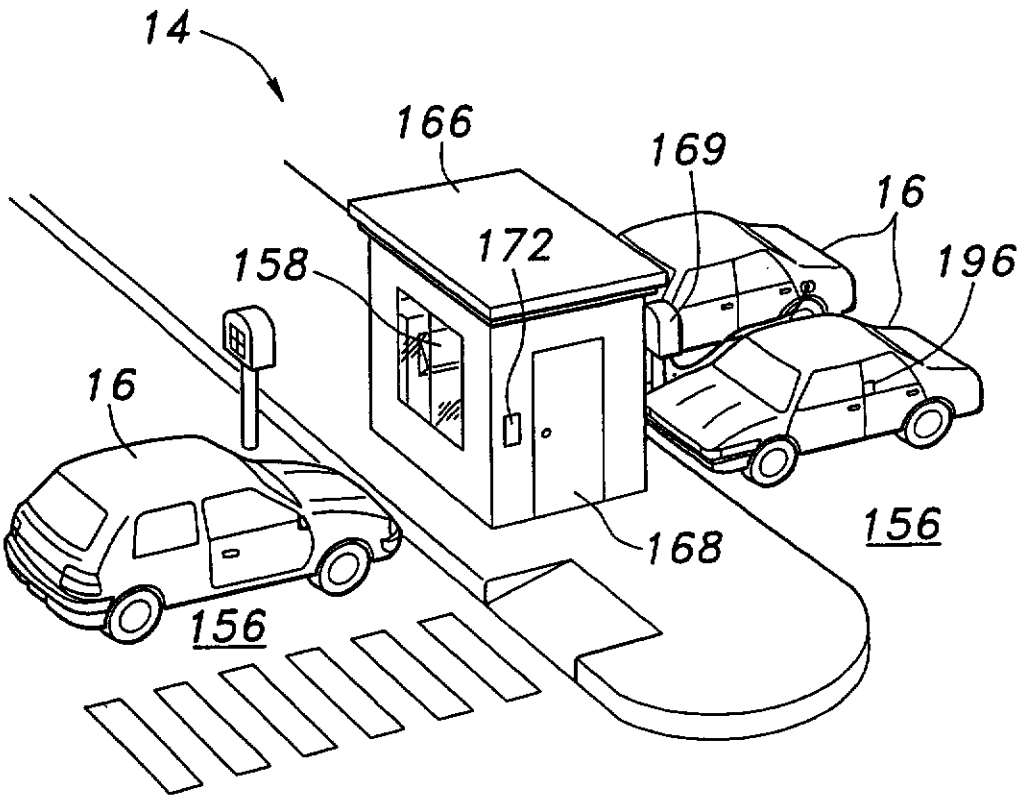

14
166
169
16
172
158
196
16
168
156
156

Fig. 7

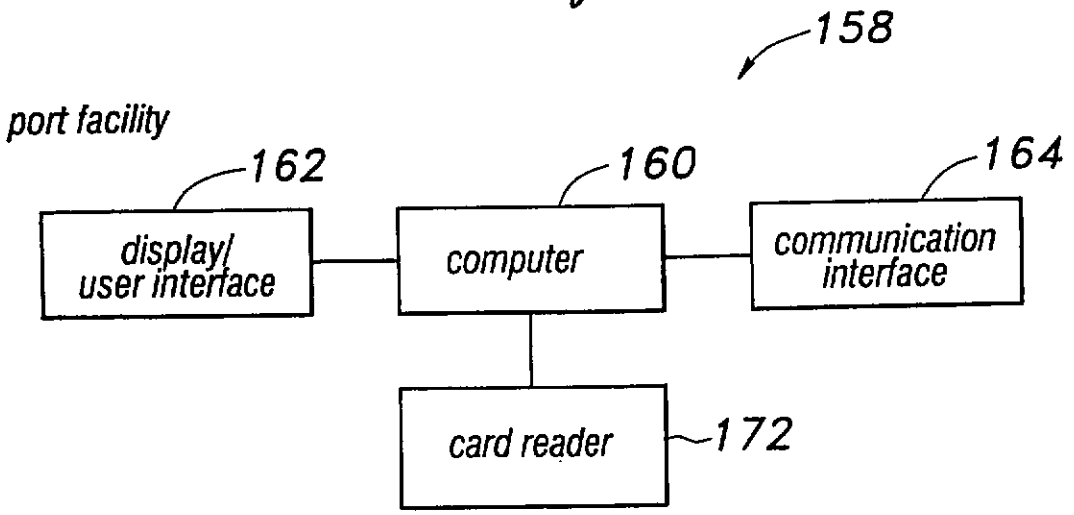

158
port facility
162
160
164
display/ user interface
computer
communication interface
card reader
172

*Fig. 8*

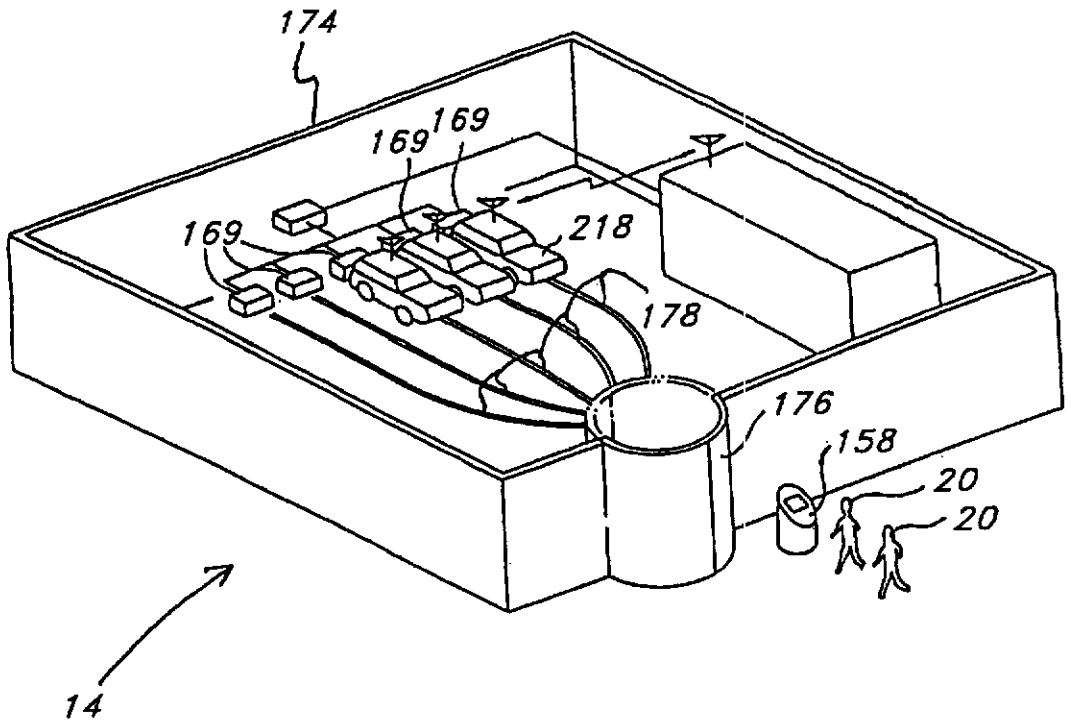


Fig. 9

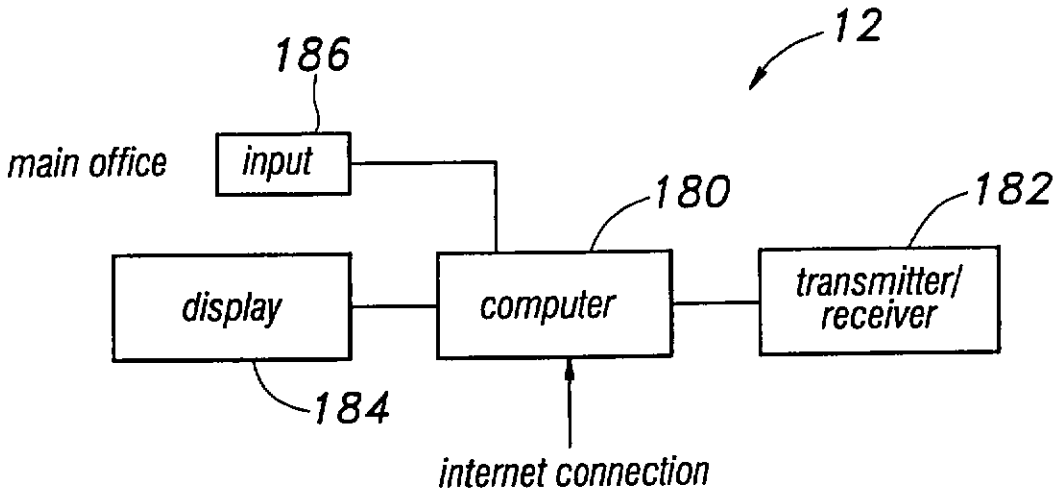

12
186
main office
input
180
182
display
computer
transmitter/
receiver
184
internet connection

Fig. 10

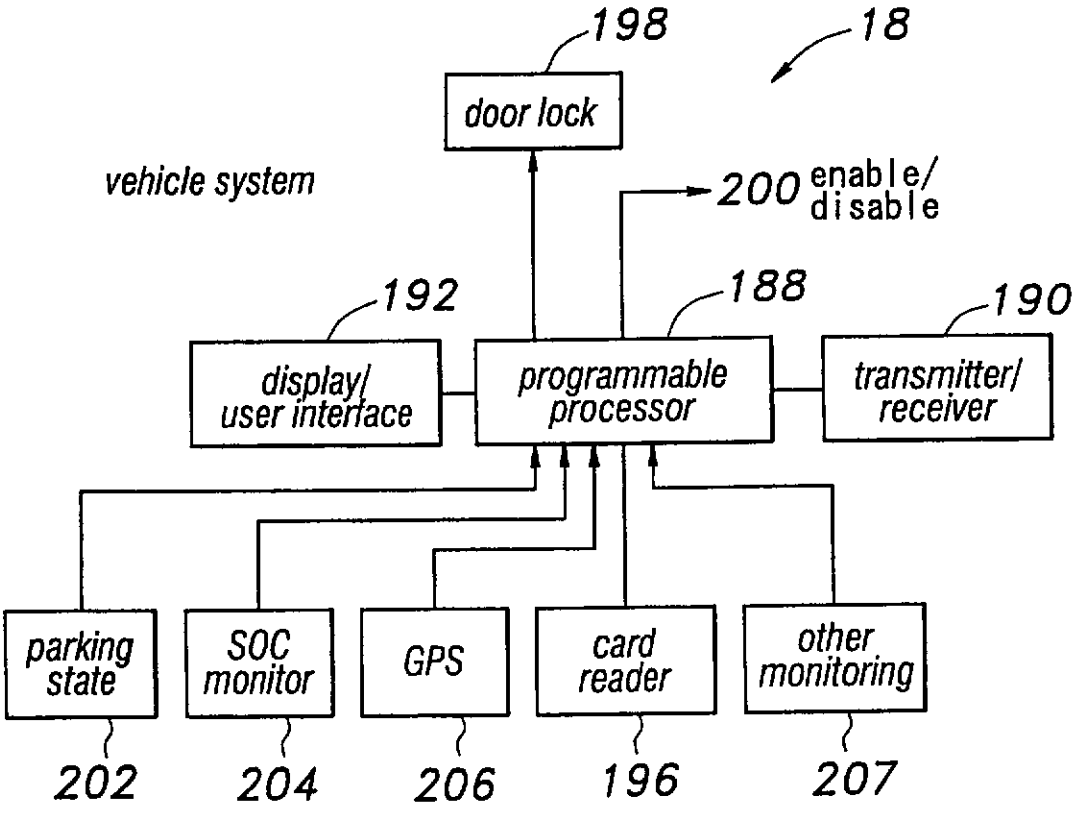

198
18
door lock
vehicle system
200 enable/
disable
192
188
190
display/
user interface
programmable
processor
transmitter/
receiver
parking
state
SOC
monitor
GPS
card
reader
other
monitoring
202
204
206
196
207

Fig. 11

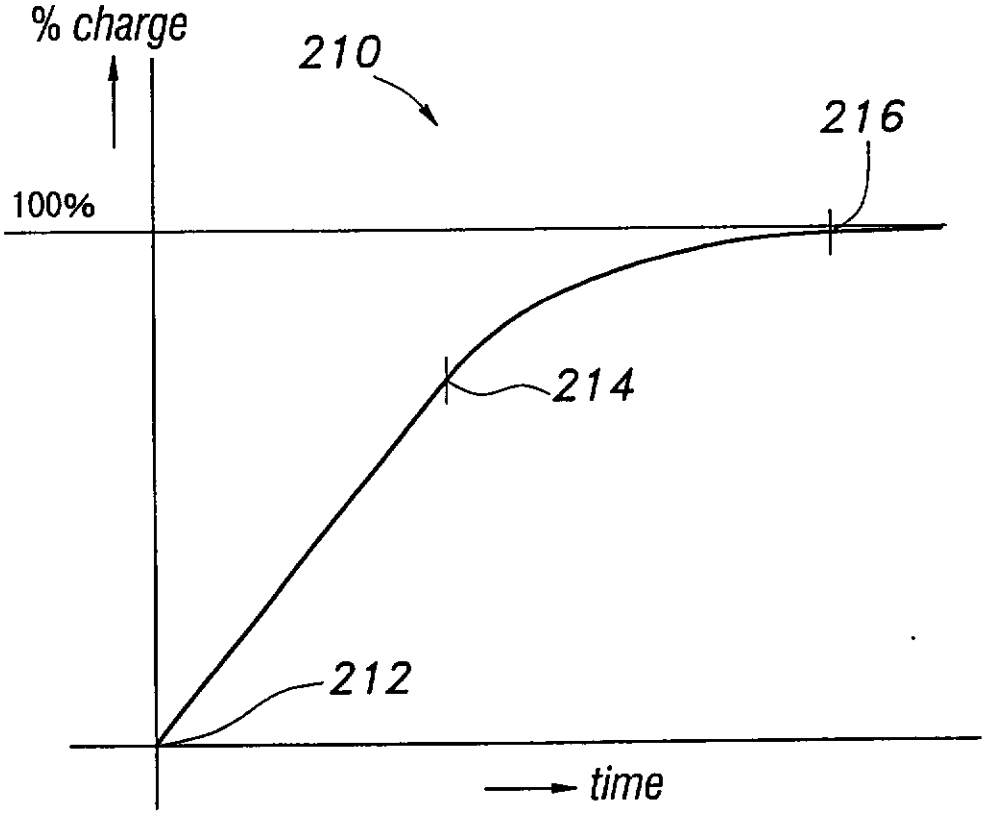


Fig. 12

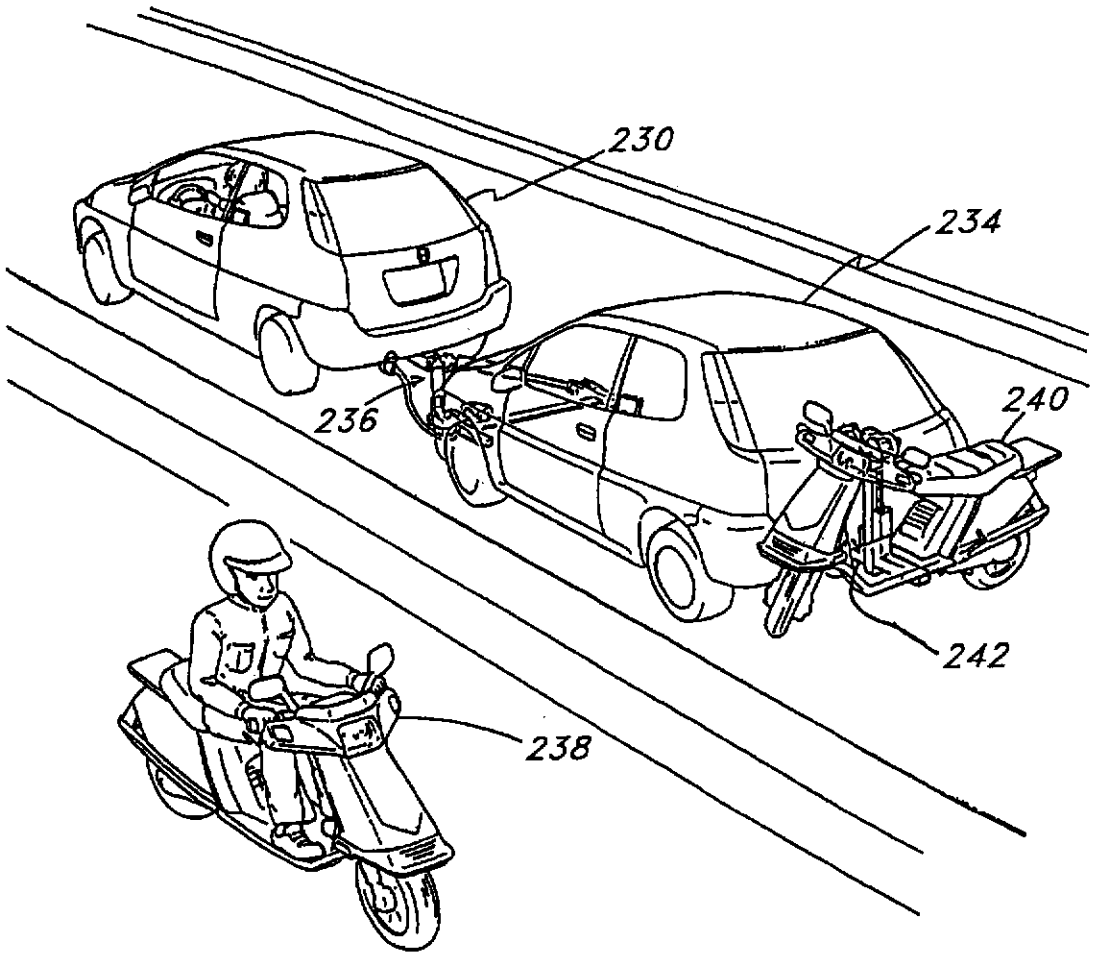


Fig. 13

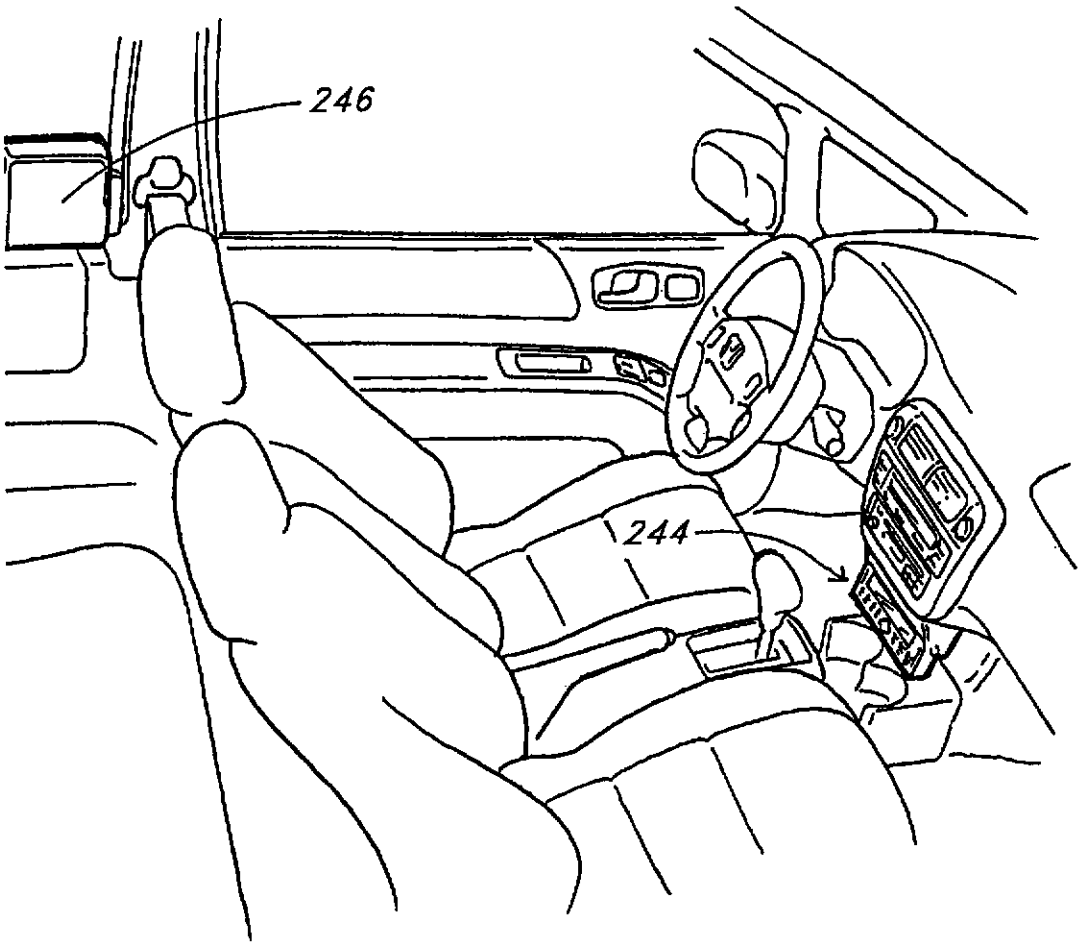


Fig. 14

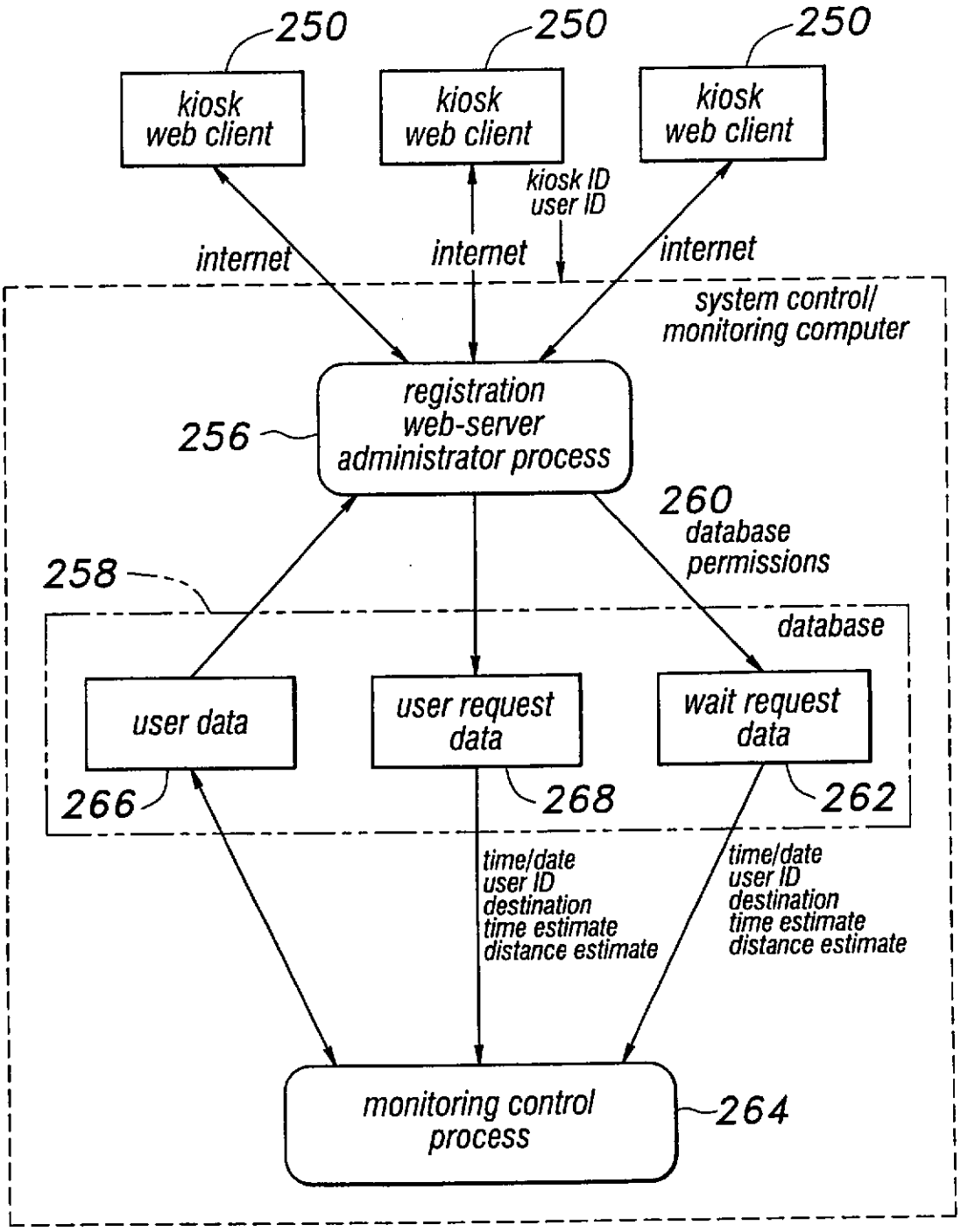
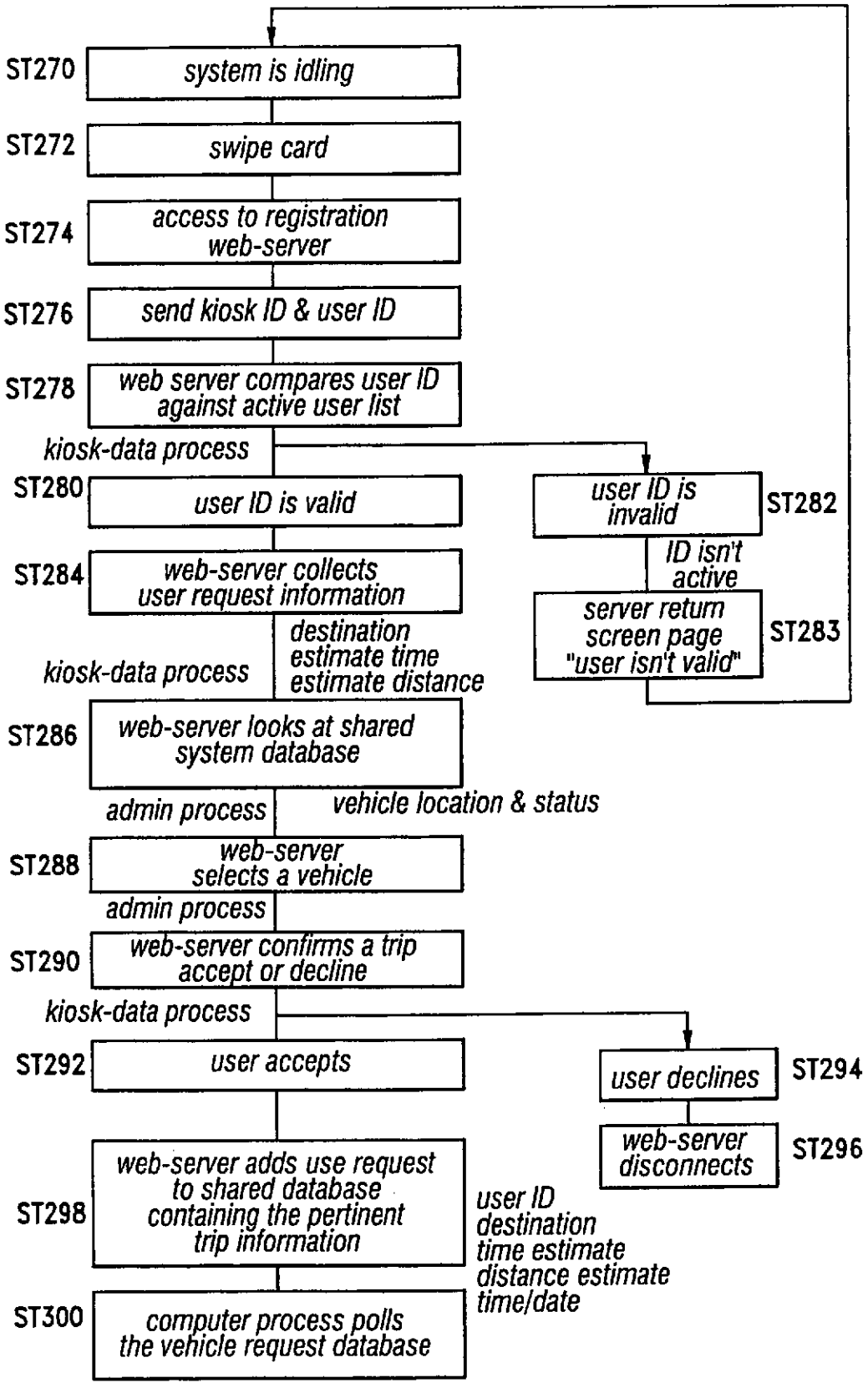

250
250
250
kiosk web client
kiosk web client
kiosk web client
kiosk ID
user ID
internet
internet
internet
system control/ monitoring computer
registration web-server administrator process
256
260
database permissions
258
database
user data
user request data
wait request data
266
268
262
time/date
user ID
destination
time estimate
distance estimate
time/date
user ID
destination
time estimate
distance estimate
monitoring control process
264

Fig. 15


ST270
system is idling
ST272
swipe card
ST274
access to registration web-server
ST276
send kiosk ID & user ID
ST278
web server compares user ID against active user list
kiosk-data process
ST280
user ID is valid
user ID is invalid
ST282
ID isn't active
server return screen page "user isn't valid"
ST283
ST284
web-server collects user request information
kiosk-data process
destination
estimate time
estimate distance
ST286
web-server looks at shared system database
admin process
vehicle location & status
ST288
web-server selects a vehicle
admin process
ST290
web-server confirms a trip accept or decline
kiosk-data process
ST292
user accepts
user declines
ST294
web-server disconnects
ST296
ST298
web-server adds use request to shared database containing the pertinent trip information
user ID
destination
time estimate
distance estimate
time/date
ST300
computer process polls the vehicle request database