FIG. 1

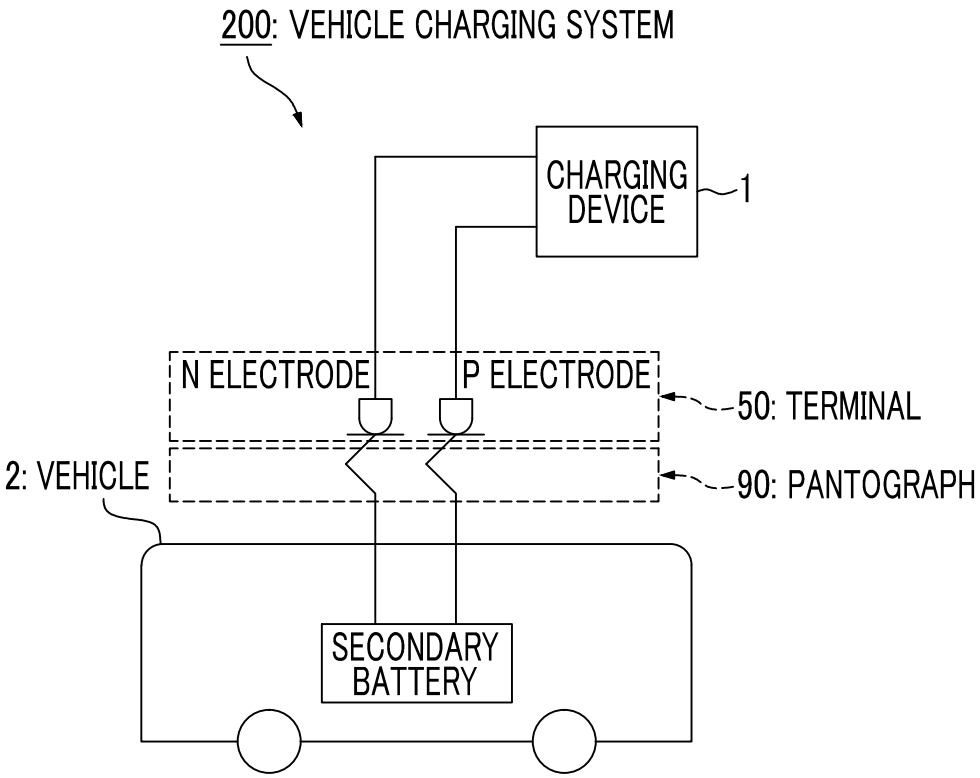

200: VEHICLE CHARGING SYSTEM
CHARGING DEVICE
1
N ELECTRODE
P ELECTRODE
50: TERMINAL
2: VEHICLE
90: PANTOGRAPH
SECONDARY BATTERY

FIG. 2

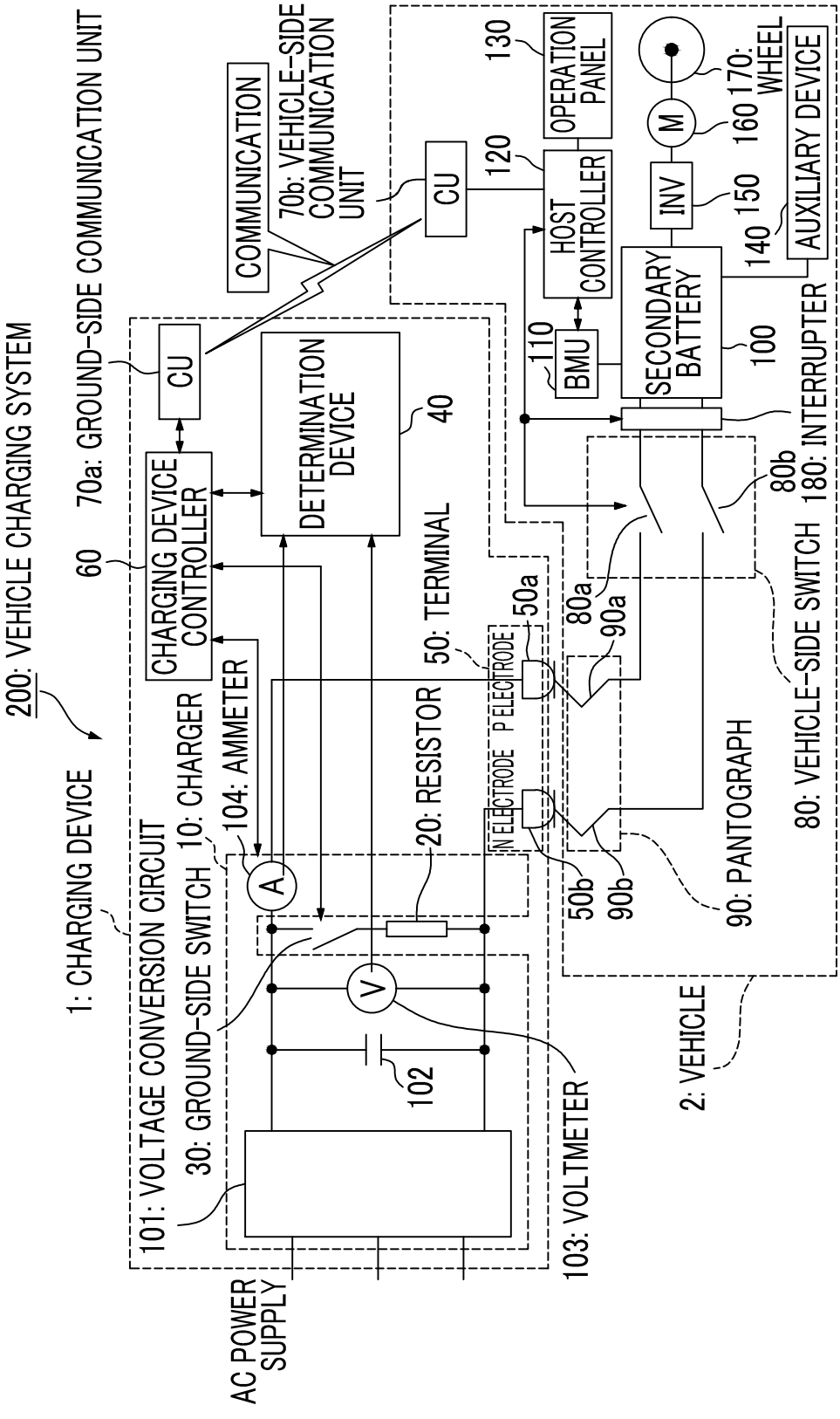

200: VEHICLE CHARGING SYSTEM
1: CHARGING DEVICE
101: VOLTAGE CONVERSION CIRCUIT
30: GROUND-SIDE SWITCH
10: CHARGER
104: AMMETER
20: RESISTOR
102
103: VOLTMETER
AC POWER SUPPLY
60
CHARGING DEVICE CONTROLLER
CU
70a: GROUND-SIDE COMMUNICATION UNIT
COMMUNICATION
70b: VEHICLE-SIDE COMMUNICATION UNIT
DETERMINATION DEVICE
40
50: TERMINAL
P ELECTRODE
N ELECTRODE
50a
50b
2: VEHICLE
CU
120
130
OPERATION PANEL
HOST CONTROLLER
110
BMU
SECONDARY BATTERY
100
INV
150
M
160
170: WHEEL
140
AUXILIARY DEVICE
80a
90a
80b
90b
90: PANTOGRAPH
80: VEHICLE-SIDE SWITCH
180: INTERRUPTER

FIG. 3

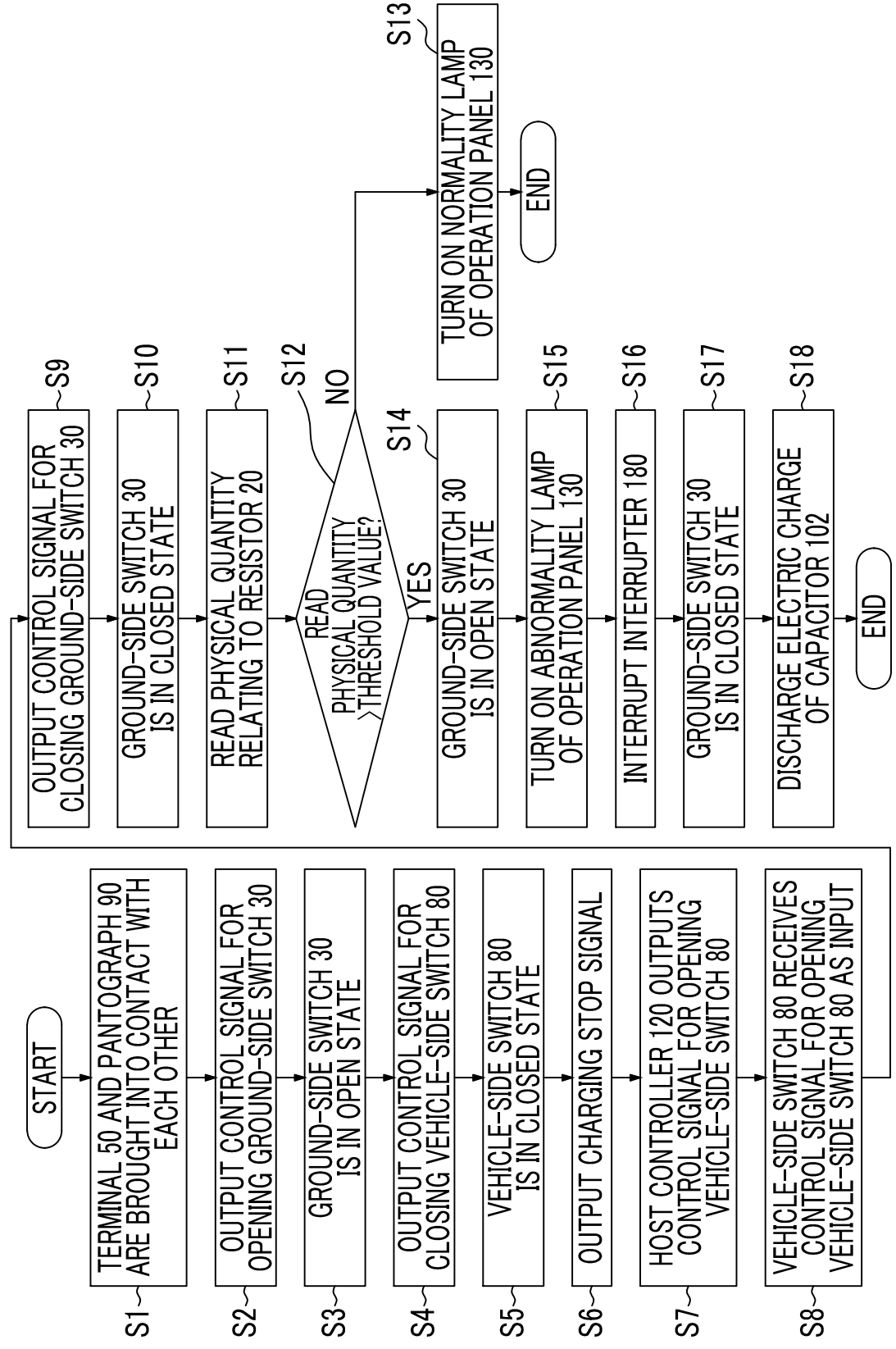
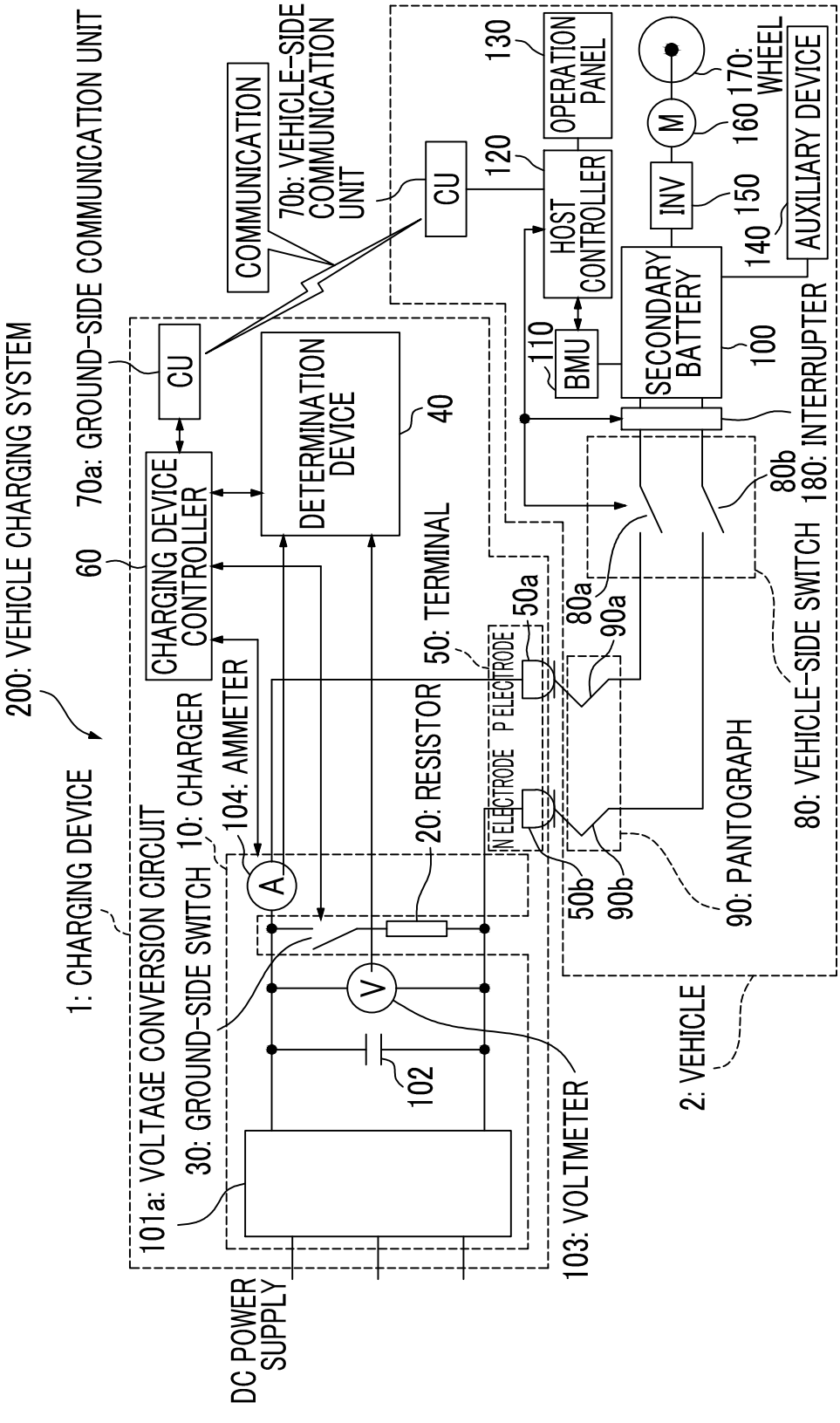

START
TERMINAL 50 AND PANTOGRAPH 90 ARE BROUGHT INTO CONTACT WITH EACH OTHER
S1
OUTPUT CONTROL SIGNAL FOR OPENING GROUND-SIDE SWITCH 30
S2
GROUND-SIDE SWITCH 30 IS IN OPEN STATE
S3
OUTPUT CONTROL SIGNAL FOR CLOSING VEHICLE-SIDE SWITCH 80
S4
VEHICLE-SIDE SWITCH 80 IS IN CLOSED STATE
S5
OUTPUT CHARGING STOP SIGNAL
S6
HOST CONTROLLER 120 OUTPUTS CONTROL SIGNAL FOR OPENING VEHICLE-SIDE SWITCH 80
S7
VEHICLE-SIDE SWITCH 80 RECEIVES CONTROL SIGNAL FOR OPENING VEHICLE-SIDE SWITCH 80 AS INPUT
S8
OUTPUT CONTROL SIGNAL FOR CLOSING GROUND-SIDE SWITCH 30
S9
GROUND-SIDE SWITCH 30 IS IN CLOSED STATE
S10
READ PHYSICAL QUANTITY RELATING TO RESISTOR 20
S11
READ PHYSICAL QUANTITY >THRESHOLD VALUE?
S12
NO
YES
S13
TURN ON NORMALITY LAMP OF OPERATION PANEL 130
END
S14
GROUND-SIDE SWITCH 30 IS IN OPEN STATE
S15
TURN ON ABNORMALITY LAMP OF OPERATION PANEL 130
S16
INTERRUPT INTERRUPTER 180
S17
GROUND-SIDE SWITCH 30 IS IN CLOSED STATE
S18
DISCHARGE ELECTRIC CHARGE OF CAPACITOR 102
END

FIG. 4


200: VEHICLE CHARGING SYSTEM
1: CHARGING DEVICE
101a: VOLTAGE CONVERSION CIRCUIT
30: GROUND-SIDE SWITCH
10: CHARGER
104: AMMETER
20: RESISTOR
102
103: VOLTMETER
DC POWER SUPPLY
60
CHARGING DEVICE CONTROLLER
CU
70a: GROUND-SIDE COMMUNICATION UNIT
COMMUNICATION
70b: VEHICLE-SIDE COMMUNICATION UNIT
DETERMINATION DEVICE
40
50: TERMINAL
P ELECTRODE
N ELECTRODE
50a
50b
2: VEHICLE
CU
120
130
OPERATION PANEL
HOST CONTROLLER
110
BMU
SECONDARY BATTERY
100
INV
150
M
160
170: WHEEL
140
AUXILIARY DEVICE
80a
90a
80b
180: INTERRUPTER
90b
90: PANTOGRAPH
80: VEHICLE-SIDE SWITCH