FIG. 1A

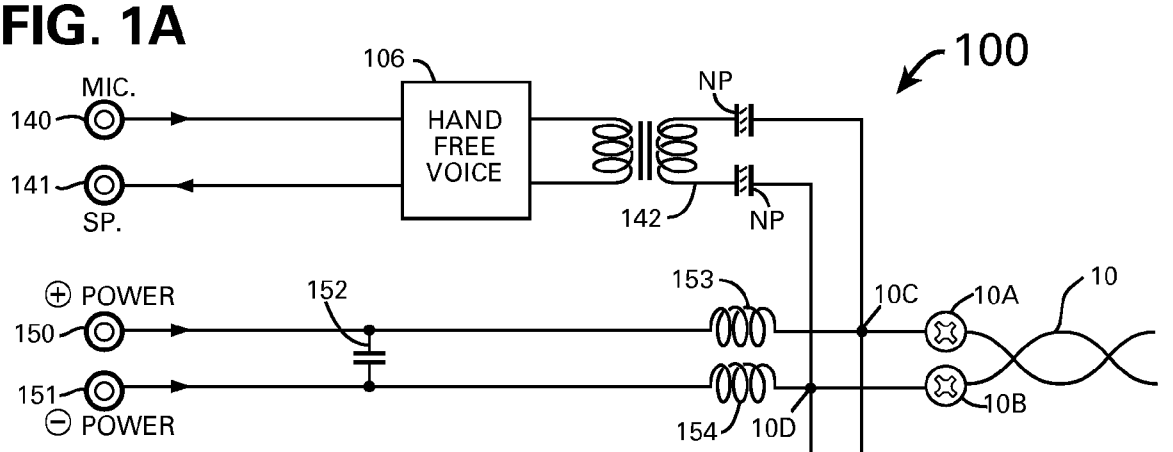

100
106
HAND FREE VOICE
MIC.
140
141
SP.
NP
142
NP
⊕ POWER
150
151
⊖ POWER
152
153
154
10C
10A
10B
10
10D

FIG. 1B

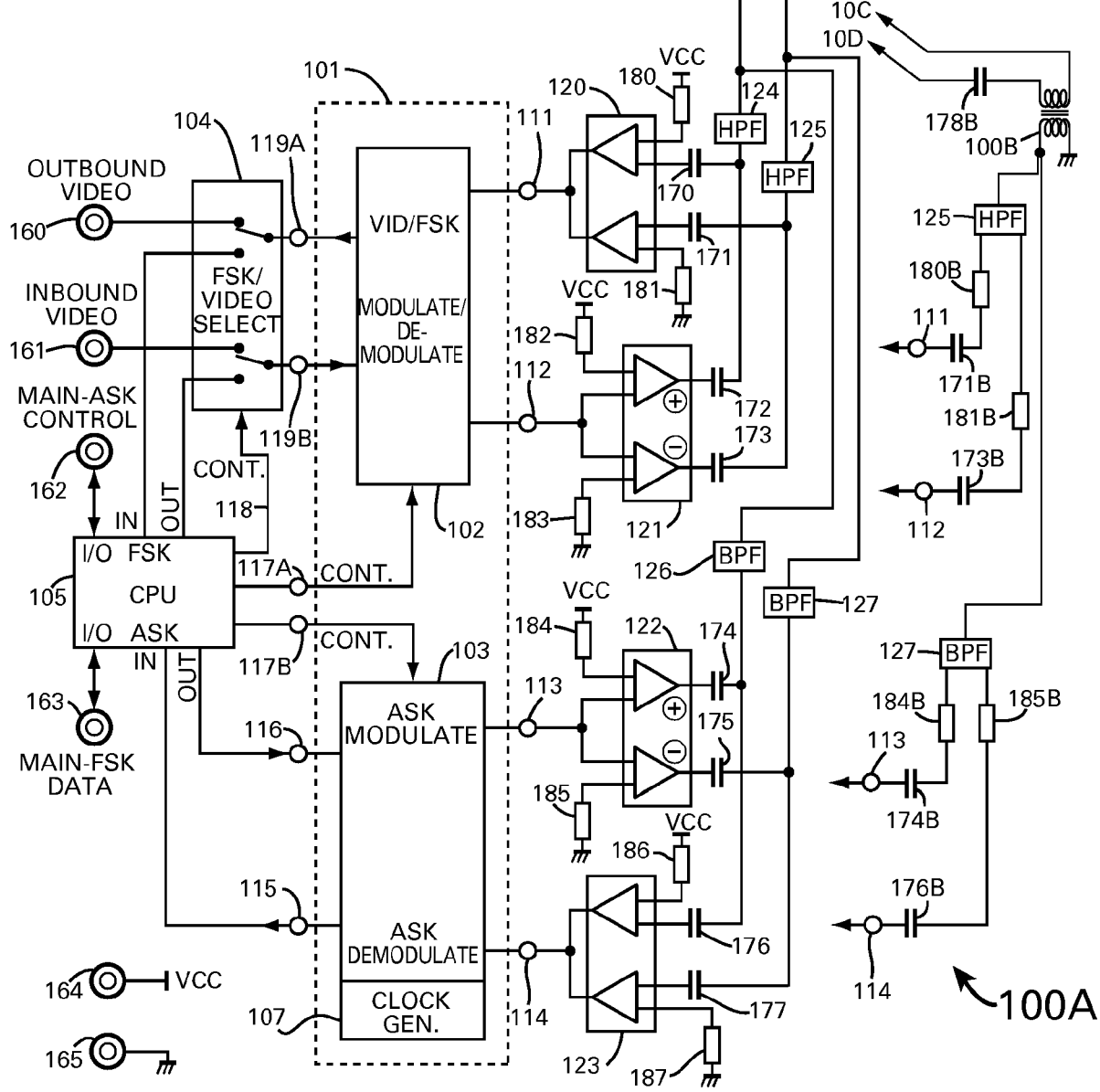

101
104
119A
OUTBOUND VIDEO
160
INBOUND VIDEO
161
MAIN-ASK CONTROL
162
FSK/ VIDEO SELECT
119B
CONT.
118
VID/FSK MODULATE/ DE-MODULATE
102
111
112
I/O FSK
CPU
I/O ASK
105
IN
OUT
117A
117B
CONT.
103
ASK MODULATE
116
115
ASK DEMODULATE
CLOCK GEN.
107
163
MAIN-FSK DATA
164
VCC
165
114
120
180
VCC
124
HPF
125
170
171
181
182
172
173
183
121
126
BPF
127
184
122
174
175
185
186
176
177
123
187
178B
100B
180B
171B
181B
173B
184B
185B
174B
176B
100A

FIG. 2A

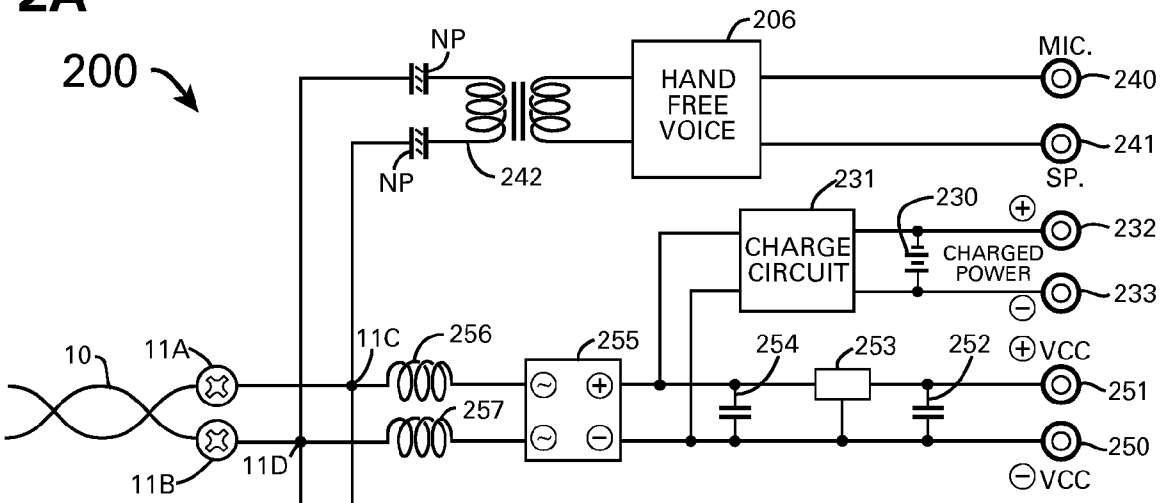

200
NP
NP
242
206
HAND FREE VOICE
MIC.
240
241
SP.
231
230
CHARGE CIRCUIT
CHARGED POWER
232
233
10
11A
11B
11C
11D
256
257
255
254
253
252
VCC
251
250
VCC

FIG. 2B

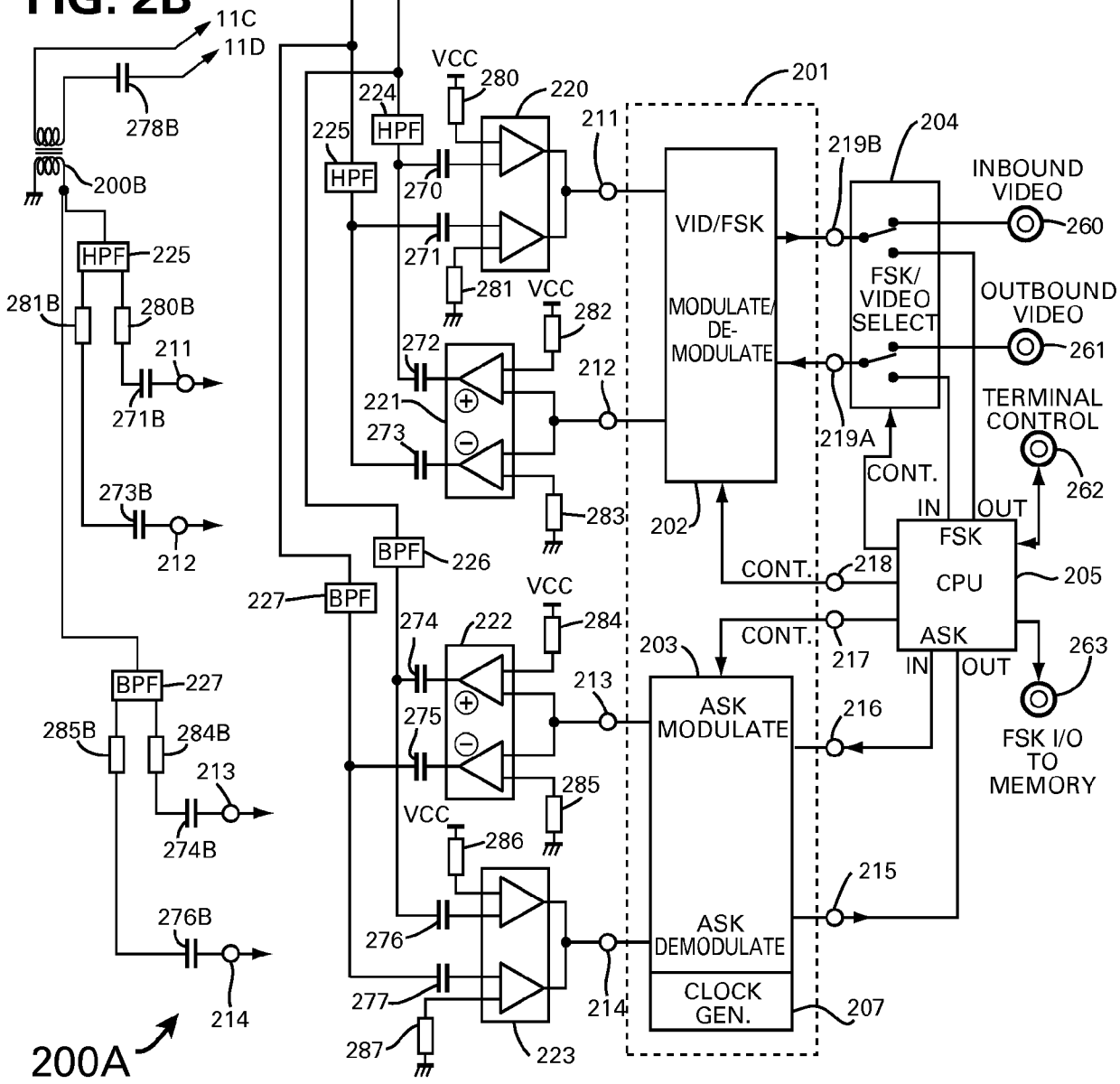

11C
11D
278B
200B
HPF
225
281B
280B
211
271B
273B
212
BPF
227
285B
284B
213
274B
276B
214
200A
VCC
280
224
HPF
225
270
271
220
281
VCC
282
272
221
273
212
283
BPF
226
227
BPF
VCC
284
274
222
275
213
285
VCC
286
276
277
287
223
201
211
VID/FSK
MODULATE/ DE-MODULATE
202
203
ASK MODULATE
ASK DEMODULATE
CLOCK GEN.
207
214
219B
204
219A
INBOUND VIDEO
260
OUTBOUND VIDEO
261
FSK/ VIDEO SELECT
TERMINAL CONTROL
262
CONT.
IN
OUT
FSK CPU
205
218
CONT.
217
CONT.
ASK
IN
OUT
263
FSK I/O TO MEMORY
216
215

FIG. 3A

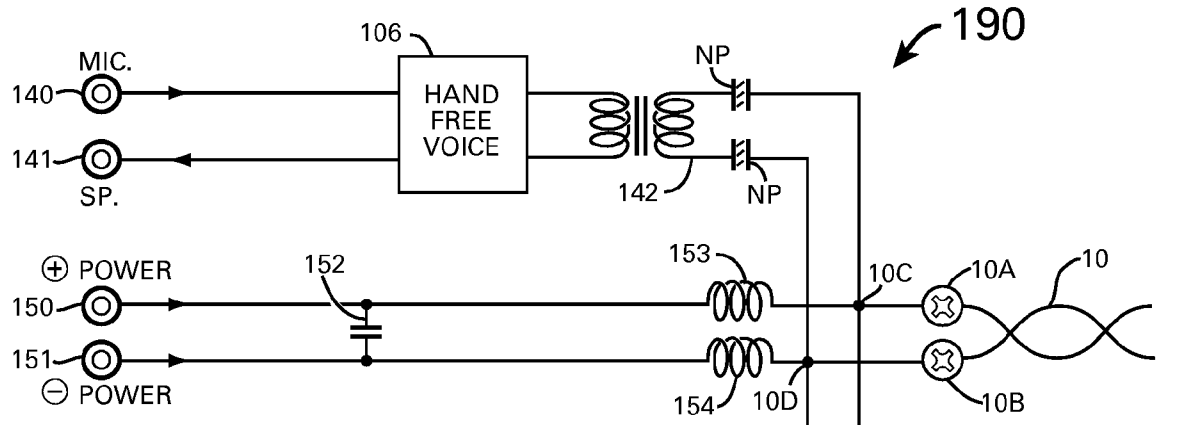

190
106
MIC.
140
141
SP.
HAND FREE VOICE
NP
142
NP
⊕ POWER
150
151
⊖ POWER
152
153
154
10C
10A
10
10D
10B

FIG. 3B

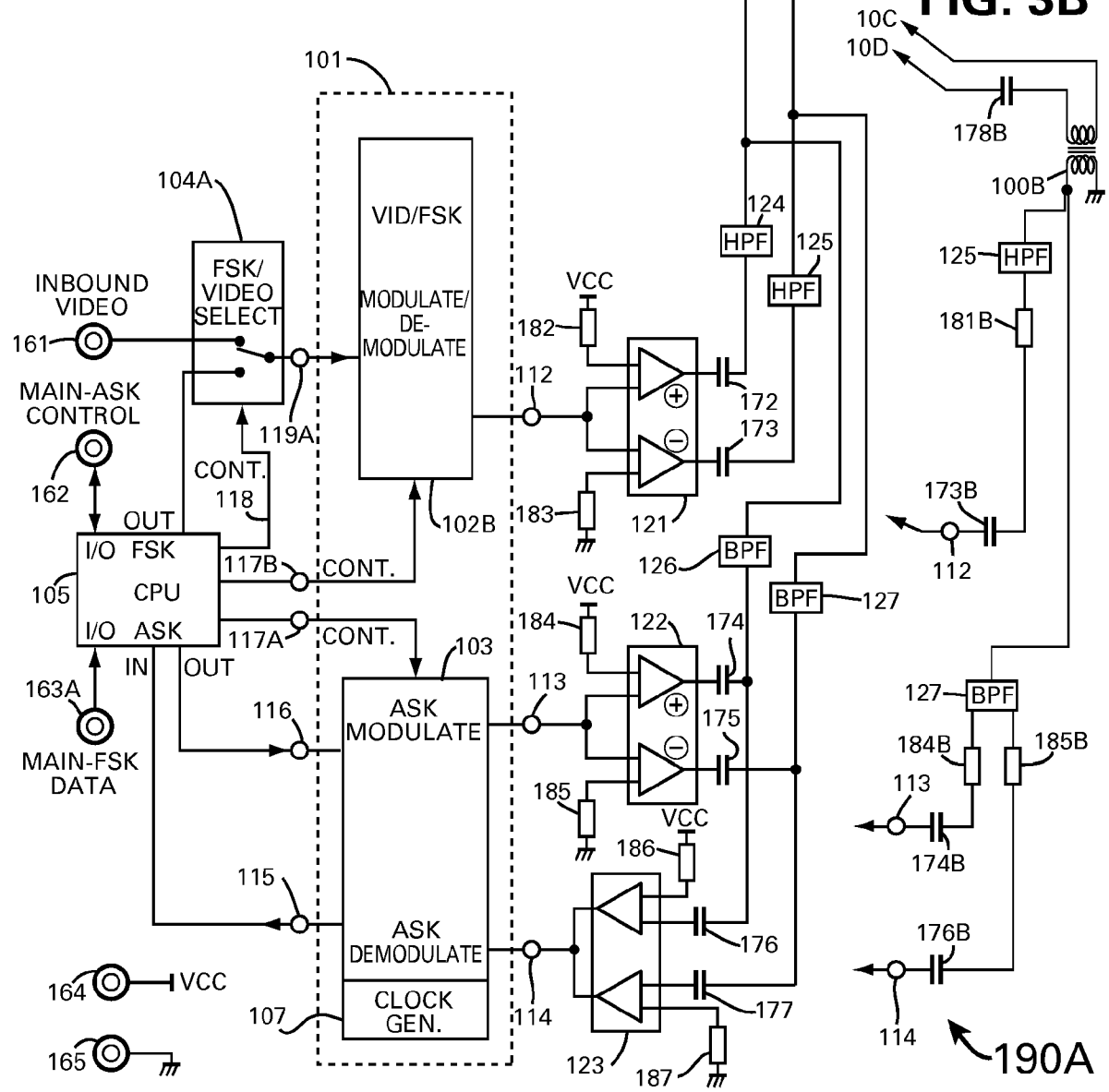

101
104A
FSK/ VIDEO SELECT
INBOUND VIDEO
161
MAIN-ASK CONTROL
162
119A
CONT. 118
OUT
I/O FSK
CPU
I/O ASK
IN
OUT
105
117B
117A
CONT.
CONT.
VID/FSK MODULATE/ DE-MODULATE
102B
103
ASK MODULATE
ASK DEMODULATE
CLOCK GEN.
107
163A
MAIN-FSK DATA
116
115
164
VCC
165
112
114
VCC
182
183
121
172
173
124
HPF
125
HPF
126
BPF
127
BPF
VCC
184
122
174
113
175
185
VCC
186
176
177
123
187
10C
10D
178B
100B
125
HPF
181B
173B
112
127
BPF
184B
185B
113
174B
176B
114
190A

FIG. 4A

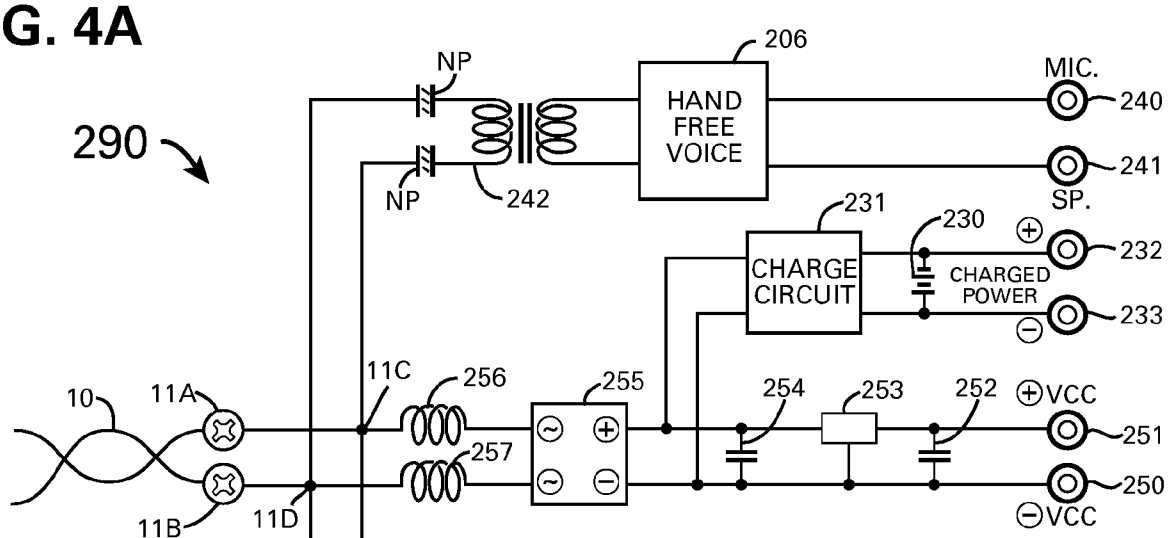

290
NP
NP
242
206
HAND FREE VOICE
MIC.
240
241
SP.
231
230
CHARGE CIRCUIT
CHARGED POWER
232
233
10
11A
11B
11C
11D
256
257
255
254
253
252
VCC
251
250
VCC

FIG. 4B

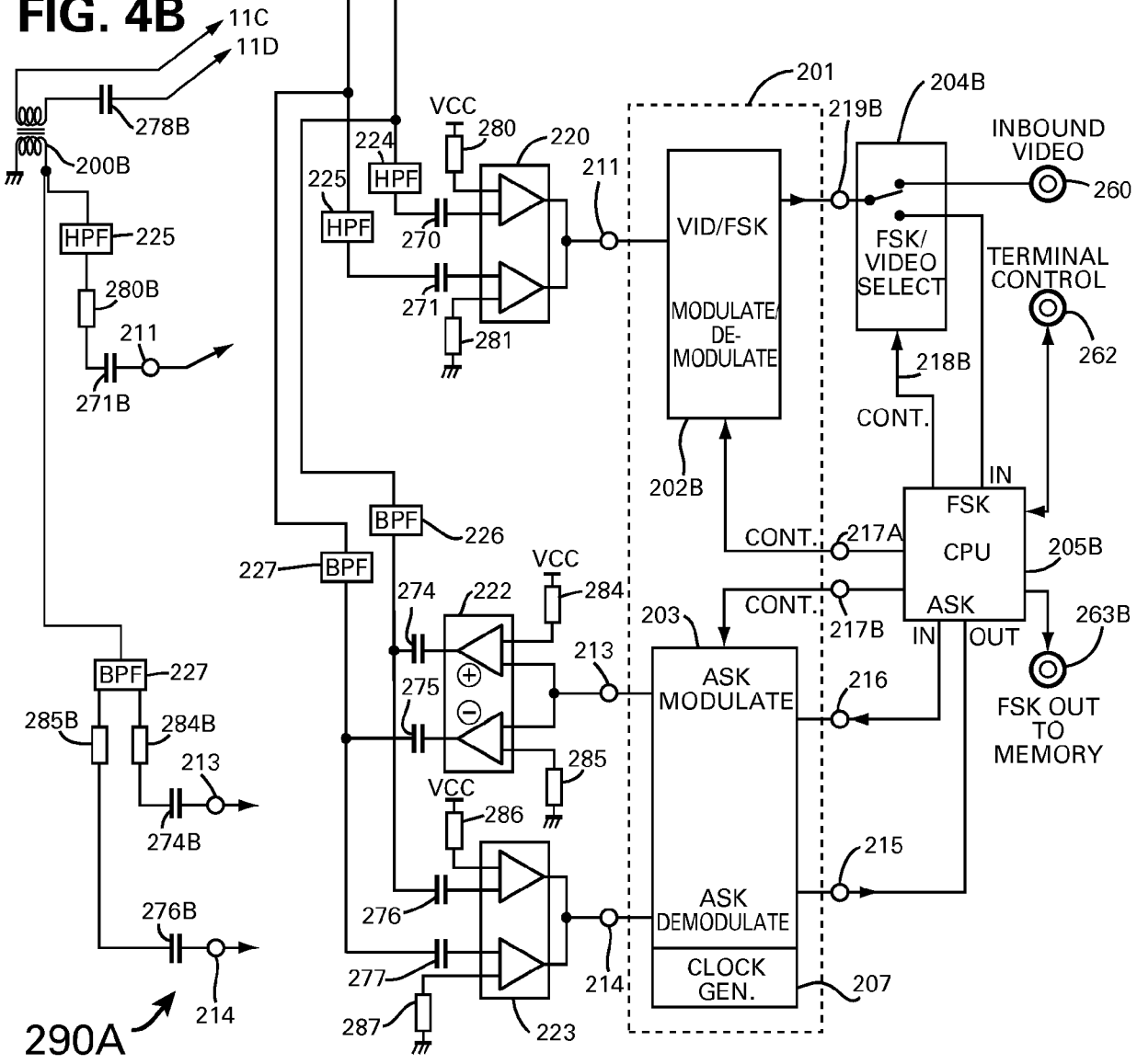

11C
11D
278B
200B
HPF
225
280B
211
271B
224
HPF
225
HPF
VCC
280
220
270
271
281
211
201
VID/FSK
MODULATE/ DE-MODULATE
202B
219B
204B
INBOUND VIDEO
260
FSK/ VIDEO SELECT
TERMINAL CONTROL
262
218B
CONT.
IN
FSK CPU
205B
ASK
IN
OUT
263B
FSK OUT TO MEMORY
CONT.
217A
CONT.
217B
BPF
226
227
BPF
VCC
284
274
222
275
213
285
VCC
286
276
277
287
223
214
203
ASK MODULATE
216
215
ASK DEMODULATE
CLOCK GEN.
207
BPF
227
285B
284B
213
274B
276B
214
290A

FIG. 5A

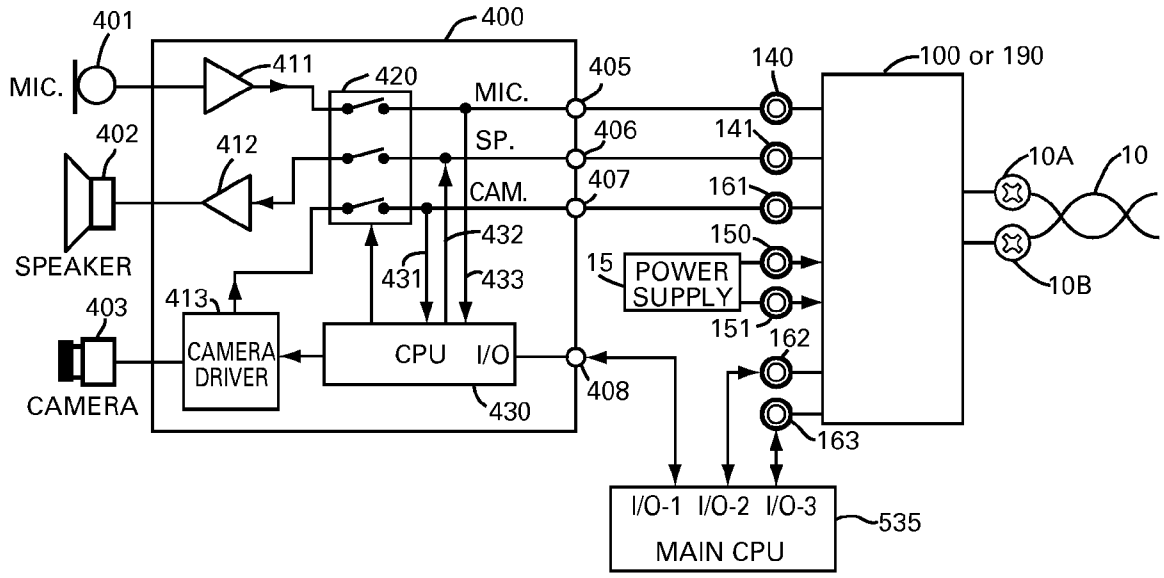

401
400
MIC.
411
420
MIC.
405
140
100 or 190
402
412
SP.
406
141
10A
10
SPEAKER
CAM.
407
161
432
150
15
POWER SUPPLY
431
433
403
413
151
162
CAMERA
CAMERA DRIVER
CPU I/O
408
430
163
10B
I/O-1 I/O-2 I/O-3
535
MAIN CPU

FIG. 5B

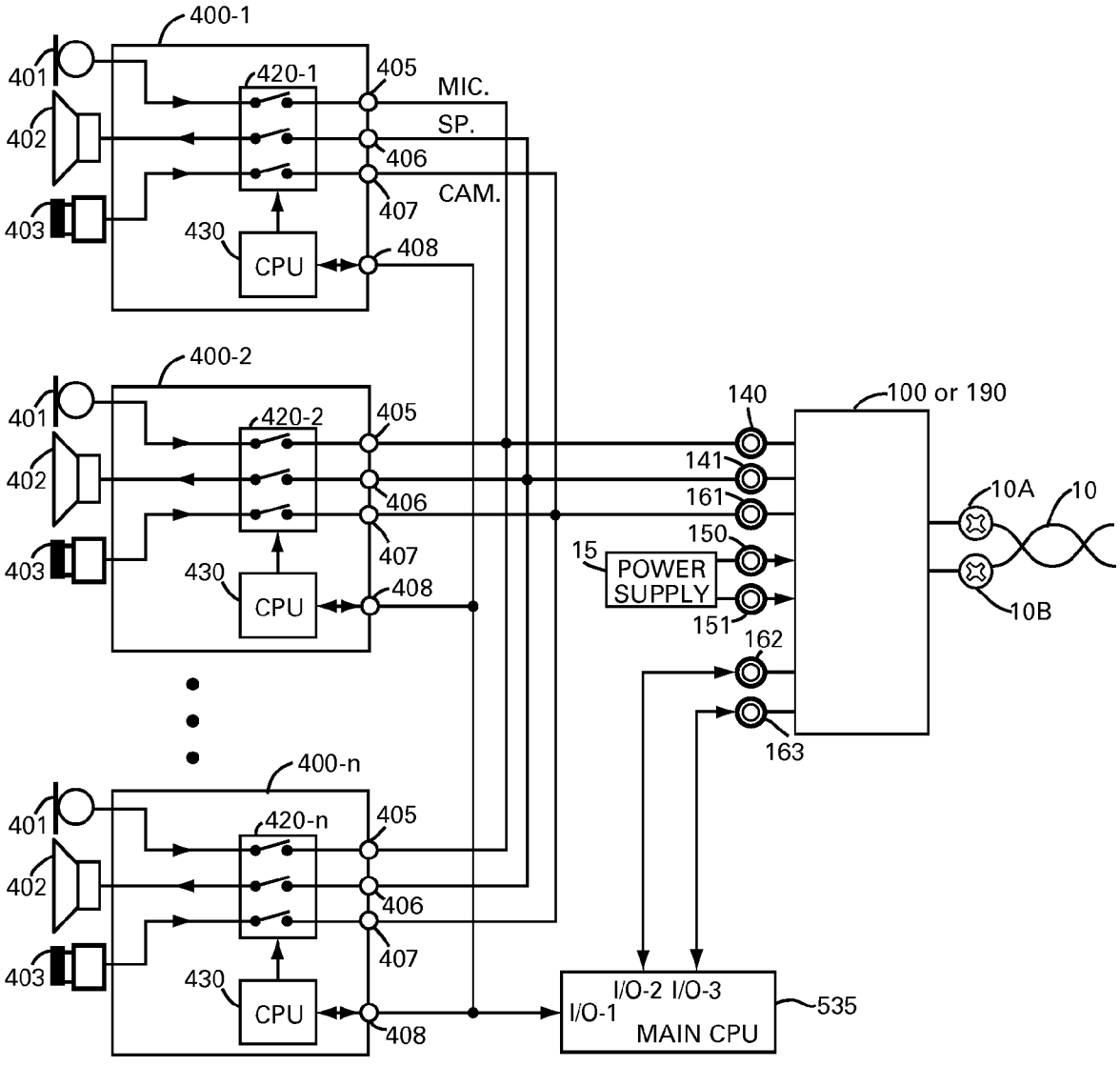

400-1
401
420-1
405
MIC.
402
SP.
406
CAM.
407
403
430
CPU
408
400-2
140
100 or 190
401
420-2
405
141
402
406
161
10A
10
150
15
POWER SUPPLY
403
407
151
430
CPU
408
162
163
10B
400-n
401
420-n
405
402
406
403
407
430
CPU
I/O-2 I/O-3
I/O-1
535
408
MAIN CPU

FIG. 6A

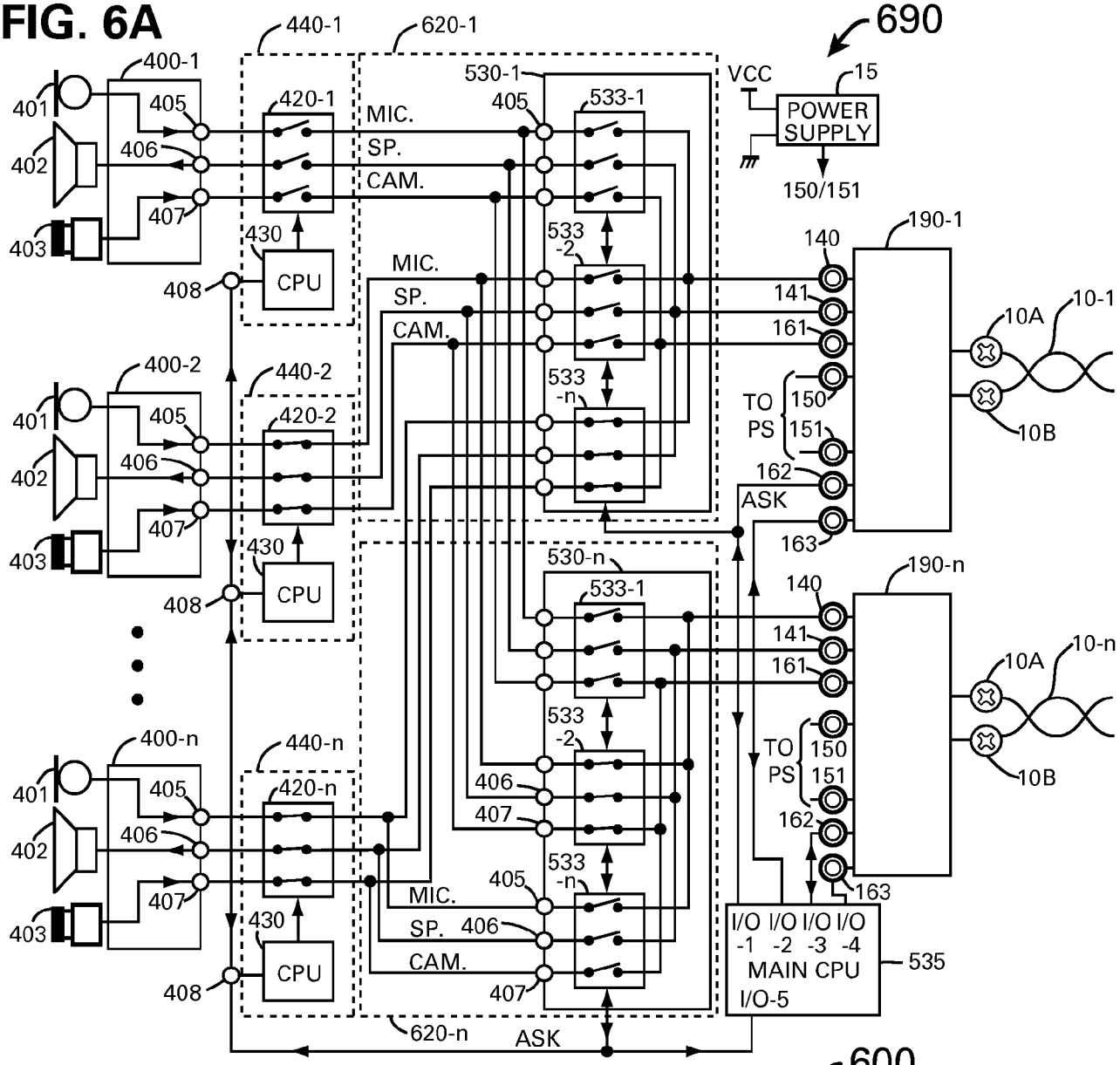

690
440-1
620-1
400-1
401
402
403
405
406
407
420-1
MIC.
SP.
CAM.
530-1
533-1
VCC
15
POWER SUPPLY
150/151
430
CPU
408
533 -2
533 -n
140
190-1
141
161
150
TO PS
151
162
ASK
163
10A
10-1
10B
400-2
440-2
420-2
530-n
190-n
10-n
400-n
440-n
420-n
I/O -1 I/O -2 I/O -3 I/O -4
MAIN CPU I/O-5
535
620-n

FIG. 6B

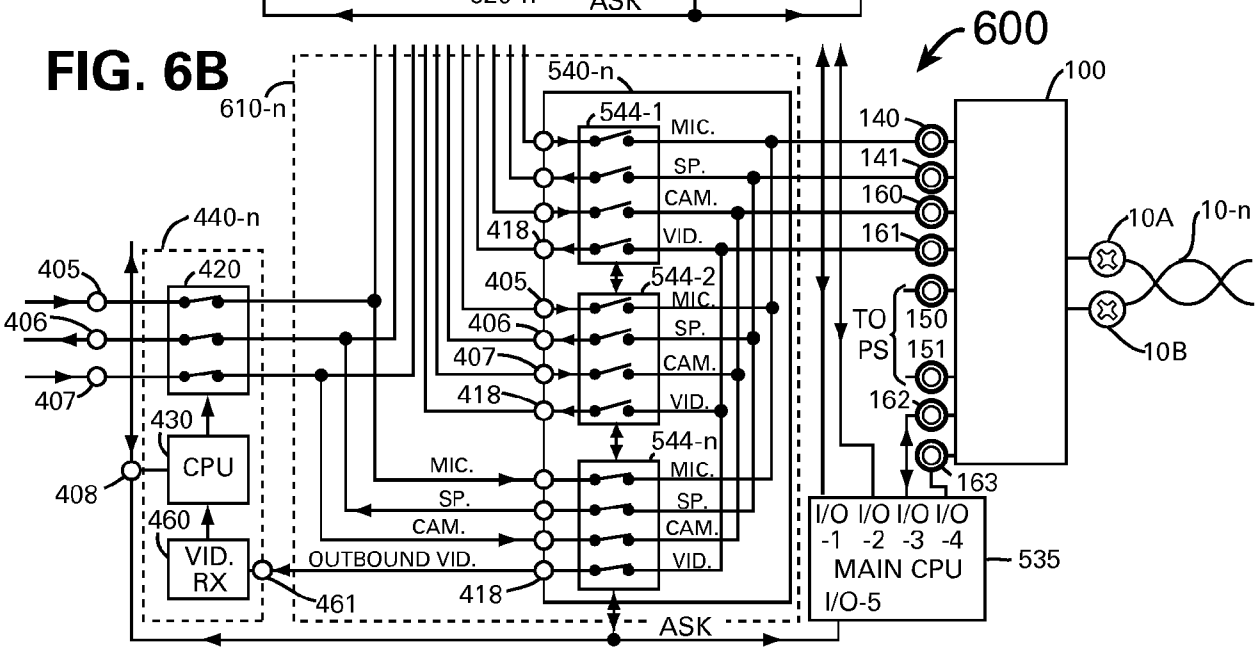

600
100
610-n
540-n
544-1
544-2
544-n
MIC.
SP.
CAM.
VID.
418
440-n
405
406
407
420
430
CPU
408
460
VID. RX
461
OUTBOUND VID.
140
141
160
161
150
TO PS
151
162
163
10A
10-n
10B
I/O -1 I/O -2 I/O -3 I/O -4
MAIN CPU I/O-5
535
ASK

FIG. 7

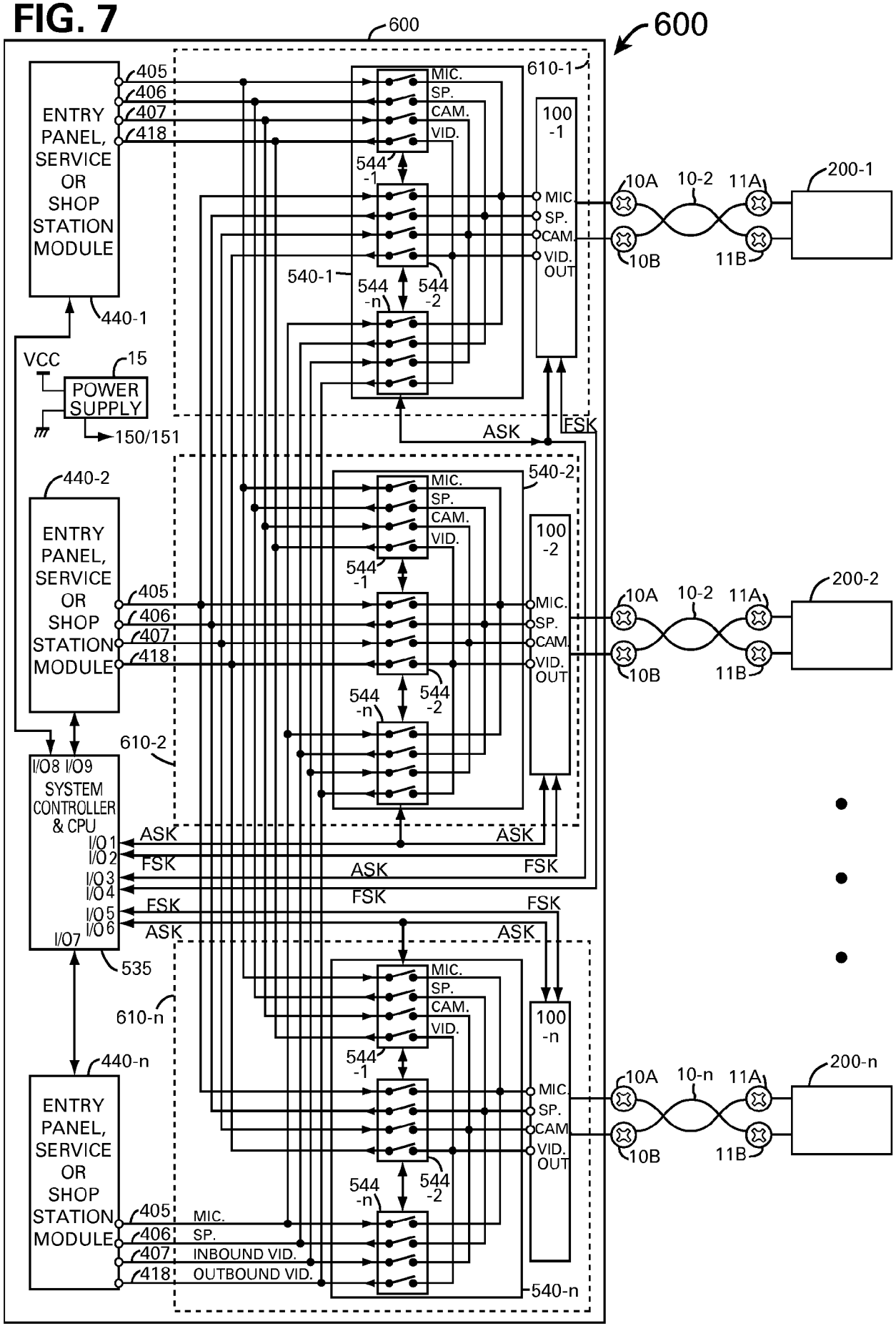

600
600
ENTRY PANEL, SERVICE OR SHOP STATION MODULE
405
406
407
418
440-1
VCC
15
POWER SUPPLY
150/151
610-1
MIC.
SP.
CAM.
VID.
544 -1
544 -n
544 -2
540-1
100 -1
MIC
SP.
CAM.
VID. OUT
10A
10-2
11A
10B
11B
200-1
ASK
FSK
440-2
ENTRY PANEL, SERVICE OR SHOP STATION MODULE
540-2
100 -2
200-2
610-2
I/O8 I/O9 SYSTEM CONTROLLER & CPU
I/O1
I/O2
I/O3
I/O4
I/O5
I/O6
I/O7
535
610-n
440-n
ENTRY PANEL, SERVICE OR SHOP STATION MODULE
100 -n
10-n
200-n
INBOUND VID.
OUTBOUND VID.
540-n

FIG. 8

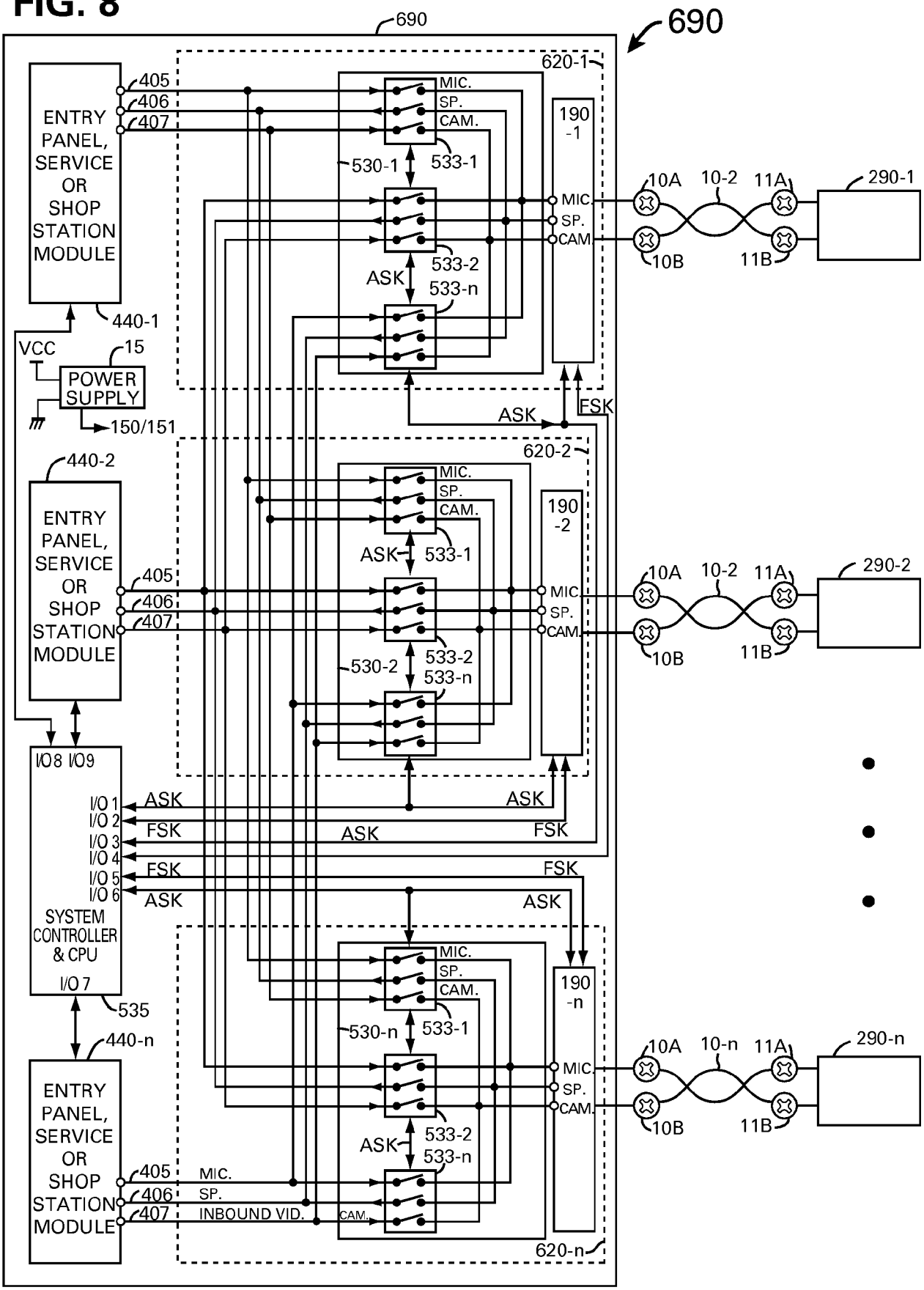

690
690
620-1
620-2
620-n
ENTRY PANEL, SERVICE OR SHOP STATION MODULE
405
406
407
440-1
440-2
440-n
VCC
15
POWER SUPPLY
150/151
MIC.
SP.
CAM.
530-1
533-1
533-2
533-n
ASK
FSK
190 -1
190 -2
190 -n
MIC
SP.
CAM
10A
10-2
11A
10B
11B
290-1
290-2
290-n
I/O 8 I/O 9
I/O 1
I/O 2
I/O 3
I/O 4
I/O 5
I/O 6
SYSTEM CONTROLLER & CPU
I/O 7
535
INBOUND VID.

FIG. 9

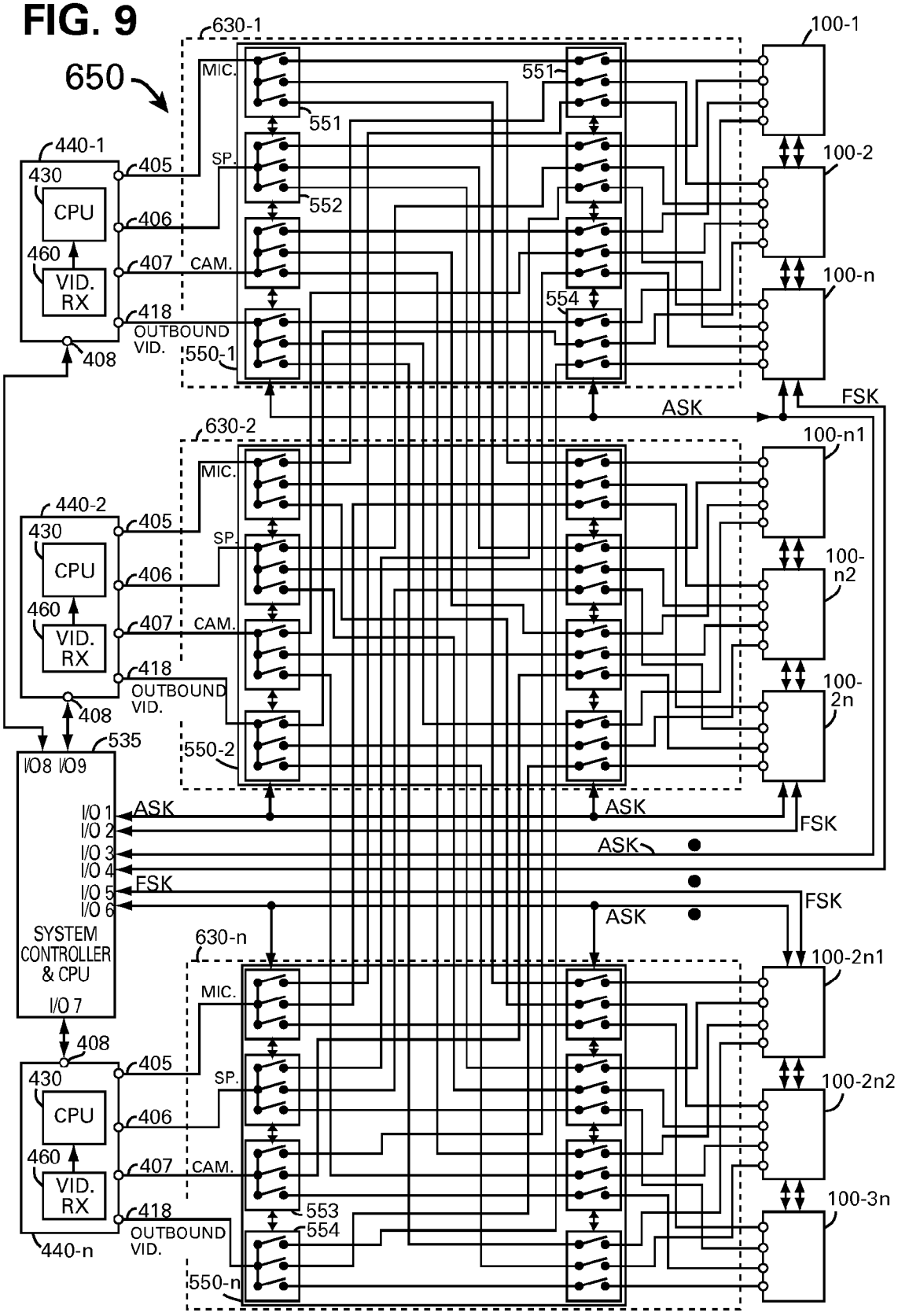

650
630-1
630-2
630-n
MIC.
SP.
CAM.
OUTBOUND VID.
551
552
553
554
550-1
550-2
550-n
440-1
440-2
440-n
430
CPU
460
VID. RX
405
406
407
418
408
535
I/O8 I/O9
I/O 1
I/O 2
I/O 3
I/O 4
I/O 5
I/O 6
I/O 7
SYSTEM CONTROLLER & CPU
ASK
FSK
100-1
100-2
100-n
100-n1
100-n2
100-2n
100-2n1
100-2n2
100-3n

FIG. 10

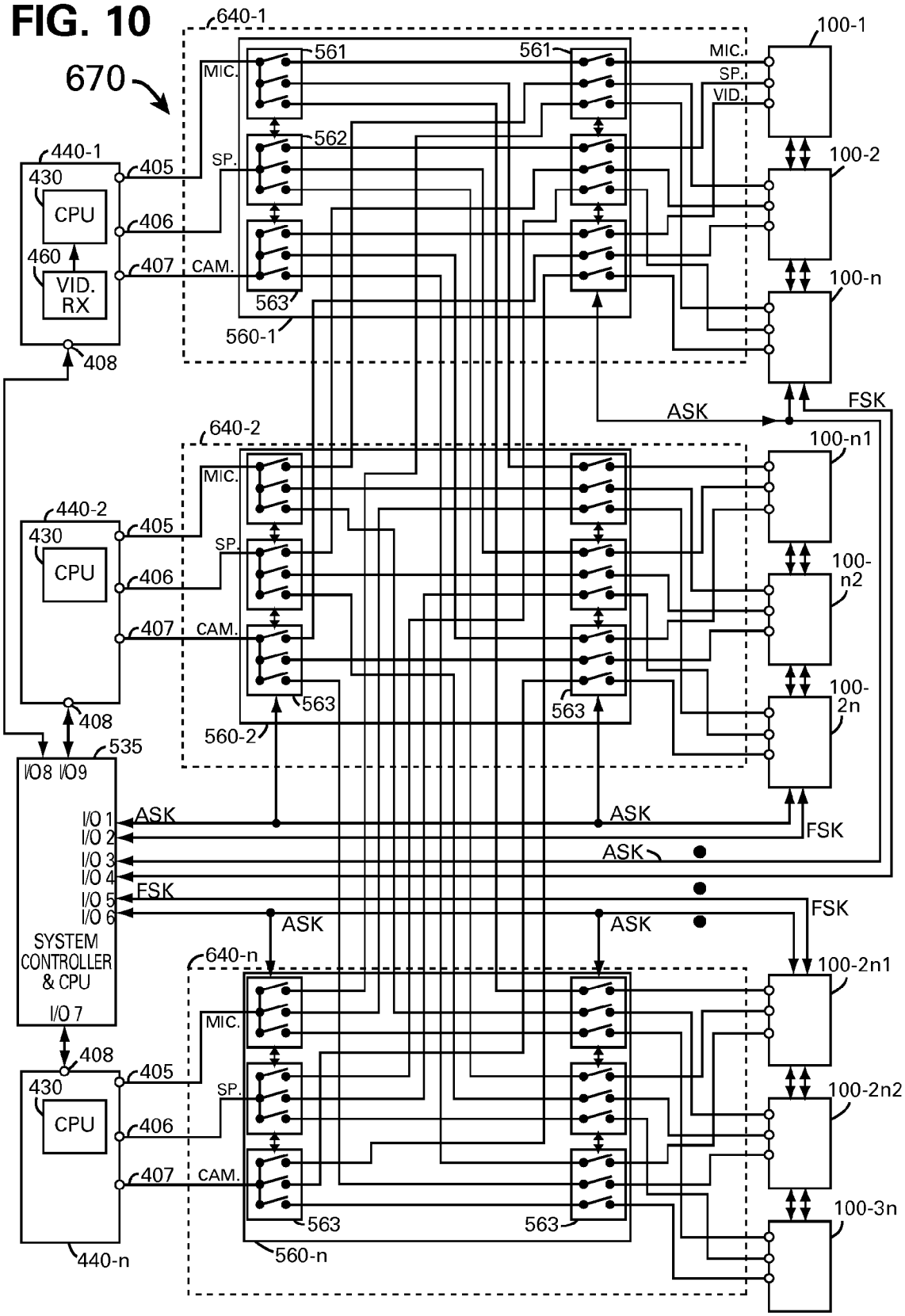

670
640-1
561
562
563
560-1
MIC.
SP.
CAM.
VID.
440-1
430
CPU
460
VID. RX
405
406
407
408
100-1
100-2
100-n
FSK
ASK
640-2
440-2
560-2
100-n1
100-n2
100-2n
535
I/O8 I/O9
I/O 1
I/O 2
I/O 3
I/O 4
I/O 5
I/O 6
I/O 7
SYSTEM CONTROLLER & CPU
640-n
440-n
560-n
100-2n1
100-2n2
100-3n

FIG. 11A

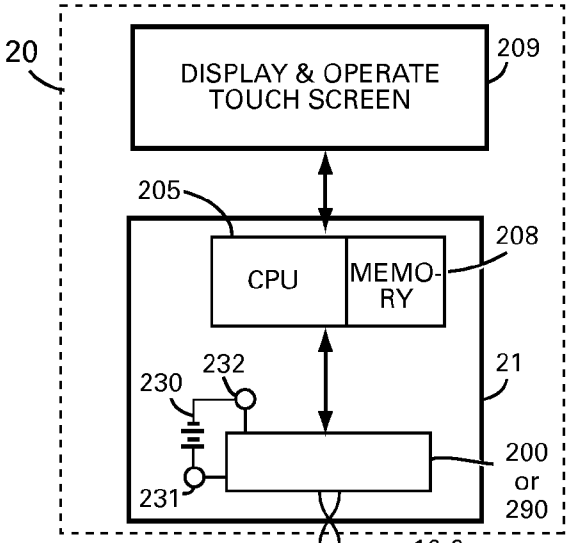


FIG. 11B

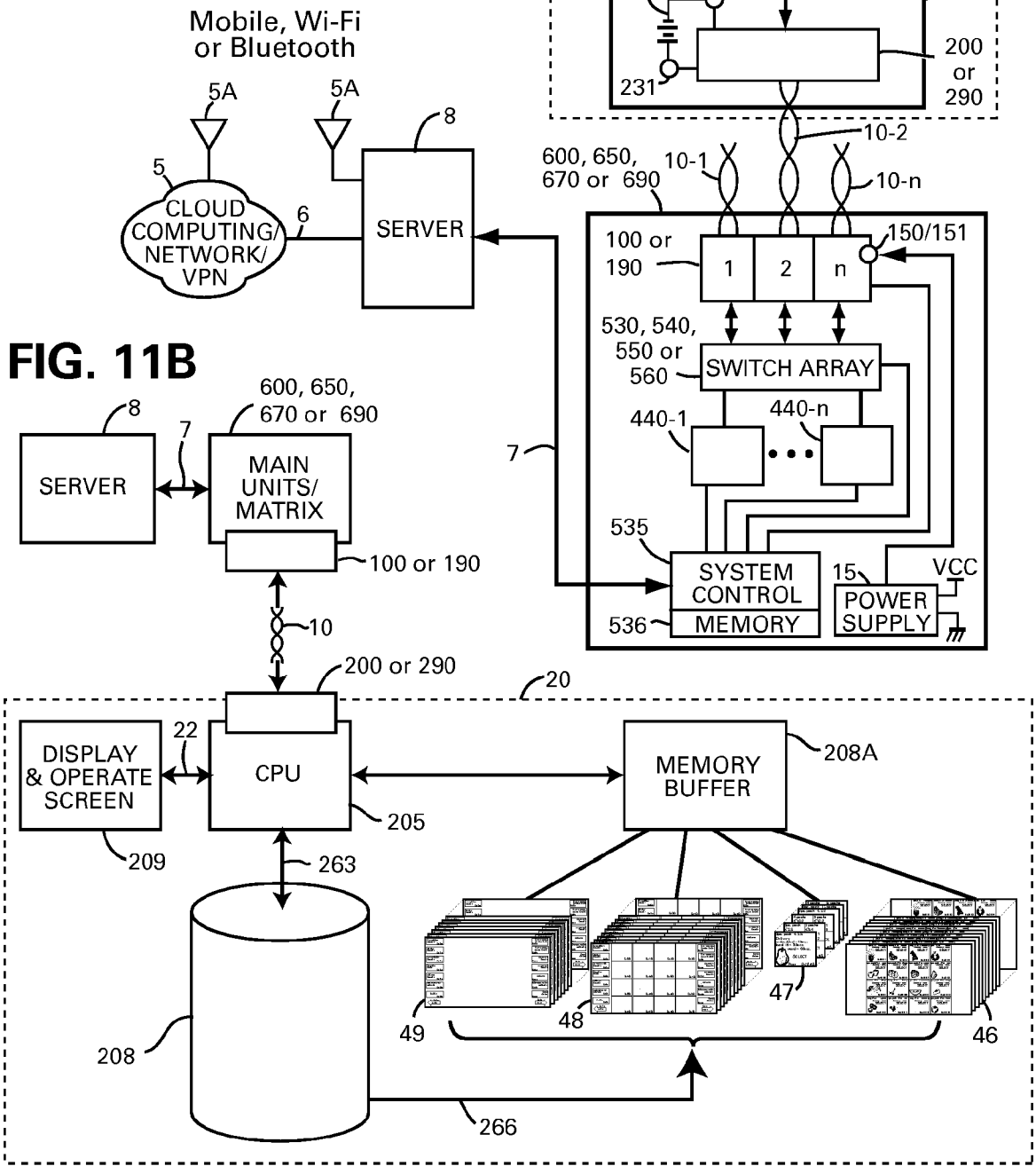


FIG. 12

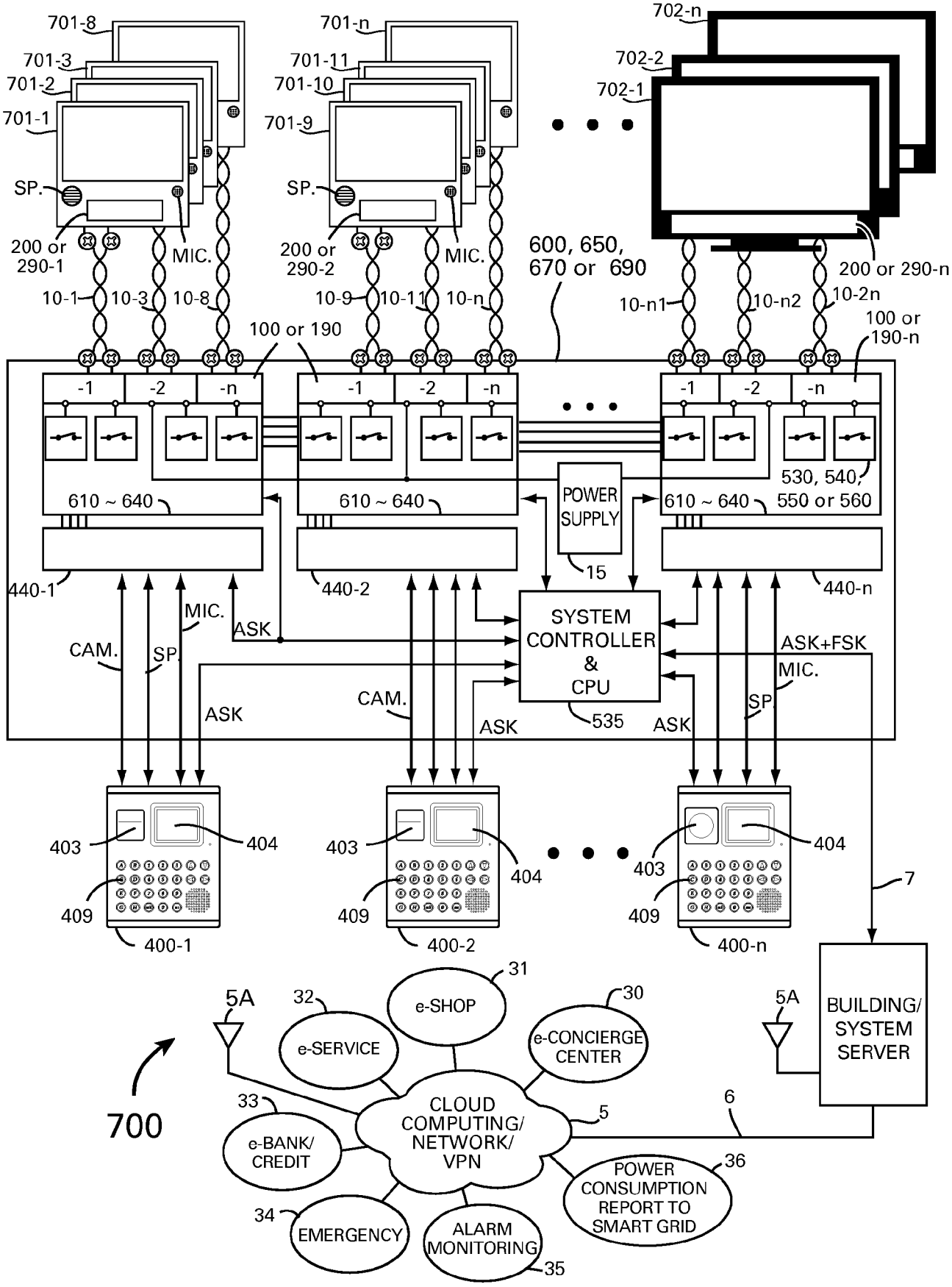

701-8
701-3
701-2
701-1
SP.
200 or 290-1
MIC.
10-1
10-3
10-8
701-n
701-11
701-10
701-9
SP.
200 or 290-2
MIC.
10-9
10-11
10-n
702-n
702-2
702-1
600, 650, 670 or 690
200 or 290-n
10-n1
10-n2
10-2n
100 or 190-n
100 or 190
-1
-2
-n
610 ~ 640
530, 540, 550 or 560
POWER SUPPLY
15
440-1
440-2
440-n
MIC.
CAM.
SP.
ASK
SYSTEM CONTROLLER & CPU
535
ASK+FSK
403
404
409
400-1
400-2
400-n
7
5A
31
32
30
e-SHOP
e-SERVICE
e-CONCIERGE CENTER
BUILDING/ SYSTEM SERVER
700
33
CLOUD COMPUTING/ NETWORK/ VPN
5
6
e-BANK/ CREDIT
36
POWER CONSUMPTION REPORT TO SMART GRID
34
EMERGENCY
ALARM MONITORING
35

FIG. 13

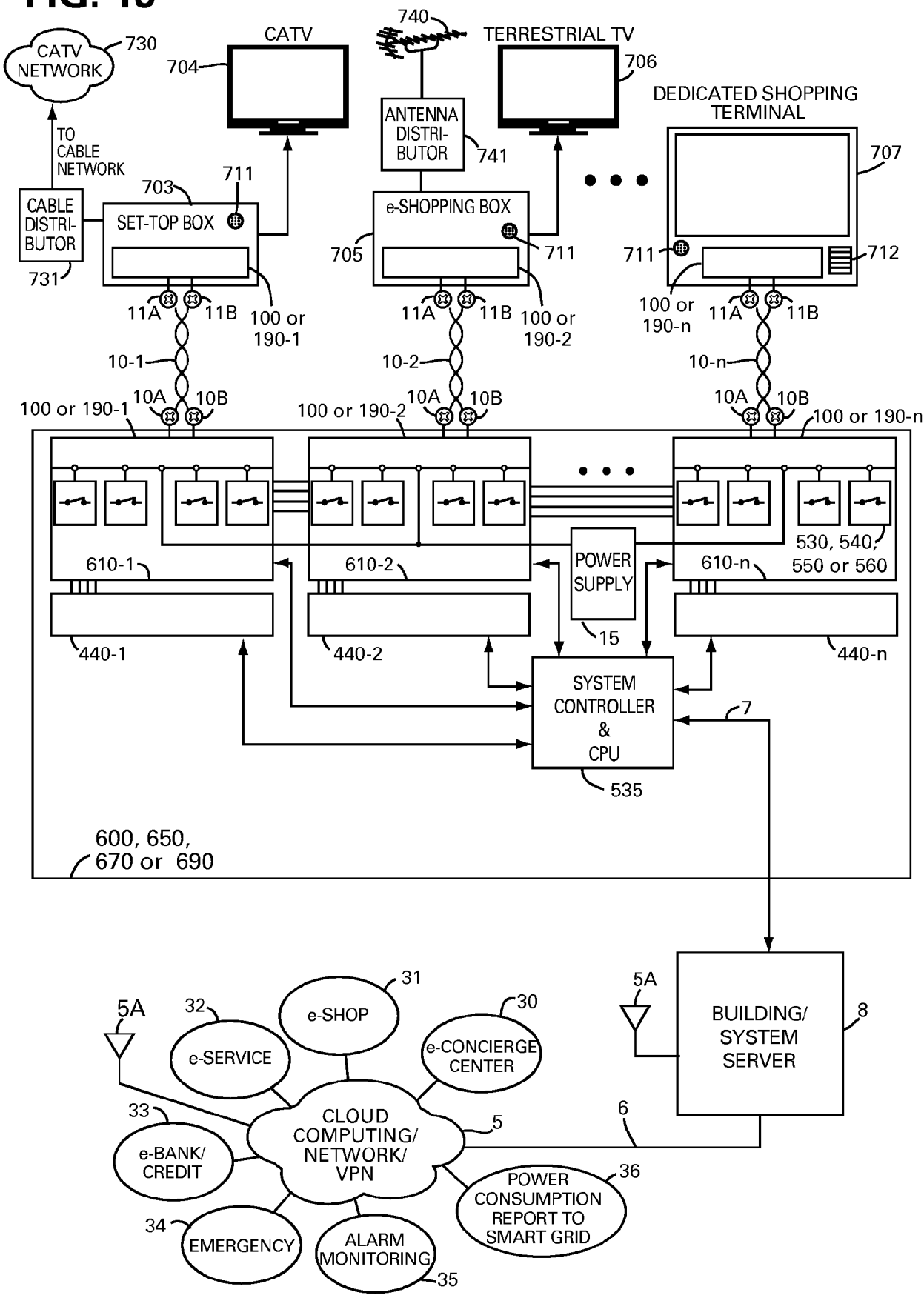

CATV NETWORK
730
CATV
704
740
TERRESTRIAL TV
706
DEDICATED SHOPPING TERMINAL
707
TO CABLE NETWORK
ANTENNA DISTRI-BUTOR
741
CABLE DISTRI-BUTOR
731
703
711
SET-TOP BOX
e-SHOPPING BOX
705
711
711
712
11A
11B
100 or 190-1
100 or 190-2
100 or 190-n
10-1
10-2
10-n
10A
10B
100 or 190-1
100 or 190-2
100 or 190-n
610-1
610-2
610-n
530, 540, 550 or 560
POWER SUPPLY
15
440-1
440-2
440-n
SYSTEM CONTROLLER & CPU
7
535
600, 650, 670 or 690
5A
31
e-SHOP
32
e-SERVICE
30
e-CONCIERGE CENTER
5A
BUILDING/ SYSTEM SERVER
8
33
e-BANK/ CREDIT
CLOUD COMPUTING/ NETWORK/ VPN
5
6
36
POWER CONSUMPTION REPORT TO SMART GRID
34
EMERGENCY
ALARM MONITORING
35

FIG. 14

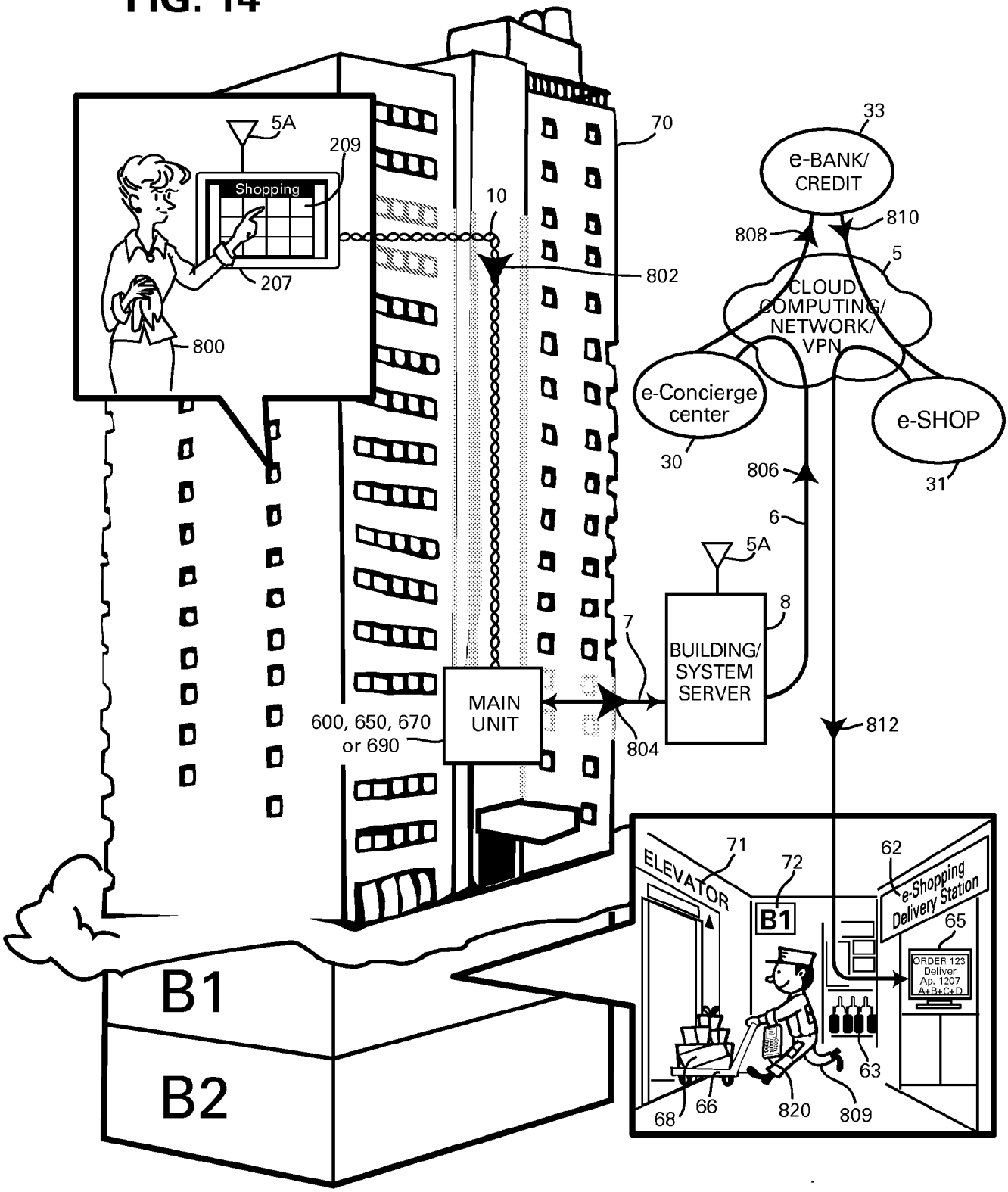

5A
209
Shopping
207
800
70
10
802
33
e-BANK/
CREDIT
808
810
5
CLOUD
COMPUTING/
NETWORK/
VPN
e-Concierge
center
30
e-SHOP
31
806
6
5A
8
7
BUILDING/
SYSTEM
SERVER
MAIN
UNIT
600, 650, 670
or 690
804
812
B1
B2
71
ELEVATOR
72
B1
62
e-Shopping
Delivery Station
65
ORDER 123
Deliver
Ap. 1207
A+B+C+D
63
68
66
820
809

FIG. 15A

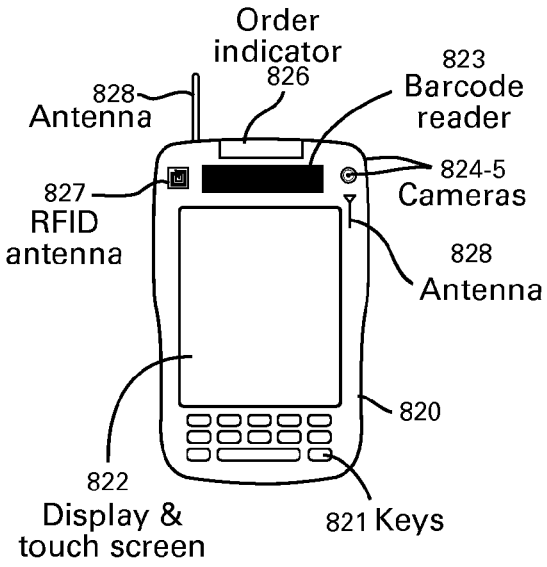


FIG. 15B

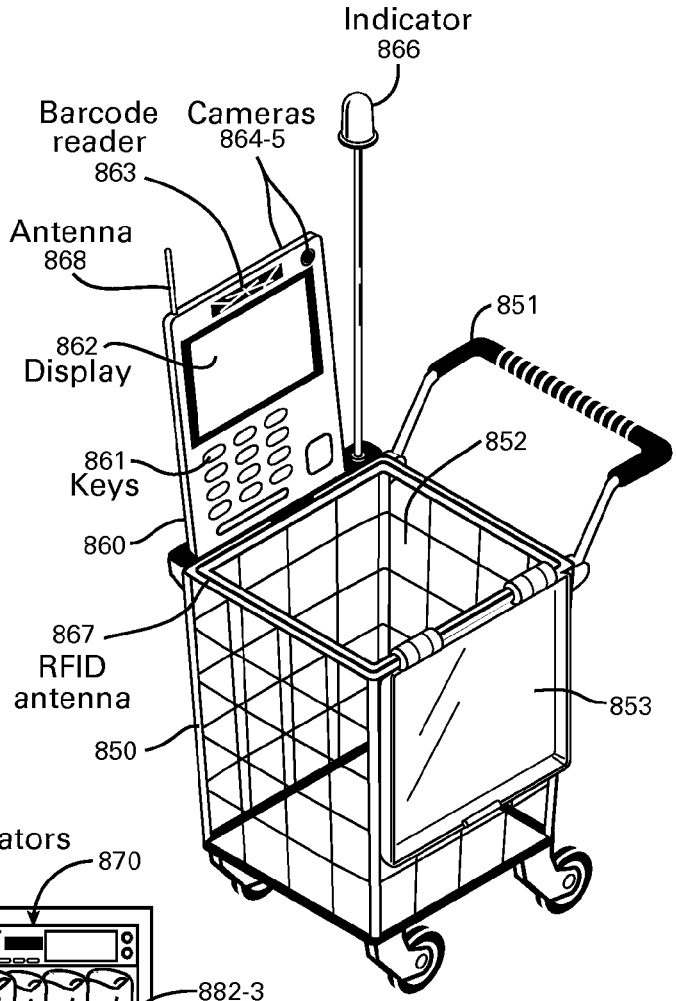


FIG. 15C

