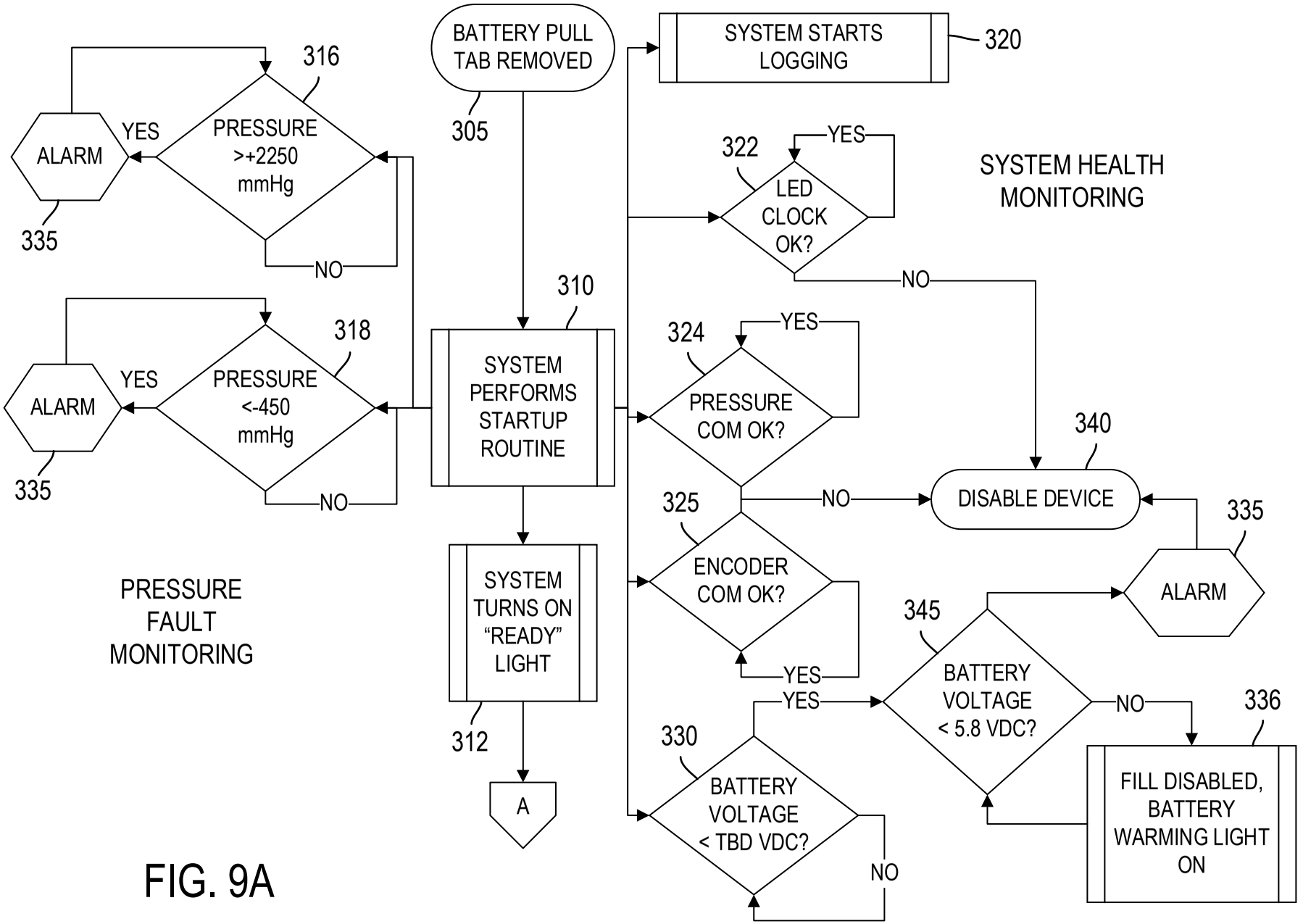

BATTERY PULL TAB REMOVED
305
SYSTEM STARTS LOGGING
320
316
PRESSURE >+2250 mmHg
YES
ALARM
335
NO
322
LED CLOCK OK?
YES
NO
SYSTEM HEALTH MONITORING
310
SYSTEM PERFORMS STARTUP ROUTINE
318
PRESSURE <-450 mmHg
YES
ALARM
335
NO
324
PRESSURE COM OK?
YES
340
DISABLE DEVICE
NO
325
ENCODER COM OK?
YES
335
ALARM
345
BATTERY VOLTAGE < 5.8 VDC?
YES
NO
336
FILL DISABLED, BATTERY WARMING LIGHT ON
SYSTEM TURNS ON "READY" LIGHT
312
A
330
BATTERY VOLTAGE < TBD VDC?
NO
PRESSURE FAULT MONITORING

FIG. 9A

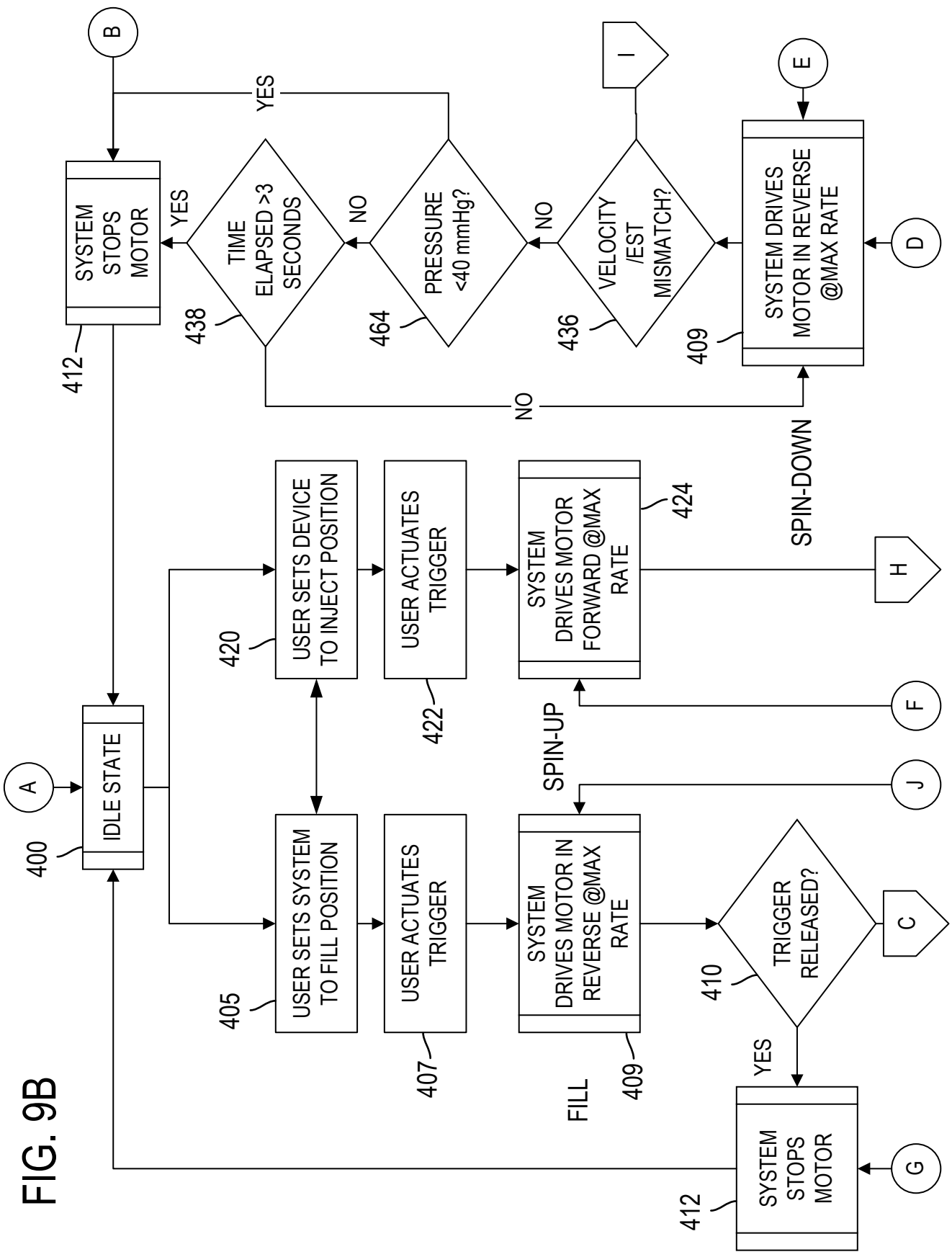

A
B
C
D
E
F
G
H
I
J
400
IDLE STATE
405
USER SETS SYSTEM TO FILL POSITION
407
USER ACTUATES TRIGGER
409
SYSTEM DRIVES MOTOR IN REVERSE @MAX RATE
FILL
410
TRIGGER RELEASED?
YES
412
SYSTEM STOPS MOTOR
420
USER SETS DEVICE TO INJECT POSITION
422
USER ACTUATES TRIGGER
424
SYSTEM DRIVES MOTOR FORWARD @MAX RATE
SPIN-UP
SPIN-DOWN
409
SYSTEM DRIVES MOTOR IN REVERSE @MAX RATE
436
VELOCITY /EST MISMATCH?
464
PRESSURE <40 mmHg?
438
TIME ELAPSED >3 SECONDS
NO
YES
412
SYSTEM STOPS MOTOR

FIG. 9B

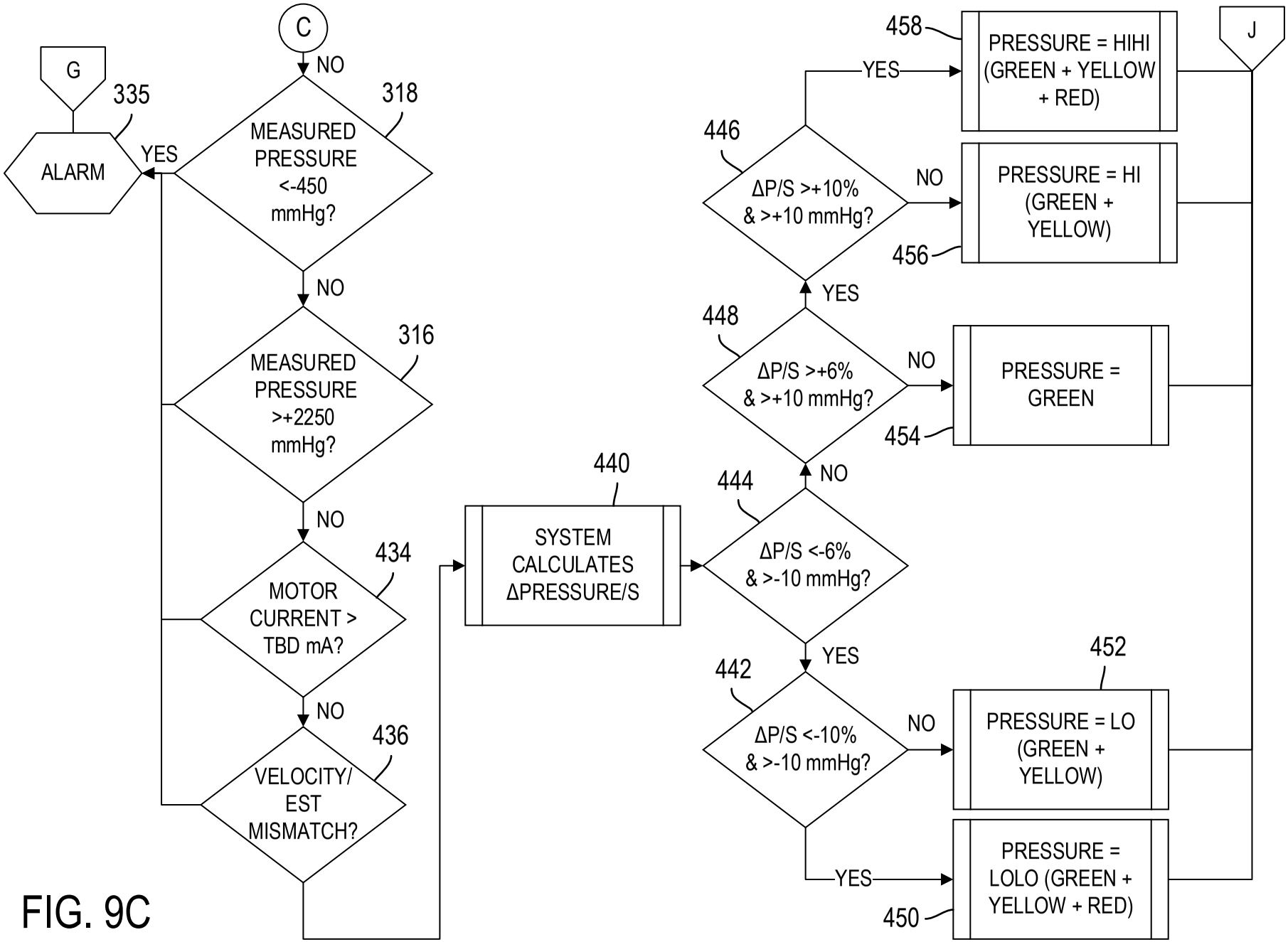

C
G
335
ALARM
YES
MEASURED PRESSURE <-450 mmHg?
318
NO
MEASURED PRESSURE >+2250 mmHg?
316
NO
MOTOR CURRENT > TBD mA?
434
NO
VELOCITY/ EST MISMATCH?
436
SYSTEM CALCULATES ΔPRESSURE/S
440
ΔP/S <-6% & >-10 mmHg?
444
NO
YES
ΔP/S <-10% & >-10 mmHg?
442
NO
PRESSURE = LO (GREEN + YELLOW)
452
YES
PRESSURE = LOLO (GREEN + YELLOW + RED)
450
ΔP/S >+6% & >+10 mmHg?
448
NO
PRESSURE = GREEN
454
YES
ΔP/S >+10% & >+10 mmHg?
446
NO
PRESSURE = HI (GREEN + YELLOW)
456
YES
PRESSURE = HIHI (GREEN + YELLOW + RED)
458
J

FIG. 9C

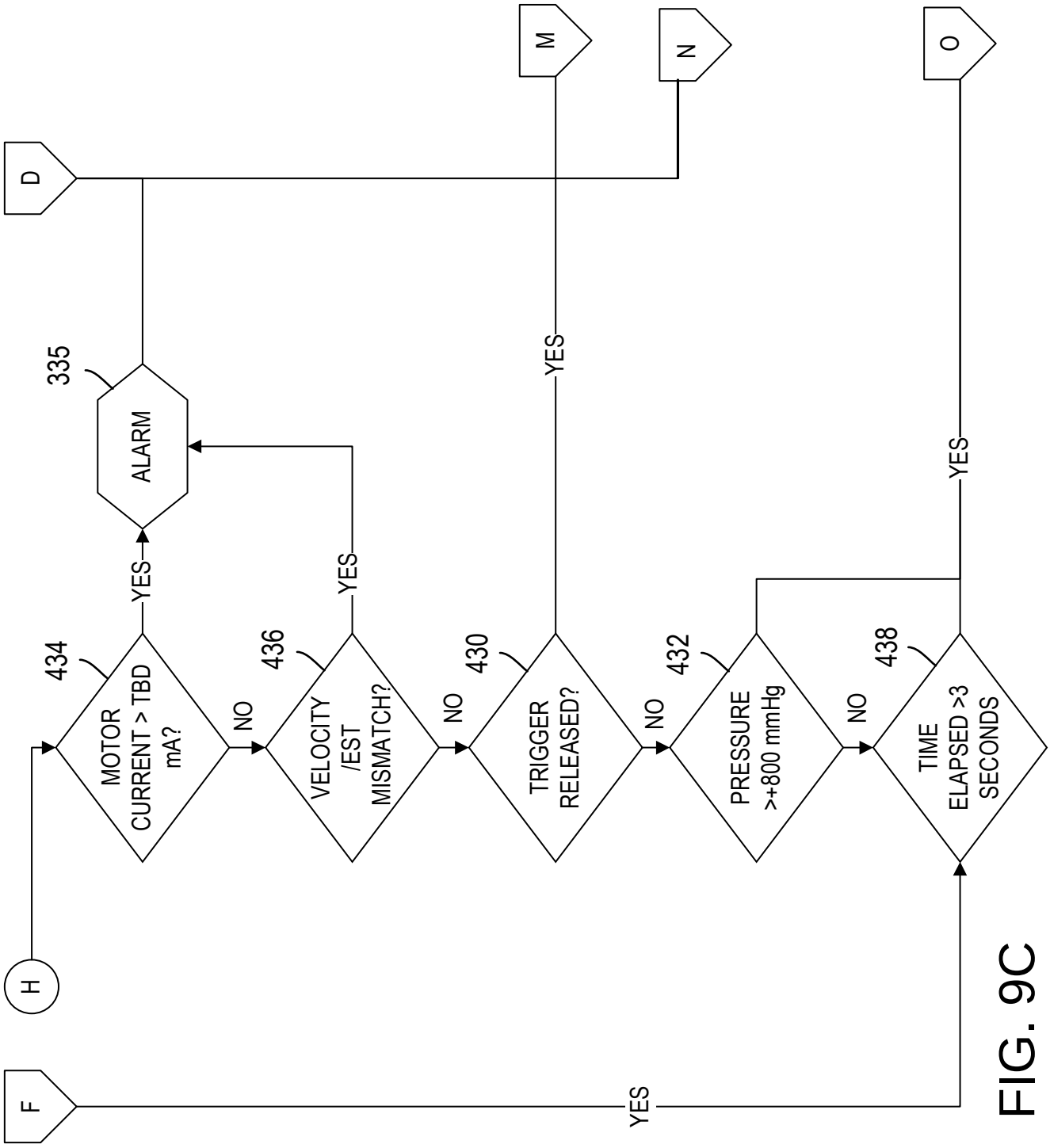
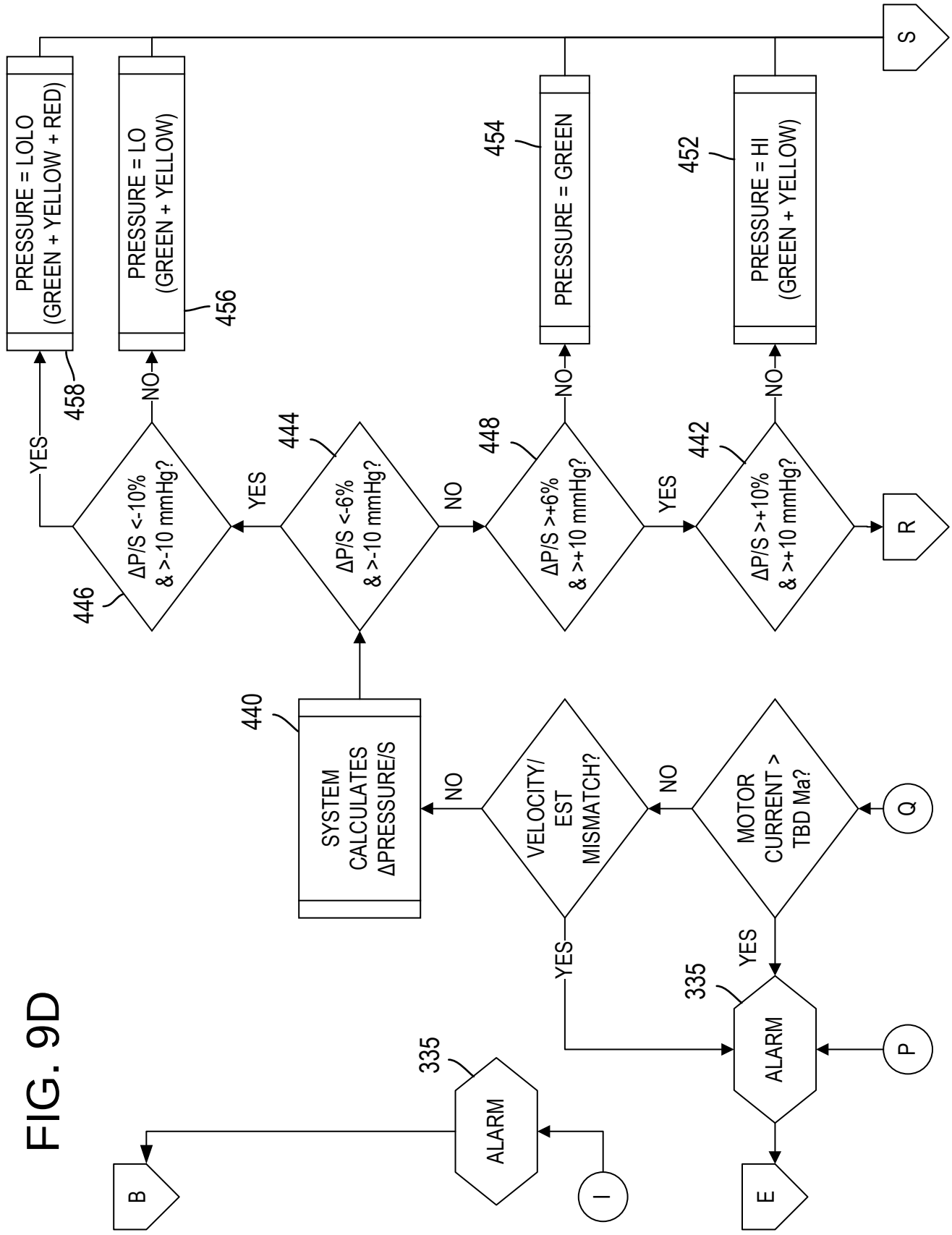

H
MOTOR CURRENT > TBD mA?
434
NO
VELOCITY /EST MISMATCH?
436
NO
TRIGGER RELEASED?
430
NO
PRESSURE >+800 mmHg
432
NO
TIME ELAPSED >3 SECONDS
438
YES
YES
YES
YES
ALARM
335
D
M
N
O
F
YES

FIG. 9C

FIG. 9D


B
ALARM
335
I
E
ALARM
335
P
Q
MOTOR CURRENT > TBD Ma?
VELOCITY/ EST MISMATCH?
YES
NO
YES
NO
SYSTEM CALCULATES ΔPRESSURE/S
440
ΔP/S >+10% & >+10 mmHg?
442
ΔP/S >+6% & >+10 mmHg?
448
ΔP/S <-6% & >-10 mmHg?
444
ΔP/S <-10% & >-10 mmHg?
446
R
YES
NO
YES
NO
PRESSURE = HI (GREEN + YELLOW)
452
PRESSURE = GREEN
454
PRESSURE = LO (GREEN + YELLOW)
456
PRESSURE = LOLO (GREEN + YELLOW + RED)
458
S

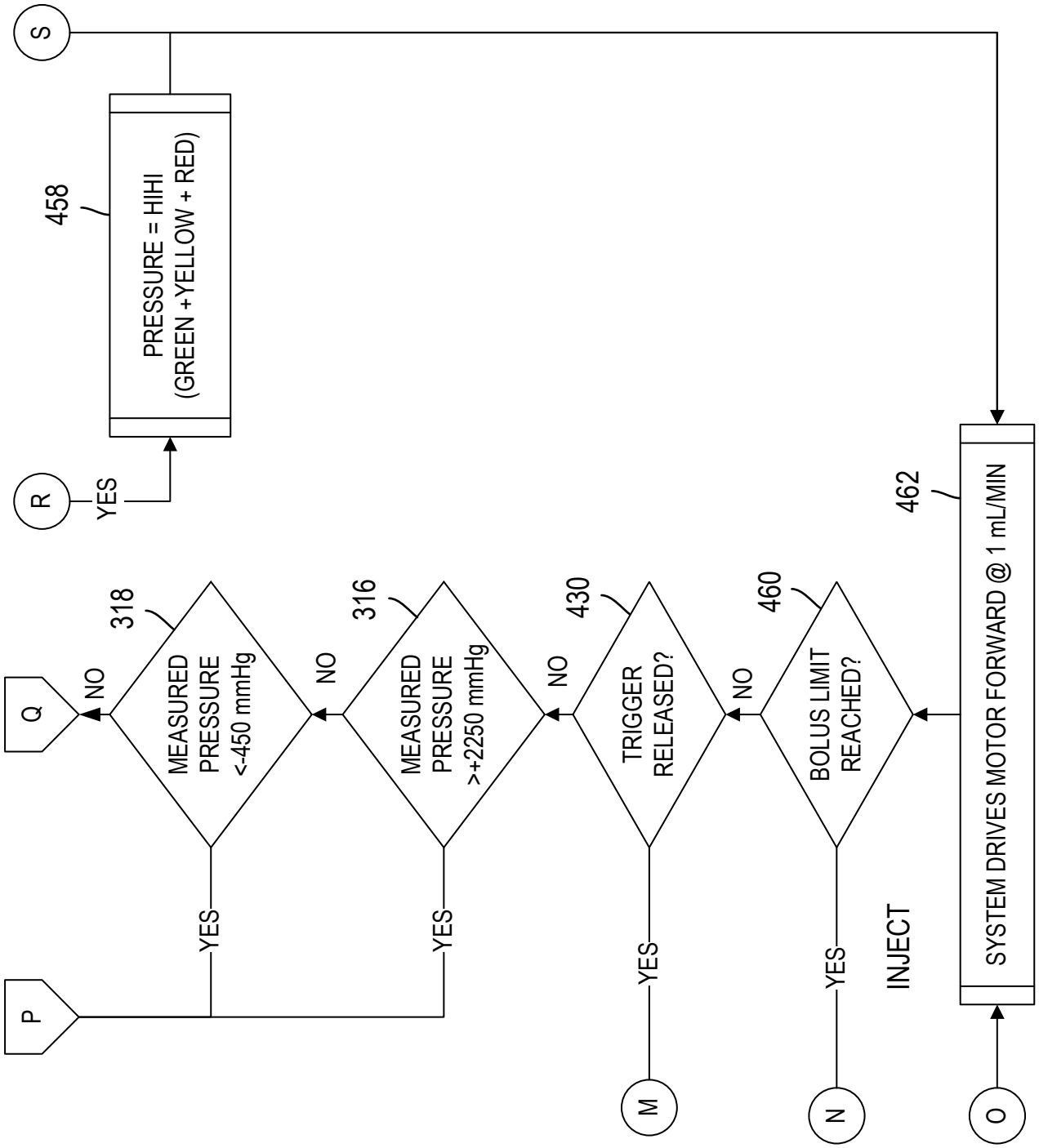

S
458
PRESSURE = HIHI
(GREEN +YELLOW + RED)
R
YES
462
SYSTEM DRIVES MOTOR FORWARD @ 1 mL/MIN
INJECT
O
460
BOLUS LIMIT
REACHED?
YES
N
430
TRIGGER
RELEASED?
NO
YES
M
316
MEASURED
PRESSURE
>+2250 mmHg
NO
YES
318
MEASURED
PRESSURE
<-450 mmHg
NO
YES
Q
P

FIG. 9E