

AUTOMATICALLY LOCATE VESSEL ADJACENT TO DOCK OR OBJECT
MARINE VESSEL AUTOMATIC DOCKING (MVAD)

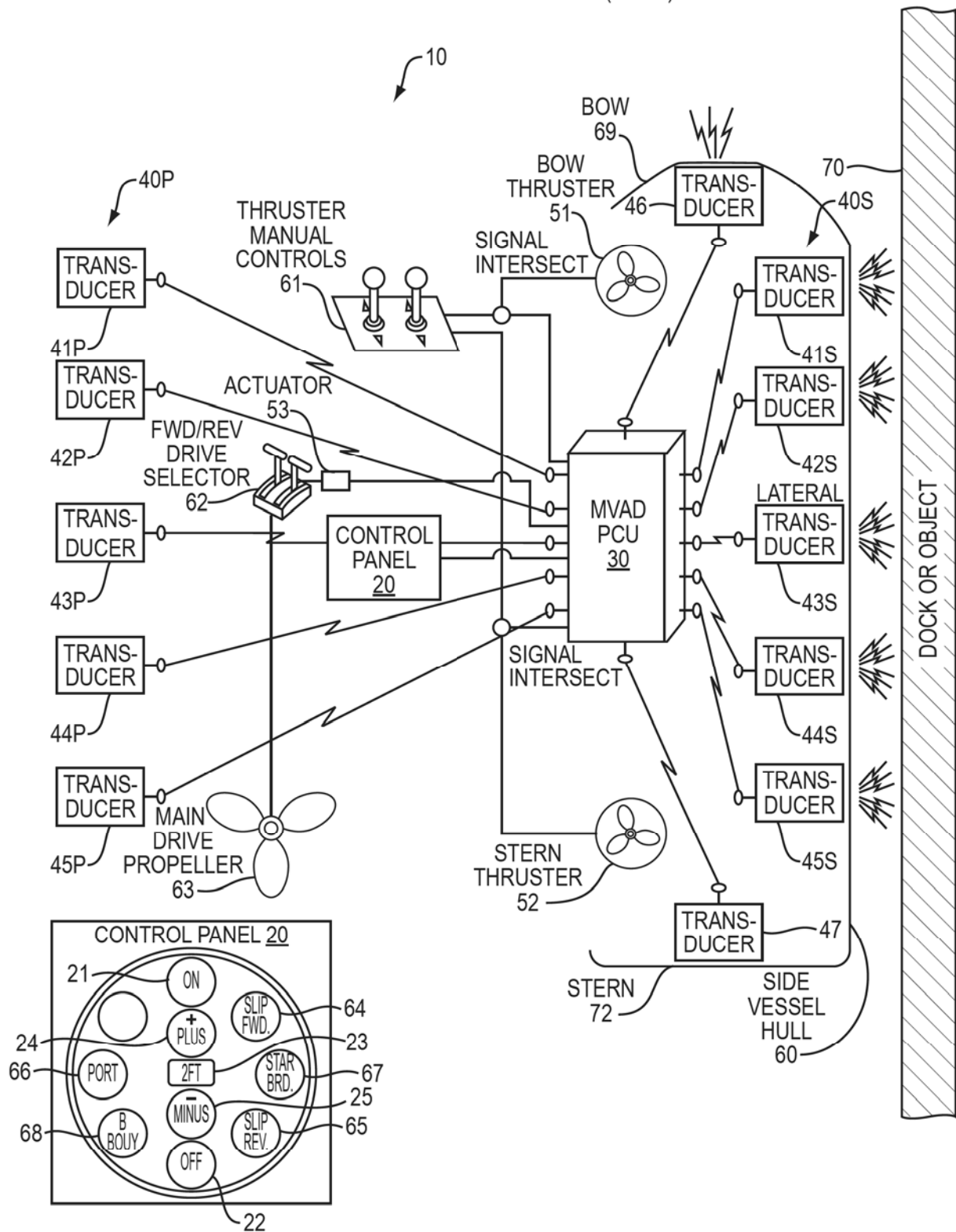


FIG. 1

AUTOMATIC ACCIDENT AVOIDANCE IN MARINAS AND DOCKING AREAS
MARINE VESSEL AUTOMATIC DOCKING (MVAD)

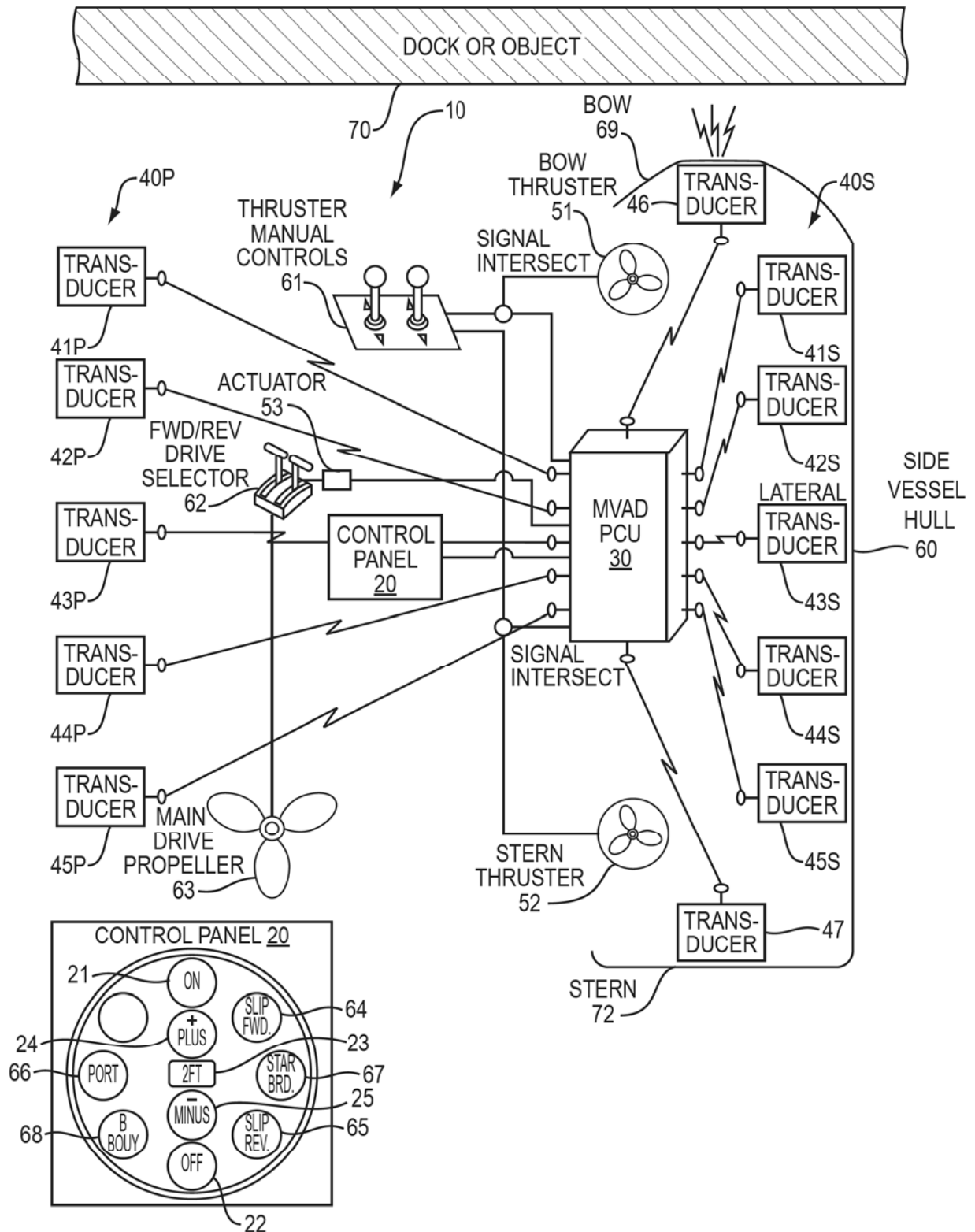


FIG. 2

PARKING VESSEL AUTOMATICALLY IN SLIP AREA
MARINE VESSEL AUTOMATIC DOCKING (MVAD)

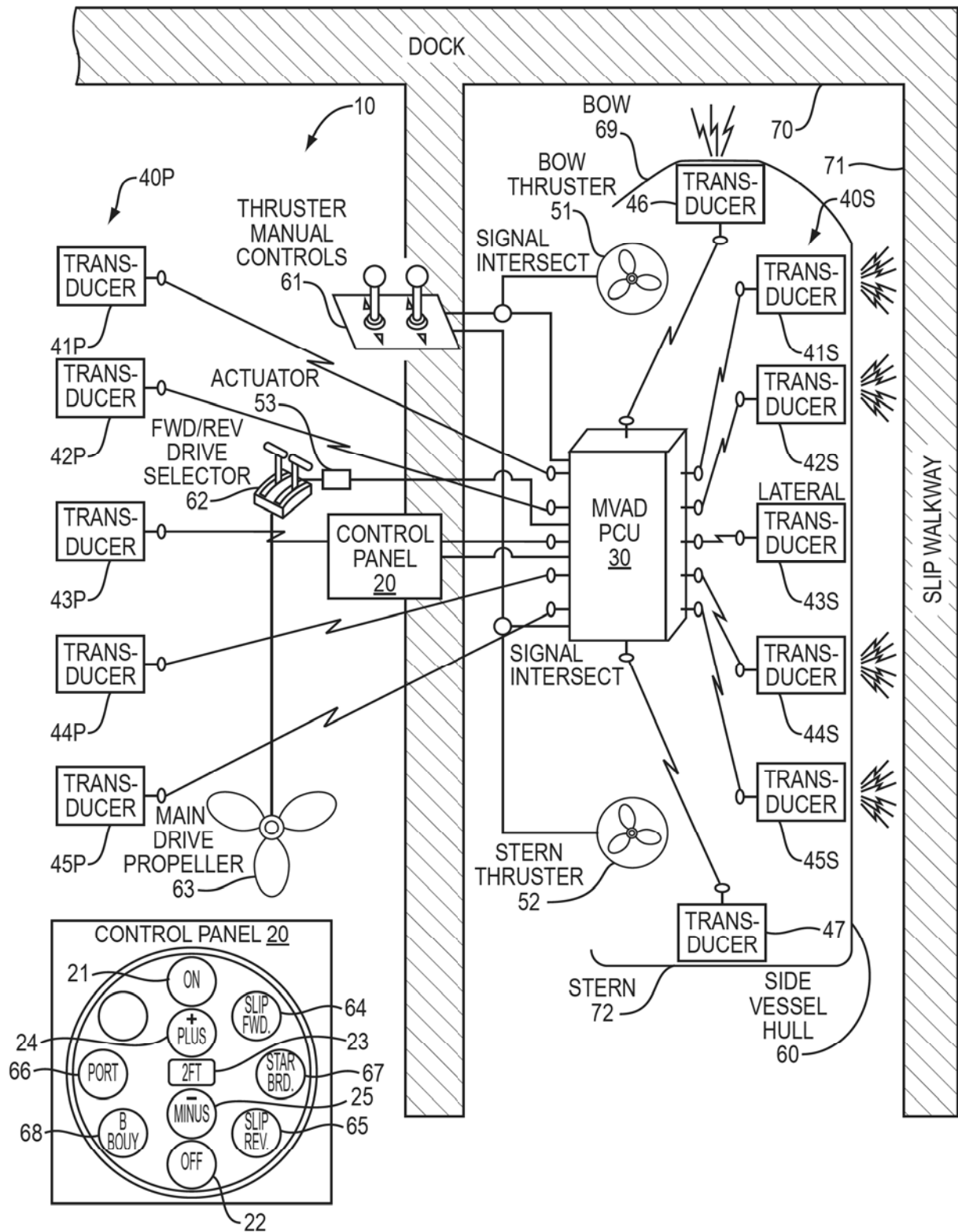


FIG. 3

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AUTOMATIC LOCATION OF FLOATING BOUY/MOORING MARINE VESSEL AUTOMATIC DOCKING (MVAD)

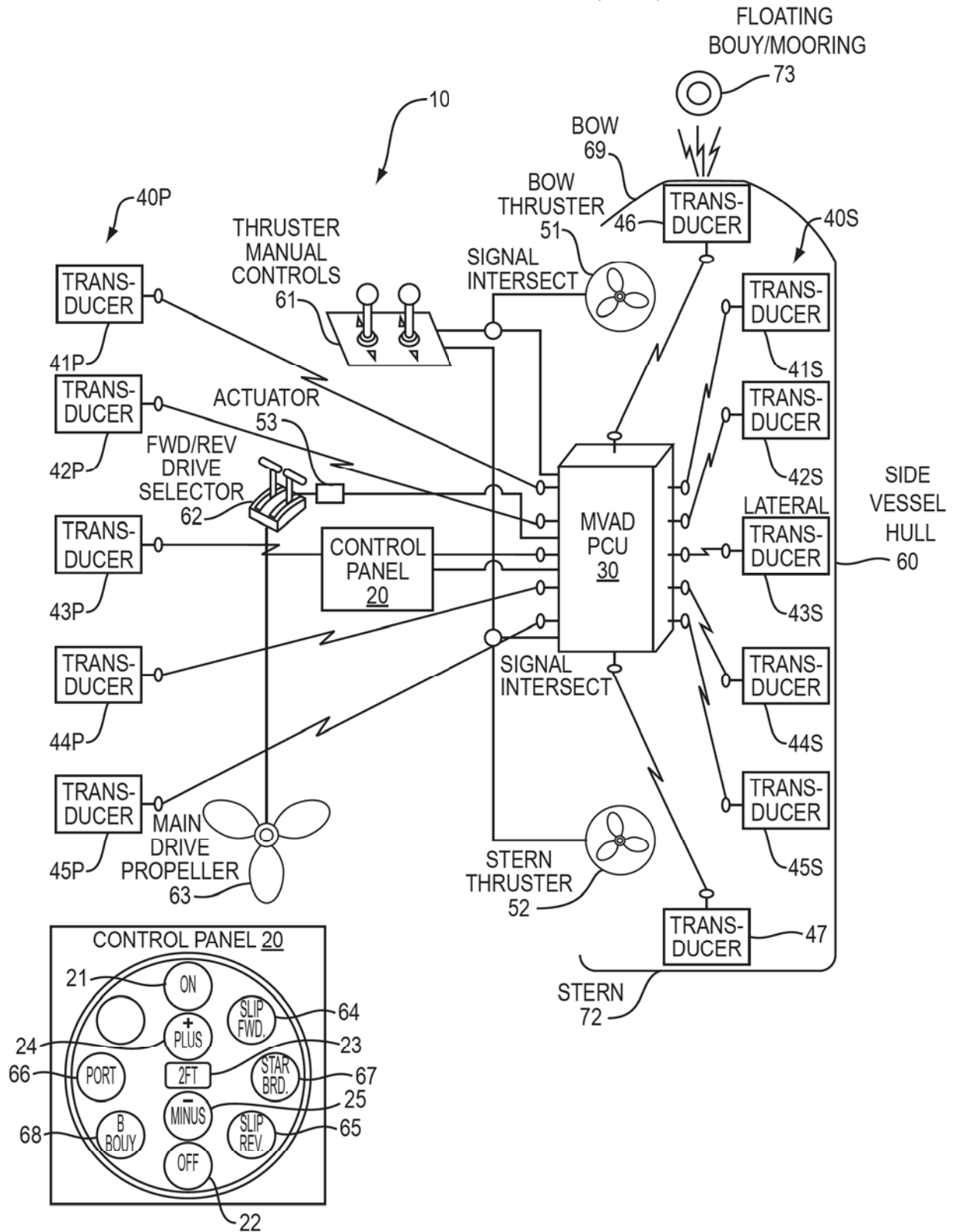


FIG. 4

DOCKING SYSTEM FLOW DIAGRAM

THE FOLLOWING DIAGRAM IS STARBOARD SELECTION AS DISPLAYED IN PATENT APPLICATION FIG.1. FOR EXAMPLE PURPOSES: DOCKING A MARINE VESSEL TO A STARBOARD SIDE EXTERNAL OBJECT.

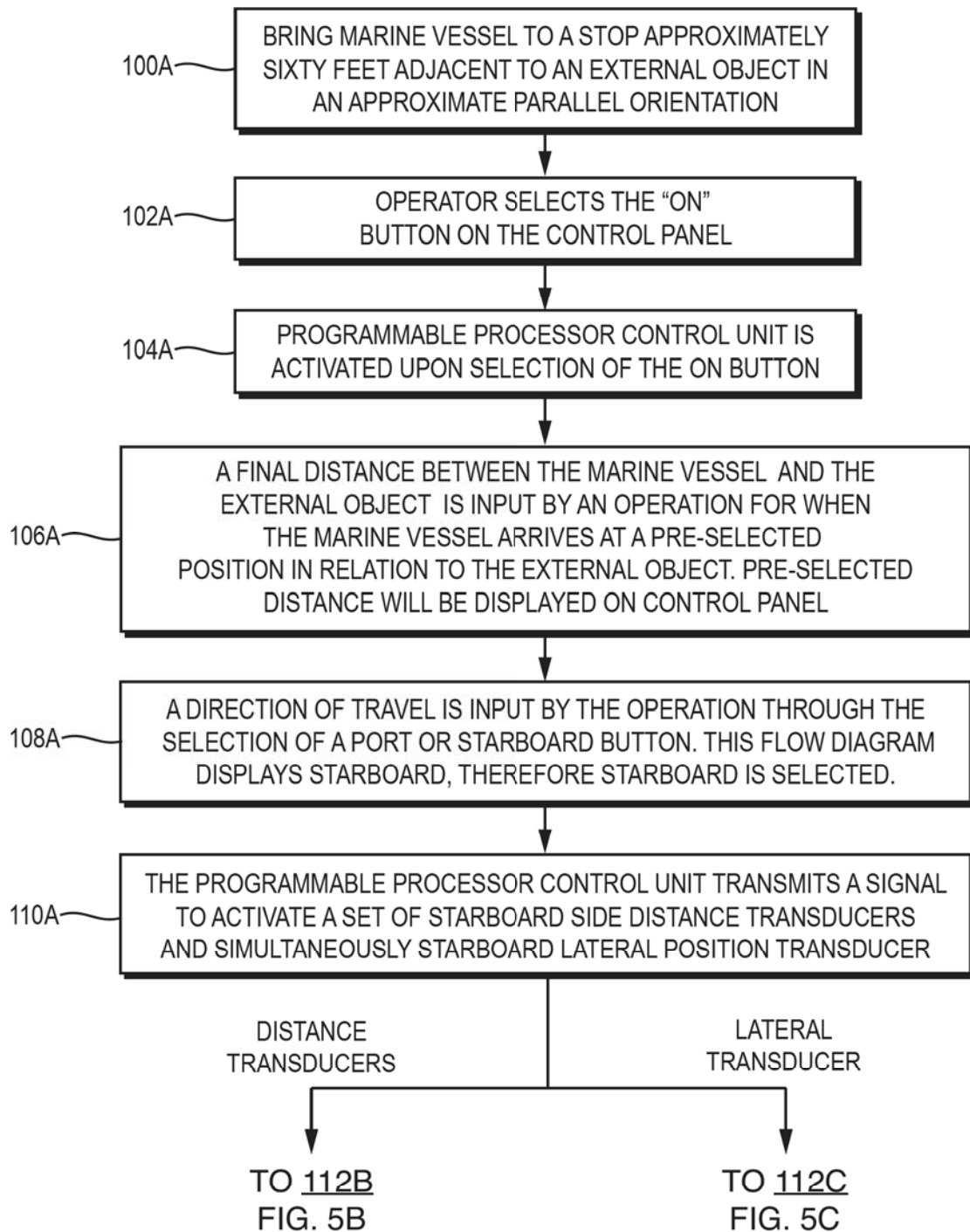


FIG. 5A

STARBOARD TRANSDUCER OPERATION

FROM 110A
FIG. 5A

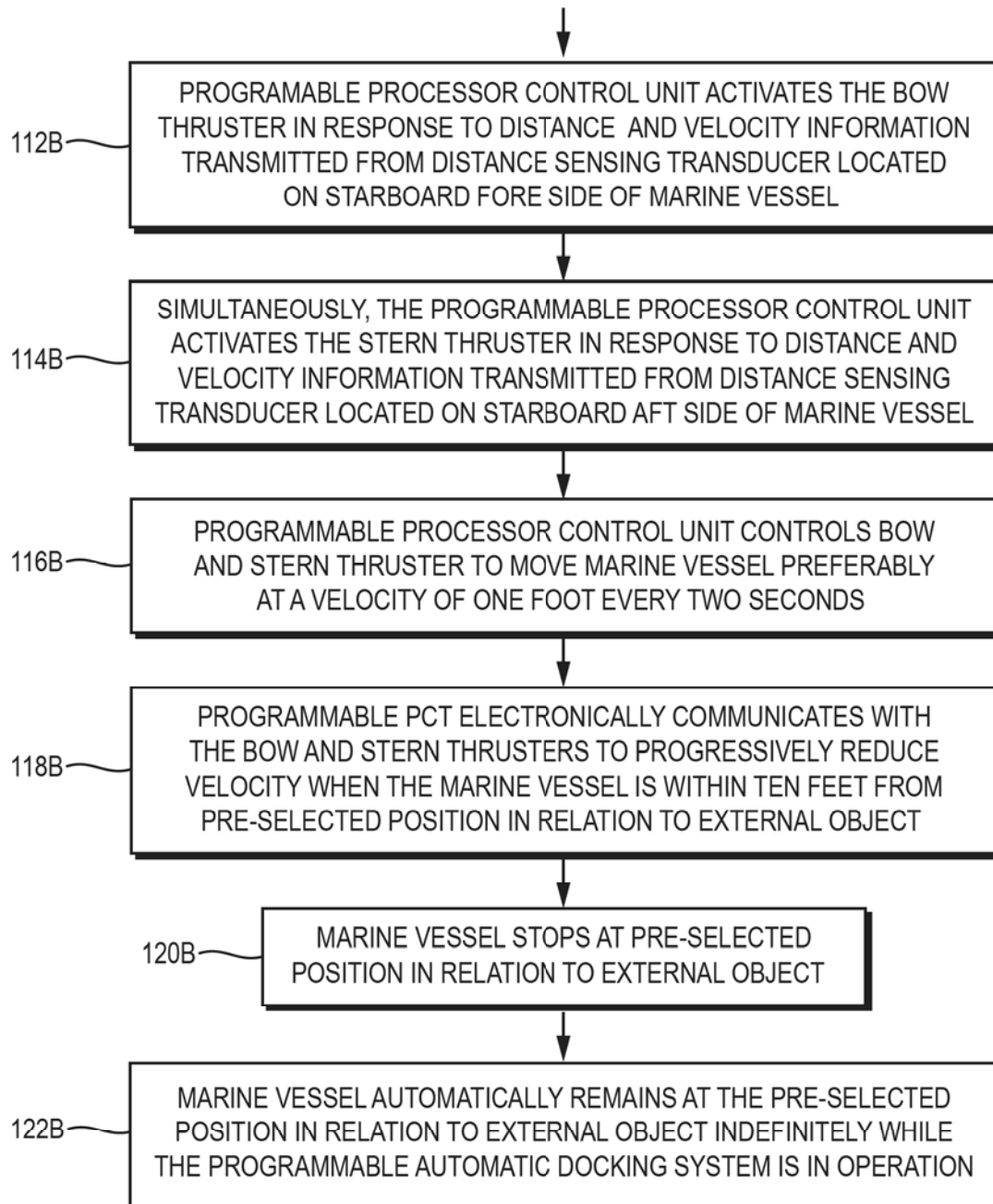


FIG. 5B

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LATERAL TRANSDUCER OPERATION

FROM 110A

FIG. 5A

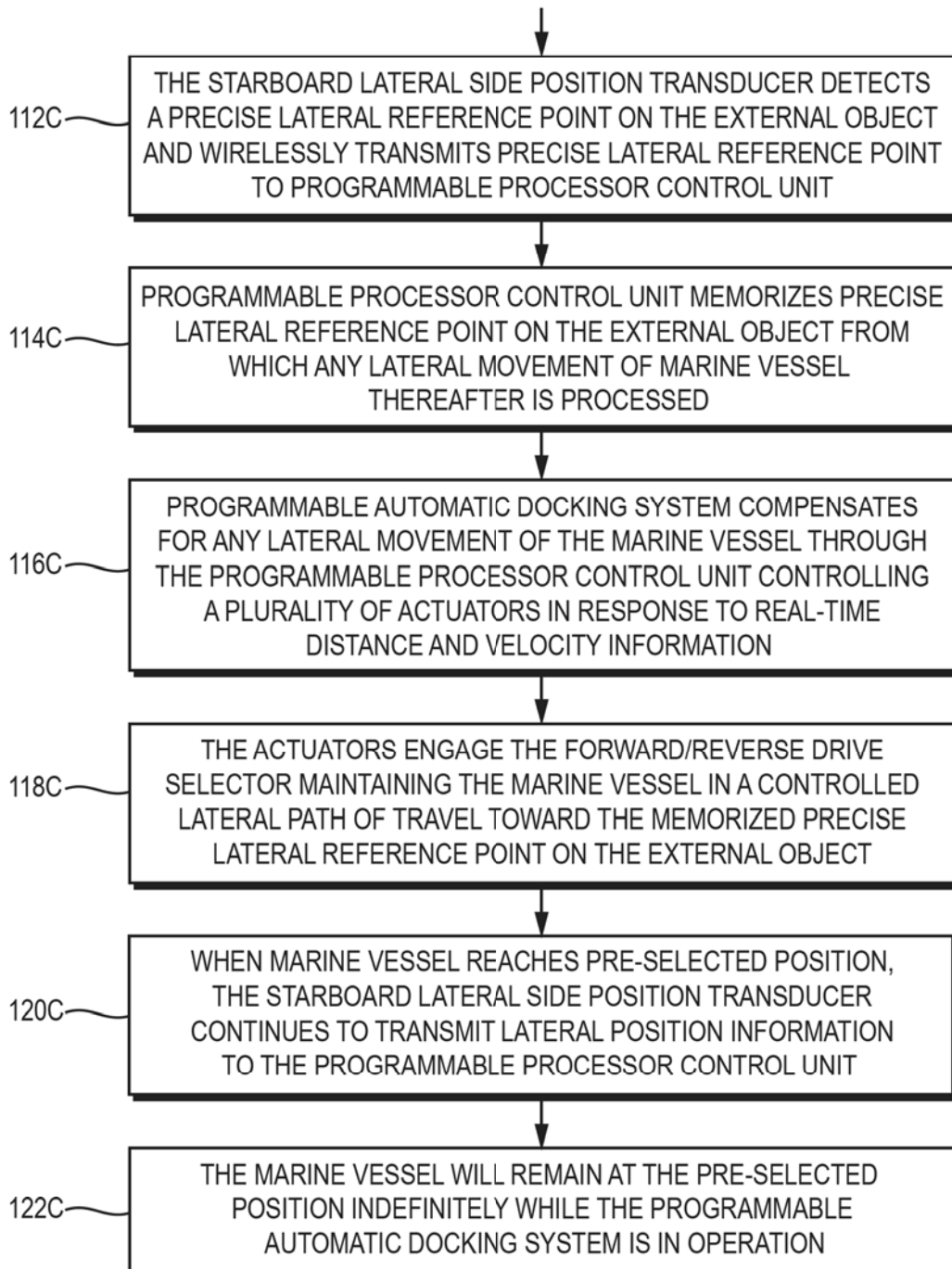


FIG. 5C

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AUTOMATIC COLLISION AVOIDANCE

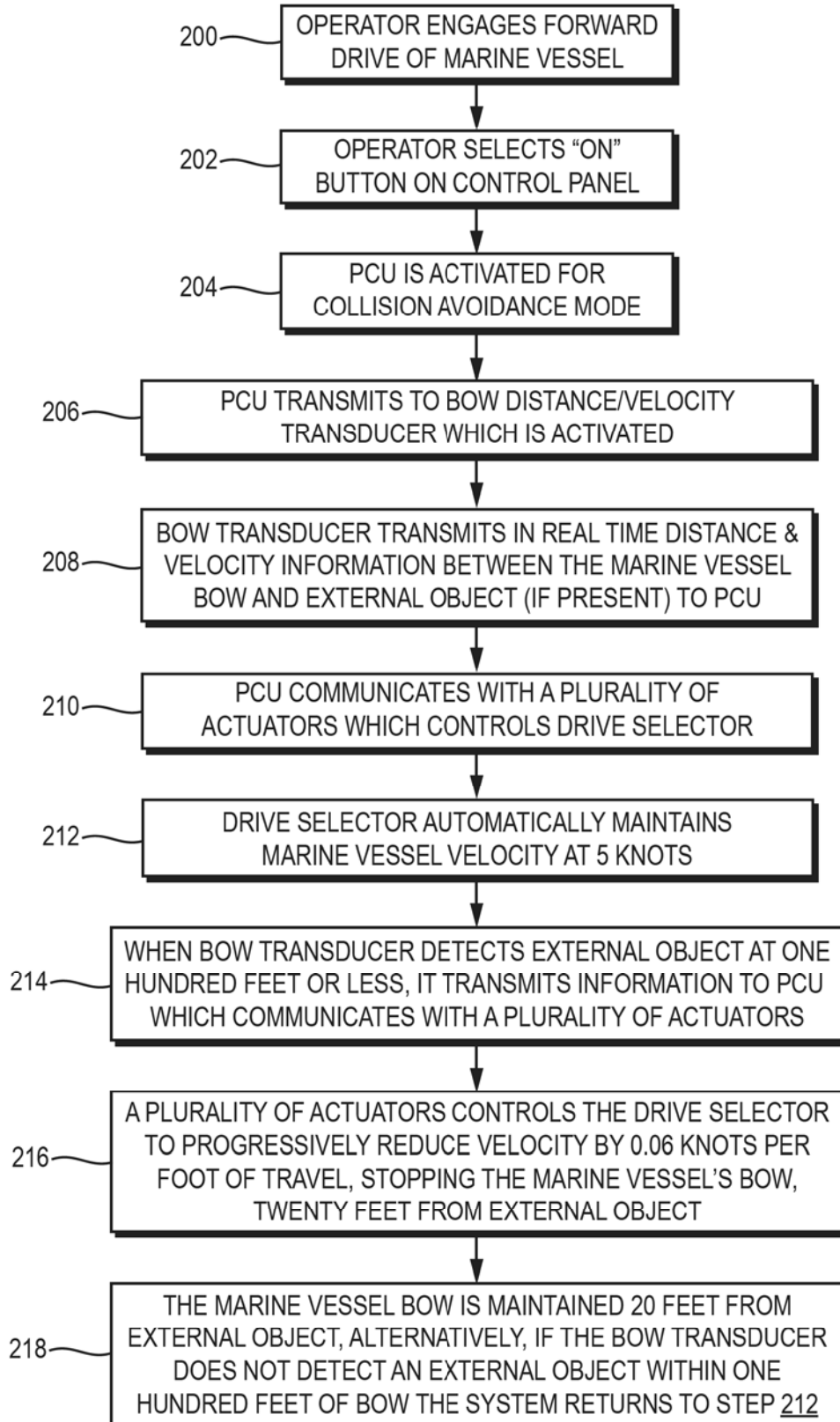


FIG. 6

DOCKING SYSTEM FLOW DIAGRAM

AUTOMATIC MANEUVERING A MARINE VESSEL INTO A SLIP

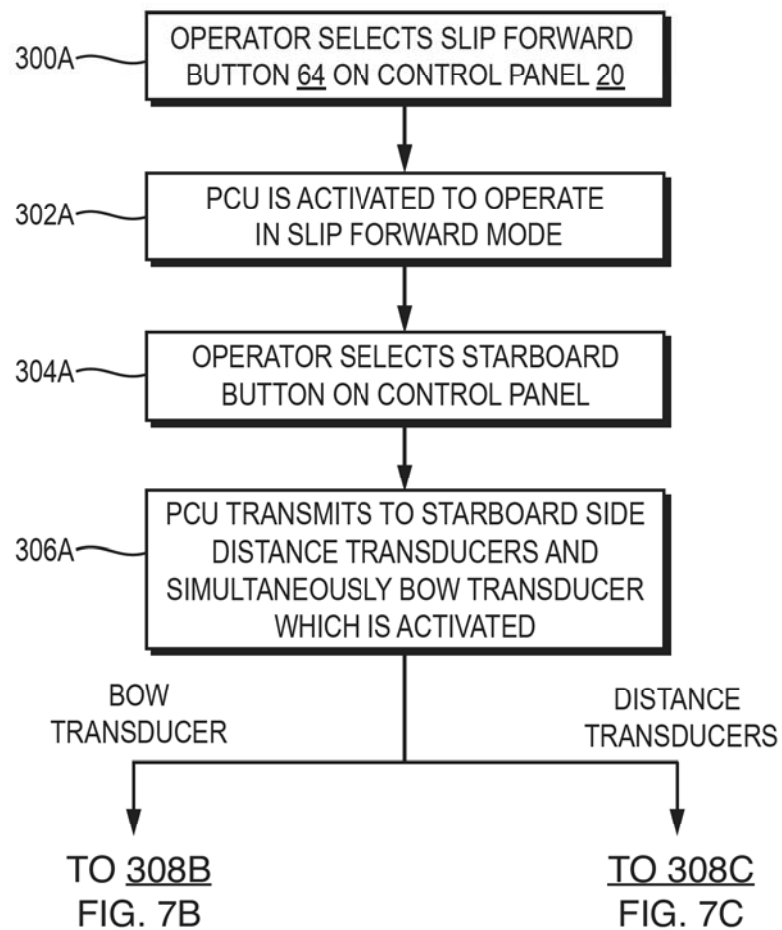
FLOW DIAGRAM FOR EXAMPLE DEMONSTRATES FORWARD
MOVEMENT WITH STARBOARD SELECTION

FIG. 7A

FLOW DIAGRAM

AUTOMATIC MANEUVERING OF A MARINE VESSEL INTO A SLIP

BOW TRANSDUCER OPERATION

FROM 306A

FIG. 7A

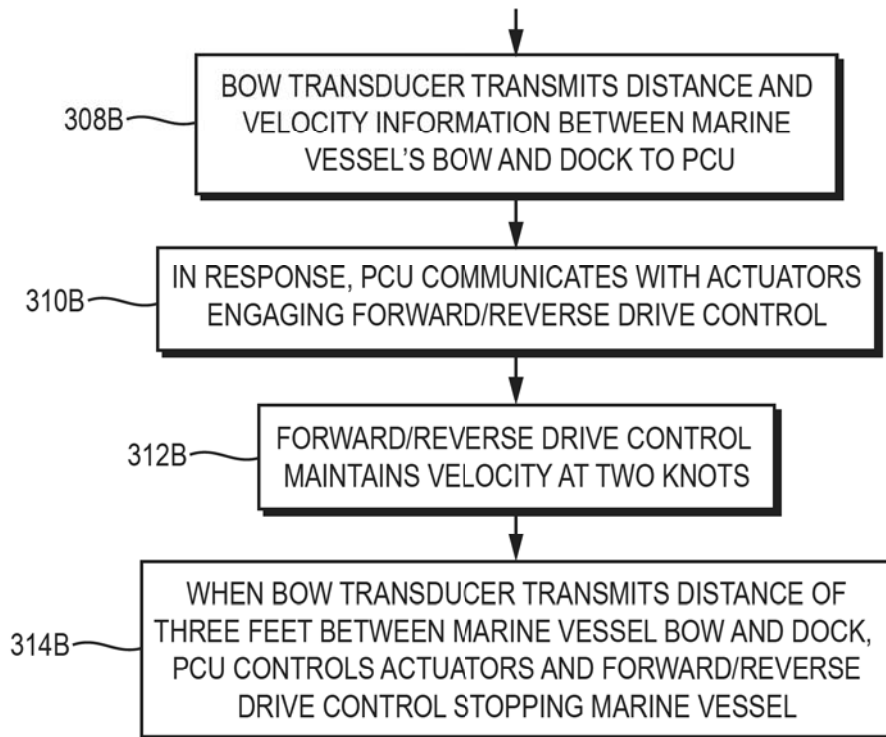


FIG. 7B

DOCKING SYSTEM FLOW DIAGRAM
AUTOMATIC MANEUVERING OF A MARINE VESSEL INTO A SLIP
DISTANCE TRANSDUCER OPERATION

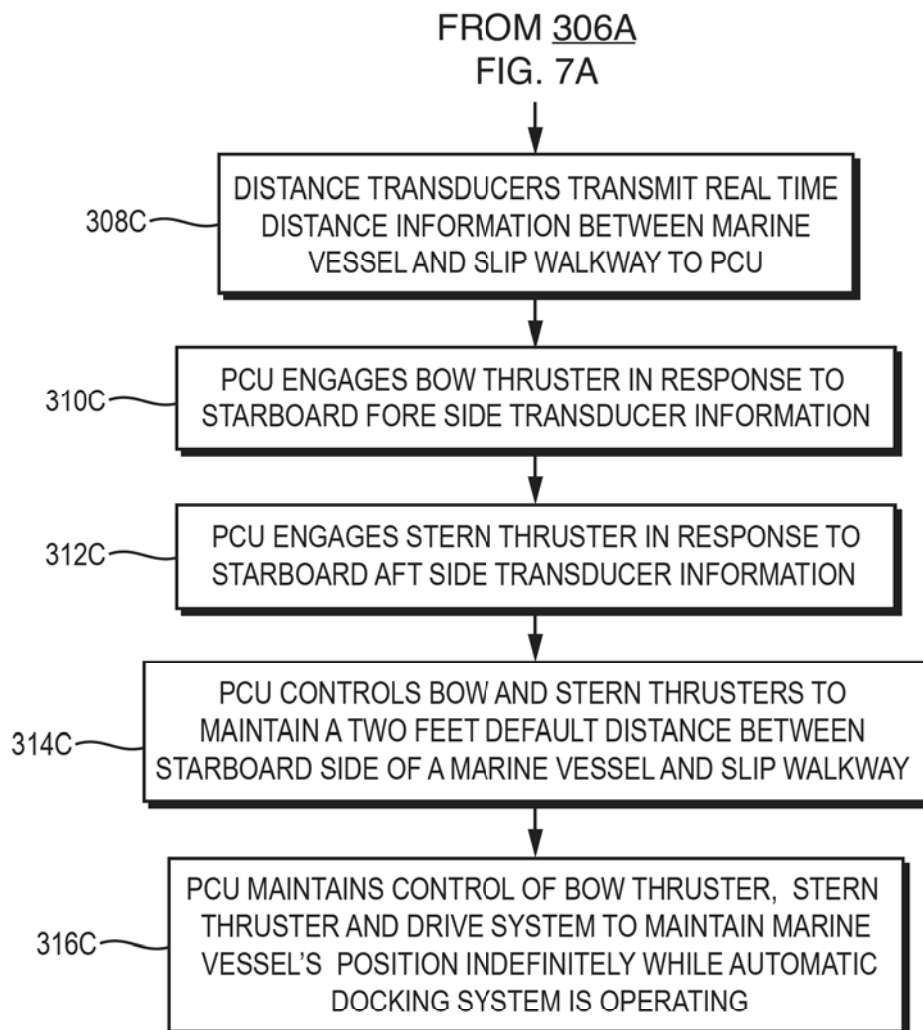


FIG. 7C

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FLOATING BUOY/MOORING OPERATION

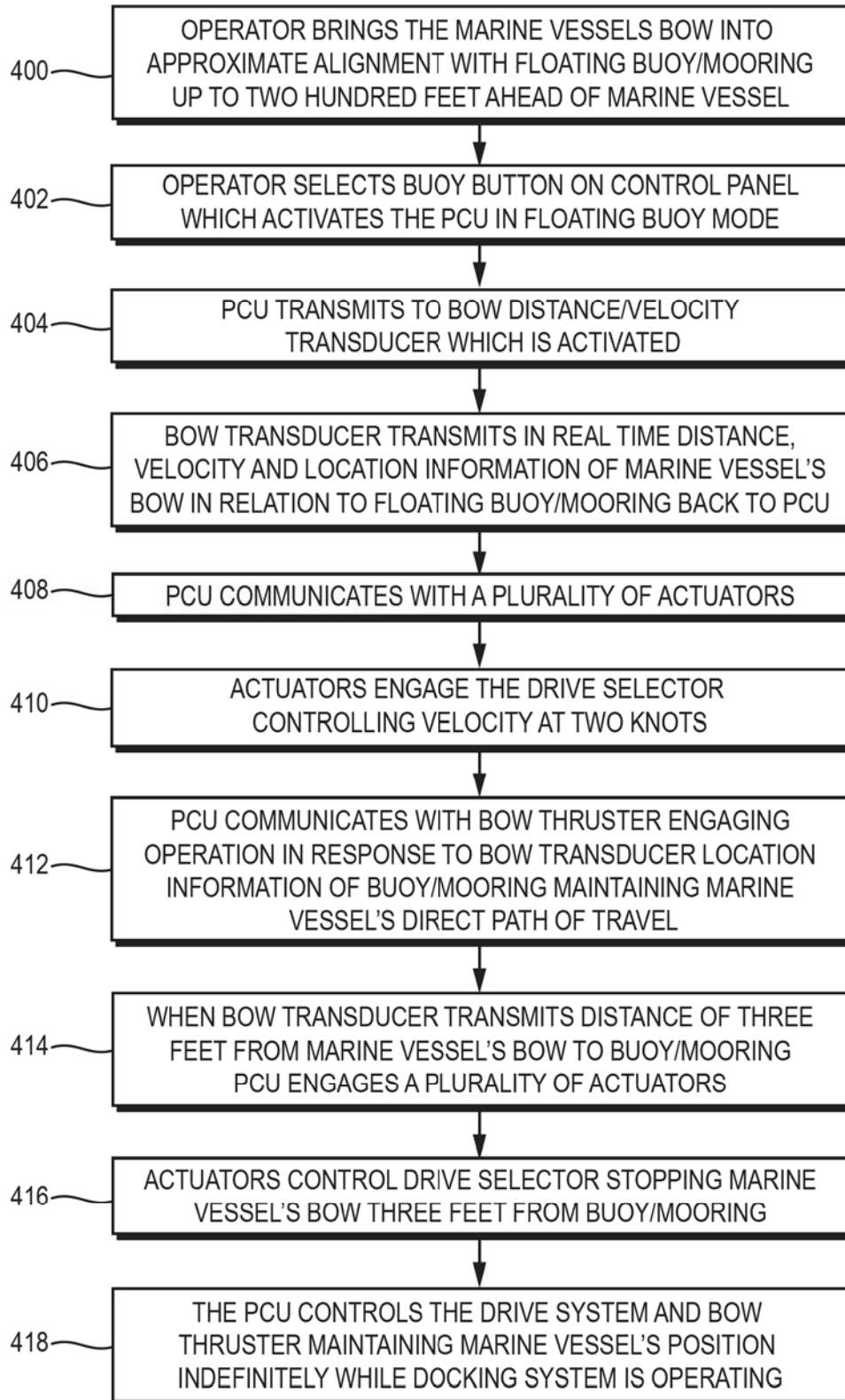


FIG. 8

DOCKING DEPARTURE SYSTEM FLOW DIAGRAM

FOR THIS EXAMPLE WE WILL SELECT OPERATION FOR
DEPARTURE FROM A STARBOARD SIDE EXTERNAL OBJECT

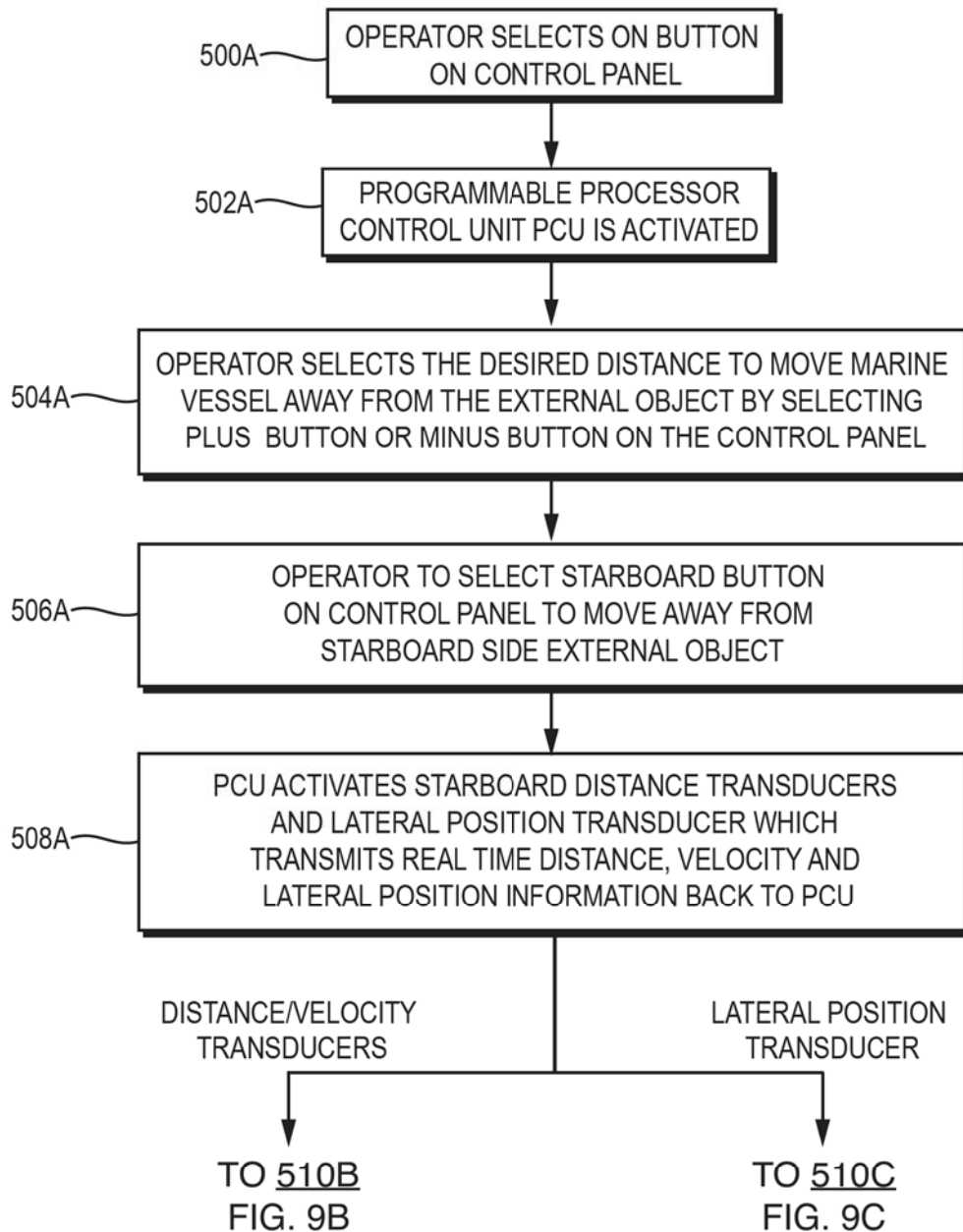


FIG. 9A

DOCKING DEPARTURE FROM EXTERNAL OBJECT

STARBOARD DISTANCE TRANSDUCER OPERATION

FROM 508A

FIG. 9A

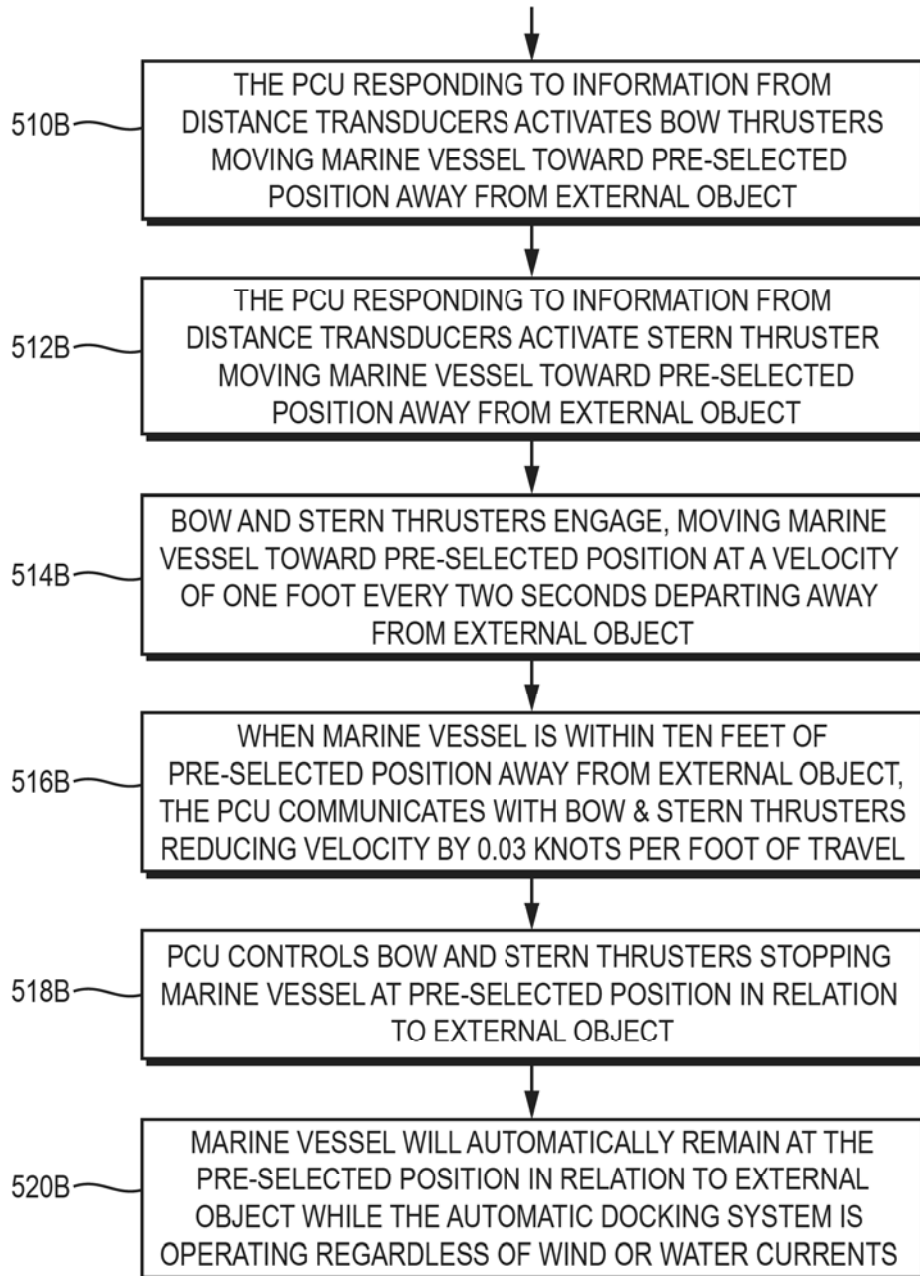


FIG. 9B

DOCKING SYSTEM DEPARTURE FROM EXTERNAL OBJECT

FOLLOWING EXAMPLE: MARINE VESSEL DEPARTING STARBOARD EXTERNAL OBJECT

FLOW DIAGRAM LATERAL POSITION TRANSDUCER OPERATION

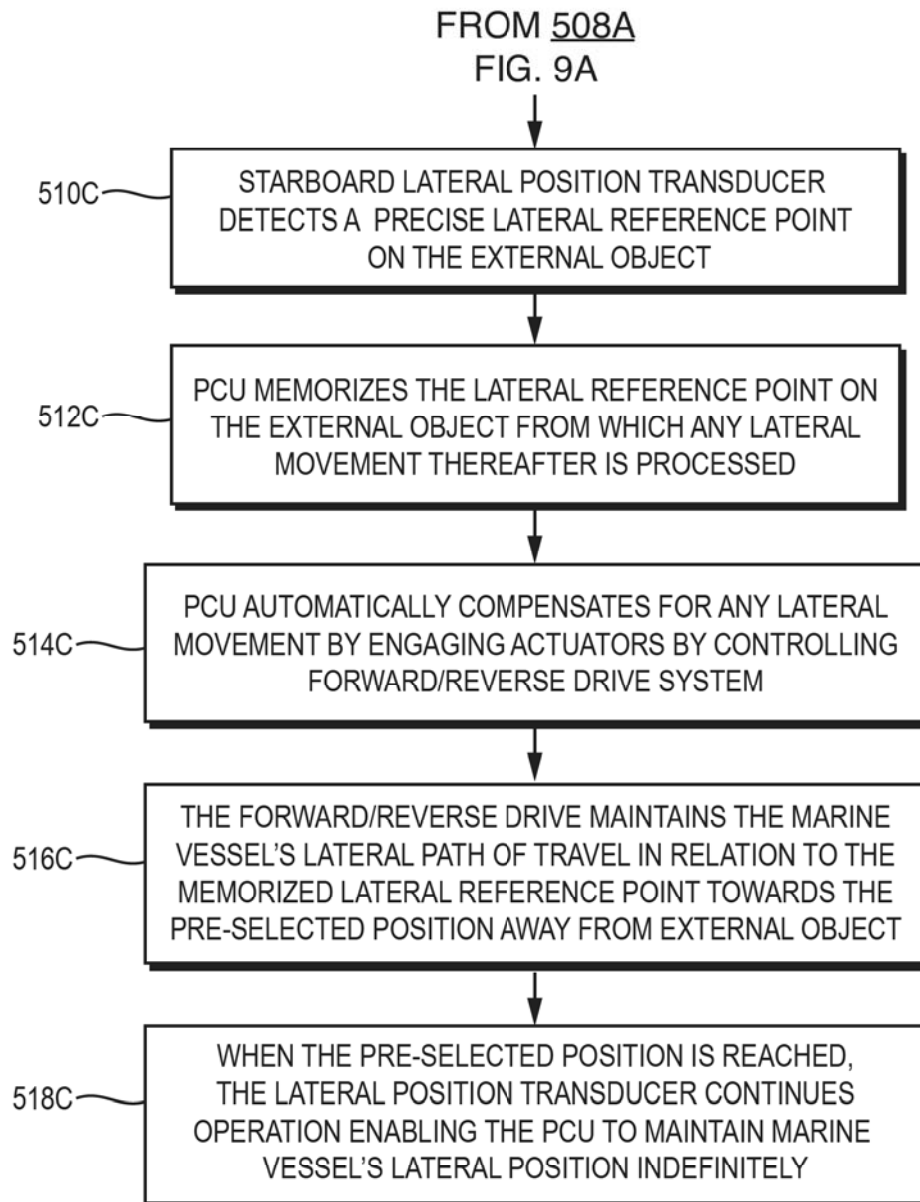


FIG. 9C

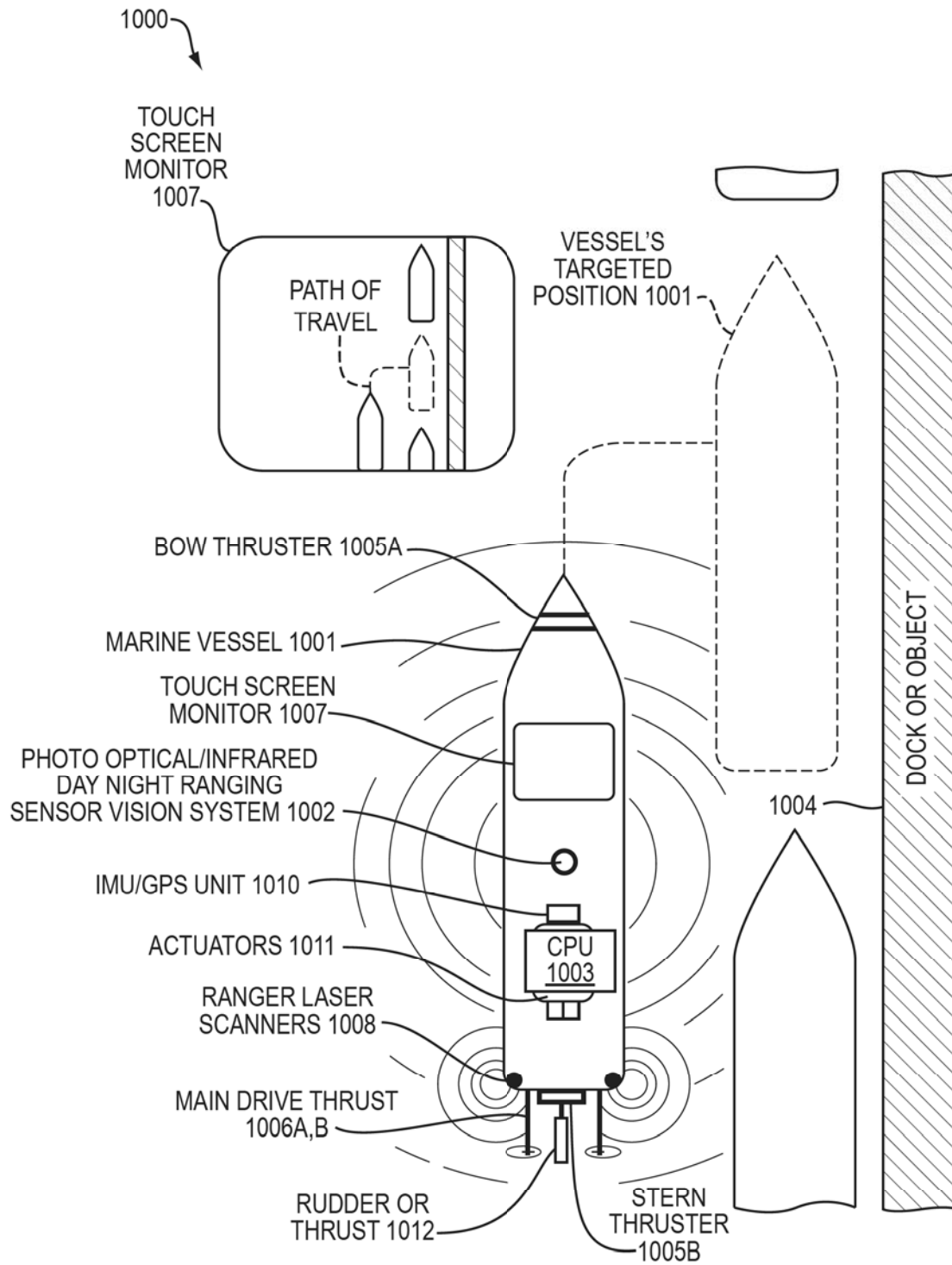


FIG. 10A

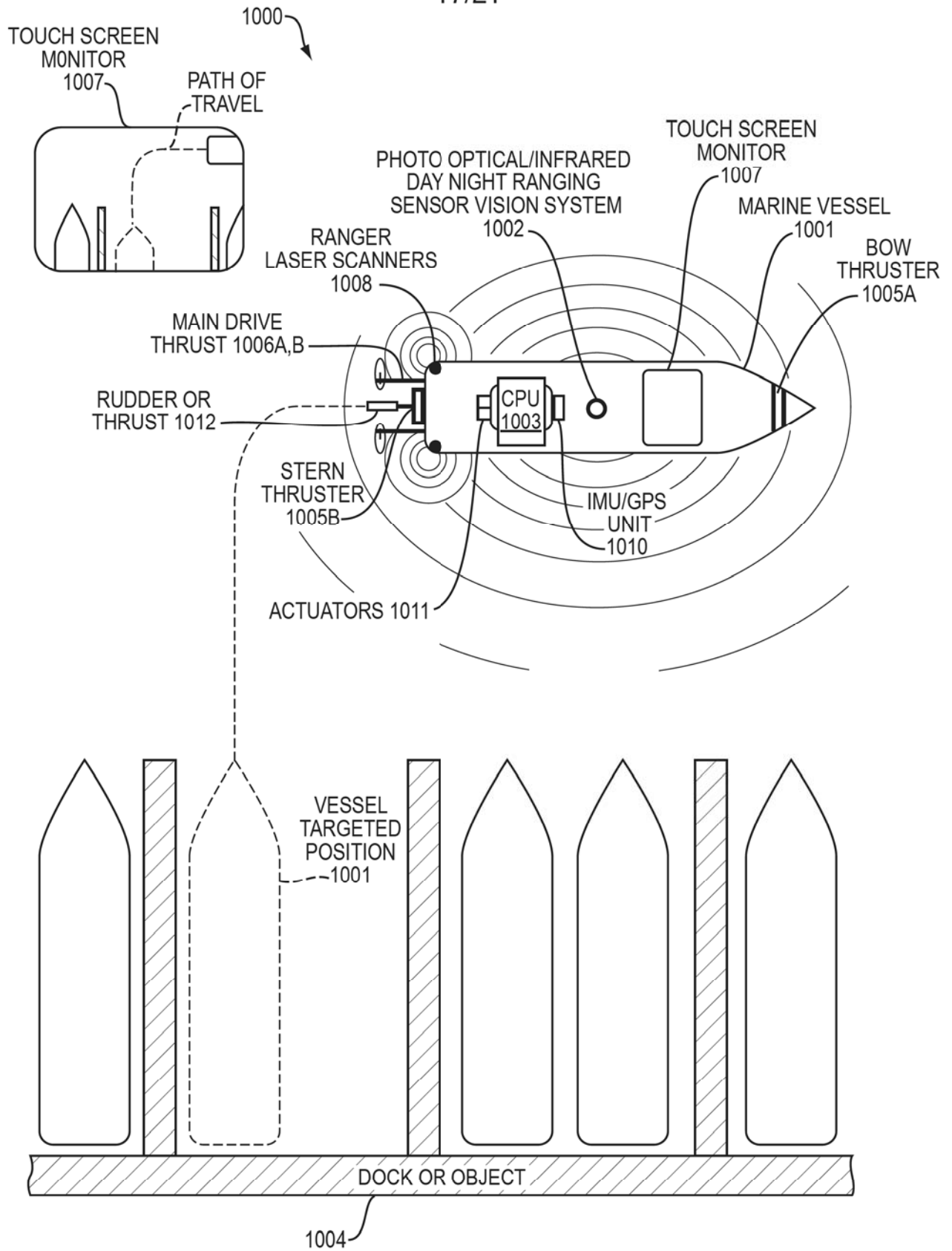


FIG. 10B

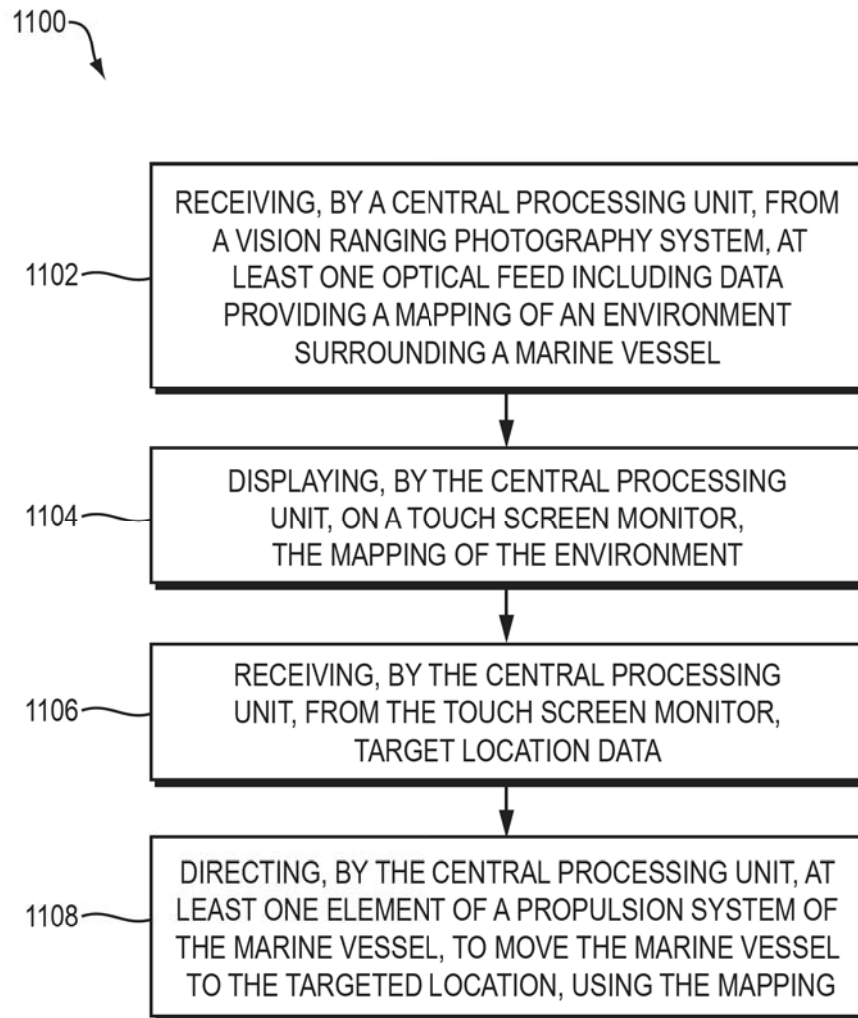


FIG. 11A

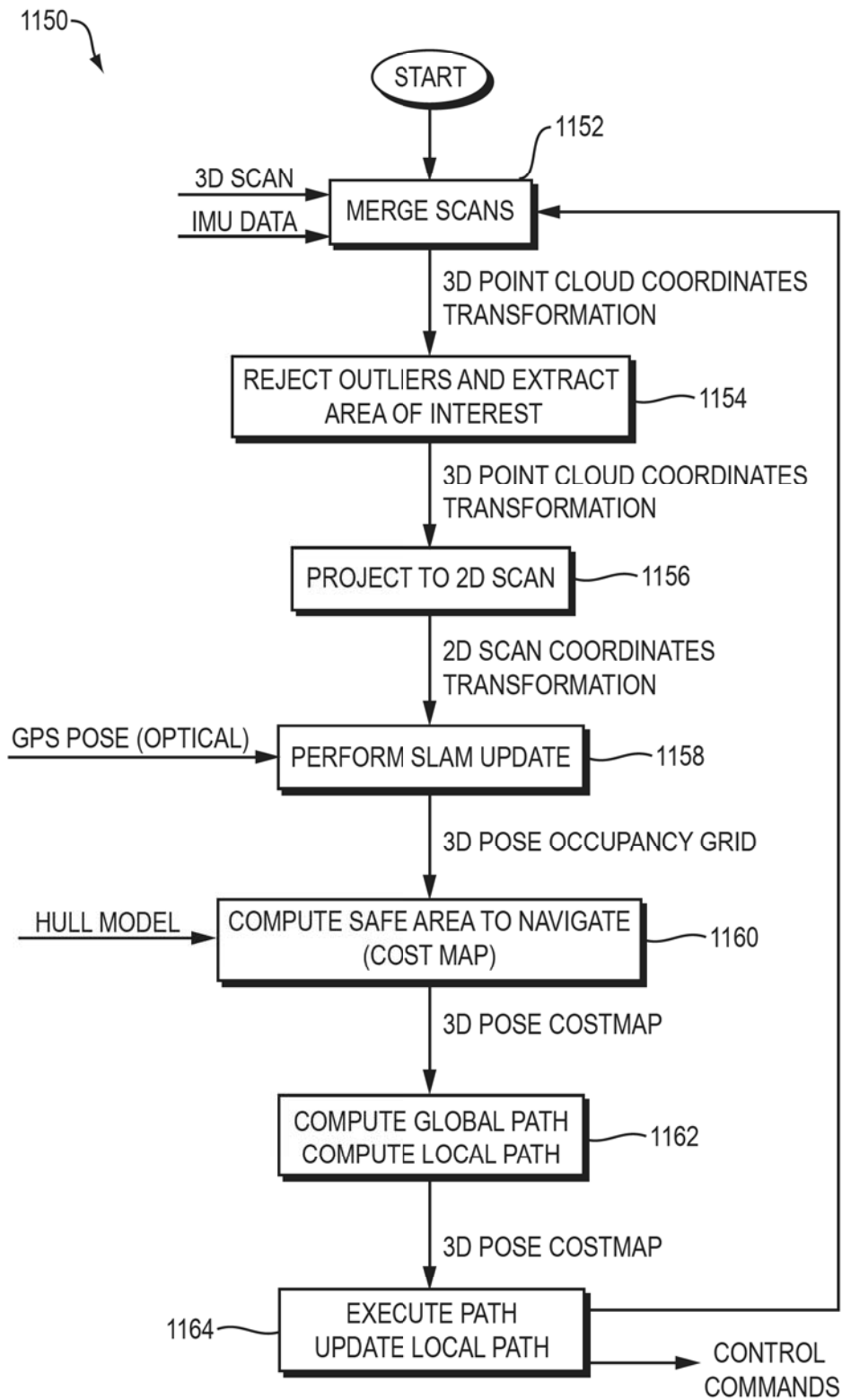


FIG. 11B

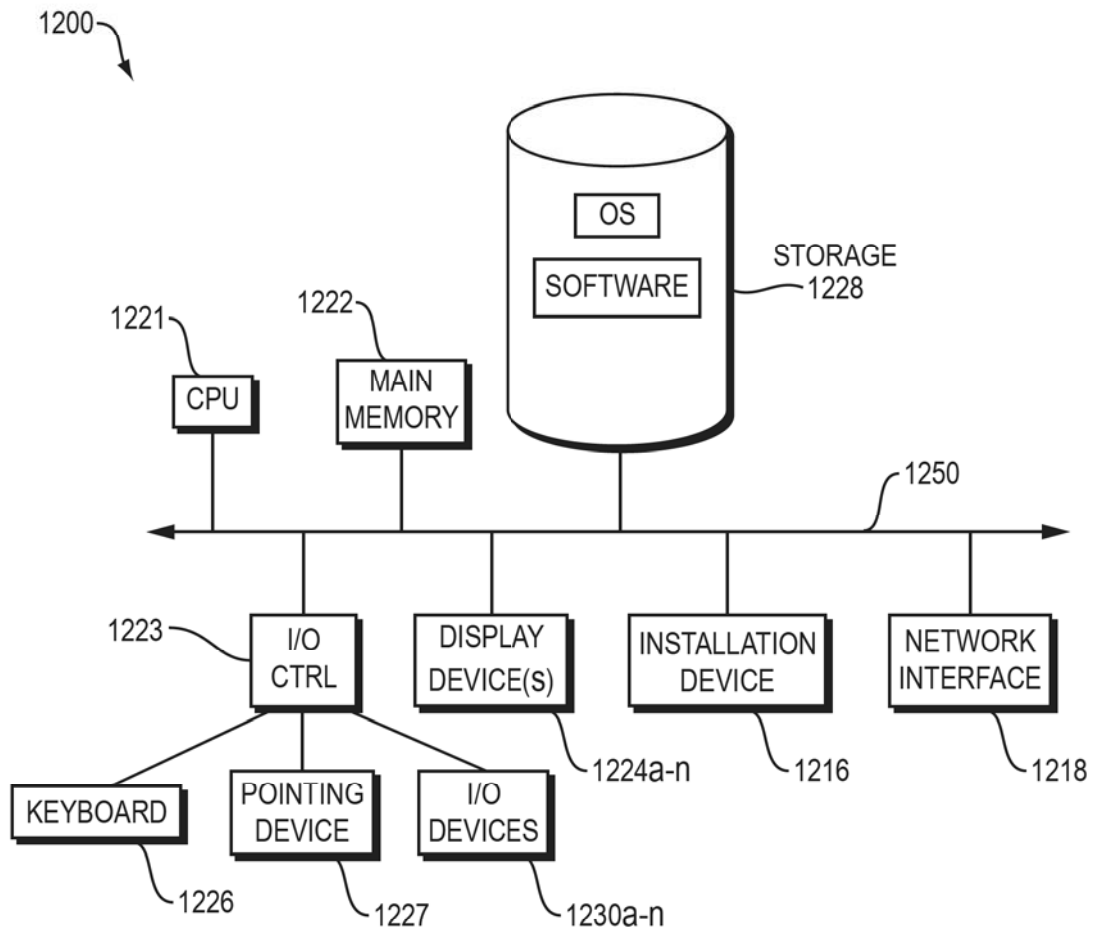


FIG. 12A

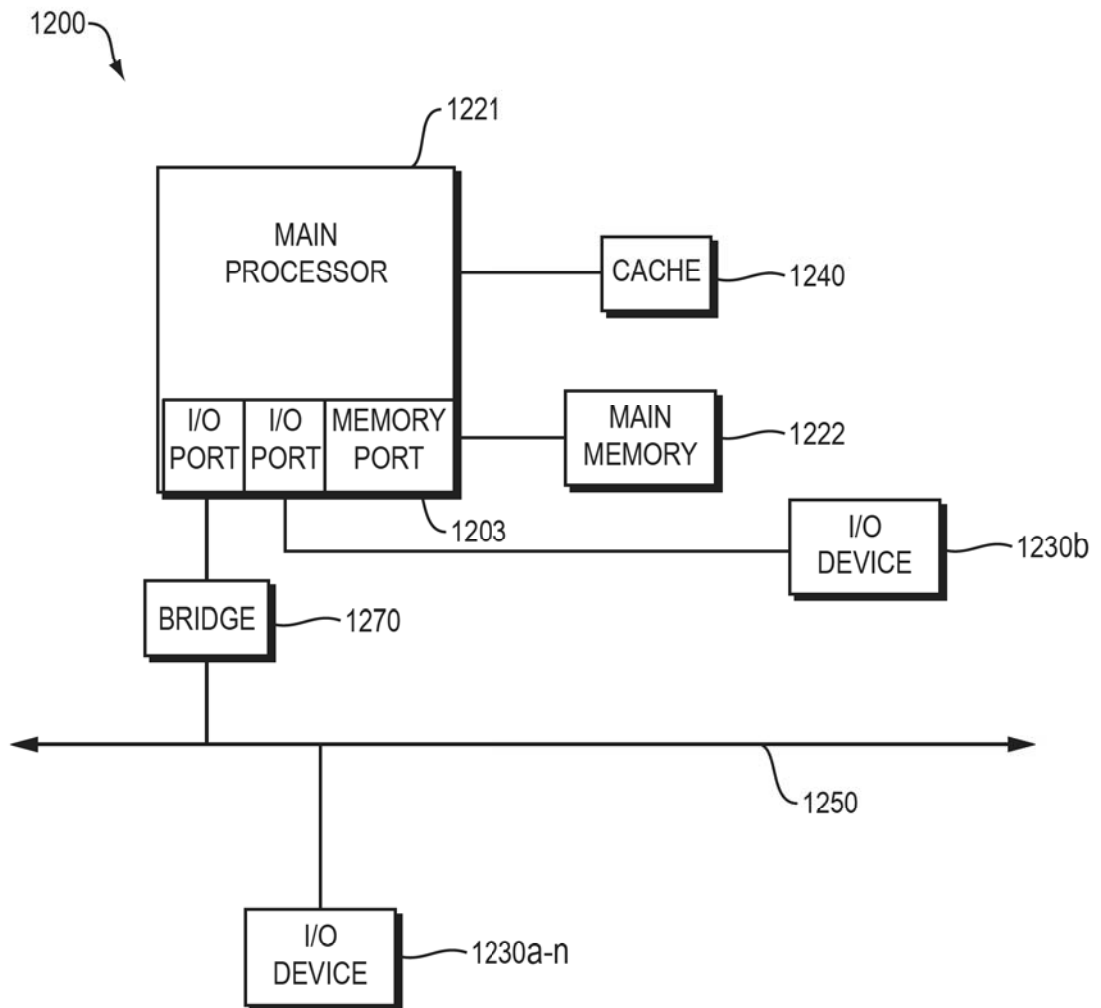


FIG. 12B