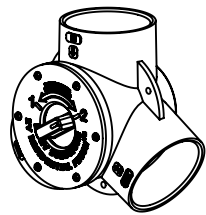
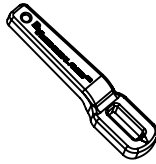


VALVE KIT - INCLUDED COMPONENT LIST



BYPASS VALVE
(1X)



VALVE
WRENCH
(1X)



MOTOR
DRIVE HUB
(1X)



MANUAL DRIVE
FACE PLATE
(1X)



MOTOR SWITCH
FACE PLATE
(1X)



SCREW
(4X)



RV & RESIDENTIAL TOILET MODELS ARE COMPATIBLE WITH **RV RESIDENTIAL FLUSH®** (SIZE & ROUGH-IN DIMENSIONS WILL VARY)

REFER TO OUR RESIDENTIAL TOILET BUYERS GUIDE AVAILABLE AT THE EZ RV SOLUTIONS WEBSITE.

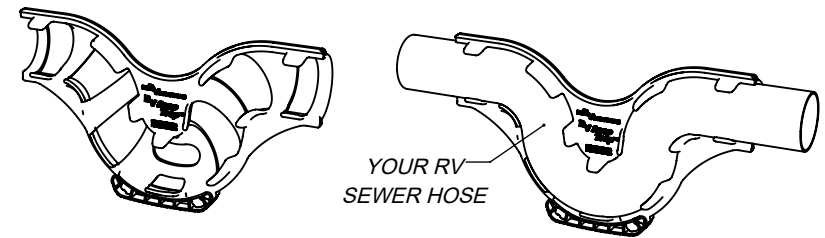
** IT IS STRONGLY RECOMMENDED THAT EITHER A GLUE-ON OR TWIST-ON STYLE 3" WASTE GATE VALVE BE INSTALLED AT THE RV SEWER HOSE CONNECTION POINT BEFORE USING THE RV RESIDENTIAL FLUSH SYSTEM.

BLACK TANK MODE USAGE: **

- 1) SET THE RV RESIDENTIAL FLUSH VALVE TO THE BLACK TANK DISCHARGE POSITION.
- 2) USE AND MAINTAIN THE BLACK TANK AS RECOMMENDED BY THE RV INDUSTRY GUIDELINES.

RV RESIDENTIAL FLUSH® MODE USAGE: **

- 1) CONNECT THE SEWER HOSE FROM THE RV TO THE CAMP SITE SEWER CONNECTION.
- 2) ENSURE A SLIGHT GRADE OF AT LEAST 1/4" PER FOOT BY USING A STANDARD SEWER HOSE SUPPORT OR EQUIVALENT.
- 3) SET THE RV RESIDENTIAL FLUSH VALVE TO THE BLACK TANK BYPASS OR RV RESIDENTIAL FLUSH DISCHARGE POSITION.
- 4) LEAVE THE BLACK HOLDING TANK VALVE OPEN TO PROVIDE FLUSH VENTING, REQUIRED FOR WATER AND SOLIDS TO FLUSH THROUGH THE SEWER HOSE.
 - A) THIS MAY NOT BE NECESSARY IF THE BLACK TANK BYPASS PLUMBING HAS BEEN VENTED TO THE ROOF BY THE RV MANUFACTURER. (OEM APPLICATIONS)
- 5) THE USE OF **RV SNAP TRAP®** IS RECOMMENDED TO FORM THE SEWER HOSE INTO A "P-TRAP". THIS WILL ELIMINATE THE POSSIBILITY OF SEWER GAS AND SEWER FLY INFILTRATION INTO RV PLUMBING AND HOLDING TANKS. GRAY HOLDING TANK VALVES CAN NOW BE LEFT OPEN, FOR WORRY FREE CONTINUAL USE.
 - A) QUARTERLY CLEAN-OUT (RECOMMENDED FOR GRAY HOLDING TANKS THAT HAVE BEEN LEFT OPEN FOR EXTENDED PERIODS OF TIME): CLOSE GATE VALVE AND ADD ONE OUNCE OF DAWN ULTRA DOWN DRAIN, ALLOW TANK TO FILL THROUGH NORMAL USE, THEN OPEN GATE VALVE TO EMPTY.
- 6) IF RV IS EQUIPPED WITH A STANDARD RV MODEL TOILET, THEN FILL THE TOILET BOWL FROM 1/3 TO 1/2 FULL BEFORE EACH FLUSH.
- 7) IF RV IS EQUIPPED WITH A RESIDENTIAL MODEL TOILET, THEN SIMPLY FLUSH TO EXPEL WASTE.
- 8) AT CAMP BREAK-DOWN, FLUSH (FILL & FLUSH FOR RV STYLE TOILETS) THE TOILET SEVERAL TIMES TO RINSE AND CLEANSE THE PLUMBING AND SEWER HOSE.



RV SNAP TRAP®
(SOLD SEPERATELY)

TABLE OF CONTENTS

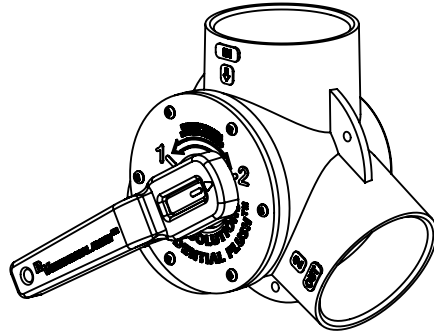
PAGE 3.....	USAGE APPLICATION OVERVIEW
PAGE 4.....	BASIC SYSTEM ILLUSTRATION
PAGE 5.....	EXTERIOR HATCH DOOR BYPASS VALVE ACCESS (WHEN TOILET IS POSITIONED AT EXTERIOR WALL)
PAGE 6.....	MOTORHOME (DRIVABLE) BYPASS PLUMBING DIAGRAM - "HORIZONTAL" VALVE CONFIGURATION
PAGE 7.....	MOTORHOME (DRIVABLE) BYPASS PLUMBING DIAGRAM - "VERTICAL" VALVE CONFIGURATION
PAGE 8.....	RETROFIT APPLICATION DETAIL
PAGE 9.....	USAGE APPLICATION 1A - MANUAL WRENCH VALVE ACTUATION SYSTEM ILLUSTRATION (UPPER LEVEL BATHROOM)
PAGE 10.....	USAGE APPLICATION 1B - MANUAL WRENCH VALVE ACTUATION - HORIZONTAL VALVE CONFIGURATION (CHASSIS LEVEL BATHROOM)
PAGE 11.....	USAGE APPLICATION 2 - "MANUAL DRIVE KIT" VALVE ACTUATION SYSTEM ILLUSTRATION
PAGE 12.....	USAGE APPLICATION 2 - "MANUAL DRIVE KIT" ASSEMBLY INSTRUCTION REFERENCE
PAGE 13.....	USAGE APPLICATION 3 - "MOTORIZED DRIVE KIT" VALVE ACTUATION SYSTEM ILLUSTRATION
PAGE 14.....	"MOTORIZED DRIVE KIT" - COMPONENT LIST ILLUSTRATION
PAGE 15.....	"MOTORIZED DRIVE KIT" - BYPASS VALVE PREPARATION AND INSTRUCTION
PAGE 16.....	"MOTORIZED DRIVE KIT" - BYPASS VALVE INSTRUCTION CONTINUED

USAGE APPLICATION - 1A & 1B

MANUAL VALVE WRENCH APPLICATION

(WHEN BYPASS VALVE ACCESS IS WITHIN HANDS-REACH)

(REFER TO PAGES 9 & 10)



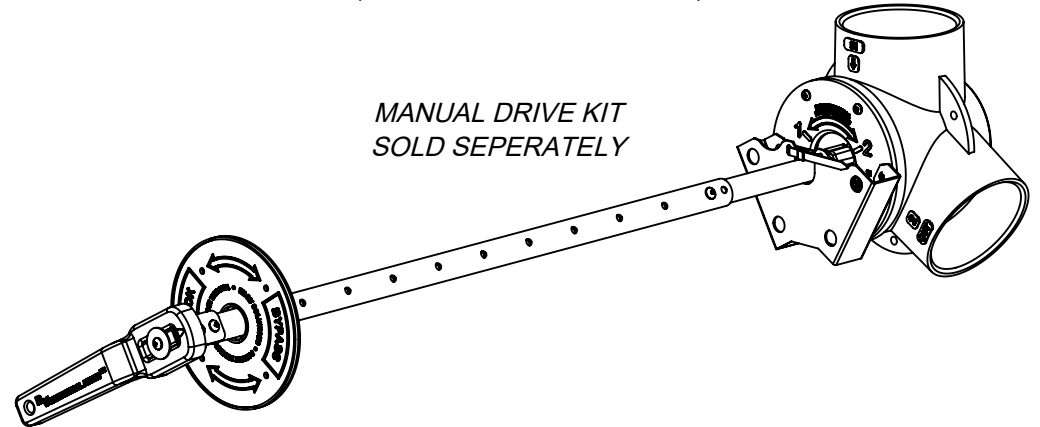
USAGE APPLICATION - 2

"MANUAL DRIVE KIT" APPLICATION

(WHEN BYPASS VALVE ACCESS IS NOT WITHIN HANDS-REACH)

(REFER TO PAGES 11 & 12)

*MANUAL DRIVE KIT
SOLD SEPERATELY*



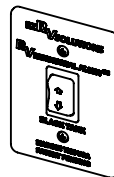
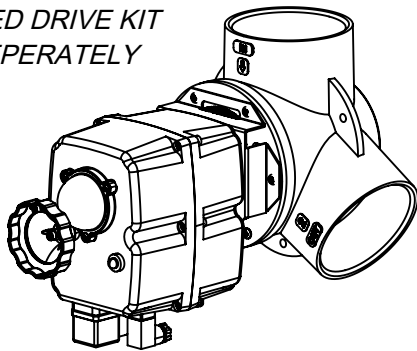
USAGE APPLICATION - 3

"MOTORIZED DRIVE KIT" APPLICATION

(WHEN BYPASS VALVE ACCESS IS NOT WITHIN HANDS-REACH)

(REFER TO PAGES 13 THRU 15)

*MOTORIZED DRIVE KIT
SOLD SEPERATELY*



REMOTE
MOUNTED
SWITCH WITH
FACE PLATE

USAGE APPLICATION - 4

MOTORHOME (DRIVABLE) APPLICATION

(REFER TO PAGES 6 & 7)



BASIC SYSTEM ILLUSTRATION

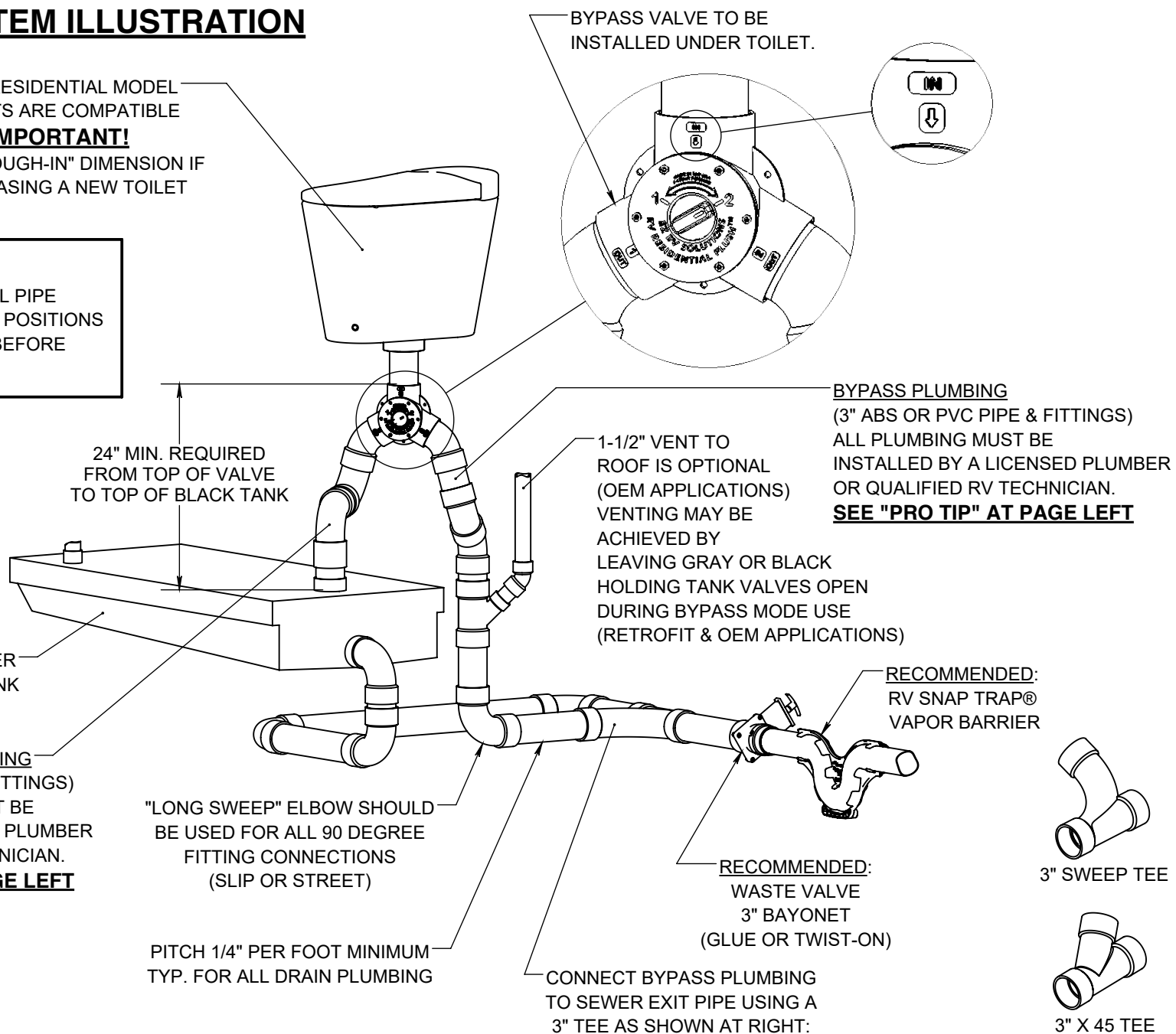
RV & RESIDENTIAL MODEL TOILETS ARE COMPATIBLE
IMPORTANT!
 NOTE "ROUGH-IN" DIMENSION IF PURCHASING A NEW TOILET

PRO TIP:

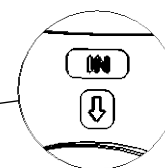
ALWAYS "DRY FIT" (NO GLUE) ALL PIPE AND PIPE FITTINGS, THEN MARK POSITIONS TO ENSURE PROPER FITMENT BEFORE FINAL GLUING.



3" RUBBER COUPLING (FERNCO) CAN BE USED WHEN NECESSARY



BYPASS VALVE TO BE INSTALLED UNDER TOILET.



BYPASS PLUMBING
 (3" ABS OR PVC PIPE & FITTINGS)
 ALL PLUMBING MUST BE INSTALLED BY A LICENSED PLUMBER OR QUALIFIED RV TECHNICIAN.
SEE "PRO TIP" AT PAGE LEFT

1-1/2" VENT TO ROOF IS OPTIONAL (OEM APPLICATIONS)
 VENTING MAY BE ACHIEVED BY LEAVING GRAY OR BLACK HOLDING TANK VALVES OPEN DURING BYPASS MODE USE (RETROFIT & OEM APPLICATIONS)

RECOMMENDED:
 RV SNAP TRAP®
 VAPOR BARRIER



3" SWEEP TEE

RECOMMENDED:
 WASTE VALVE
 3" BAYONET
 (GLUE OR TWIST-ON)



3" X 45 TEE

CONNECT BYPASS PLUMBING TO SEWER EXIT PIPE USING A 3" TEE AS SHOWN AT RIGHT:

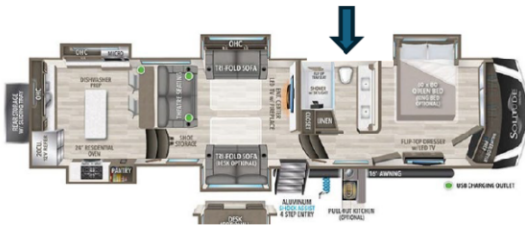
Grand Design - Solitude Floorplans



Grand Design 370DV



Grand Design 382WB



Grand Design 390RK



Grand Design 376RD

Possible Exterior Wall Bypass Valve Access Door Applications

Floorplan overview only. Based on toilet location at exterior wall. Various other appliance locations may obstruct access for hatch door installation.



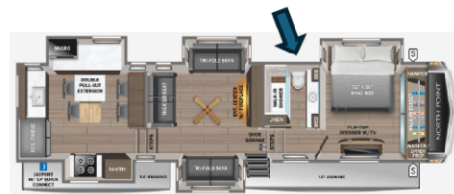
Bypass Valve Exterior Access Door



Alliance Paradigm 375RD



North Point 340CKTSS



North Point 380RKGS

Cedar Creek - Champagne Floorplans



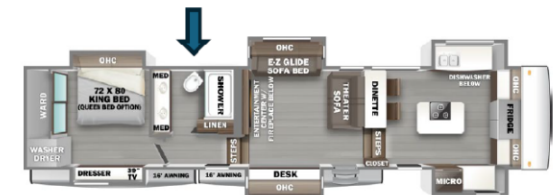
38EBS



38EL



38EKS

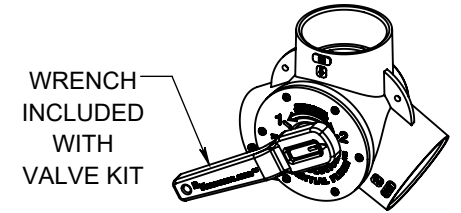
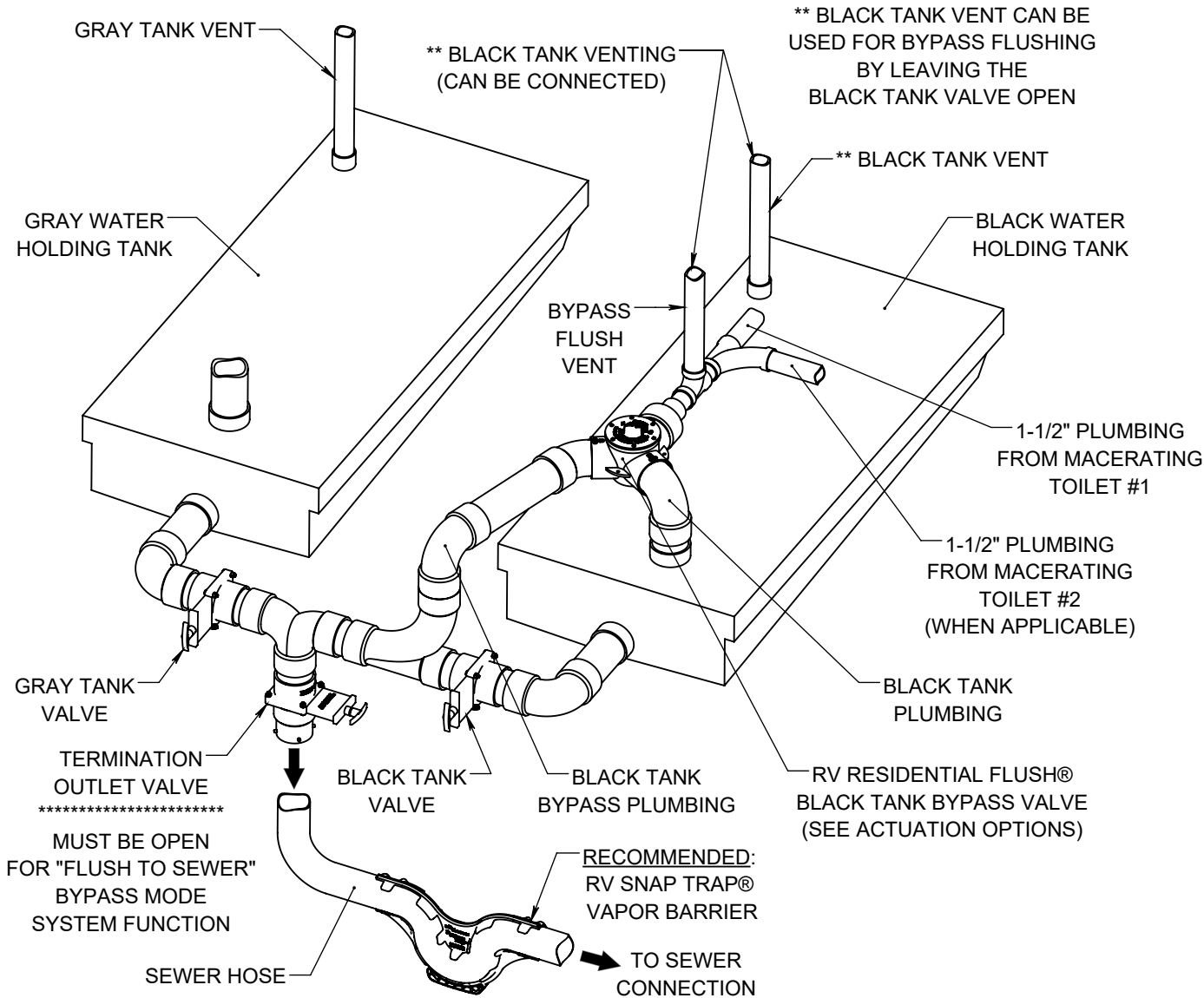


Riverstone 421FK



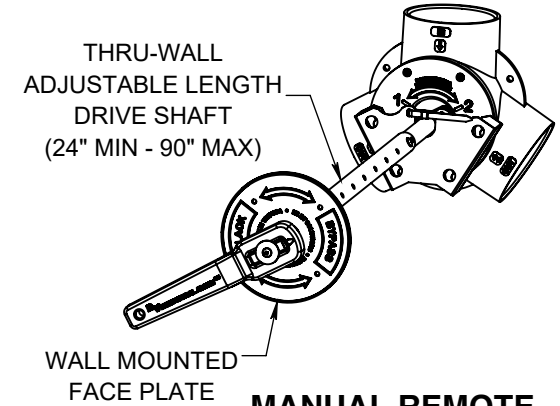
River Ranch 393RL

MOTORHOME (DRIVABLE) BYPASS PLUMBING DIAGRAM
"HORIZONTAL" VALVE CONFIGURATION

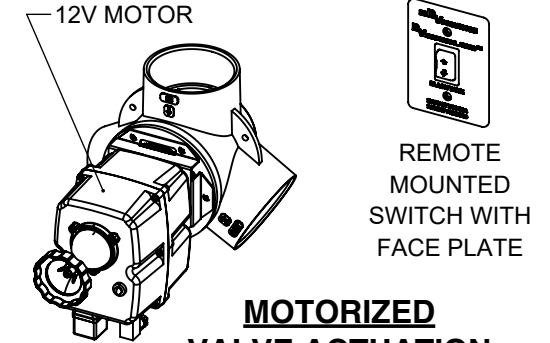


MANUAL WRENCH VALVE ACTUATION

(WHEN VALVE IS WITHIN HAND REACH)



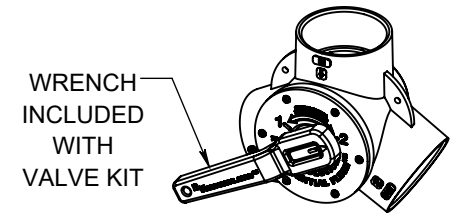
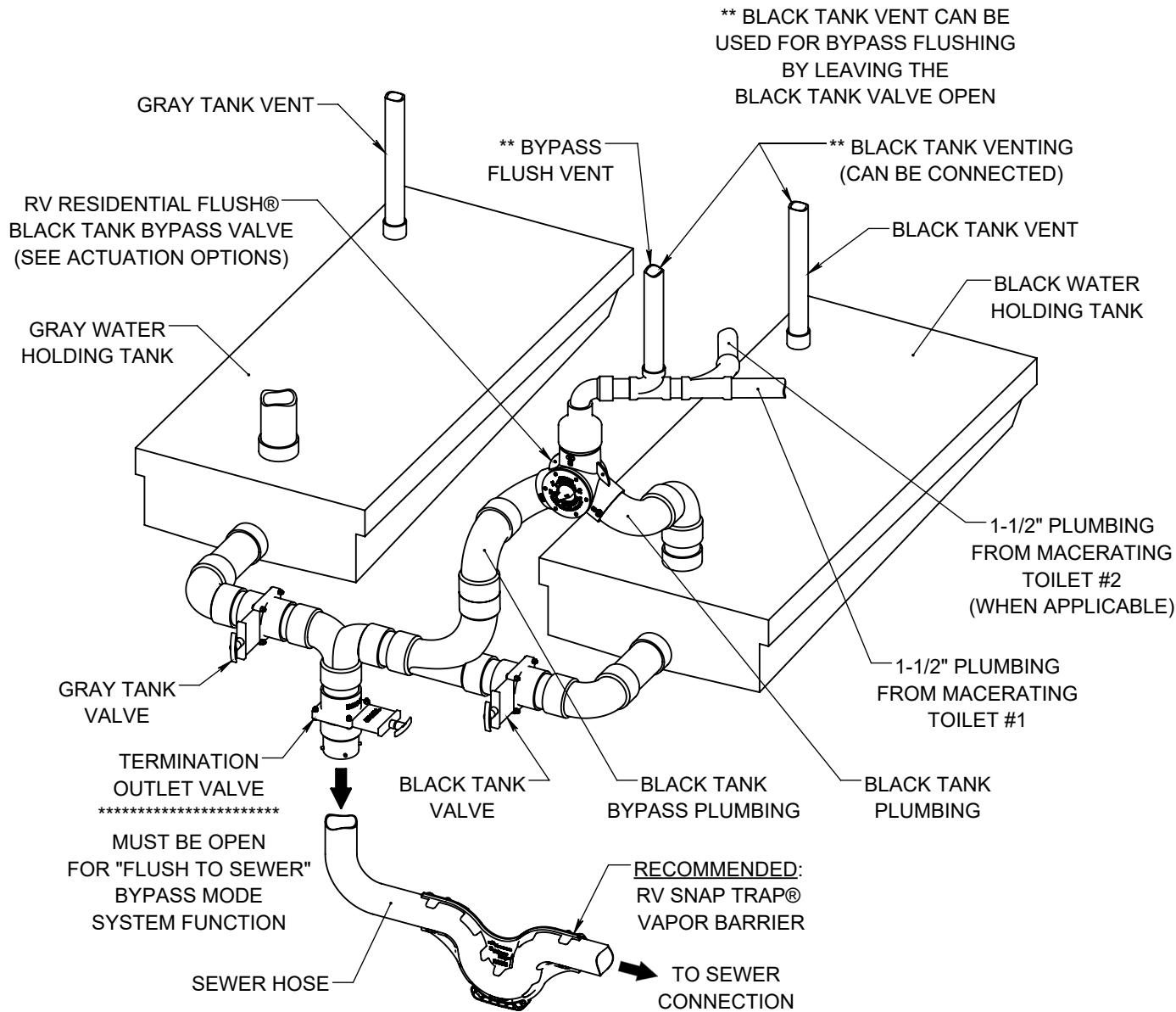
MANUAL REMOTE VALVE ACTUATION



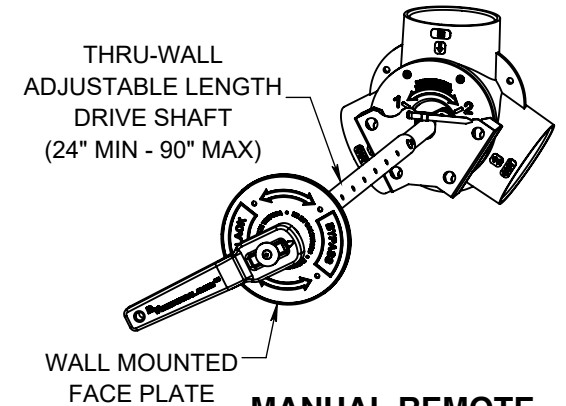
MOTORIZED VALVE ACTUATION

(CAN ALSO BE PROGRAMMED TO FUNCTION VIA RV TOUCH SCREEN)

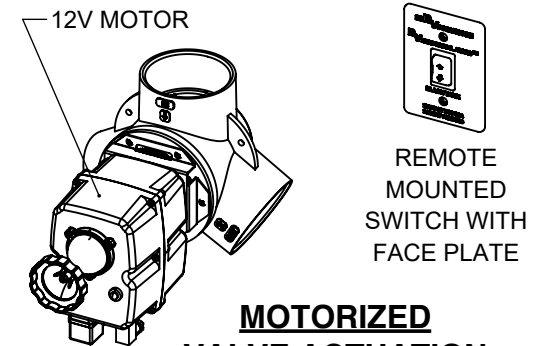
MOTORHOME (DRIVABLE) BYPASS PLUMBING DIAGRAM
"VERTICAL" VALVE CONFIGURATION



MANUAL WRENCH VALVE ACTUATION
 (WHEN VALVE IS WITHIN HAND REACH)

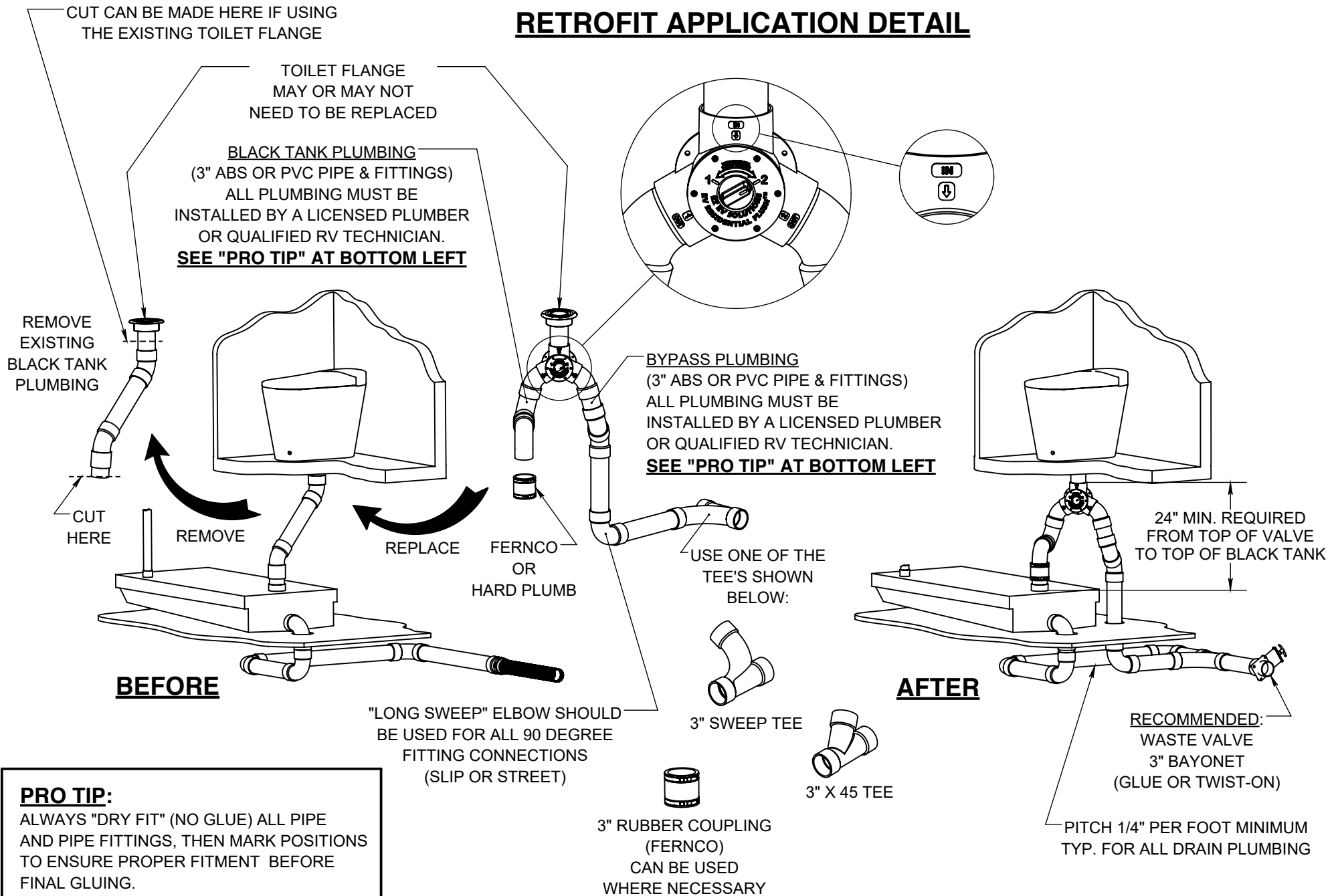


MANUAL REMOTE VALVE ACTUATION



MOTORIZED VALVE ACTUATION
 (CAN ALSO BE PROGRAMMED TO FUNCTION VIA RV TOUCH SCREEN)

RETROFIT APPLICATION DETAIL



PRO TIP:
ALWAYS "DRY FIT" (NO GLUE) ALL PIPE AND PIPE FITTINGS, THEN MARK POSITIONS TO ENSURE PROPER FITMENT BEFORE FINAL GLUING.

USAGE APPLICATION - 1A

MANUAL WRENCH VALVE ACTUATION

(UPPER LEVEL BATHROOM FLOORPLAN)

FOR THIS APPLICATION, THE VALVE WRENCH PROVIDED WITH THE BYPASS VALVE IS ALL THAT IS REQUIRED TO SWITCH / ACTUATE THE BYPASS VALVE BETWEEN BLACK TANK AND RESIDENTIAL FLUSH MODES.

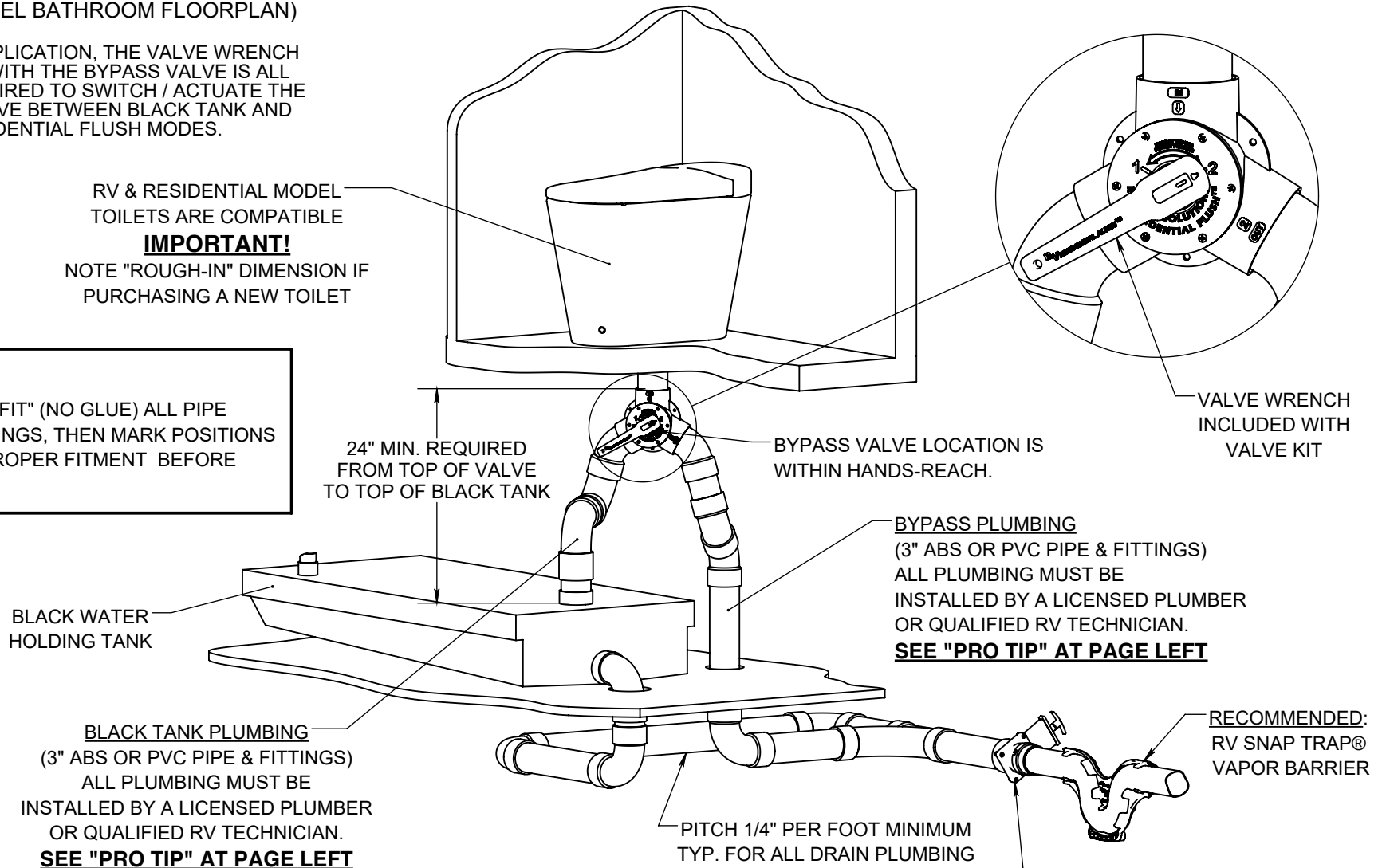
RV & RESIDENTIAL MODEL TOILETS ARE COMPATIBLE

IMPORTANT!

NOTE "ROUGH-IN" DIMENSION IF PURCHASING A NEW TOILET

PRO TIP:

ALWAYS "DRY FIT" (NO GLUE) ALL PIPE AND PIPE FITTINGS, THEN MARK POSITIONS TO ENSURE PROPER FITMENT BEFORE FINAL GLUING.



MANUAL VALVE WRENCH APPLICATION

(WHEN BYPASS VALVE ACCESS IS WITHIN HANDS-REACH)

USAGE APPLICATION - 1B

"HORIZONTAL MOUNTING CONFIGURATION"

MANUAL WRENCH VALVE ACTUATION
(CHASSIS LEVEL BATHROOM)

FOR THIS APPLICATION, THE VALVE WRENCH PROVIDED WITH THE BYPASS VALVE IS ALL THAT IS REQUIRED TO SWITCH / ACTUATE THE BYPASS VALVE BETWEEN BLACK TANK AND RESIDENTIAL FLUSH MODES.

PRO TIP:

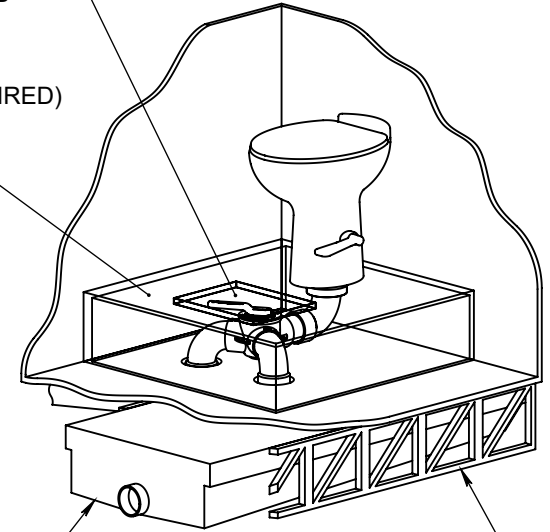
ALWAYS "DRY FIT" (NO GLUE) ALL PIPE AND PIPE FITTINGS, THEN MARK POSITIONS TO ENSURE PROPER FITMENT BEFORE FINAL GLUING.

REMOVABLE OR HINGED LIFT-UP FLOOR ACCESS PANEL TO HAND ACTUATE THE VALVE (NO ADDITIONAL VALVE GEAR REQUIRED)

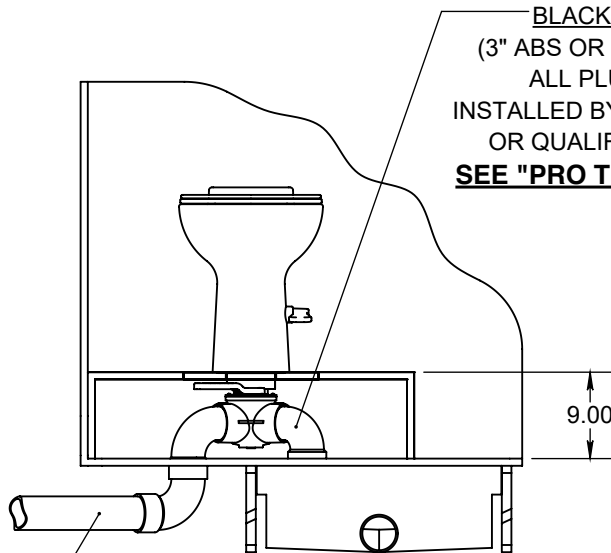
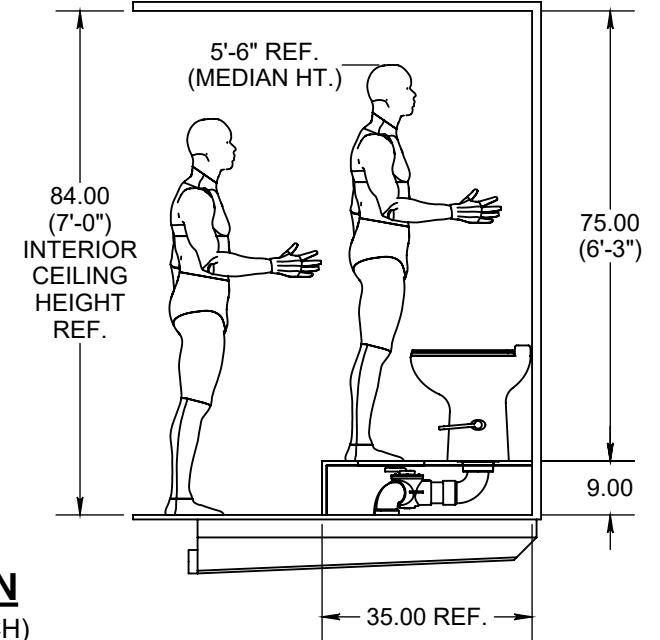
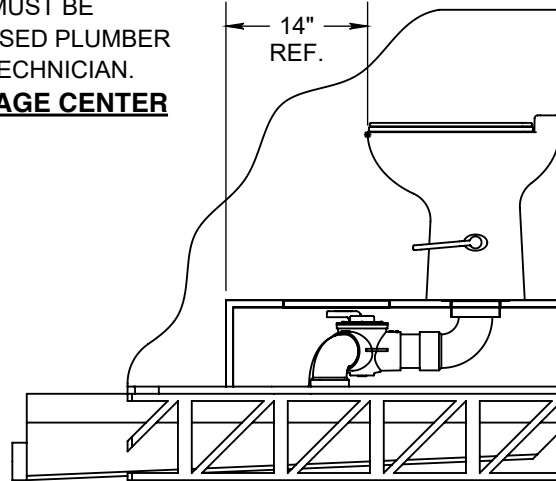
VALVE HOUSING RISER

BLACK TANK

TRAILER CHASSIS



BLACK TANK PLUMBING
(3" ABS OR PVC PIPE & FITTINGS)
ALL PLUMBING MUST BE INSTALLED BY A LICENSED PLUMBER OR QUALIFIED RV TECHNICIAN.
SEE "PRO TIP" AT PAGE CENTER



BYPASS PLUMBING
(3" ABS OR PVC PIPE & FITTINGS)
ALL PLUMBING MUST BE INSTALLED BY A LICENSED PLUMBER OR QUALIFIED RV TECHNICIAN.
SEE "PRO TIP" AT PAGE CENTER

MANUAL VALVE WRENCH APPLICATION

(WHEN BYPASS VALVE ACCESS IS WITHIN HANDS-REACH)

USAGE APPLICATION - 2

"MANUAL DRIVE KIT" VALVE ACTUATION

(MANUAL DRIVE KIT SOLD SEPERATELY)

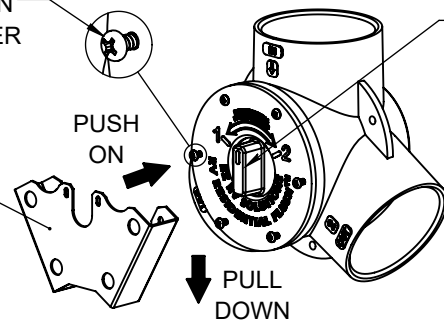
FOR THIS APPLICATION, THE "MANUAL DRIVE KIT" IS REQUIRED TO SWITCH / ACTUATE THE BYPASS VALVE BETWEEN BLACK TANK AND RESIDENTIAL FLUSH MODES.

LOOSEN THE (4) SCREWS SHOWN AND INSTALL THE DRIVE RETAINER THEN TIGHTEN ALL SCREWS

INSTALL THE DRIVE RETAINER TO VALVE (INCLUDED IN "MANUAL DRIVE KIT")

IMPORTANT!

TURN KNOB UP AS SHOWN BEFORE INSTALLING THE DRIVE RETAINER SO THAT THE DRIVE KEY MAY SLIDE INTO THE DRIVE RETAINER



BYPASS PLUMBING MUST BE INSTALLED BY A LICENCED PLUMBER OR QUALIFIED RV TECHNICIAN.

RV & RESIDENTIAL MODEL TOILETS ARE COMPATIBLE

IMPORTANT!

NOTE "ROUGH-IN" DIMENSION IF PURCHASING A NEW TOILET

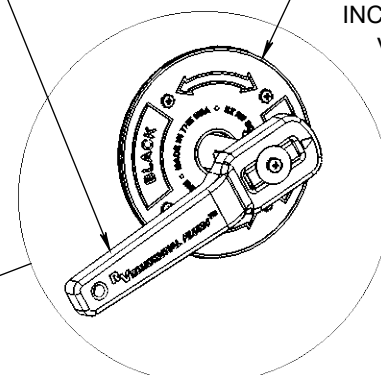
BYPASS VALVE LOCATION IS NOT WITHIN HANDS-REACH OF VALVE.

24" MIN. REQUIRED FROM TOP OF VALVE TO TOP OF BLACK TANK

BLACK WATER HOLDING TANK

VALVE WRENCH INCLUDED WITH VALVE KIT

MANUAL DRIVE FACE PLATE INCLUDED WITH VALVE KIT

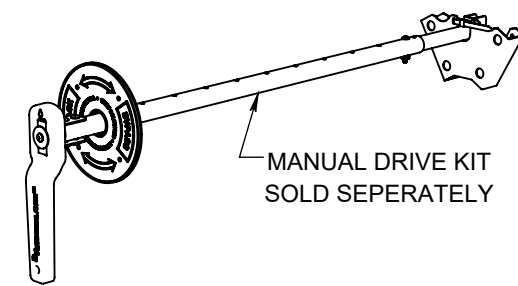


EXTERIOR WALL SHOWN FOR REFERENCE

UNDER-STORAGE WALL BOARD

ALSO SEE NEXT PAGE

FOR ADDITIONAL ASSEMBLY & INSTALLATION INSTRUCTIONS



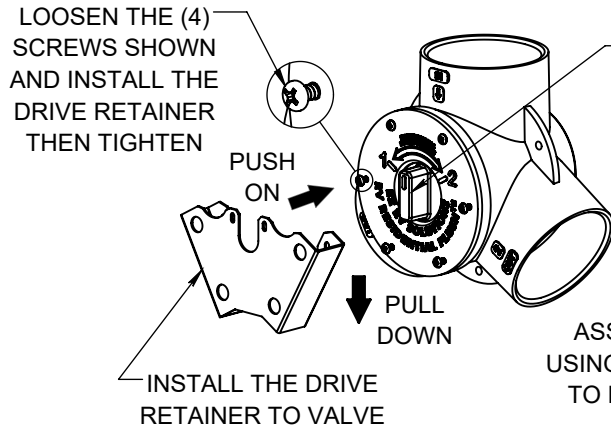
"MANUAL DRIVE KIT" APPLICATION

(WHEN BYPASS VALVE ACCESS IS NOT WITHIN HANDS-REACH)

RECOMMENDED: WASTE VALVE 3" BAYONET (GLUE OR TWIST-ON)

RECOMMENDED: RV SNAP TRAP® VAPOR BARRIER

REFER TO THE "MANUAL DRIVE KIT" ASSEMBLY INSTRUCTIONS
 (INCLUDED WITH THE "MANUAL DRIVE KIT") - ("MANUAL DRIVE KIT SOLD SEPERATELY")



IMPORTANT!

TURN KNOB UP AS SHOWN BEFORE INSTALLING THE DRIVE RETAINER SO THAT THE DRIVE KEY MAY SLIDE INTO THE DRIVE RETAINER

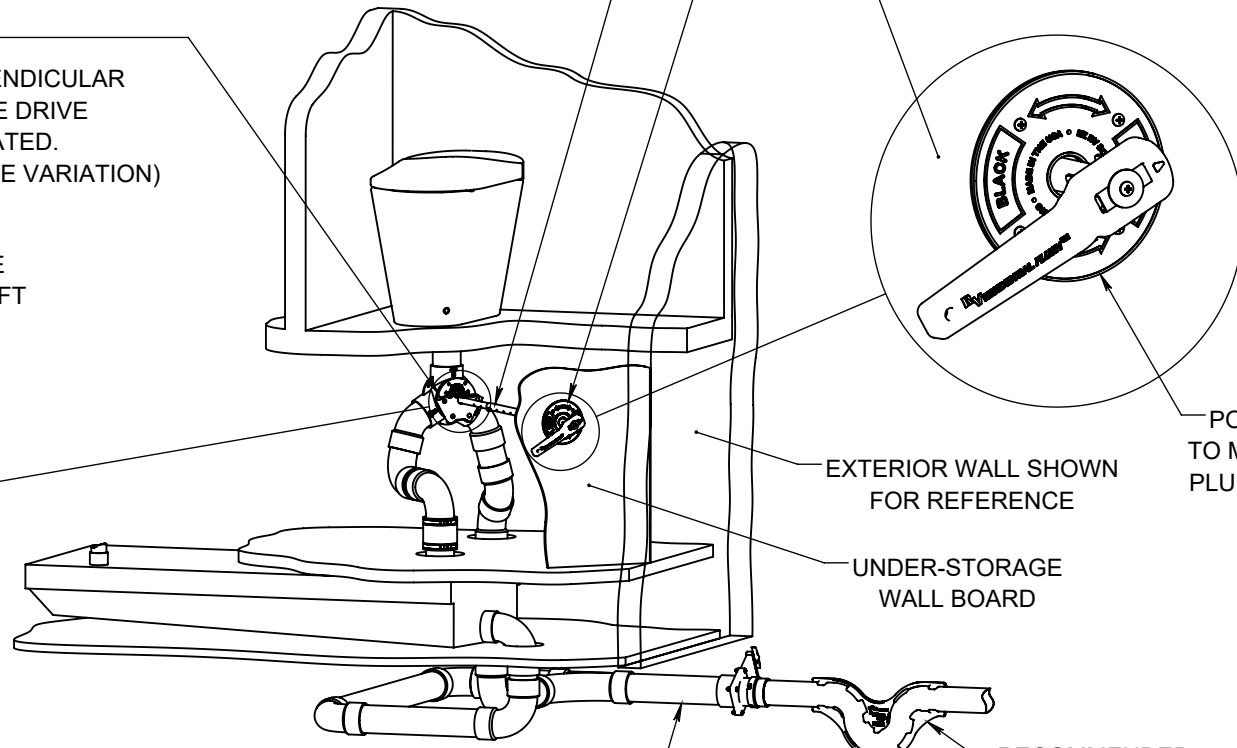
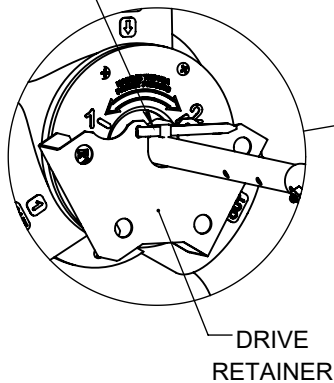
ASSEMBLE THE DRIVE SHAFT LENGTHS USING AS FEW SHAFT LENGTHS AS NEEDED TO REACH THE WALL WHERE THE DRIVE HANDLE IS TO BE LOCATED.

LACE A STRING OR WIRE THRU HOLES AT SHAFT END TO BE PULLED THRU WALL IF NEEDED TO ALIGN DRIVE SHAFT THRU WALL HOLE WHEN REINSTALLING WALL

USE A 1-3/4" DIA. (2" MAX) HOLE SAW TO CUT A THRU HOLE INTO THE UNDER-STORAGE WALL BOARD WHERE THE DRIVE HANDLE IS TO BE LOCATED

IMPORTANT:
 POSITION THE VALVE PERPENDICULAR TO THE WALL WHERE THE DRIVE HANDLE IS TO BE LOCATED. (THERE IS CLEARNCE FOR SOME VARIATION)

INSTALL THE CABLE TIE TO KEEP THE DRIVE SHAFT ASSEMBLY IN PLACE



EXTERIOR WALL SHOWN FOR REFERENCE

UNDER-STORAGE WALL BOARD

POSITION WALL PLATE TO MATCH BYPASS VALVE PLUMBING CONNECTIONS

PITCH 1/4" PER FOOT MINIMUM TYP. FOR ALL DRAIN PLUMBING

RECOMMENDED:
 RV SNAP TRAP®
 VAPOR BARRIER

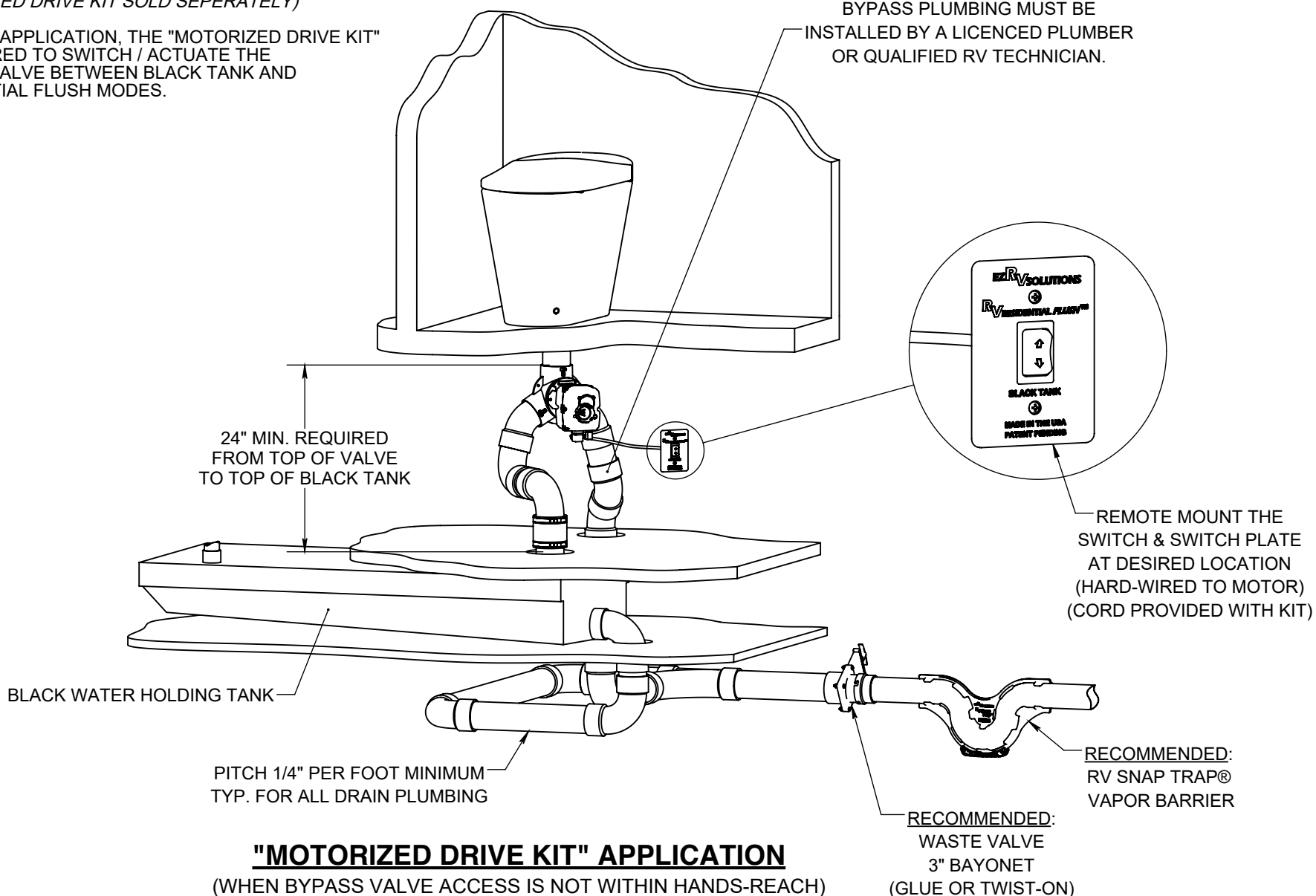
USAGE APPLICATION - 3

"MOTORIZED DRIVE KIT" VALVE ACTUATION

(MOTORIZED DRIVE KIT SOLD SEPERATELY)

FOR THIS APPLICATION, THE "MOTORIZED DRIVE KIT" IS REQUIRED TO SWITCH / ACTUATE THE BYPASS VALVE BETWEEN BLACK TANK AND RESIDENTIAL FLUSH MODES.

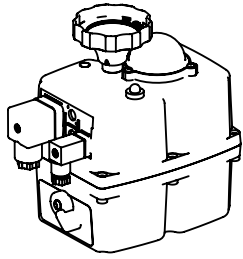
BYPASS PLUMBING MUST BE INSTALLED BY A LICENCED PLUMBER OR QUALIFIED RV TECHNICIAN.



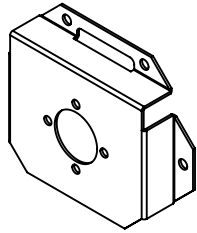
"MOTORIZED DRIVE KIT" APPLICATION

(WHEN BYPASS VALVE ACCESS IS NOT WITHIN HANDS-REACH)

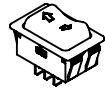
MOTORIZED KIT - COMPONENT LIST



MOTOR
(1X)



MOTOR MOUNT
(1X)

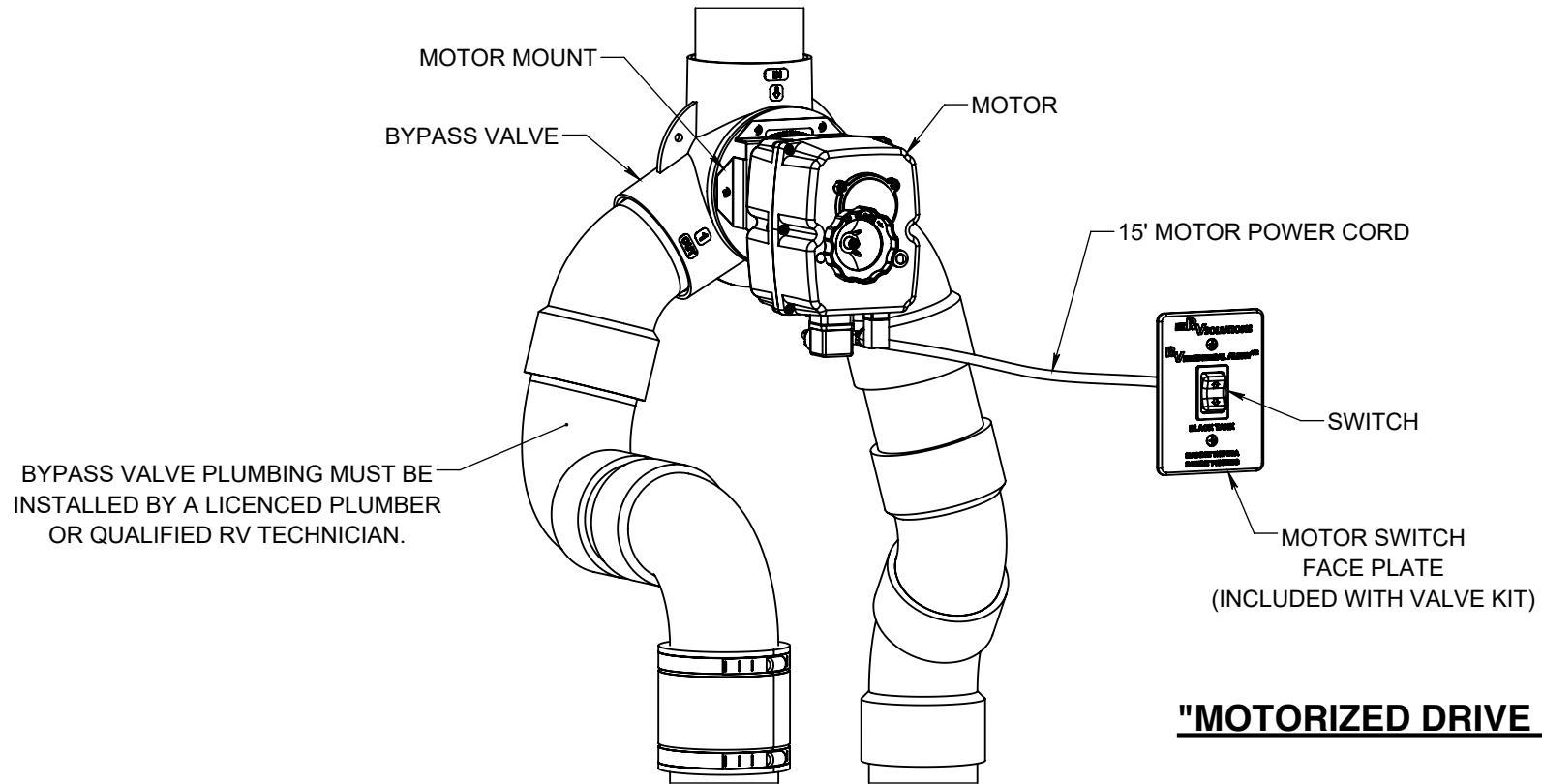


SWITCH
(1X)



LOCK
SCREW
(4X)

15' MOTOR
POWER CORD
(1X)



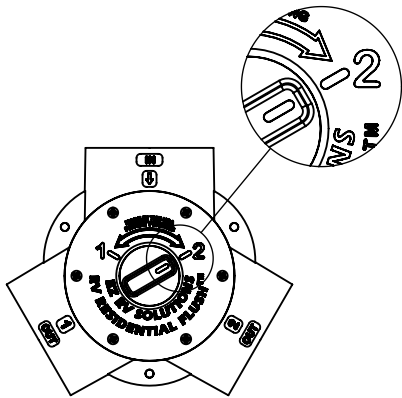
"MOTORIZED DRIVE KIT"

"MOTORIZED DRIVE KIT" - BYPASS VALVE PREPARATION & INSTRUCTION

(MOTORIZED DRIVE KIT SOLD SEPERATELY)

STEP - 1 IMPORTANT!

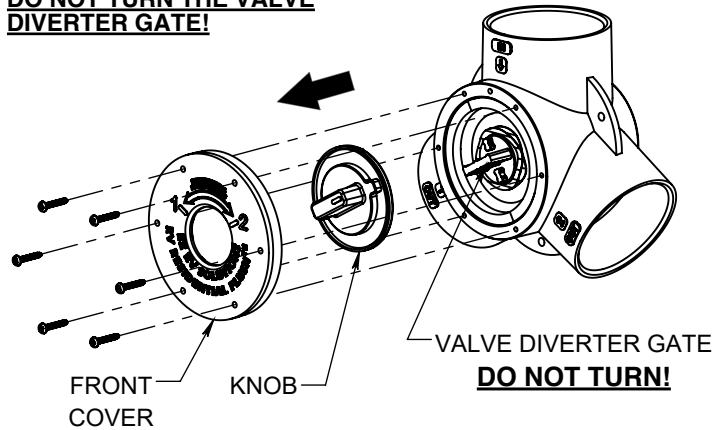
USE THE VALVE WRENCH TO TURN THE BYPASS VALVE KNOB TO THE #2 OUTPUT POSITION.



STEP - 2

REMOVE THE BYPASS VALVE FRONT COVER PLATE AND KNOB.

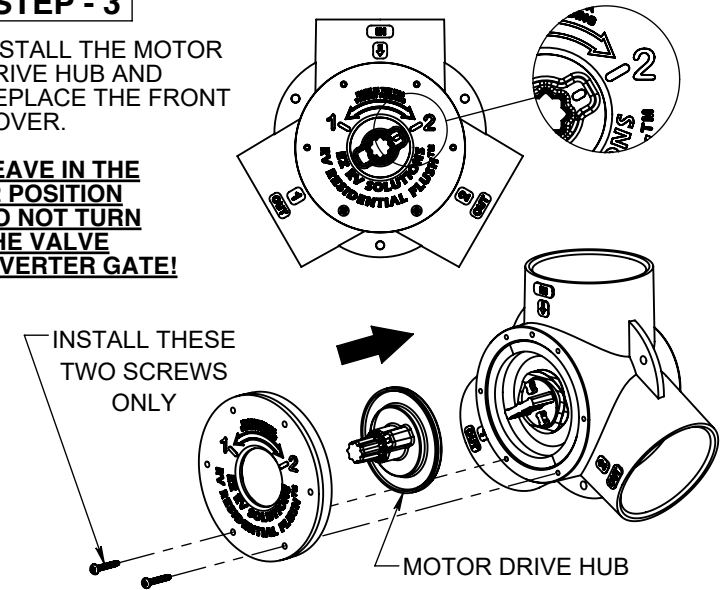
**LEAVE IN THE #2 POSITION
DO NOT TURN THE VALVE
DIVERTER GATE!**



STEP - 3

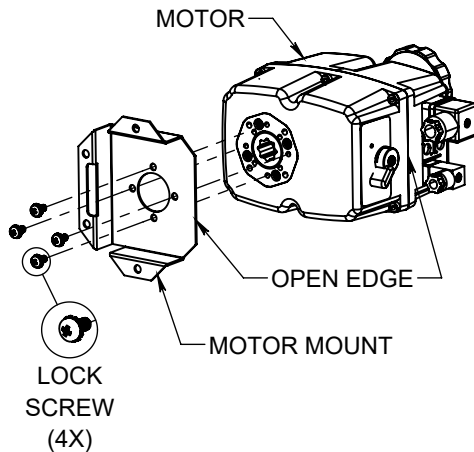
INSTALL THE MOTOR DRIVE HUB AND REPLACE THE FRONT COVER.

**LEAVE IN THE #2 POSITION
DO NOT TURN THE VALVE
DIVERTER GATE!**



STEP - 4

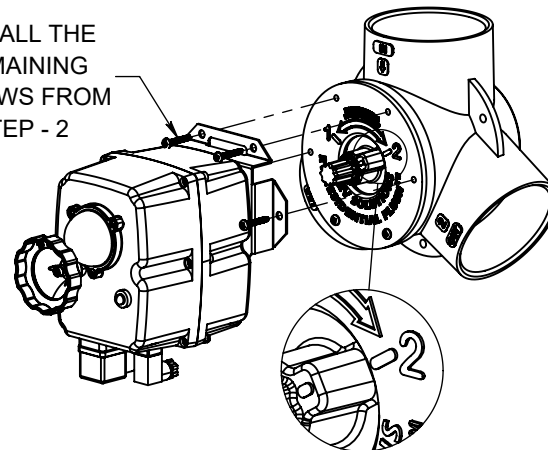
INSTALL THE MOTOR MOUNT TO THE MOTOR.



STEP - 5

INSTALL THE MOTOR TO THE BYPASS VALVE.

INSTALL THE REMAINING SCREWS FROM STEP - 2



STEP - 6

FULLY TIGHTEN ALL SCREWS



REMOVE THIS COVER AND INSTALL THE CORD CONNECTOR USING A FLAT HEAD SCREW DRIVER

STEP - 7

INSTALL THE SWITCH INTO THE FACE PLATE.

