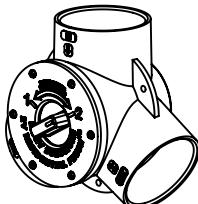
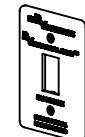


VALVE KIT - INCLUDED COMPONENT LIST

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)

SEE PAGES 17 THRU 19 FOR RECOMMENDED
RESIDENTIAL TOILET SELECTION GUIDE

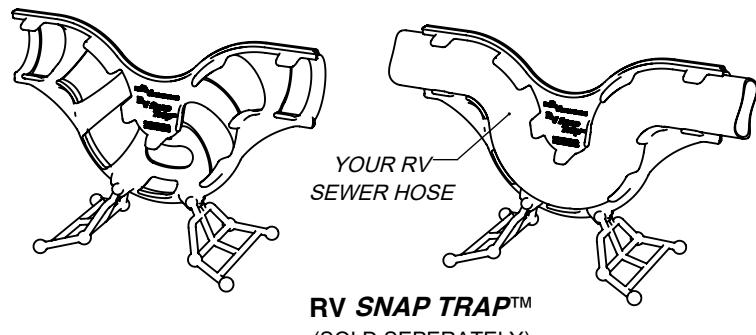
** IT IS STRONGLY RECOMMENDED THAT EITHER A GLUE-ON OR TWIST-ON STYLE 3" WASTE GATE VALVE BE INSTALLED AT THE RV SEWER HOSE CONNECTION POINT BEFORE USING THE RV RESIDENTIAL FLUSH SYSTEM.

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) CLOSE, FILL, CLEANSE AND FLUSH GRAY HOLDING TANKS THAT HAVE BEEN LEFT OPEN AND IN REGULAR USE FOR EXTENDED PERIODS OF TIME AT LEAST ONCE EVERY THREE MONTHS.
- 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 SEPARATELY)

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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..... "MANUAL DRIVE KIT" VALVE ACTUATION SYSTEM ILLUSTRATION

PAGE 12..... "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

PAGE 17..... RESIDENTIAL TOILET GUIDE - PREMIUM OPTION

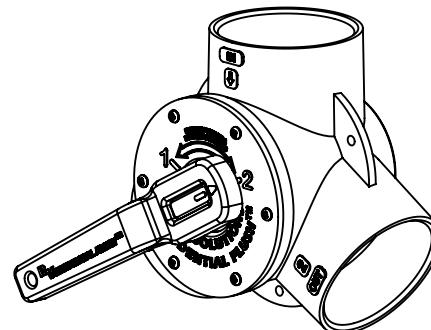
PAGE 18..... RESIDENTIAL TOILET GUIDE - ADDITIONAL OPTIONS

PAGE 19..... RESIDENTIAL TOILET GUIDE - ADDITIONAL OPTIONS

USAGE APPLICATION - 1A & 1B**MANUAL VALVE WRENCH APPLICATION**

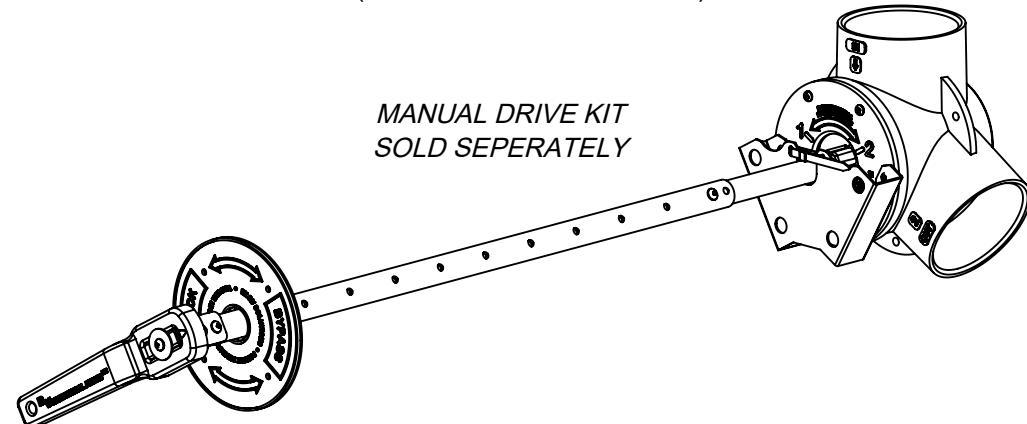
(WHEN BYPASS VALVE ACCESS IS WITHIN HANDS-REACH)

(REFER TO PAGES 9 & 10)

**USAGE APPLICATION - 2****"MANUAL DRIVE KIT" APPLICATION**

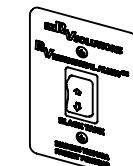
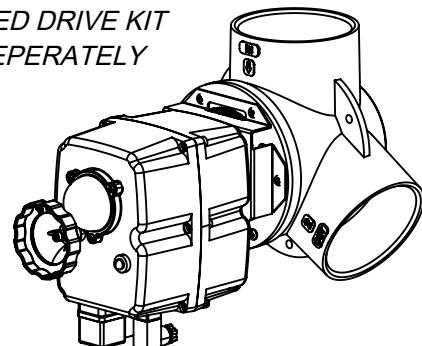
(WHEN BYPASS VALVE ACCESS IS NOT WITHIN HANDS-REACH)

(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

BLACK WATER
HOLDING TANK

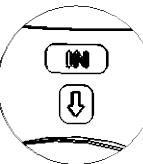
BLACK TANK PLUMBING
(3" ABS OR PVC PIPE & FITTINGS)
ALL PLUMBING MUST BE
INSTALLED BY A LICENSED PLUMBER
OR QUALIFIED RV TECHNICIAN.
SEE "PRO TIP" AT PAGE LEFT

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

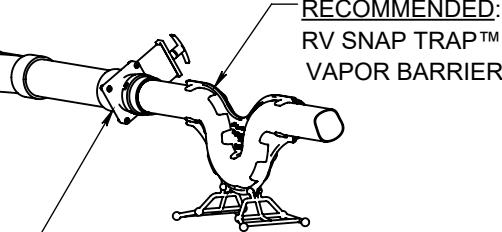
"LONG SWEEP" ELBOW SHOULD
BE USED FOR ALL 90 DEGREE
FITTING CONNECTIONS
(SLIP OR STREET)

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

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



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



3" SWEEP TEE

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



3" X 45 TEE

Grand Design - Solitude Floorplans



Grand Design 370DV



Grand Design 382WB



Grand Design 390RK



Grand Design 376RD

Possible Exterior Wall Bypass Valve Access Door Applications

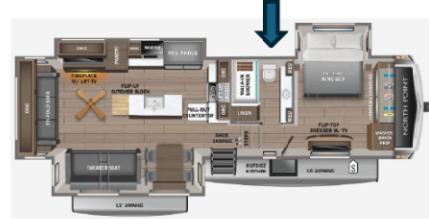
Floorplan overview only. Based on toilet location at exterior wall. Various other appliance locations may obstruct access for hatch door installation.



Bypass Valve
Exterior Access Door



Alliance Paradigm 375RD



North Point 340CKTSS



North Point 380RKGS

Cedar Creek - Champagne Floorplans



38EBS



38EL



38EKS

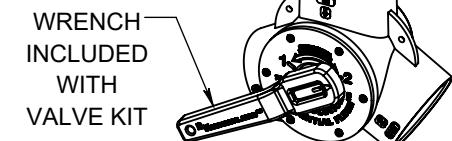
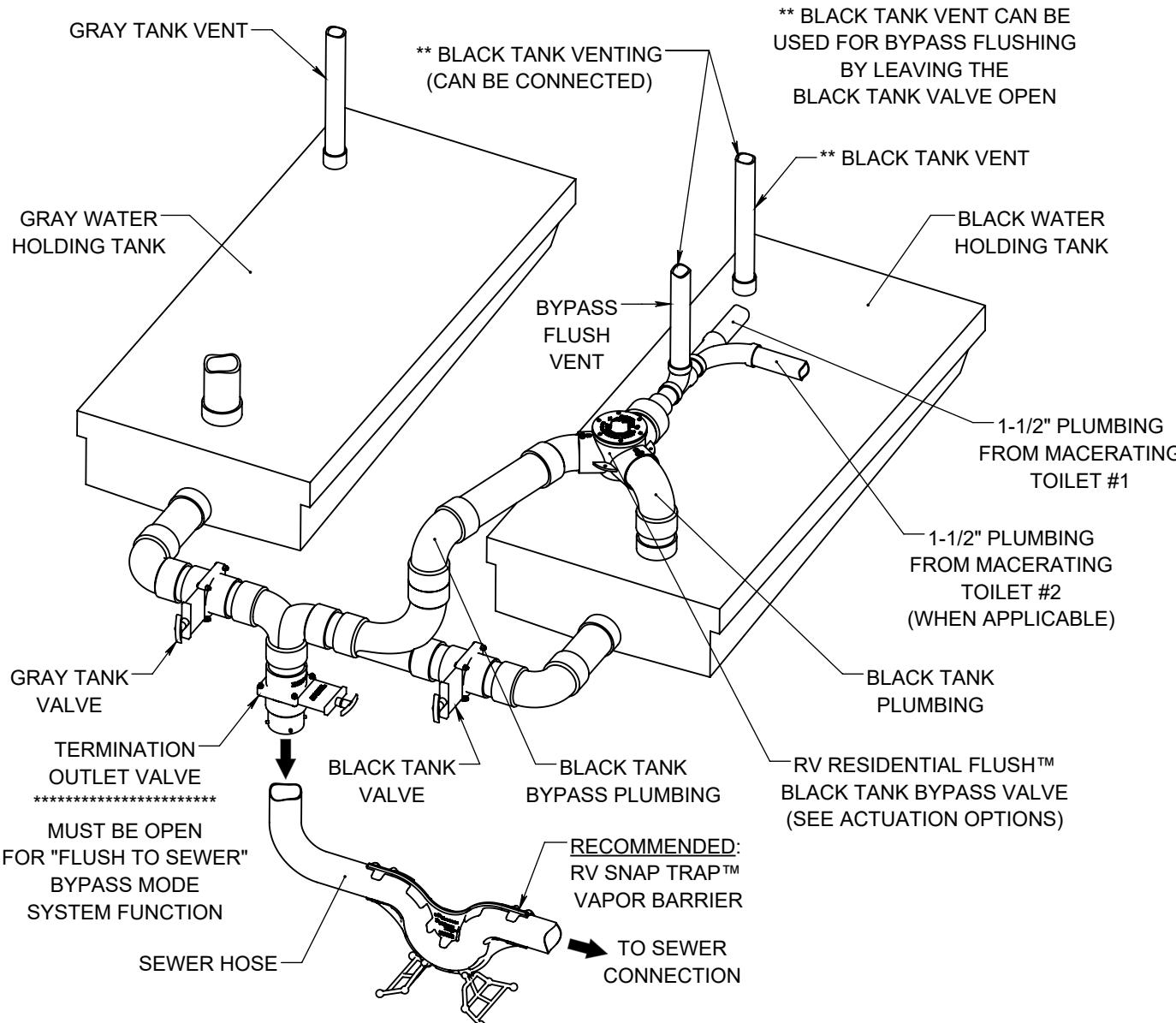


Riverstone 421FK



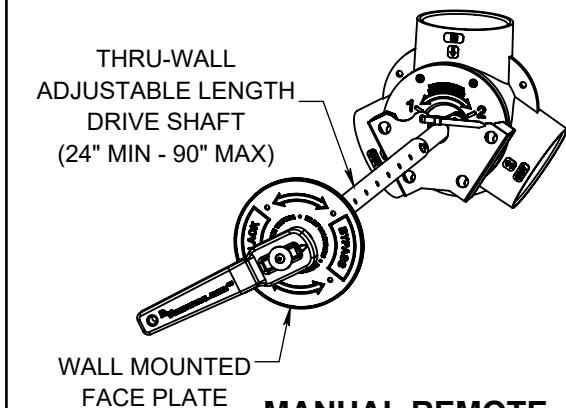
River Ranch 393RL

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

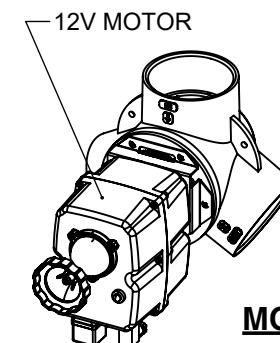


MANUAL WRENCH VALVE ACTUATION

(WHEN VALVE IS WITHIN HAND REACH)



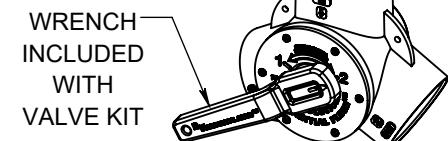
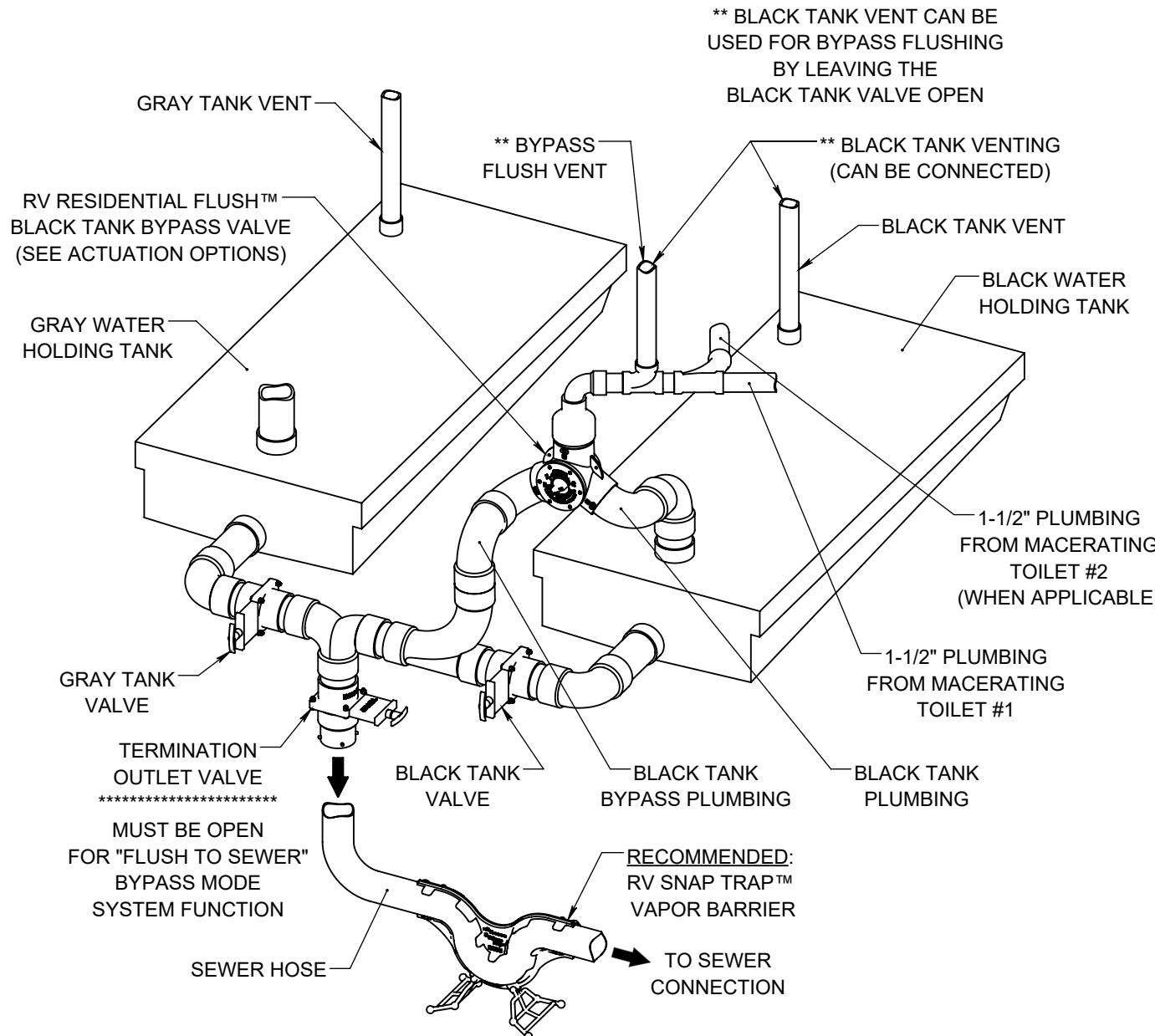
MANUAL REMOTE VALVE ACTUATION



MOTORIZED VALVE ACTUATION

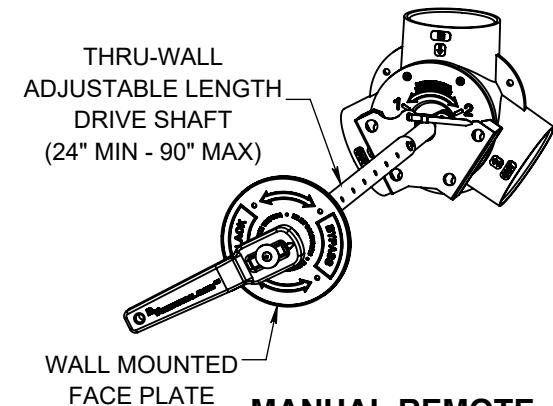
(CAN ALSO BE PROGRAMMED TO FUNCTION VIA RV TOUCH SCREEN)

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

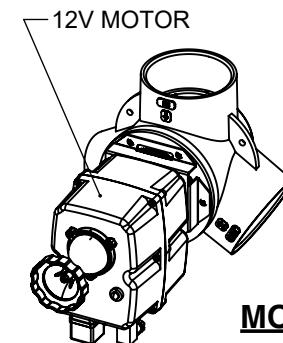


MANUAL WRENCH VALVE ACTUATION

(WHEN VALVE IS WITHIN HAND REACH)

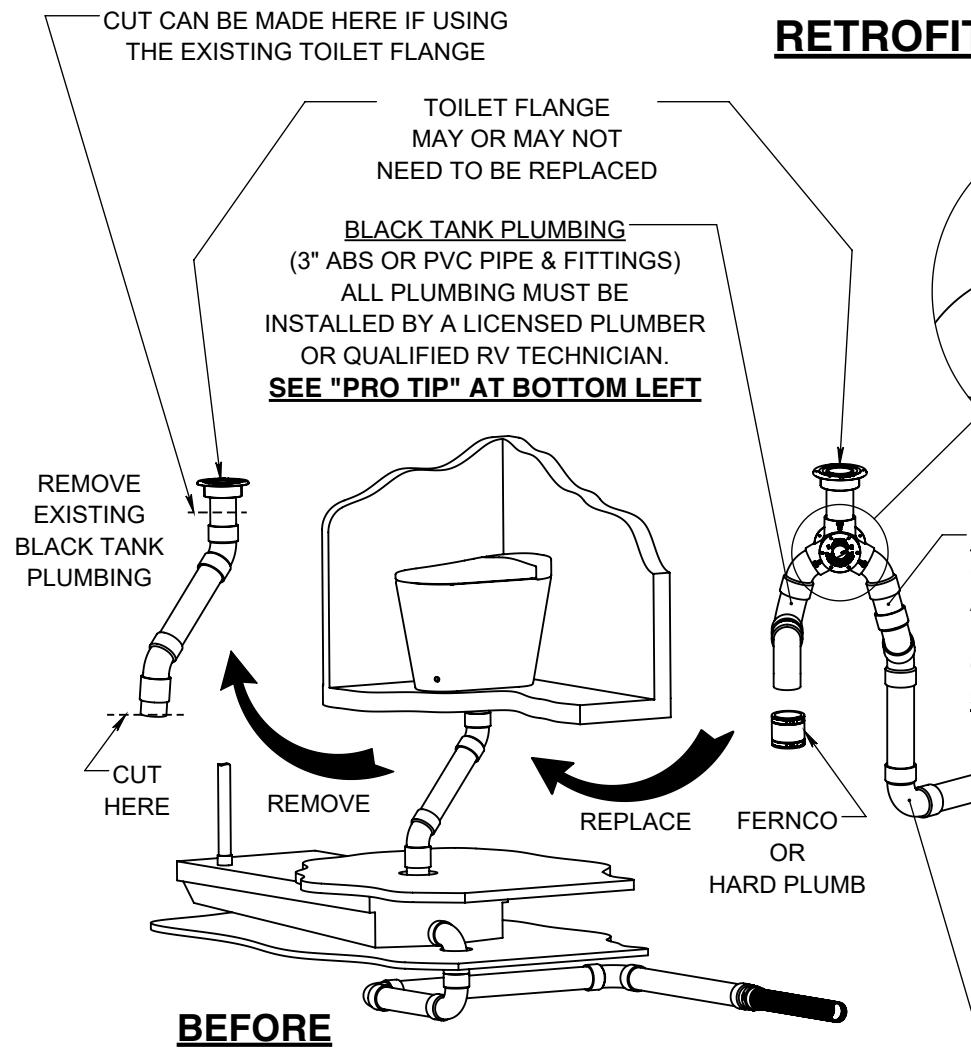


MANUAL REMOTE VALVE ACTUATION

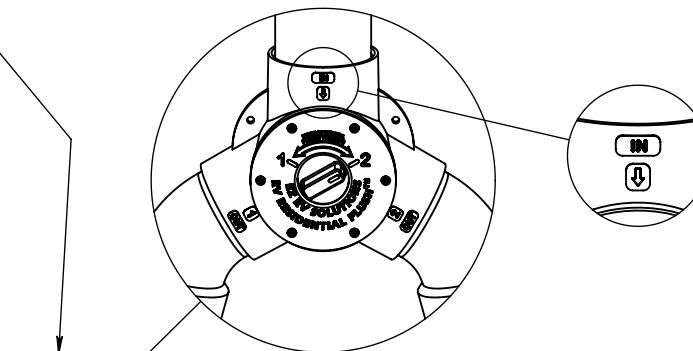


MOTORIZED VALVE ACTUATION

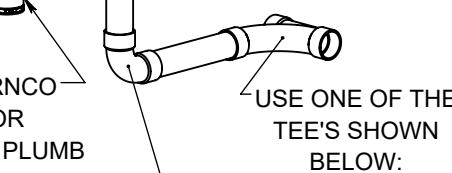
(CAN ALSO BE PROGRAMMED TO FUNCTION VIA RV TOUCH SCREEN)

**BEFORE****PRO TIP:**

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

RETROFIT APPLICATION DETAIL

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 BOTTOM LEFT

**AFTER**

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



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.

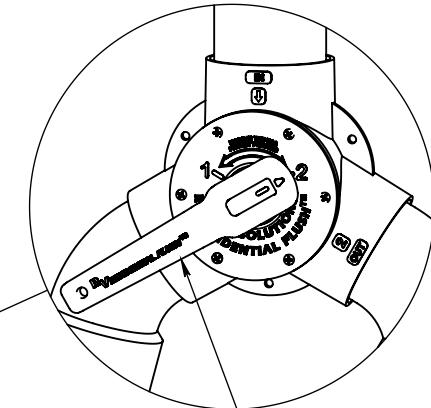
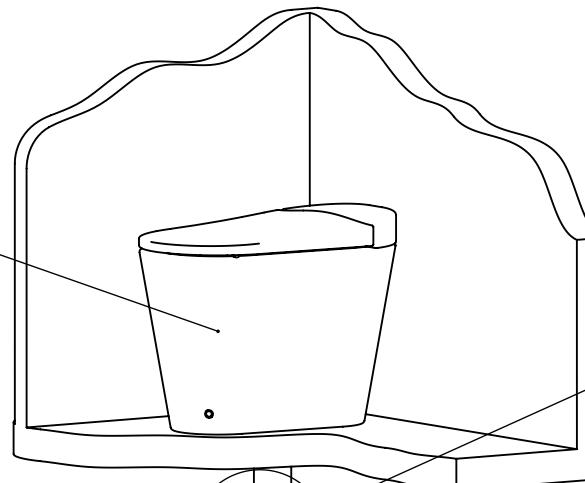
RV & RESIDENTIAL MODEL
TOILETS ARE COMPATIBLE

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.



USAGE APPLICATION - 1B

"HORIZONTAL MOUNTING CONFIGURATION"

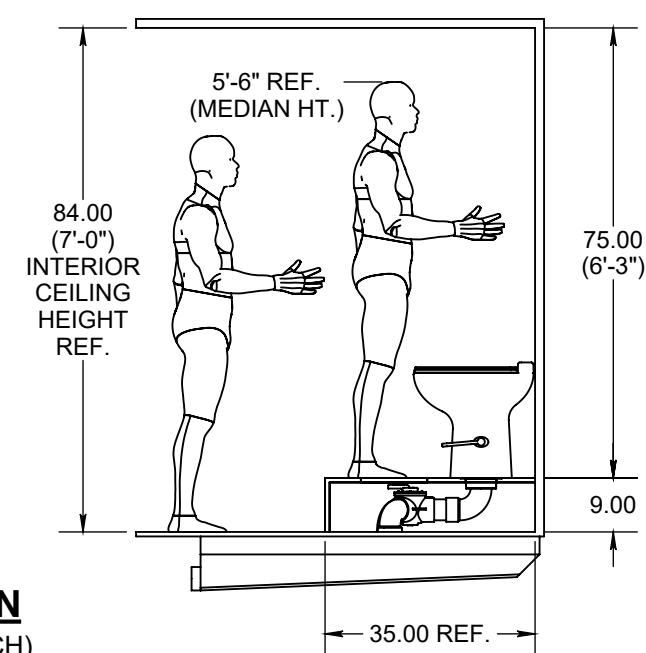
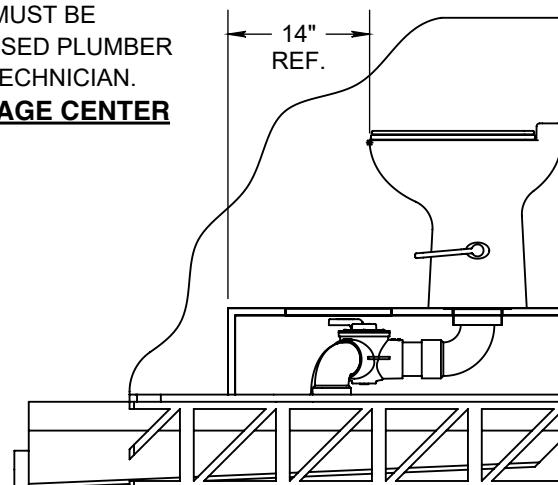
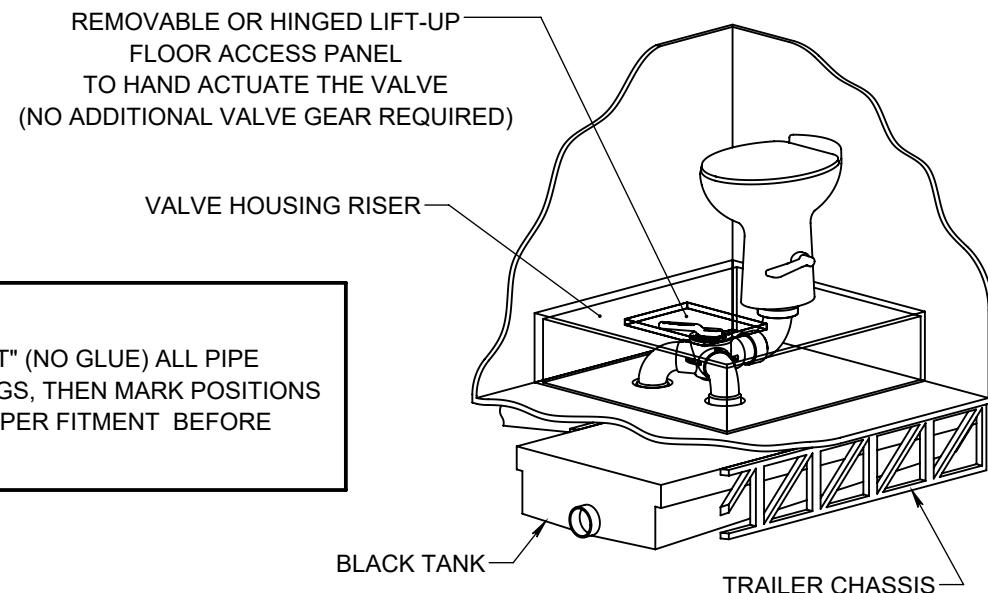
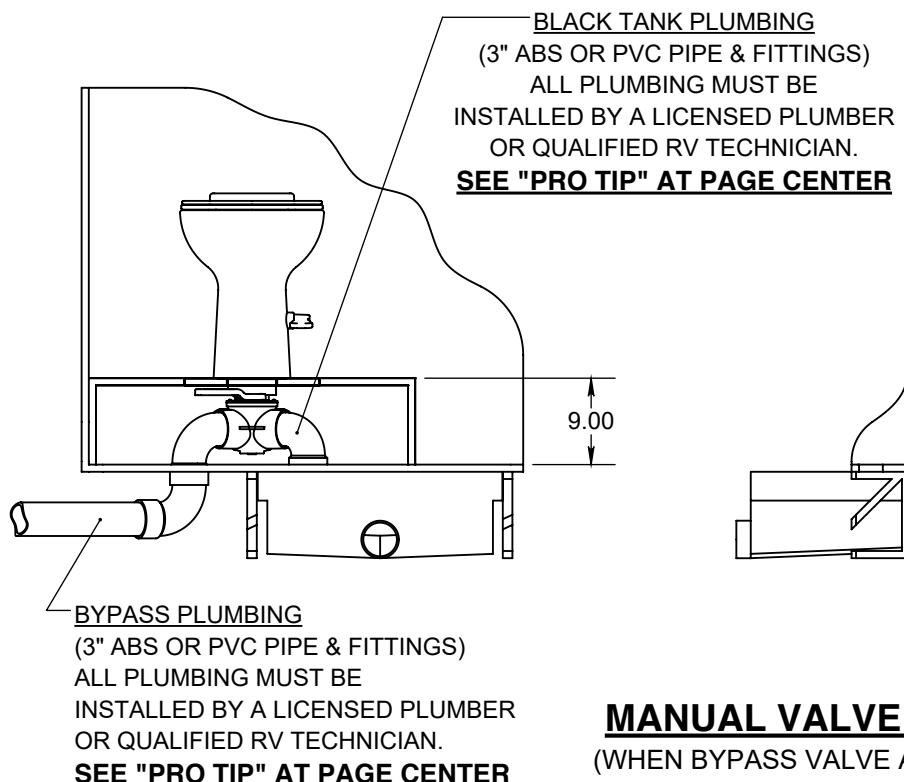
MANUAL WRENCH VALVE ACTUATION

(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.



MANUAL VALVE WRENCH APPLICATION

(WHEN BYPASS VALVE ACCESS IS WITHIN HANDS-REACH)

USAGE APPLICATION - 2

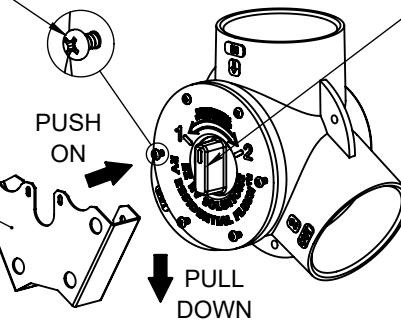
"MANUAL DRIVE KIT" VALVE ACTUATION

(MANUAL DRIVE KIT SOLD SEPARATELY)

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

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

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

**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

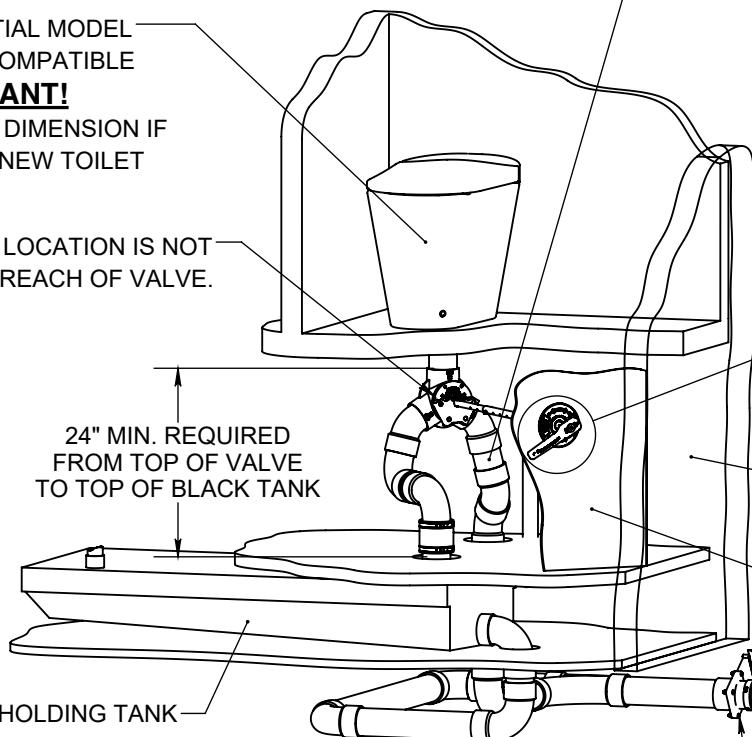
IMPORTANT!

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

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

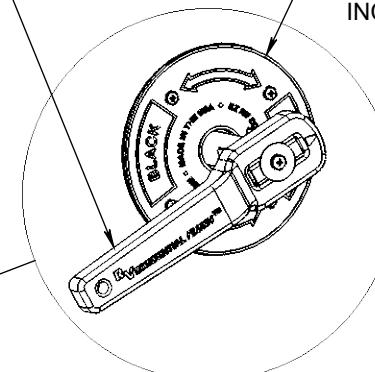
24" MIN. REQUIRED
FROM TOP OF VALVE
TO TOP OF BLACK TANK

BLACK WATER HOLDING TANK



VALVE WRENCH
INCLUDED WITH
VALVE KIT

MANUAL DRIVE
FACE PLATE
INCLUDED WITH
VALVE KIT

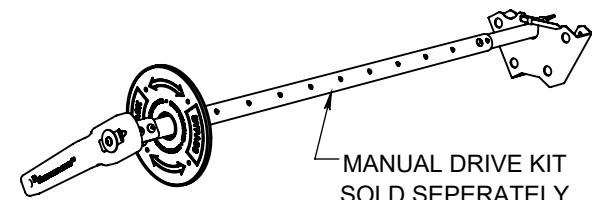
**ALSO SEE NEXT PAGE**

FOR ADDITIONAL ASSEMBLY &
INSTALLATION INSTRUCTIONS

"MANUAL DRIVE KIT" APPLICATION

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

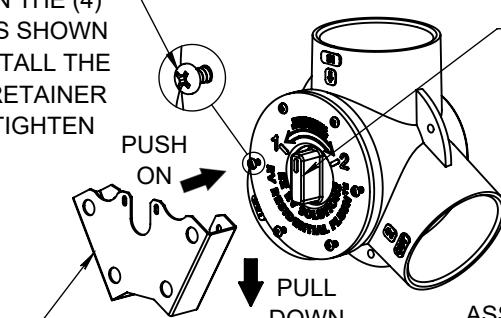
RECOMMENDED:
WASTE VALVE
3" BAYONET
(GLUE OR TWIST-ON)



MANUAL DRIVE KIT
SOLD SEPARATELY

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

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



INSTALL THE DRIVE RETAINER TO VALVE

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.

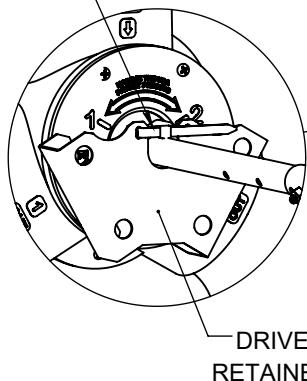
LACE A STRING OR WIRE THRU HOLES AT SHAFT END TO BE PULLED THRU WALL IF NEEDED TO ALIGN DRIVE SHAFT THRU WALL HOLE WHEN REINSTALLING WALL

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

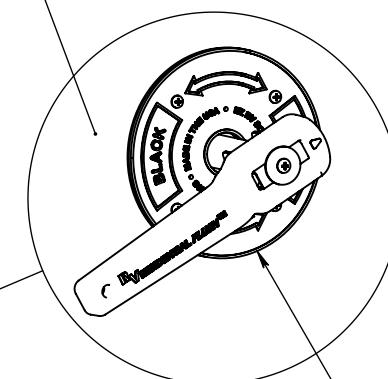
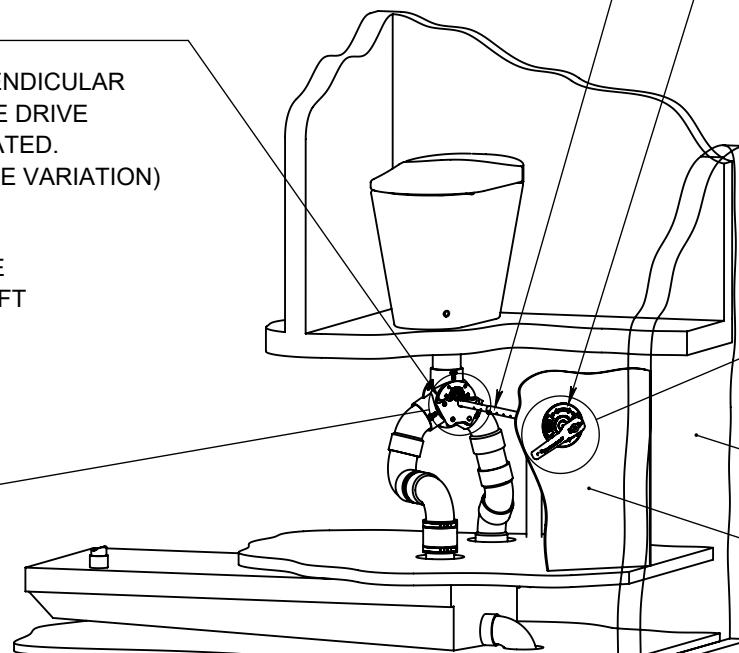
IMPORTANT:

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



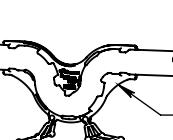
DRIVE RETAINER



POSITION WALL PLATE TO MATCH BYPASS VALVE PLUMBING CONNECTIONS

EXTERIOR WALL SHOWN FOR REFERENCE
 UNDER-STORAGE WALL BOARD

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



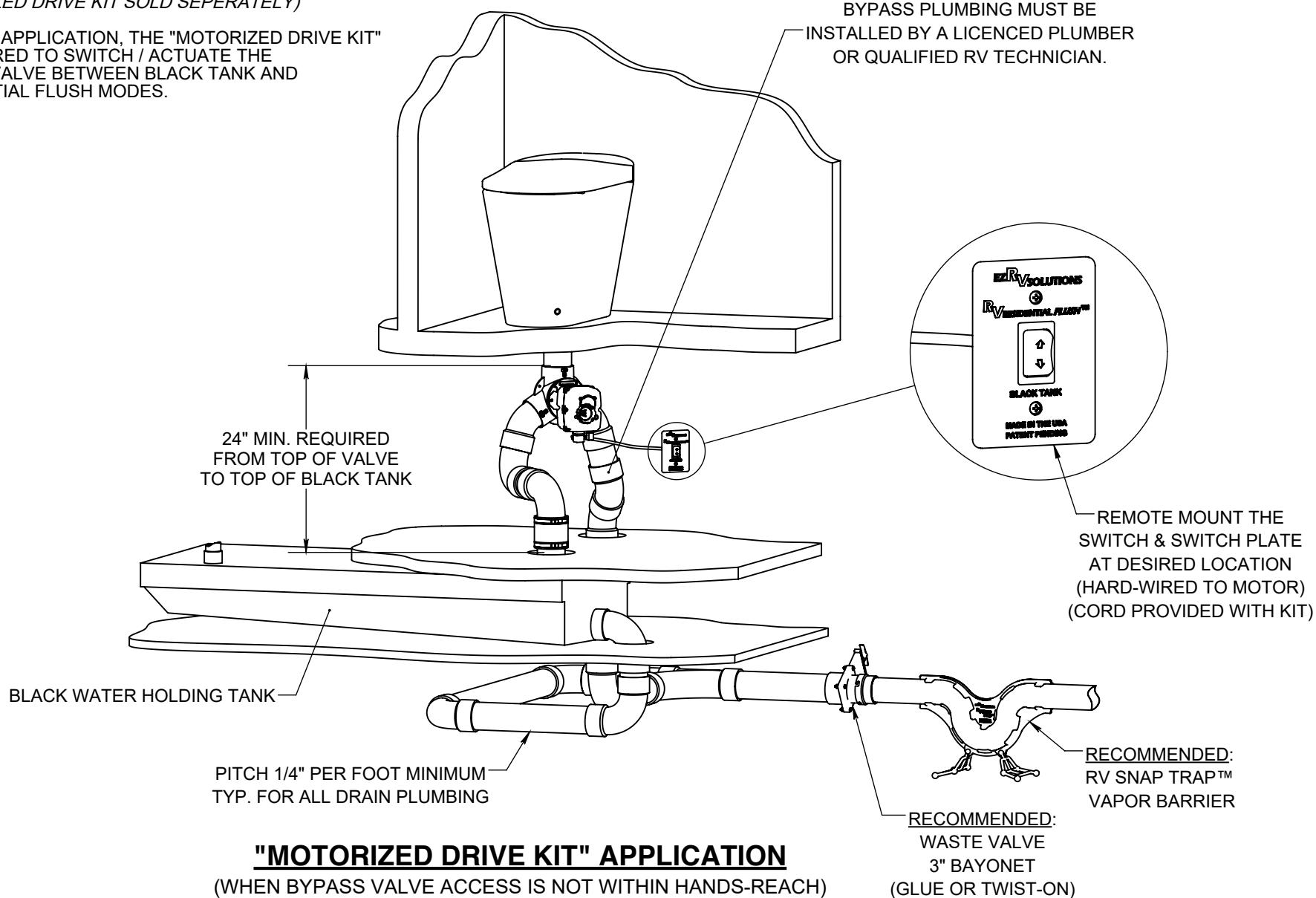
RECOMMENDED:
 RV SNAP TRAP™
 VAPOR BARRIER

USAGE APPLICATION - 3

"MOTORIZED DRIVE KIT" VALVE ACTUATION

(MOTORIZED DRIVE KIT SOLD SEPERATELY)

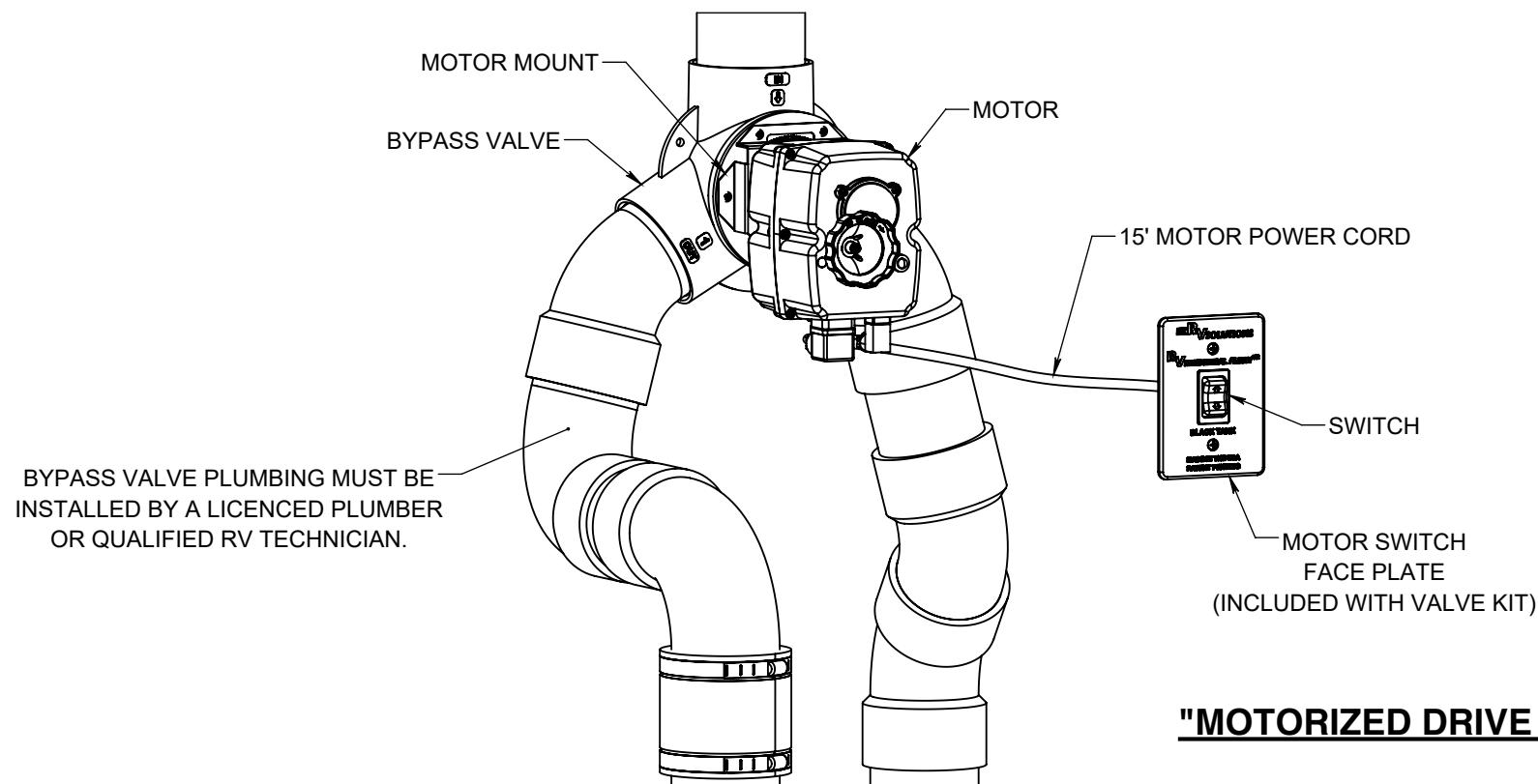
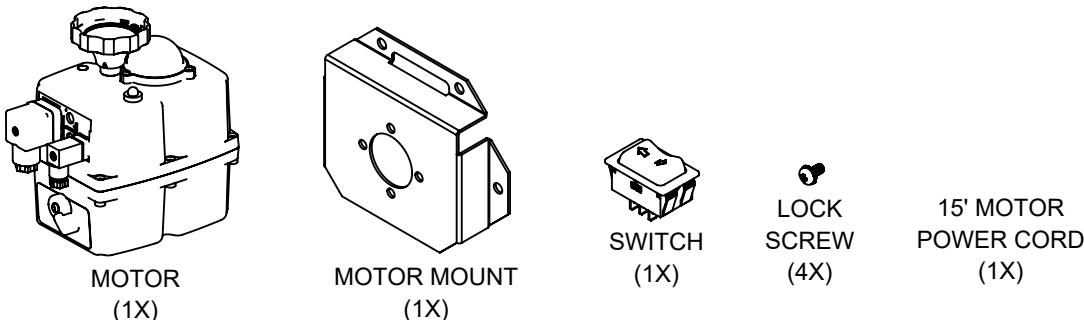
FOR THIS APPLICATION, THE "MOTORIZED DRIVE KIT" IS REQUIRED TO SWITCH / ACTUATE THE BYPASS VALVE BETWEEN BLACK TANK AND RESIDENTIAL FLUSH MODES.



"MOTORIZED DRIVE KIT" APPLICATION

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

MOTORIZED KIT - COMPONENT LIST

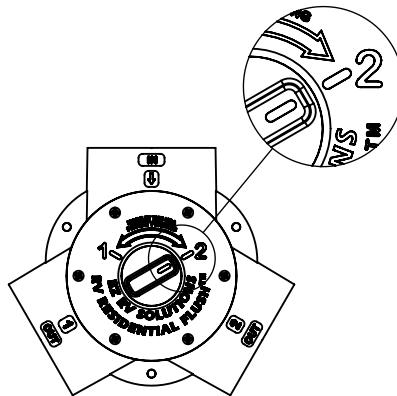


"MOTORIZED DRIVE KIT" - BYPASS VALVE PREPARATION & INSTRUCTION

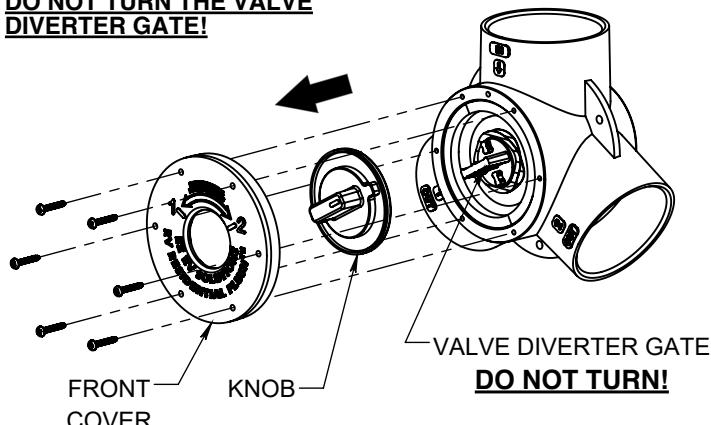
(MOTORIZED DRIVE KIT SOLD SEPERATELY)

STEP - 1 IMPORTANT!

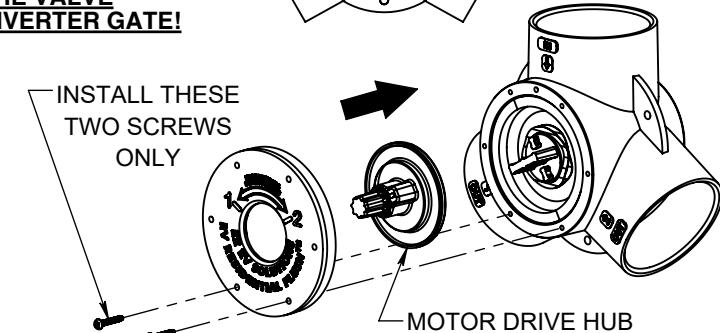
USE THE VALVE WRENCH TO TURN THE BYPASS VALVE KNOB TO THE #2 OUTPUT POSITION.

**STEP - 2**

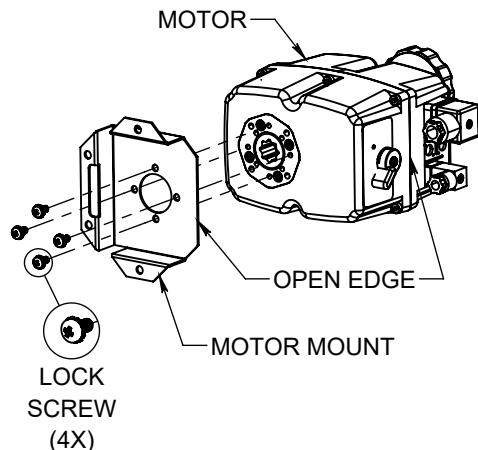
REMOVE THE BYPASS VALVE FRONT COVER PLATE AND KNOB.

**LEAVE IN THE #2 POSITION
DO NOT TURN THE VALVE
DIVERTER GATE!****STEP - 3**

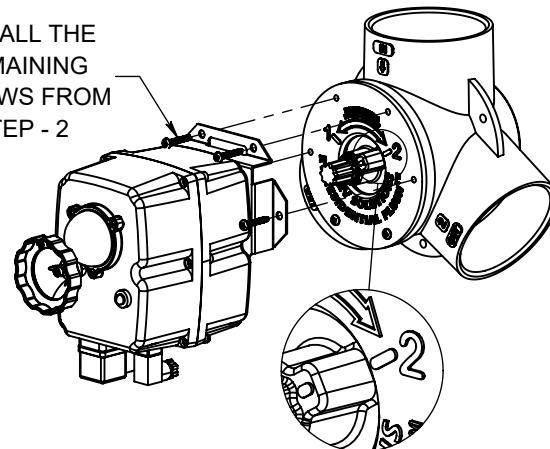
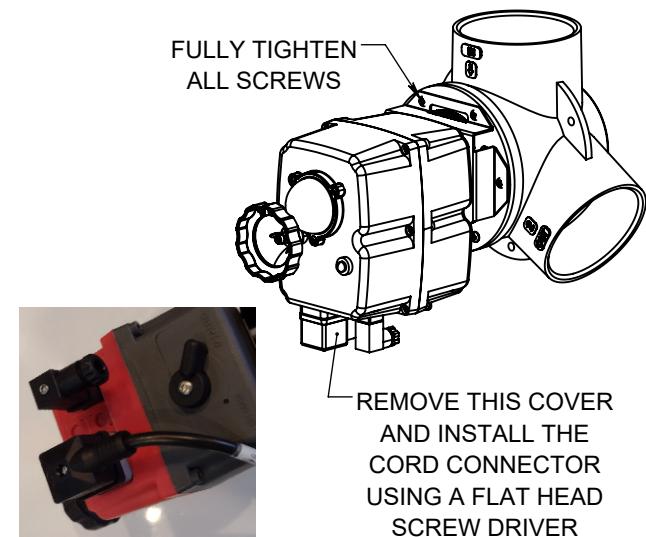
INSTALL THE MOTOR DRIVE HUB AND REPLACE THE FRONT COVER.

**LEAVE IN THE
#2 POSITION
DO NOT TURN
THE VALVE
DIVERTER GATE!**INSTALL THESE
TWO SCREWS
ONLY**STEP - 4**

INSTALL THE MOTOR MOUNT TO THE MOTOR.

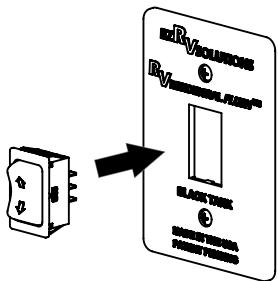
**STEP - 5**

INSTALL THE MOTOR TO THE BYPASS VALVE.

INSTALL THE
REMAINING
SCREWS FROM
STEP - 2**STEP - 6**FULLY TIGHTEN
ALL SCREWSREMOVE THIS COVER
AND INSTALL THE
CORD CONNECTOR
USING A FLAT HEAD
SCREW DRIVER

STEP - 7

INSTALL THE SWITCH INTO THE FACE PLATE.



RESIDENTIAL TOILET RECOMMENDATION - 12" ROUGH-INAVAILABLE AT:**PREMIUM OPTION****SKU: 75787773679***(EXTERNAL POWER REQUIRED)***BIDET SMART TOILET
ONE PIECE TANKLESS ELONGATED***(REQUIRES 30PSI MIN. WATER PRESSURE)***12" ROUGH-IN**

RESIDENTIAL TOILET RECOMMENDATIONS - 10" ROUGH-IN

STANDARD SEAT HEIGHT

Swiss Madison®
well made forever

SM-1T277

Sublime II Toilet

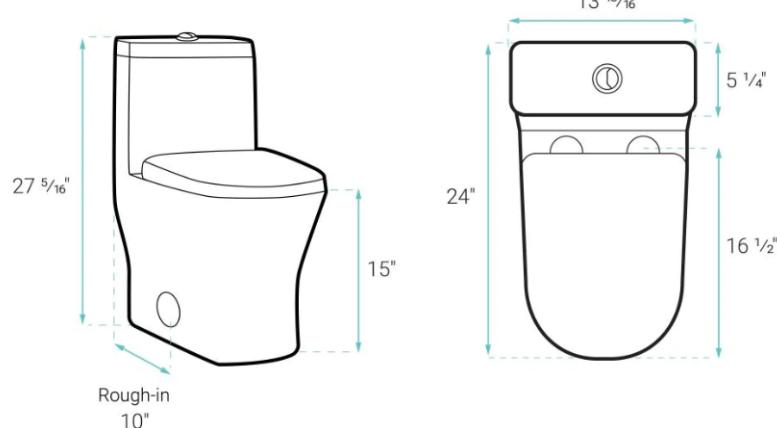
-  Quick-Release Seat
-  Soft-Close Seat
-  Glazed Trapway
-  Fully Skirted
-  Easy Install Access
-  Dual-Flush (1.1/1.6 GPF)

SM-1T27.



— FLUSH TO EMPTY TANK
 REMOVE TANK LID &
 STOW BEFORE TRAVEL

10"
Rough-In



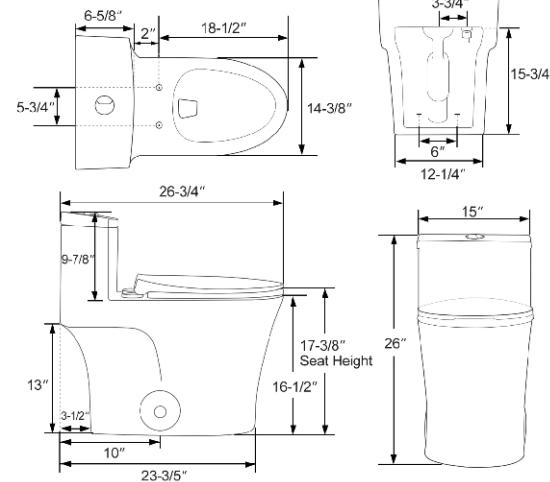
COMFORT SEAT HEIGHT



T0338W10

HOROW

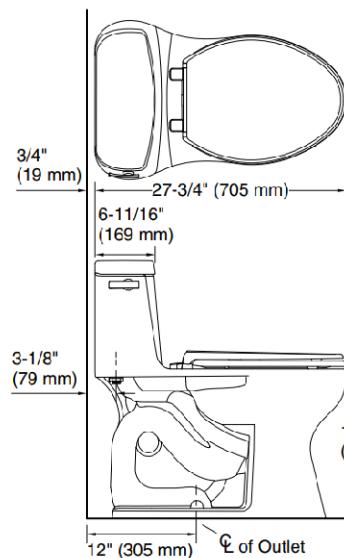
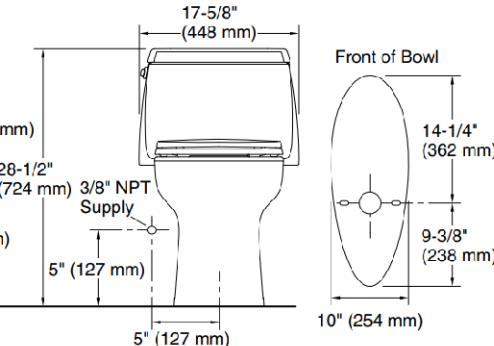
10" Rough-in



RESIDENTIAL TOILET RECOMMENDATIONS - 12" ROUGH-IN

KOHLER**Santa Rosa™**

ContinuousClean ST one-piece compact elongated toilet, 1.28 gpf
K-30812-0

**12" ROUGH-IN****Swiss Madison®****SM-ST040**

(NO EXTERNAL POWER REQUIRED)
(REQUIRES 30PSI MIN. WATER PRESSURE)

Hugo
Touchless Tankless Toilet
SM-ST040

**12" ROUGH-IN**