

# INSTALLING THE AR OR SJ PUMP

INSTALLATION TAKES 2 DAYS

## DAY 1

DETERMINE STATIC WATER AND MAKE DROP PIPE  
AND LET GLUE CURE OVERNIGHT

## DAY 2

INSTALL PUMP

## TOOL LIST

BIG HONKIN FLASHLIGHT

TOWEL

CLEANING RAG

BLANKET

7/16 WRENCH (2)

CHANNEL LOCK PLIERS (2)

9/32 OR 7MM NUT DRIVER, SOCKET OR WRENCH

TAPE MEASURE

HAMMER

SHARPIE

CENTER PUNCH

CORDLESS DRILL

1/16" DRILL BIT

5/16 DRILL BIT

HOLE SAW 1.5"

SCISSORS

FLAT BLADE SCREWDRIVER



### THE END GAME

THIS IS WHAT THE AR OR SJ PUMP WILL LOOK LIKE AFTER IT IS INSTALLED

### CAUTION

INSTALLING YOUR PUMP MAY DISLODGE RUST INTO YOUR WELL WATER. A FILTER ON YOUR INCOMING WATER LINE WILL PREVENT PROBLEMS BUT MAY NEED REPLACING A FEW DAYS AFTER YOUR INSTALLATION, AS A SURGE OF SEDIMENT IS TO BE EXPECTED

RUNNING A GARDEN HOSE AFTER INSTALLATION WILL HELP "FLUSH" CLOUDY WATER FROM YOUR WELL (1-4 HOURS)

IN MOST CASES PARTICLES WILL SETTLE OUT IN 24 TO 48 HOURS

### BEFORE YOU START

TURN OFF THE POWER TO YOUR WELL.

TO REDUCE RUST SEDIMENT PROBLEMS TURN OFF THE POWER WHEN THE PRESSURE TANK IS FULL

RUN A FAUCET OR HOSE.... LISTEN FOR WELL TO TURN ON

TURN OFF POWER WHEN WELL STOPS

TURN OFF FAUCET

DON'T USE ANY WATER DURING INSTALLATION AND DURING SYSTEM FLUSH

RUNNING A GARDEN HOSE AFTER INSTALLATION WILL HELP "FLUSH" CLOUDY WATER FROM YOUR WELL. DURING WINTER RUN A BATH TUB.



#### REMOVE CAP

THERE ARE MANY STYLES OF WELL CAPS, MOST ARE EASY TO REMOVE BY REMOVING A FEW BOLTS.

MANY BOLTS ARE RUSTED WD-40 IS THE WAY TO GO

USE A BIG HONKIN FLASHLIGHT TO LOOK DOWN INTO YOUR WELL AND CONFIRM THAT AN INSTALLATION IS POSSIBLE. IN MOST CASES THE ISSUE IS WHETHER OR NOT A PUMP CAN GET PAST YOUR PITLESS ADAPTER



#### MEASURE STATIC WATER

WATCH OUR ONLINE VIDEO "STATIC 101" TO BE A PRO AT THIS STEP

#### RECOMMENDED

300FT FIBERGLASS TAPE WITH A WEIGHT ON THE END

OR

PARACORD WITH WEIGHT

### DECIDE INSTALLATION DEPTH

THE BASIC RULE IS TO INSTALL THE PUMP 10FT DEEPER THAN THE STATIC WATER. EXAMPLE: THE STATIC WATER OF MY WELL IS 70FT SO THE MINIMUM RECOMMENDED INSTALLATION DEPTH IS 80 FT.

WITH THE AR/SJ CABLE PUMPS ADDITIONAL DEPTH IS VERY ECONOMICAL AND IS RECOMMENDED. THE DEEPER THE PUMP IS IN THE WATER COLUMN THE MORE SECURE YOUR PUMP IS FROM SEASONAL AND LONG TERM STATIC WATER FLUCTUATIONS. THE EFFORT REQUIRED TO LIFT THE WATER IS DEPENDANT ON THE STATIC WATER NOT THE INSTALLATION DEPTH, SO INSTALLING DEEPER DOES NOT REQUIRE ADDITIONAL EFFORT TO PUMP THE WATER.

THIS DECISION IS VERY MUCH DEPENDANT ON YOUR WELL. INSTALLING THE PUMP DEEPER THAN YOUR ELECTRIC PUMP IS NOT POSSIBLE. SO IF YOUR STATIC WATER IS 70FT AND YOUR PUMP IS AT 100FT GO FOR A 90FT INSTALLATION. IF YOUR PUMP IS 200FT GO FOR A 150FT OR DEEPER INSTALLATION.

PIPE IS SOLD AT HOME CENTERS AND HARDWARE STORE IN 10FT LENGTHS, SO ROUND OFF THE INSTALLATION DEPTH TO A 10FT INCREMENT. EACH 10FT OF DEPTH WILL COST ABOUT \$3.50

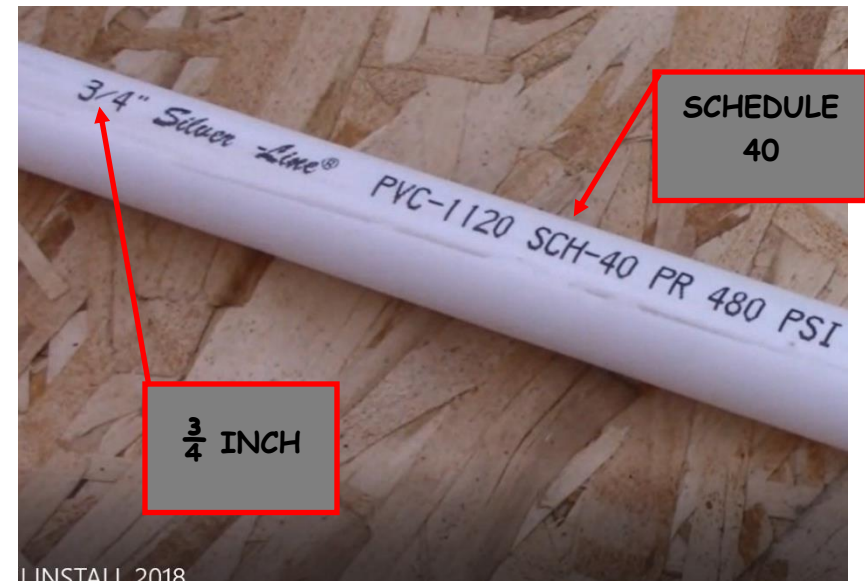
### CALCULATING THE AMOUNT OF DROP PIPE NEEDED

YOU MUST USE THE INCLUDED UPPERMOST BLUE DROP PIPE WHICH IS 5FT LONG

THE PUMP IS 4FT LONG (ROUND UP TO 5FT)

INSTALLATION DEPTH -10FT= LENGTH OF DROP PIPE NEEDED

LENGTH OF DROP PIPE DIVIDED BY 10= NUMBER OF 10FT STICKS OF PVC PIPE YOU WILL NEED TO BUY. SO IF MY INSTALLATION DEPTH IS 80FT BUY A TOTAL OF SEVEN 10FT STICKS OF DROP PIPE.



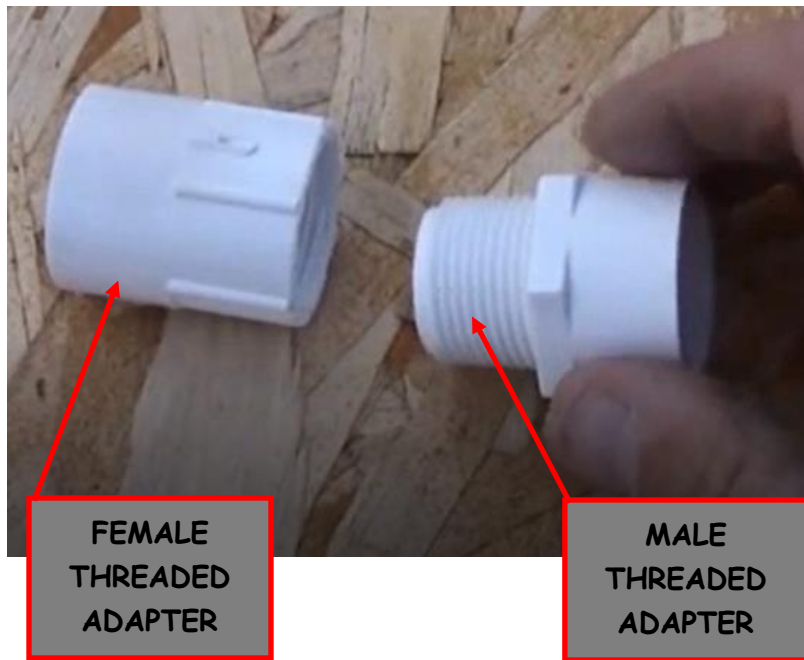
### HOME DEPOT RUN

BUY THE NUMBER OF  $\frac{3}{4}$  INCH SCHEDULE 40 **DROP PIPE SECTIONS** YOU NEED. EACH DROP PIPE SECTION REQUIRES A **MALE AND FEMALE THREADED ADAPTER**, SO EACH SECTION CAN SCREW INTO EACH OTHER

FOR LEVEL GROUND WITH A MAXIMUM OF 2 FT OF WELL CASING EXPOSED BUY A  $\frac{3}{4}$ " X 5 FT **GALVANIZED STEEL PIPE**. LONGER SECTIONS ARE A FEW DOLLARS MORE AND CAN BE CUT TO LENGTH. FOR STEALTH INSTALLATION A 2FT AND A 3FT SECTION IS NEEDED, WITH A COUPLER

BUY FENCE POST SETTING FOAM OR 60 LBS PREMIX CONCRETE. GENERALLY BUY 2 BAGS OF STUFF, ONE OF EACH IS IDEAL. WATCH OR DOWNLOAD LEVER INSTALL VIDEO OR PDF.

POLY PIPE, PEX PIPE OR GLUED COUPLERS IS NOT RECOMMENDED



#### ADAPTERS

THIS IS WHAT THE MALE AND FEMALE ADAPTERS LOOK LIKE  
THE DESCRIPTION OF THE ADAPTER WILL VARY FROM STORE TO STORE.

ONE SIDE WILL BE A "SLIP" OR "GLUE"

THE OTHER SIDE WILL BE  $\frac{3}{4}$ " MALE OR FEMALE PIPE THREADS, SOMETIMES CALLED MIP (MALE IRON PIPE) OR FIP (FEMALE IRON PIPE)

YOU MAY BE CONCERNED THAT PVC THREADS WILL NOT HOLD UP TO THE WEIGHT OF THE PUMP. NO WORRIES DURING OUR PRODUCT TESTING WE HUNG 240 LBS OF SAND FOR 6 MONTHS ON THESE PIPE THREADS AND GLUE JOINTS...NO PROBLEM

DO NOT BUY PIPE TAPE OR DOPE FOR THE INSTALLATION



#### FRESH GLUE

DON'T GO CHEAP, BUY A **FRESH CAN OF PVC PRIMER AND GLUE**. OLD GELLED GLUE DOES NOT WORK. THIS WILL BE MORE OF A MECHANICAL JOINT IN TENSION RATHER THAT A PRESSURE JOINT TYPICAL OF PLUMBING

PRIMER AND CLEANER ARE SIMILAR, BUT PRIMER IS BEST. WE USE CLEAR PRIMER ONLY FOR APPEARANCE REASONS, PURPLE PRIMER IS COMMON AND OK.

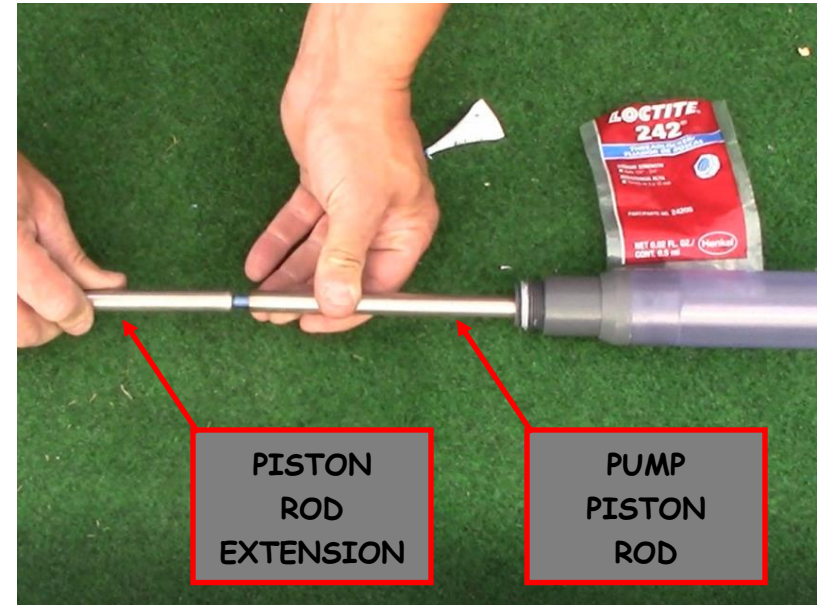


### MAKE DROP PIPE

GLUE A MALE AND FEMALE ADAPTER ON EACH END OF EVERY DROP PIPE SECTION ACCORDING TO THE INSTRUCTIONS. BASICALLY PRIME ADAPTER AND PIPE END, APPLY GLUE, INSERT, TWIST AND HOLD.

GLUE THE FEMALE ADAPTER ON FIRST AND LET THE GLUE DRY WHILE THE PIPE IS VERTICAL OR INCLINED SO THAT WET GLUE DOES NOT DRIP INTO THE THREADS. WAIT 10 MINUTES OR SO AND GLUE ON THE MALE ADAPTER ALSO INCLINING THE PIPE WHILE DRYING

PVC GLUE CURE IS TEMPERATURE DEPENDANT AND THESE JOINTS WILL BE IN SIGNIFICANT TENSION SO A FULL CURE IS IMPORTANT. LET THE **JOINTS CURE AT ROOM TEMPERATURE OVERNIGHT** FOR MAXIMUM STRENGTH.



### ATTACH PISTON ROD EXTENTION

OPEN THE BOX AND FIND THE PUMP AND PISTON ROD EXTENSION. ALSO INCLUDED WILL BE A SMALL VIAL OF LOCTITE 242 (BLUE).

SHAKE THE VIAL VIGOROUSLY AND APPLY THE LOCTITE TO THE MALE THREADS OF THE PISTON ROD EXTENTION VERY GENEROUSLY.

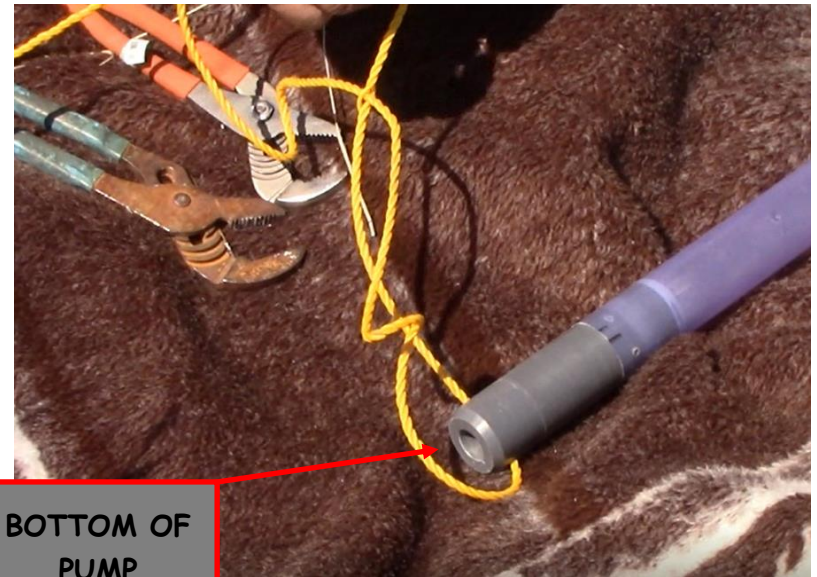
THREAD THE PISTON ROD EXTENSION INTO THE PISTON ROD OF THE PUMP. APPLY TORQUE VIA CHANNEL LOC PLIERS OR OTHER MEANS. WIPE OFF EXCESS LOCTITE, WASH HANDS OR USE GLOVES.

ALSO LET THIS JOINT CURE OVERNIGHT AT ROOM TEMPERATURE AS IT IS ALSO A CRITICAL CONNECTION.

**NOTE** LOCTITE 242 IS LISTED FOR POTABLE WATER SYSTEMS



**AK KIT  
SHOWN**



**BOTTOM OF  
PUMP**

## DAY 2 OPEN BOX

OPEN THE BOX ON A BLANKET TO KEEP DIRT OUT OF THE PUMP DURING ASSEMBLY

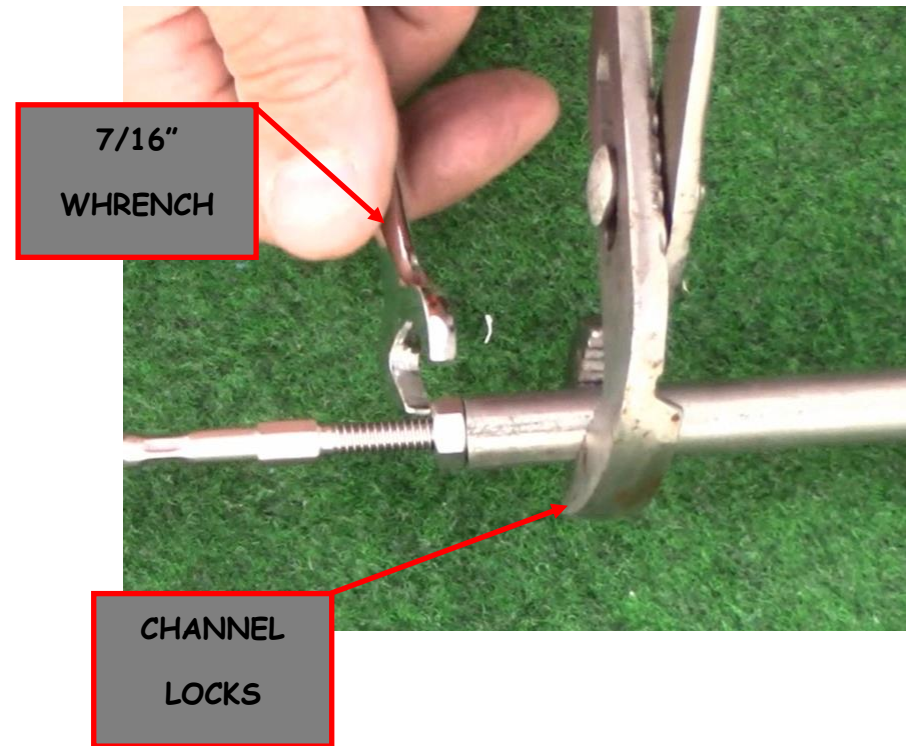
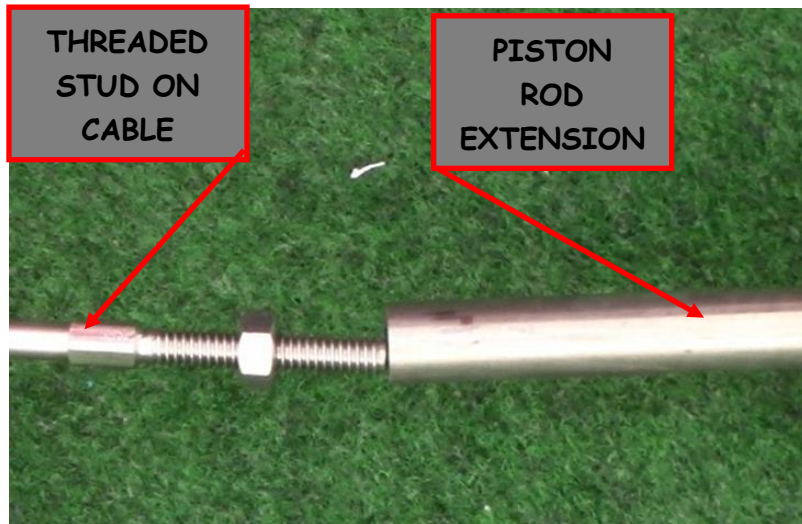
NOTE THAT THE PARTS ARE LABELED. REMOVE THESE LABELS DURING ASSEMBLY

## ATTACH SAFETY ROPE

ATTACH SAFETY ROPE TO THE BOTTOM OF THE PUMP BY THREADING THE ROPE THROUGH THE TWO HOLES AS SHOWN. USE A LOOPED KNOT (BOWLINE ETC) OR WEAVE TAIL OF ROPE THROUGH ROPE THREE TIMES AS SHOWN.

ATTACH OTHER END OF ROPE TO SOMETHING IMMOVABLE SUCH AS A PUSH MOWER OR BICYCLE. LIMIT THE AMOUNT OF SLACK IN THE SAFETY ROPE DURING INSTALLATION BY MOVING ANCHOR TOWARDS THE WELL DURING ASSEMBLY.

IF YOU DROP THE PUMP INTO THE WELL THIS ROPE ALLOWS RETRIEVAL.



#### ATTACH CABLE

CAREFULLY UNROLL THE CABLE IN A STRAIGHT LINE FROM THE PUMP IN AN AREA THAT IS CLEAN SUCH AS A LAWN OR DRIVEWAY. THIS CABLE WILL BE IN CONTACT WITH THE WATER SO KEEPING IT CLEAN IS IMPORTANT.

THREAD THE SWAGED CABLE STUD INTO THE FEMALE THREADS OF THE PISTON ROD EXTENSION (WHICH HAS BEEN ATTACHED TO THE PUMPS PISTON ROD IN AN EARLIER STEP)

THREAD IT IN AS FAR AS IT WILL GO

#### SNUG JAM NUT

LOCK THE CABLE STUD BY TORQUING THE JAM NUT AGAINST THE PISTON ROD EXTENSION.

USING ANY EXCESS LOCTITE 242 IS NOT NECESSARY BUT DOES NOT HARM ANYTHING EITHER.



**10FT DROP  
PIPE**

#### THREAD DROP PIPE ONTO CABLE

THREAD THE FIRST 10FT DROP PIPE SECTION ONTO THE CABLE FEMALE THREADS TOWARDS THE PUMP. YOU WILL FIND THAT THIS IS BEST ACCOMPLISHED BY TWO PEOPLE

USE A RAG TO CLEAN THE CABLE BEFORE IT GOES INTO THE PIPE. CONTINUE TO CLEAN THE CABLE BY RUNNING IT THROUGH THE RAG AS YOU WALK THE PIPE BACK TO THE PUMP.

CENTER THE CABLE IN THE ADAPTER AS YOU WALK SO THE CABLE DOES NOT DAMAGE THE INTERNAL THREADS.



#### ATTACH DROP PIPE TO PUMP

HAND TIGHTEN THE DROP PIPE ONTO PUMP. DO NOT CROSS THREAD. THEN SNUG WITH TWO CHANNEL LOCK PLIERS. NOT SUPERMAN TIGHT

**DO NOT USE PIPE DOPE OR PIPE TAPE.** IT IS ADVANTAGEOUS FOR THE PUMP TO LEAK SLIGHTLY THROUGH THE PIPE THREADS. THIS LEAKAGE HELPS IN FREEZE PROTECTION AND REDUCES THE AMOUNT OF "DEAD LEG" IN YOUR PUMP.



#### KEEP DROP PIPE CLEAN

PLACE DROP PIPE SECTIONS ON A LAWN CHAIR OR OTHER MEANS TO KEEP DIRT AND DEBRIS FROM ENTERING THE PIPE DURING INSTALLATION.

YOU MAY WANT TO LABEL THEM TO REPRESENT THE DEPTH



#### PLACE REQUIRED TOOLS AT WELL

CHANNEL LOCK PLIERS, (2)

WOODEN WONDER BLOCK,

TOWEL

#### LOWER PUMP INTO WELL

CAREFULLY LOWER THE PUMP INTO THE WELL BYPASSING THE PITLESS ADAPTER



#### LOCK INTO PLACE

USE THE WONDER BLOCK TO HOLD EVERYTHING IN PLACE.

NOTE THE NOTCH IS TOWARDS THE WELL CASING.

PLACE TOWEL OVER WELL OPENING TO KEEP TOOLS FROM FALLING INTO WELL (NOT SHOWN FOR CLARITY)



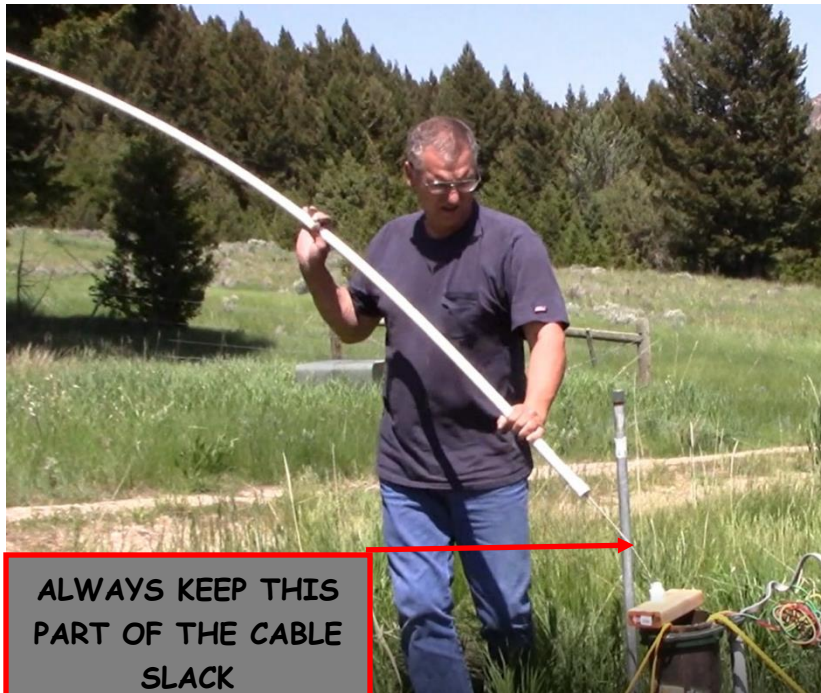
#### ADD NEXT DROP PIPE

SLIP ANOTHER 10FT DROP PIPE OVER THE PUMP CABLE. .

HAND TIGHTEN AS BEFORE THEN SNUG WITH CHANNEL LOCKS. DO NOT CROSS THREAD. THE PIPE WILL BE WOBBLY, ESPECIALLY IN WINDY CONDITIONS. A SECOND PERSON COMES IN HANDY HERE

LOWER ASSEMBLY INTO THE WELL ANOTHER 10 FT AND LOCK INTO PLACE WITH THE WONDER BLOCK.

**REPEAT THIS DROP PIPE STEP AS REQUIRED TO REACH INSTALLATION DEPTH OF ATLEAST STATIC PLUS 10 FT**



**ALWAYS KEEP THIS  
PART OF THE CABLE  
SLACK**

**IMPORTANT**

THE PUMP IS DRY DURING ASSEMBLY AND THE PISTON CAN FREELY FALL IN THE PUMP WITHOUT THE BRAKING EFFECT OF THE WATER. IF THE PISTON "SLAMS" AGAINST THE BOTTOM DURING THIS TIME, THE MECHANISM MAY BE DAMAGED

THEREFORE, BE CAREFUL TO AVOID INADVERTANTLY LIFTING UP ON THE CABLE ALREADY IN THE WELL WHEN LIFTING DROP PIPE SECTION INTO PLACE.

ALWAYS KEEP SLACK IN THE CABLE WHERE THE PIPES WILL JOIN TO PREVENT THIS

**NOTE:** A LATER STEP PREVENTS THIS "BOTTOMING OUT" DURING USE



**IMPORTANT**

THE ONLY THING HOLDING THE PUMP IN PLACE IS THE WOODEN WONDER BLOCK. CURIOUS AND PLAYFUL DOGS AND CHILDREN CAN EASILY KNOCK THE PUMP OFF THE BLOCK AND SEND THE PUMP CRASHING INTO THE WELL. DON'T LET THIS HAPPEN

**KEEP KIDS AND DOGS  
AWAY FROM THE SITE**



1/16"  
DRILL

#### DRILL WEEP HOLE

DRILL A 1/16 HOLE IN THE BLUE PIPE RIGHT NEXT TO THE WHITE COUPLER ON THE BLUE DROP PIPE.

THIS IS THE PRIMARY FREEZE PROTECTION FOR PUMPS INSTALLED IN NORTHERN AREAS.

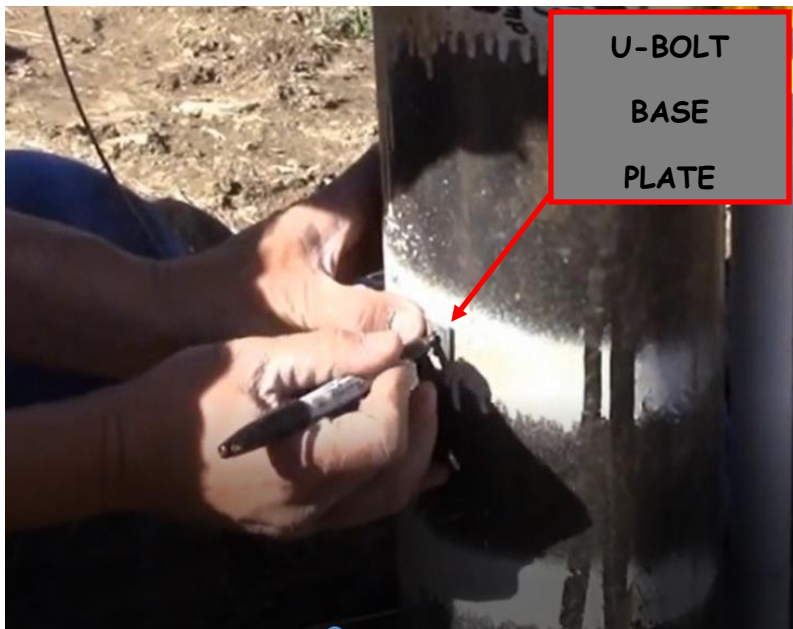
THIS STEP MAY BE OMITTED IF FREEZING IS NOT A PROBLEM

DRILLING AT EDGE OF ADAPTER PROVIDES AN AIRGAP BETWEEN PIPE AND CASING FOR DRAINING

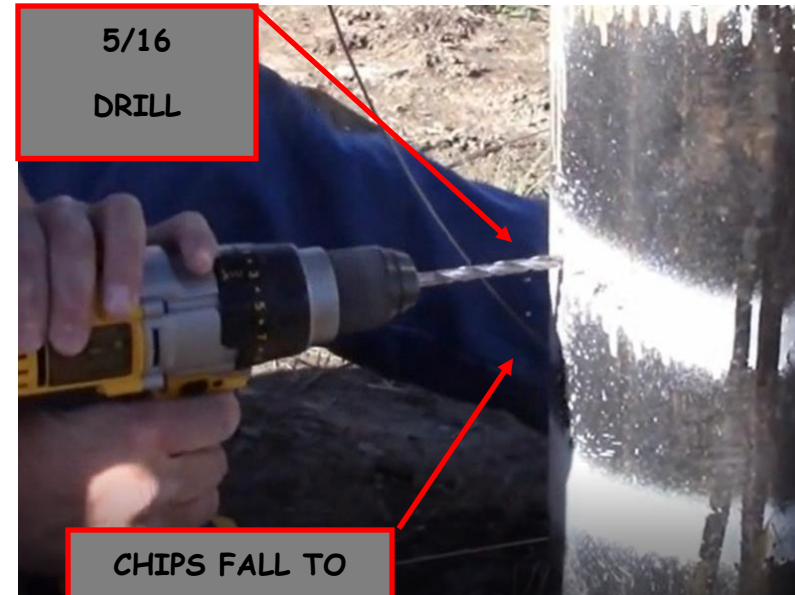


#### INSTALL THE FINAL BLUE DROP PIPE

WHEN ALL THE DROP PIPES ARE ASSEMBLED THE BLUE DROP PIPE WILL BE THE UPPERMOST PIPE. THIS HAS THE FREEZE PROOFING WEEPHOLE AND THE GREY THREADED ADAPTER THAT WILL SCREW INSIDE THE BOTTOM OF THE WELLHEAD



**U-BOLT  
BASE  
PLATE**



**5/16  
DRILL**

**CHIPS FALL TO  
THE OUTSIDE OF  
WELL**

#### **ALIGN THE PUMP WITH YOUR WELL**

USE A FLASHLIGHT AND VISUALLY LINE UP YOUR PUMP IN THE WELL CASING TO THE POSITION WHERE IT IS MOST VERTICAL. AND HAS MAXIMUM CLEARANCE OF THE PITLESS ADAPTER.

#### **MARK U BOLT HOLES**

USE THE BASE PLATE OF THE U-BOLT AS A TEMPLATE AND MARK THE CENTER OF THE TWO HOLES ABOUT 5- 10" BELOW THE TOP OF THE CASING. CLAMPING THE PIPE 10 INCHES DOWN ALLOWS "WIGGLE ROOM" FOR A LATER STEP

CENTER PUNCH THESE MARKS

#### **DRILL U BOLT HOLES**

**MOVE THE DROP PIPE OFF TO THE SIDE SO AS NOT TO DAMAGE IT DURING DRILLING**

USE A SHARP (NEW) 5/16 DRILL BIT TO DRILL THESE 2 HOLES. IT IS VIRTUALLY IMPOSSIBLE TO DRILL THESE HOLES CORRECTLY ON A CURVED SURFACE SO AN OVERSIZED BIT IS USED.

TEST FIT U-BOLT FROM THE OUTSIDE

WOBBLE DRILL HORIZONTALLY AND OR SPREAD/COMPRESS U-BOLT LEGS TO GET IT TO FIT



#### CLAMP DROP PIPE WITH U-BOLT

REALIGN DROP PIPE WITH DRILLED HOLES THEN CAREFULLY INSTALL U BOLT FROM THE INSIDE STRADDLING THE PIPE AND PROTRUDING THROUGH THE DRILLED HOLES.

PLACE BASE OVER LEGS AND SNUG THE NUTS ONTO THE LEGS AFTER LIFTING DROP PIPE UP ABOUT 6 INCHES.

THIS IS NOT THE FINAL HEIGHT

**DO NOT DROP U-BOLT INTO WELL (VERY EASY TO MAKE THIS MISTAKE)**

#### CONFIRM PUMP IS IN WATER

YOU MAY NOW CONFIRM THAT THE PUMP IS IN THE WATER AND WORKING BY PULLING UP ON THE CABLE WITH YOUR HANDS. YOU WILL FEEL EACH STROKE GETTING HEAVIER AS THE DROP PIPE FILLS WITH WATER

DO NOT ALLOW PUMP WEIGHTS TO SLAM AGAINST BOTTOM OF PUMP ON THE DOWN STROKE AS THIS MAY DAMAGE THE PUMP, GENTLY LOWER EACH STROKE.



#### DRILL/INSTALL SAFETY ROPE ANCHOR

DRILL A 5/16 OR 1/4 HOLE A FEW INCHES DOWN (TO CLEAR CAP) AND INSTALL THE SAFETY ROPE EYEBOLT ANCHOR TO THE INSIDE OF THE WELL CASING. EYE ON THE INSIDE OF THE CASING, NUT ON THE OUTSIDE

FIX IN PLACE WITH THE  $\frac{1}{4}$ " NUT PROVIDED

THIS EYEBOLT SIMPLY SECURES THE END OF THE ROPE



#### CUT AND TIE SAFETY ROPE

PULL ABOUT 5 FEET OF SAFETY ROPE OUT OF THE WELL CASING, THIS WILL MAKE KNOT TYING EASY.

**IMPORTANT** HOLD ONTO THE SIDE OF THE ROPE THAT GOES INTO THE WELL (SAFETY ROPE WILL FALL INTO WELL WHEN CUT IF YOU DO NOT HOLD ONTO IT)

USE A LIGHTER TO CUT THE ROPE SO THE ROPE WILL NOT UNRAVEL.

TIE ROPE TO EYEBOLT



#### LINE UP CAP WITH WELL

CAREFULL LINE UP THE WELL CAP WITH THE WELL CASING AND ELECTRICAL CONDUIT

USE A SHARPIE AND DRAW A RADIAL LINE THAT INDICATES WHERE THE CENTERLINE OF THE DROP PIPE. WILL BE WHEN THE CAP IS REPLACED

CAREFULL CALCULATE THE CENTER OF THE DROP PIPE FROM THE EDGE OF THE CAP ALONG THIS LINE

THE OUTER DIAMETER OF THE DROP PIPE IS 1 INCH, SO THE CENTER IS  $\frac{1}{2}$  INCH FROM THE INSIDE EDGE OF THE WELL CASING.

ADD THE THICKNESS OF THE CASING AND THE THICKNESS OF THE CAP.

CENTER THE PIPE NOT THE ADAPTER



**THIS CAP WILL  
BE IMPOSSIBLE  
TO USE**

CAPS COME IN VARIOUS DESIGNS SHAPES AND SIZES. A VERY COMMON WELL CAP IS SHOWN IN THE PREVIOUS STEP. YOU MAY HAVE TO ADJUST YOUR TECHNIQUE TO ACCOMMODATE THE CAP THAT YOU HAVE OR BUY A NEWER CAP AT A HOME CENTER OR ONLINE AND REPLACE.

IF FOR ANY REASON YOU NEED TO PAUSE YOUR WORK FOR AN EXTENDED PERIOD OF TIME, SEAL THE OPEN WELL CASING TO PREVENT CONTAMINATION. DUCT TAPE WORKS WONDERS FOR THIS, SEVERAL LAYERS OF ALUMINUM FOIL ALSO WORKS AS DOES STUFFING GROCERY BAGS INTO A GARBAGE BAG AND STUFFING INTO CASING



#### **MARK CENTER POINT OF DROP PIPE**

TRANSFER CALCULATED CENTERPOINT OF DROP PIPE TO RADIAL LINE.

MARK WITH A SHARPIE. FUDGE THE MEASUREMENT 1/16 TOWARDS THE CENTER OF THE CAP IF IN DOUBT.

#### **DRILL WELL CAP**

CENTER PUNCH AND USE A 1-1/2 INCH HOLE SAW TO DRILL THROUGH THE CAP. KNEELING ON THE CAP STEADIES THE WORK.

A NEW HOLE SAW WILL GO THROUGH PLASTIC, ALUMINUM AND STEEL WELL CAPS WITH EASE.

#### **INSTALL DRILLED CAP**

MAKE SURE ELECTRICAL WIRES ARE ALIGNED WITH WIRE CAVITY OF CAP AND REINSTALL DRILLED CAP.

IF DRILLED HOLE IS NOT EXACTLY CENTERED ON DROP PIPE, TAPPING THE CAP OR BASE CAN CENTER DRILLED HOLE ONTO DROP PIPE. DRILLING THE U-BOLT HOLES DOWN 10" IN A PREVIOUS STEP ABSORBS MINOR ERRORS VIA "WIGGLE ROOM"



#### TRIM RUBBER GROMMIT

REMOVE SOME OR ALL OF THE BOTTOM "LIP" OF THE RUBBER GROMMIT WITH A PAIR OF SCISSORS

THIS STEP MAY VARY DEPENDING ON CAP STYLE



#### SEAL WELL CAP

WET THE GROMMIT AND MUSCLE IT OVER THE DROP PIPE'S GREY THREADED ADAPTER

IF THE GROMMIT INVERTS DON'T WORRY IT CAN BE EASILY RE INVERTED AFTER PASSING OVER THE ADAPTER.

USE A FLAT BLADED SCREWDRIVER TO WORK THE GROMMIT INTO THE HOLE WHILE OPENING THE GAP BY WIGGLING THE PIPE.

SEALING WELLS FROM BUGS, DUST ETC IS IMPORTANT. INSPECT THIS GROMMIT SEAL ANNUALLY



### INSTALL WELLHEAD

THREAD THE PUMP CABLE THROUGH THE INTERNAL BAFFLE IN THE WELLHEAD THEN THE WELLHEAD CAP.

HAND TIGHTEN THE WELLHEAD ONTO THE DROP PIPE.

IF YOU HAVE EXCESSIVE CABLE YOU MAY FIND IT HELPFUL TO PRECUT THE LEFT OVER CABLE TO MAKE IT MORE MANAGEABLE. LEAVE 4-5 FT OUT OF THE BLUE DROP PIPE.



### DRY FIT SPIGOT

FRICTION FIT SPIGOT INTO WELLHEAD AIM SPIGOT TO WHERE BUCKET WILL BE

DO NOT GLUE. MANY PEOPLE NEVER GLUE THE SPIGOT INTO THE WELLHEAD.

BEING ABLE TO REMOVE AND PLUG OR ROTATING THE SPIGOT INTO THE NARROW OPENING OF A JUG IS ANOTHER ADVANTAGE. YOU CAN DECIDE LATER.

PIPE THREADS IN ELBOW ARE FOR A TUBE ADAPTER (3/4 NPT X 3/4 TUBE) AND/OR 3/4 THREADED PLUG



PUMP LEVER  
IN THIS  
DIRECTION

#### AIM THE INNER SLOT

REMOVE THE BLACK SLOTTED CAP AT THE TOP OF THE WELLHEAD TO EXPOSE THE INNER WHITE SLOTTED INSERT

THE WHITE SLOTTED INSERT IN THE TOP OF THE WELLHEAD IS FRICTION FIT. USE A FLAT BLADE SCREWDRIVER TO ORIENT THIS SLOT SO THE SLOT END CLOSEST TO THE EDGE IS ON THE OPPOSITE SIDE OF WHERE THE PUMP LEVER WILL BE.

DON'T WORRY IF THIS IS NOT EXACTLY RIGHT YOU CAN ADJUST IT LATER BUT IT IS EASIER TO DO THIS NOW.

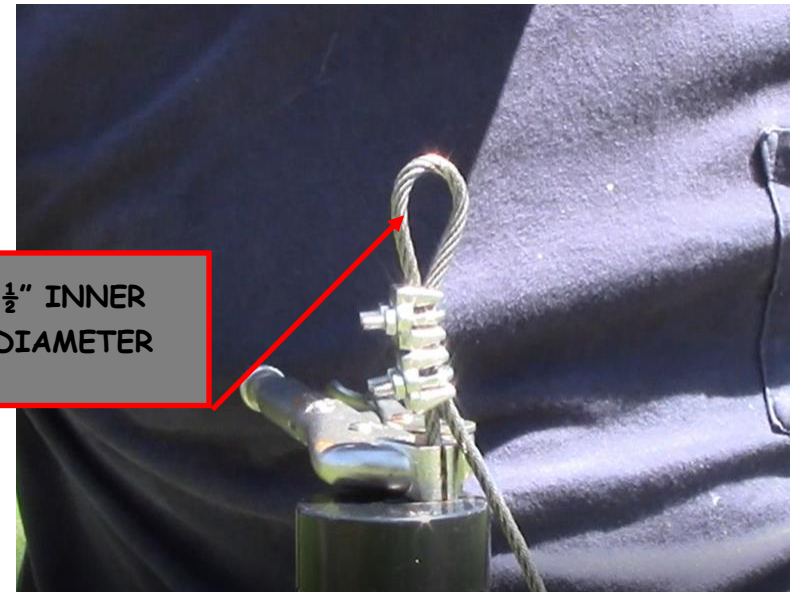


#### REPLACE BLACK CAP

DURING PUMPING THE CABLE WILL TRAVEL HORIZONTALLY FROM THE CENTER OF THE CAP TO THE FAR EDGE OF THE WELLHEAD OPPOSITE OF THE PUMP LEVER. THE SLOTTED CAP ACCOMODATES THIS CABLE TRAVEL.

AFTER THE PUMP HAS BEEN USED ROTATE THE BLACK CAP 90-180 DEGREES TO CLOSE THE SLOT TO SEAL THE PUMP FROM BUGS AND DUST.

REMEMBER TO OPEN THE SLOT BEFORE NEXT USE BY REALIGNING THE SLOTS BEFORE PUMPING



$\frac{1}{2}$ " INNER  
DIAMETER

#### RAISE THE PISTON

MAXIMUM EFFICIENCY OF THE PUMP REQUIRES THAT THE PISTON DOES NOT HIT THE BOTTOM OF THE PUMP DURING EACH DOWN STROKE. THIS ALSO PREVENTS DAMAGE TO THE PUMP.

GRAB THE CABLE AND LIFT SLIGHTLY TO REMOVE ANY SLACK FROM THE CABLE. GENTLY LIFT AND LOWER THE CABLE UNTIL YOU CAN FEEL THE PISTON WEIGHTS TAPPING THE SOLID BOTTOM OF THE PUMP WITH NO SLACK IN THE CABLE.

NOW LIFT THE CABLE AN ADDITIONAL 6 INCHES PAST THIS POINT AND CLAMP IN PLACE WITH A SET OF VICEGRIPS AS SHOWN.

#### MAKE THE CABLE LOOP

WHILE THE CABLE IS CLAMPED IN PLACE, MAKE A  $\frac{1}{2}$ " LOOP IN THE CABLE AS SHOWN. FOR MAXIMUM STRENGTH ORIENT THE CABLE CLAMPS AS SHOWN. TIGHTEN WITH A 9/32 (7MM) WRENCH.

NOTE THAT THE BREAKING POINT OF THIS CABLE IS 2400LBS AND WE MIGHT BE LIFTING 65LBS. THIS CABLE IS MASSIVELY OVERSIZED TO ELIMINATE STRETCH IN THE CABLE DURING PUMPING, THUS INCREASING VOLUME PER STROKE

A  $\frac{1}{2}$ " (OUTSIDE DIAMETER) NYLON BUSHING WILL FIT INSIDE THIS LOOP

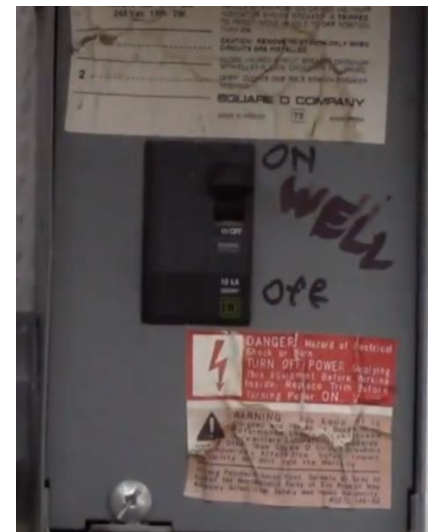


**CUT EXTRA  
CABLE**

#### **CUT THE CABLE**

USE CABLE CUTTERS OR SOME OTHER MEANS TO TRIM THE EXCESS CABLE.

**NOTE; IT IS SUPREMELY IMPORTANT TO NOT CUT OR DAMAGE  
THE END OF THE CABLE GOING INTO THE PUMP**



#### **TURN WELL POWER BACK ON**

YOU ARE DONE WITH EVERYTHING THAT WILL EFFECT YOUR WELL SO TURN THE POWER BACK ON. THE WATER MAY BE CLOUDY FOR A DAY OR SO.

FLUSHING THE WELL BY RUNNING A GARDEN HOSE FOR SEVERAL HOURS USUALLY HELPS. IF YOU HAVE A FILTER ON YOUR INCOMING WATER LINE THEN THIS WILL STRAIN OUT MOST OF THE GRIT AND CLOUDYNESS ASSOCIATED WITH WELL MAINTENANCE. WAIT A FEW DAYS TO MAX OUT THIS FILTER THEN REPLACE IT



#### **INSTALL LEVER PIVOT POST**

INSTALLATION OF THE PUMP LEVER PIVOT POST IS COVERED BY A SEPARATE VIDEO. PLEASE WATCH THIS VIDEO AND INSTALL THE PUMP LEVER PIVOT POST PRIOR TO THE NEXT STEP.

AS A GENERAL RULE THE CONCRETE WILL TAKE A WEEK TO FULLY CURE FOR MAXIMUM STRENGTH. MOST PEOPLE WILL INSTALL ON A SATURDAY SO WAIT UNTIL THE NEXT WEEKEND TO USE PUMP.

INSTALLATION OF THE PUMP LEVER PIVOT POST IS IDENTICAL FOR ALL PUMP MODELS SO IT IS BEST COVERED BY A SINGLE COMMON VIDEO AND PDF TO KEEP BEST PRACTICES AVAILABLE TO OUR CUSTOMERS



**$\frac{1}{2}$ " NYLON BUSHING**

#### **INSERT NYLON BUSHING INTO CABLE LOOP**

REMOVE THE NUT AND BOLT AT THE END OF THE PUMP LEVER THAT HOLDS THE NYLON BUSHING IN PLACE

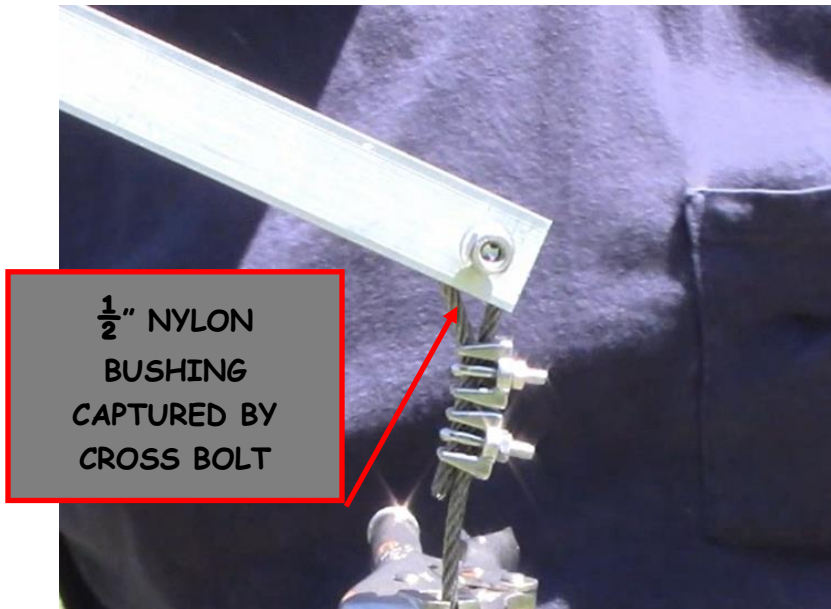
IF THE LEVER HAS AN EYE BOLT DISCARD THIS EYEBOLT AS IT IS ONLY USED BY THE AK PUMPS

INSERT THE  $\frac{1}{2}$ " NYLON BUSHING INTO THE CABLE LOOP. COMPRESSING THE CABLE AROUND THE BUSHING WITH PLIERS, HELPS TO KEEP THE BUSHING IN PLACE DURING ASSEMBLY

**NOTE:** THIS BUSHING IS A COMMON HARDWARE STORE ITEM IT IS A .250" ID (INSIDE DIAMETER)

.500" OD (OUTSIDE DIAMETER)

.250 LENGTH



**$\frac{1}{2}$ " NYLON  
BUSHING  
CAPTURED BY  
CROSS BOLT**



**10" OF  
EXPOSED  
CABLE**

#### CONNECT PUMP LEVER TO CABLE

CAREFULLY THREAD THE BOLT THROUGH THE NYLON BUSHING  
IN THE CABLE LOOP,

REPLACE NUT AND TIGHTEN WITH TWO 7/16 WRENCHES

#### PUMP WATER

USE A STEADY RYTHYM OF ABOUT 1 STROKE PER SECOND TO PUMP  
WATER. AN 8-10 INCH STROKE IS IDEAL.

WATER DELIVERY IS PROPORTIONAL TO RATE OF PUMPING

AFTER THE CONCRETE IS FULLY CURED, PUMP WATER UNTIL THE  
WATER COMING OUT OF THE PUMP IS CLEAR. EXPECT THE WATER TO  
BE INITIALLY CLEAR, THEN CLOUDY, THEN CLEAR AGAIN. THIS  
SECOND CLEAR IS THE CLEAN WATER FILLING YOUR PUMP FROM THE  
WELL. FIVE GALLONS IS USUALLY MORE THAN ENOUGH TO FLUSH  
OUT YOUR NEW PUMP

## SANITIZE YOUR WELL

SOME PEOPLE ELECT TO SANITIZE (DISINFECT) THEIR WELL AFTER WORKING ON IN. THE BEST YOUTUBE VIDEO ON THIS IS FOUND BY SEARCHING YOUTUBE "DISINFECT WELL MANITOBA" OR

[https://www.gov.mb.ca/sd/waterstewardship/odw/public-info/fact\\_sheets/pdf/pr\\_5a\\_well\\_water\\_factsheet\\_3\\_partial\\_chlorination.pdf](https://www.gov.mb.ca/sd/waterstewardship/odw/public-info/fact_sheets/pdf/pr_5a_well_water_factsheet_3_partial_chlorination.pdf)

FOR YOUTUBE VIDEO <https://www.youtube.com/watch?v=SpfZR1E5uFE>

THE WATER IN THE PUMP IS CALLED A "DEAD LEG". THIS IS ANY PORTION OF A PLUMBING SYSTEM THAT DOES NOT HAVE WATER FREELY CIRCULATING THROUGH IT WHERE THE WATER MAY "STAGNATE" OR IN SOME CIRCUMSTANCES ALLOW BACTERIA TO GROW. THERE ARE SEVERAL OPTIONS

1. PUMP A FEW GALLONS OF WATER WITH THE PUMP EVERY MONTH OR SO, THIS WILL PREVENT "DEAD LEG"
2. FOR LONG TERM NO USE.....MIX 2 DROPS OF UNSCENTED BLEACH (6% SODIUM HYPOCHLORITE) IN A 6 OZ CUP FOR EVERY 10 FEET OF INSTALLED PUMP. INVERT SPIGOT AND POUR INTO PUMP 5 MINUTES AFTER IT HAS BEEN LAST USED, SEAL SPIGOT WITH PLUG. NOTE EACH 10 FEET OF PIPE HOLDS ALMOST EXACTLY 1 QUART SO THIS FOLLOWS THE STANDARD RATE OF 2 DROPS PER QUART RULE TAUGHT IN SURVIVAL SCHOOL. SODIUM HYPOCHLORITE IS A STANDARD MEANS OF DISINFECTING BOTH PRIVATE WELLS AND MUNICIPAL WATER SYSTEMS. ALSO NOTE THE REASON WHY WE WAIT 5 MINUTES IS TO ALLOW THE WATER LEVEL IN THE PUMP TO DRAIN PAST THE WEEP HOLE IN THE UPPERMOST DROP PIPE.
3. WAIT A FEW MONTHS AND HAVE YOUR WATER TESTED TO SEE IF IT IS AN ISSUE
4. YOU MAY ALSO ELECT TO REPEAT STEP 2 ONE HOUR PRIOR TO USING YOUR WELL ON THE FIRST DAY OF AN EMERGENCY IN ORDER TO RE DISINFECT YOUR PUMP. IF USING YOUR PUMP DAILY THIS STEP WILL NOT BE NEEDED AFTER FIRST DAY

## PREPARING FOR AN EMERGENCY

SELECT WHAT KIND OF WATER CONTAINER YOU ARE GOING TO USE DURING EMERGENCIES. AQUATAINERS ARE HIGHLY RECOMMENDED. AND READILY AVAILABLE FOR PURCHASE AT ANY STORE WITH A CAMPING DEPARTMENT. BUILD A PLATFORM TO FACILITATE FILLING THESE CONTAINERS FROM YOUR PUMP'S SPIGOT. TUBE FITTINGS AND FLEXIBLE TUBE CAN FACILITATE FILLING CONTAINERS WITH NARROW OPENINGS.



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TEM

It is recommended that 1 days worth of water is stored in these containers inside the house. Remember you are preparing for a bad day (blizzard, ice storm, hurricane etc) ride out the storm with the stored water then refill after the storm has passed

A wagon or sled might be needed to haul water if your well is away from the house, prepare early.

Important label at least one container "drinking water only fill last". Your first container being filled is going to have stagnant water, this is fine for flushing toilets. Other containers can be used for personal hygiene, washing clothes etc. the best water will be the last, save this for cooking and drinking. After the first day of using the pump all the water is going to be good. Refill your drinking water container monthly while being stored. Store water in a dark place

SOME SEPTIC SYSTEMS REQUIRE ELECTRICITY! DUMPING WATER DOWN THE DRAIN DURING PROLONGED POWER OUTAGES WILL EVENTUALLY OVERFILL THE HOLDING TANK AND CAUSE PROBLEMS. IF YOUR HOUSE HAS A BOX ON THE OUTSIDE LIKE THIS, THEN YOU HAVE WHAT IS CALLED A "DOSING SYTEM" AND IT REQUIRES ELECTRICITY. ALSO, IN YOUR CIRCUIT BREAKER PANEL YOU SHOULD HAVE A BREAKER LABELED "SEPTIC"



HOUSES WITH BASEMENTS MAY HAVE A LIFT STATION FOR BATHROOMS, LAUNDRY ETC IN THE BASEMENT. LIFT STATIONS REQUIRE ELECTRICITY DON'T USE BATHROOMS ETC DOWNSTAIRS DURING AN EMERGENCY



IF YOU HAVE A GRAVITY SEPTIC SYSTEM AND NO LIFT STATION IN THE BASEMENT DRAIN ALL THE WATER YOU WANT DOWN THE HOUSEHOLD SYSTEM AS IT WILL ESSENTIALLY WORK INDEFINETLY WITHOUT ELECTRICITY