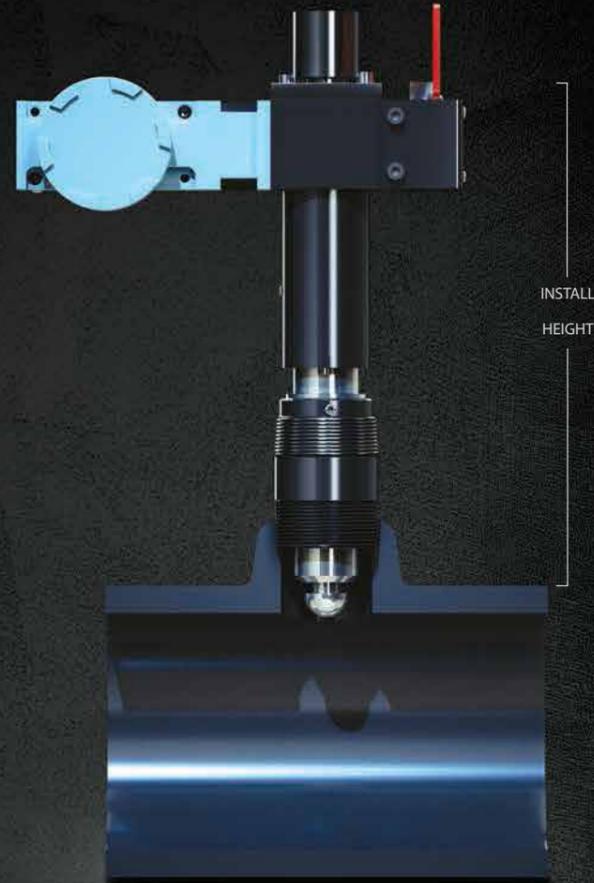


INSTALLATION - REASSEMBLY (FIGURE 8)

1. IMPORTANT to tighten LOCK SCREW to prevent removal of LOWER HOUSING prior to loosening screws to remove HOT TAP ADAPTER.
2. Reinstall DUST SEAL to LOWER HOUSING.
3. Place RUBBER GASKET on top of LOWER HOUSING.
4. Using (2) screws provided, install LOWER END CAP to the LOWER HOUSING (Figure 8).
5. Maintaining PLUNGER ROD EXTENSION within the EXTENSION POLE, carefully place the drilled end of the PLUNGER ROD EXTENSION onto the PLUNGER ROD (Figure 7).
6. Lower EXTENSION POLE onto LOWER END CAP and gently turn, ensuring no cross threading occurs.
7. Reinstall UPPER HOUSING to top of EXTENSION POLE.
8. With the flag in the "UP" position, reinstall FLAG PUSH ROD and seat RESET ROD back in place.
9. Set LOAD SPRING onto RESET ROD.
10. Install LID using screws provided.
11. Screw RESET BUTTON onto RESET ROD, ensuring it turns freely.
12. Reinstall LIMIT SWITCH ASSEMBLY.
13. Push down on RESET BUTTON to fully extend PLUNGER into pipe bore. Put FLAG into "DOWN" position.
14. Adjust to INSTALL HEIGHT (see tag on unit or on documentation). LOCK SCREW may need to be loosened. Upon completion, tighten LOCK SCREW to secure MAIN ASSEMBLY and slide DUST SEAL on 2" NPT Adaptor (figure 9).

Note: See illustration for detailed drawing.

Install Height Adjustment



IMPORTANT: Detection of pig's passage is dependent on proper INSTALL HEIGHT. Incorrect INSTALL HEIGHT could void the warranty.



pigPRO™

INSTALLATION INSTRUCTIONS

Series 53 Extended
Visual/Electrical Indicator with
Manual/Auto Reset



TECHNICAL DATA

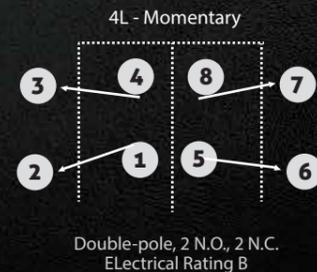
LSX Limit Switch - weather sealed, explosion proof enclosures meet NEMA standards: 1, 3, 4, 6, 9 and 13. UL listed and CSA certified: Class I, Div.1, Groups B,C and D. Class II, Div.1, Groups E, F and G.

Electrical Ratings

10 amps continuous carry. Circuits on any pole must be the same polarity.

AC Volts				DC Volts			
Pilot Duty: 600VAC, 720VA				Pilot Duty: 240VAC, 30 watts			
Electrical Rating	Circuitry	VAC	Amps at 0.35 Power Factor Make Break	Electrical Rating	Circuitry	VDC	Make and Break Amps Inductive Resistive
B	Double Pole	120	30 3	B	Double Pole	120	0.25 0.80
		240	15 1.5			Double Throw	240
	480	7.5 0.75					
	600	6 0.60					

Electrical Diagram



PRIOR TO INSTALLATION

Be sure to read the information in this manual carefully before you install the Apache pigPRO indicator

Use these precautions when installing and adjusting the Apache pigPRO indicator:

- ➔ Do not damage top threads of 2" NPT ADAPTER.
- ➔ Thread 316SS 2" NPT ADAPTER hand tight into thread-O-let before tightly securing with pipe wrench.
- ➔ Do not strike the RESET BUTTON.
- ➔ Do not tighten LOWER HOUSING to seal. LOWER HOUSING unit should be turned only for PLUNGER adjustment.

Prior to installing your Series 53 pigPRO Visual/Electrical Indicator:

- ➔ Cut/drill 1-1/4" coupon from the pipeline. ⚠
- ➔ Center 2" 3000lb. thread-O-let over the opening and weld to applicable codes.

⚠ Do not install or remove in a pressurized pipeline without first acquiring the services of a qualified hot tap specialist.

All Apache Pig Passage Indicators are shipped from the factory assembled and tested.

APACHE pigPRO SERIES 53 Visual/Electrical Indicator with Manual/Auto Reset

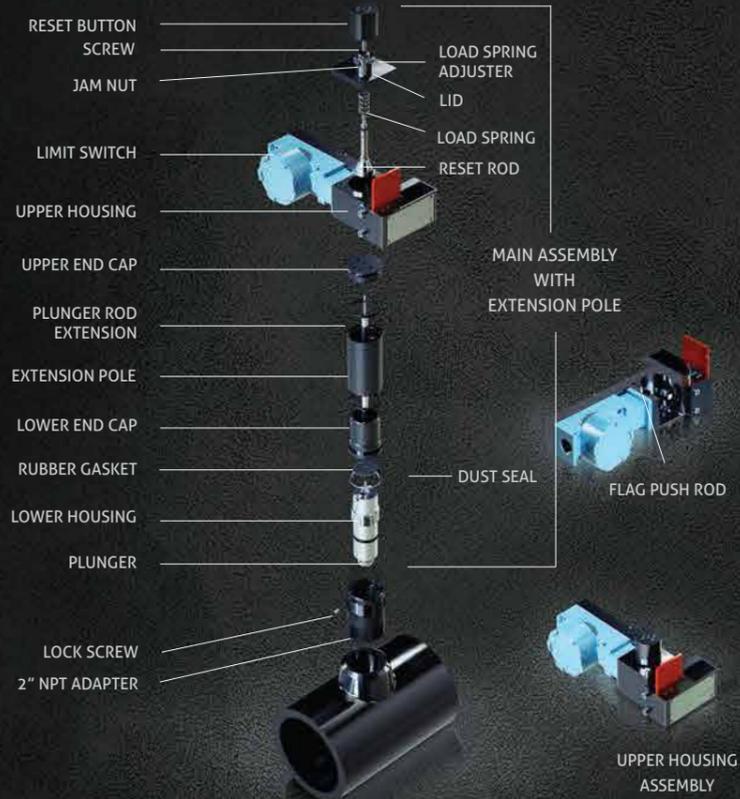
NON-PRESSURIZED LINE APPLICATION

No disassembly or internal adjustment required when mounting onto a non-pressurized line.

1. Apply thread sealant to bottom threads of 2" NPT ADAPTER and tighten clockwise the MAIN ASSEMBLY with 2" NPT ADAPTER into 2" 3000 lb thread-O-let (**Figure 1**). Use pipe wrench to securely tighten 2" NPT ADAPTER ensuring no damage to the threads occurs.
2. Loosen LOCK SCREW on 2" NPT ADAPTER (**Figure 2**). There is no need to separate 2" NPT ADAPTER from the MAIN ASSEMBLY.
3. Adjust MAIN ASSEMBLY by turning UPPER HOUSING ASSEMBLY clockwise or counter clockwise to attain INSTALL HEIGHT (**Figure 3**) marked on TAG located on UPPER HOUSING ASSEMBLY.
4. Tighten LOCK SCREW to secure MAIN ASSEMBLY and slide DUST SEAL onto 2" NPT ADAPTER (**Figure 4**).

Note: See back page for detailed drawing

APACHE pigPRO KEY COMPONENTS



PRESSURIZED LINE APPLICATION

On-stream installation requires portions of the pigPRO to be disassembled

PRIOR TO INSTALLATION - DISASSEMBLE

1. Remove RESET BUTTON by simultaneously applying upward pressure and turning counter clockwise (**Figure 5**).
2. Remove two (2) screws allowing removal of LID (**Figure 5**).
- Note:** DO NOT remove JAM NUT or LOAD SPRING ADJUSTER from LID.
3. Remove LOAD SPRING from RESET ROD (**Figure 5**).
4. Remove LIMIT SWITCH
5. With FLAG in the "UP" position remove RESET ROD and FLAG PUSH ROD (**Figure 5**).
6. Keep EXTENSION POLE stationary (by hands only), and turn UPPER HOUSING ASSEMBLY to remove from EXTENSION POLE. UPPER END CAP remains connected to UPPER HOUSING ASSEMBLY.
7. Keep LOWER END CAP stationary (use wrench as necessary), and turn EXTENSION POLE until loose. Prior to removal, ensure both the EXTENSION POLE and PLUNGER ROD EXTENSION (loose within EXT POLE) are lifted simultaneously (**Figure 6**).
- Caution:** Lift vertically when separating. Damage to PLUNGER ROD can occur if removed incorrectly.
8. Remove two (2) screws and lift LOWER END CAP and BLACK DUST SEAL from LOWER HOUSING (**Figure 7**).
9. Loosen LOCK SCREW and remove LOWER HOUSING from 2" NPT ADAPTER by turning counter clockwise ensuring it is not exposed to dirt or other contaminants. (**Figure 7**).
10. Apply thread sealant tape to the outside top and bottom threads of 2" NPT ADAPTER and tighten into existing thread-O-let.

Caution: Do not apply sealant tape to internal threads

HOT TAP PROCEDURE

1. Utilizing a trained hot tap technician, connect hot tap apparatus to 2" NPT ADAPTER and follow standard hot tapping procedures to drill and remove 1-1/4" coupon.
- Caution:** Careful not to scratch ID sealing surface upon removal of coupon.
2. Ensuring hot tap machine is depressurized above ball valve, disconnect and attach Apache HOT TAP ADAPTER to LOWER HOUSING fastening with the two (2) screws provided.

Note: The HOT TAP ADAPTER fits most industry hot tap machines.

APACHE pigPRO KEY COMPONENTS



FIGURE 1



FIGURE 2

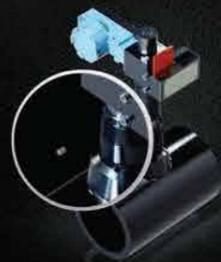


FIGURE 3



FIGURE 4



FIGURE 5



FIGURE 6



FIGURE 7



FIGURE 8



FIGURE 9



APACHE HOT TAP ADAPTER
Not included