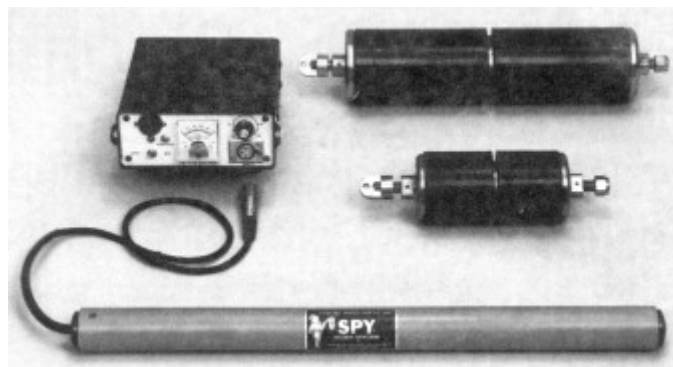
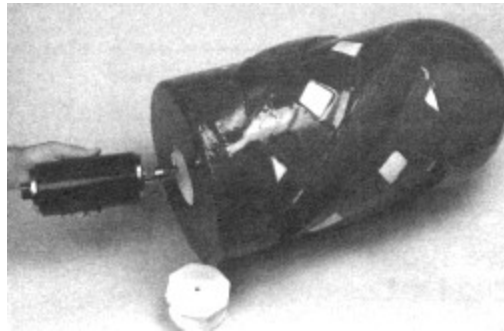


## Pig Tracking Equipment



The SPY Pig Tracker is a reliable and simplified way of locating and/or tracking pigs that are used in pipelines today. It can also be used as a temporary or non-intrusive pig signaler. The SPY Pig Tracker is available in three transmitter models:

- **PT 107 Transmitter.** Designed for 4" through 6" pipe with 3D or greater bends. Designed for use ONLY with a foam (Polly-Pig) cavity or solid cast urethane pig.
- **PT 275 Transmitter.** Designed for 8" though 12" pipe with 1 1/2 D or greater bends.
- **PT 750 Transmitter.** Designed for 12" and larger pipe with 1 1/2 D bends.

## Mounting

The PT 275 and PT 750 transmitters can be mounted in a steel mandrel pig body, foam pigs, or be towed behind a pig using spacing or wear discs. A mounting plate adaptor is required for proper mounting of the transmitter. When properly installed, the battery section of the transmitter is enclosed in the pig body and the electronics section of the transmitter is exposed.

When towed behind a pig, it is recommended that the transmitter be installed in a medium or high density Polly-Pig with criss-cross type spirals of polyurethane coating. For mounting in a cavity or mandrel the minimum hole diameter is:

- PT 107**            1 1/2"
- PT 275**           3 3/8"
- PT 750**           3 1/2"

## Operation

For normal tracking or pig signaler operation the wand is kept parallel to the pipe. For pinpointing the pig, the wand is held perpendicular or at 90° to the pipe or transmitter. The depth (distance to the transmitter) can be determined by triangulation. The receiver will occasionally pick up some outside interference that can be recognized with a minimum amount of operating experience. Common causes of outside interference are:

- Automotive electronic ignitions
- Keying two-way radios
- Large belt buckles or key rings
- Some electronic watches
- Large electrical transmission equipment

**PT 107**    One 3V Lithium battery. Maximum signal strength is 60+ hours.

**PT 275**    Four "AA" batteries. Maximum signal strength is 200+ hours.

**PT 750**    Eight "C" batteries. Maximum signal strength is 500+ hours.

**PTR**        Two 9 volt batteries. 50 hours of continuous operation.  
**(Receiver)**

Model	Signal Strength of Pick-Up Range	
	Underground	Above Ground (Free Air)
PT 107	8 Feet	20-25 Feet
PT 275	15 Feet	65-70 Feet
PT 750	25-30 Feet	100 Feet

The transmitters can withstand operating pressures of:

- PT 107**            1000 PSI
- PT 275**           2000 PSI
- PT 750**           3000 PSI

## System Specifications

System	Size (Inches)	Batteries	Hours of Signal
<b>Model 2 System</b> <b>For 4" to 6" Pipelines</b> Includes: PT 107 Transmitter, receiver (PTR), pick-up wand, shoulder strap, wrench, batteries, and durable shipping case.	Length: 6 1/2" Diameter: 1 1/4"	1 ea. 3V Lithium	60
<b>Model 4 System</b> <b>For 8" to 12" Pipelines</b> Includes: PT 275 Transmitter, receiver (PTR), pick-up wand, shoulder strap, wrench, batteries, and durable shipping case.	Length: 9 1/2" Diameter: 3"	4 ea. "AA" Type	200
<b>Model 12 System</b> <b>For 12" &amp; Larger Pipelines</b> Includes: PT 750 Transmitter, receiver (PTR), pick-up wand, shoulder strap, wrench, batteries, and durable shipping case.	Length: 16" Diameter: 3 1/8"	8 ea. "C" Type	500

## Recommended Procedures

### Using a Transmitter Pig for Location of Trouble Spots

It is important to identify and locate trouble spots in a pipeline. This can be accomplished by running a pig with an electronic transmitter. A few precautions should be followed prior to introducing the transmitter pig into the line.

- A.** Always make sure the line has flow capabilities. This is easily accomplished by running a YBS (2 lb/ft<sup>3</sup> density swab) to prove the line. Unless the line is severely restricted, the YBS should come out at the discharge end of the line. If the problem is construction debris, the debris could restrict the swab from traveling the full length of the pipeline. If this happens, put the transmitter pig into the pipeline to locate the stuck pig.
- B.** If the pipeline in question has never been pigged, or has only been pigged intermittently, Girard recommends using the progressive pigging method to clean the pipeline.
- C.** If the pipeline has been pigged on a routine basis, a YBS should still be run first. This will determine if any changes have occurred in the pipeline which would cause a problem.