



Magna-Sygg Model 101-20K  
Operations and Maintenance Manual

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# Magna-Sygg Detector

## Weatherproof Model 101-20K

### Operating Instructions

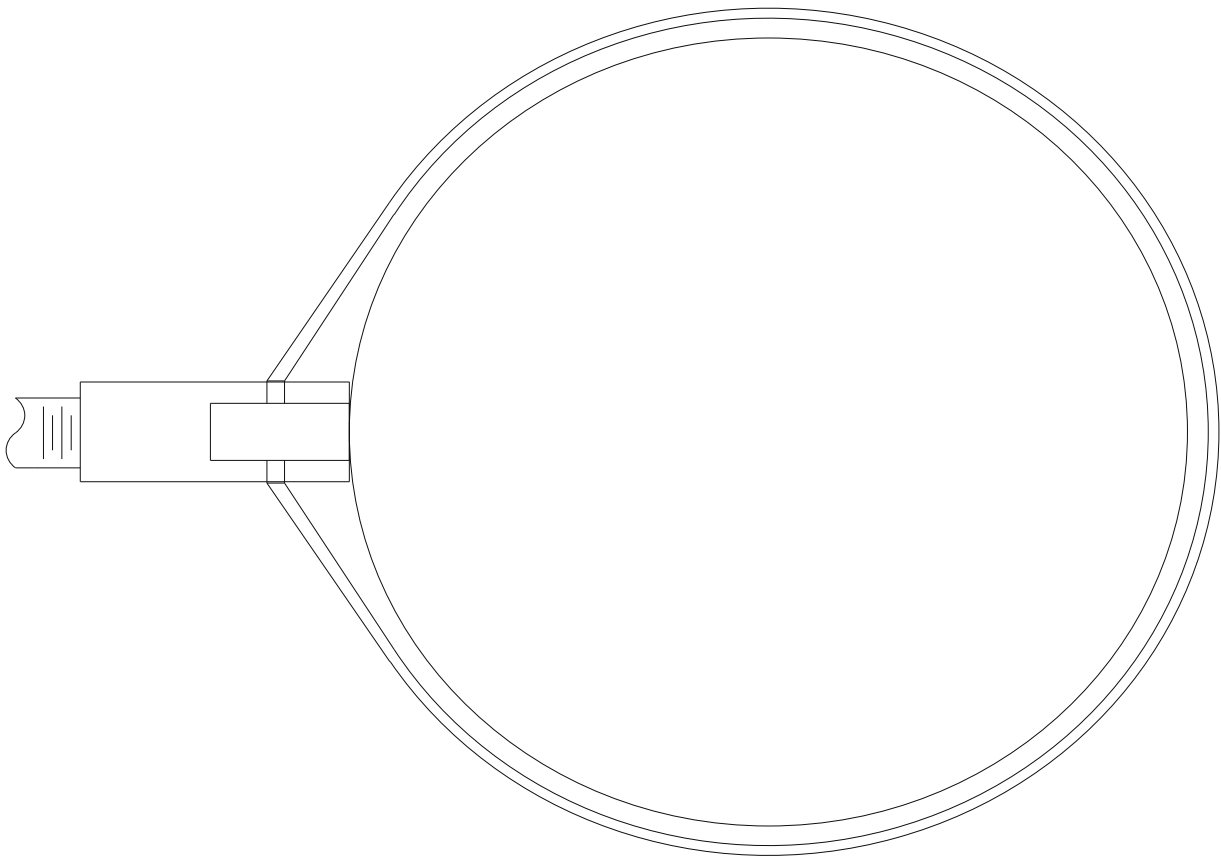
The Magna-Sygg Model 101-20K detector *is shipped with the battery pack DISCONNECTED*. To activate the detector for use on a pipeline, perform the following procedure. Mount unit to pipe per Mounting Instructions and included diagram.

- 1) With the detector switch in the "OFF" position, remove the eight (8) bolts on the back cover.
- 2) With the back cover removed, connect the battery pack connector into the matching receptacle.
- 3) Place the detector power switch in the "ON" position. Test the unit by waving a small magnet past the base mounted on the pipe.
- 4) The flag should go up.
- 5) Turn the power off, replace the back cover, and tighten the bolts to insure a weather tight seal.
- 6) The MAGNA-SYGG detector can be banded in place with steel strapping for a permanent mounting, or held in place with duct tape or a nylon tie down strap. ***The MAGNA-SYGG detector must be held stationary on the pipe during operation to prevent activating the flag prematurely.***
- 7) For operation, turn the power switch to the "ON" position and wait for the pig to arrive. When the switch is turned "ON", the flag may activate due to the startup current surge. *This is normal*. If this occurs, reset the flag and continue with the pigging operation. When the Model 101-20K is being transported or not in use, be sure the power switch is in the "OFF" position. Failure to do so will cause premature battery drainage.

## Mounting

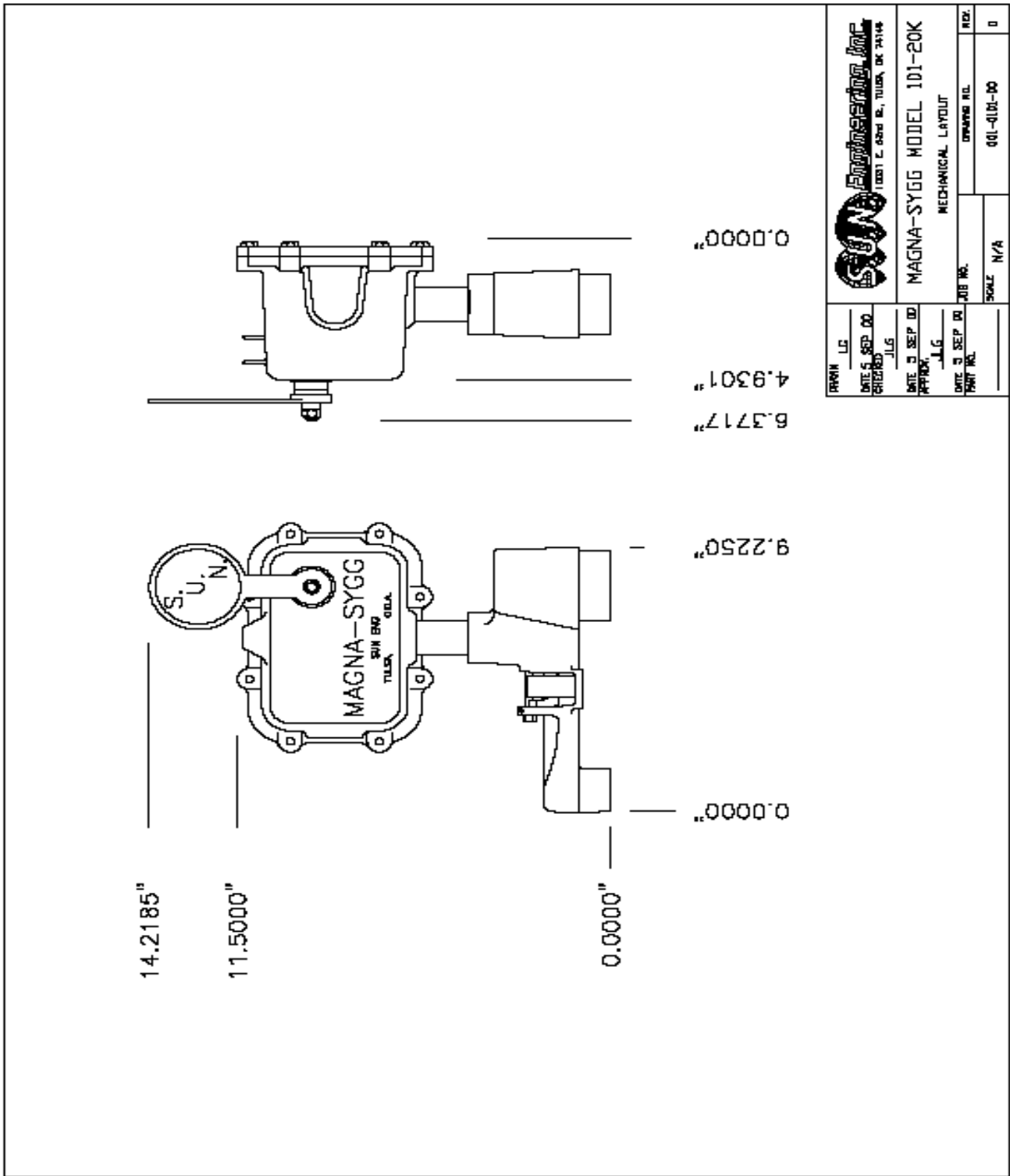
See included drawing number 001-0901-00

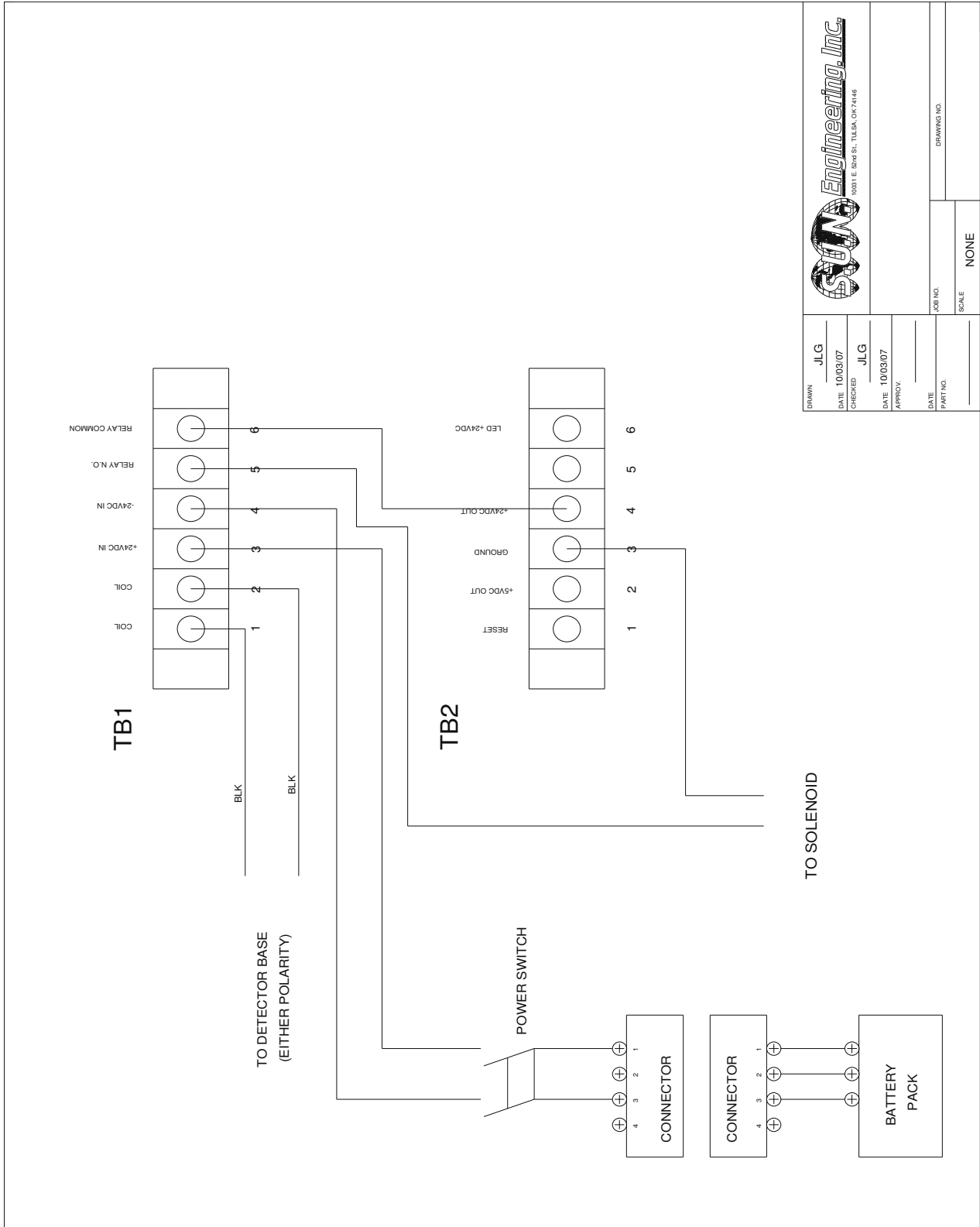
To mount the detector's base to a pipe, use  $\frac{3}{4}$ " carbon or stainless steel banding. Measure a length twice as long as needed to wrap around the pipe, plus an additional 12". Double the banding in half and insert on end through the stirrup opposite the ratchet on the detector's base. Place the base on the pipeline parallel with the pipe, then wrap both ends of the banding around the pipe and through the stirrup on the ratchet side of the base. Slip both ends of the banding through the slot of the ratchet pin and take up any slack in the banding. Use a ratchet socket or a " wrench to turn the ratchet clockwise until the detector's base is held firmly to the pipe. The base must be tight enough to insure that it cannot move. Excess banding can be cut off. To remove the detector, the banding will have to be cut off. The detector's base should not be placed on an insulator. Pipe coating, such as tape coating, coal tar, and concrete (up to 3") does not have to be removed.




DRAWN	JLG
DATE	20 FEB 98
CHECKED	
DATE	
APPROV.	
DATE	
PART NO.	
JOB NO.	
SCALE	
DRAWING NO.	001-0901-00
REV.	

**SWM** Engineering, Inc.  
1001 E. 52nd St., TULSA, OK 74146





 1001 E. 20th St, Tulsa, OK 74116		DRAWN: JLG DATE: 10/03/07 CHECKED: JLG DATE: 10/03/07 APPROV.:	JOB NO. PART NO. SCALE: NONE DRAWING NO.
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# Magna-Sygg Warranty

All S.U.N. Engineering, Inc. products are produced using the highest quality materials available, and are guaranteed to be free from defects in workmanship and materials.

**All Magna-Sygg products are warranted for eighteen (18) months from the date of sale, or twelve (12) months after date of start-up service, whichever is lesser.**

**Do not return any products without S.U.N. Engineering, Inc. approval and Return Authorization Number.** S.U.N. Engineering, Inc. will not honor any claim for warranty on any product that has been altered in any way by anyone other than S.U.N. Engineering, Inc.

A) Returned merchandise will not be accepted for credit without permission from S.U.N.

Engineering, Inc. Sales and Marketing, and accompanied by a **Return Authorization Number**.

B) Returns of other than damaged material must be **RECEIVED** in resalable condition. Full credit less 25% restocking fee will be given. A copy of the original invoice and S.U.N. Engineering, Inc. **Return Authorization Number** must accompany all returned shipments.

C) Shipping costs of the returned items will be at the expense of the customer.