



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

Note: The terms, availability, specifications, and all warranties, either expressed or implied, which are contained in this document are subject to change without notice.
Revision date: February 2014

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Magna-Sygg Detector

Weatherproof Model 101-20K

Operating Instructions

The Magna-Sygg Model 101-20K detector has a visual signal (flag) and also makes or breaks an internal set of normally open (NO) and normally closed (NC) set of contacts that actuate when the unit detects a proper magnetic field. The contact dwell time is (7) seconds and the contacts will automatically reset after the dwell time has expired. The unit *is shipped with the battery pack CONNECTED*. To activate the detector for use on a pipeline, perform the following procedure.

- 1) Place the detector power switch in the "ON" position. Allow unit to stabilize for a period of 20 seconds. Test the unit by waving a small magnet past the base mounted on the pipe.
- 2) The flag will activate and spring to the upward position. After the flag has activated it is necessary to reset it manually into the downward position. When the unit is activated a set of NO & NC relays function for a period of (7) seconds. During this time the unit cannot detect pig passage until the relays automatically reset. (Note* If a magnet is passed by the base, the flag moves to the upward position, immediately reset and a magnet passed by the base again the flag will not rise until the relays have reset. The unit will detect pig passage every (7) seconds or more.)
- 3) Turn the power off. Your Magna-Sygg is now ready for use.
- 4) 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 tie down strap. ***The MAGNA-SYGG detector must be held stationary on the pipe during operation to prevent activating the flag prematurely.***
- 5) For operation, mount unit to the pipe per instructions below. Turn the unit ON and wait for pig passage. When pig passage occurs the indication flag will rise. 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. If the unit will be stored long term it is advised that the back cover be removed and the (4) C-Cell batteries removed from the battery holder.

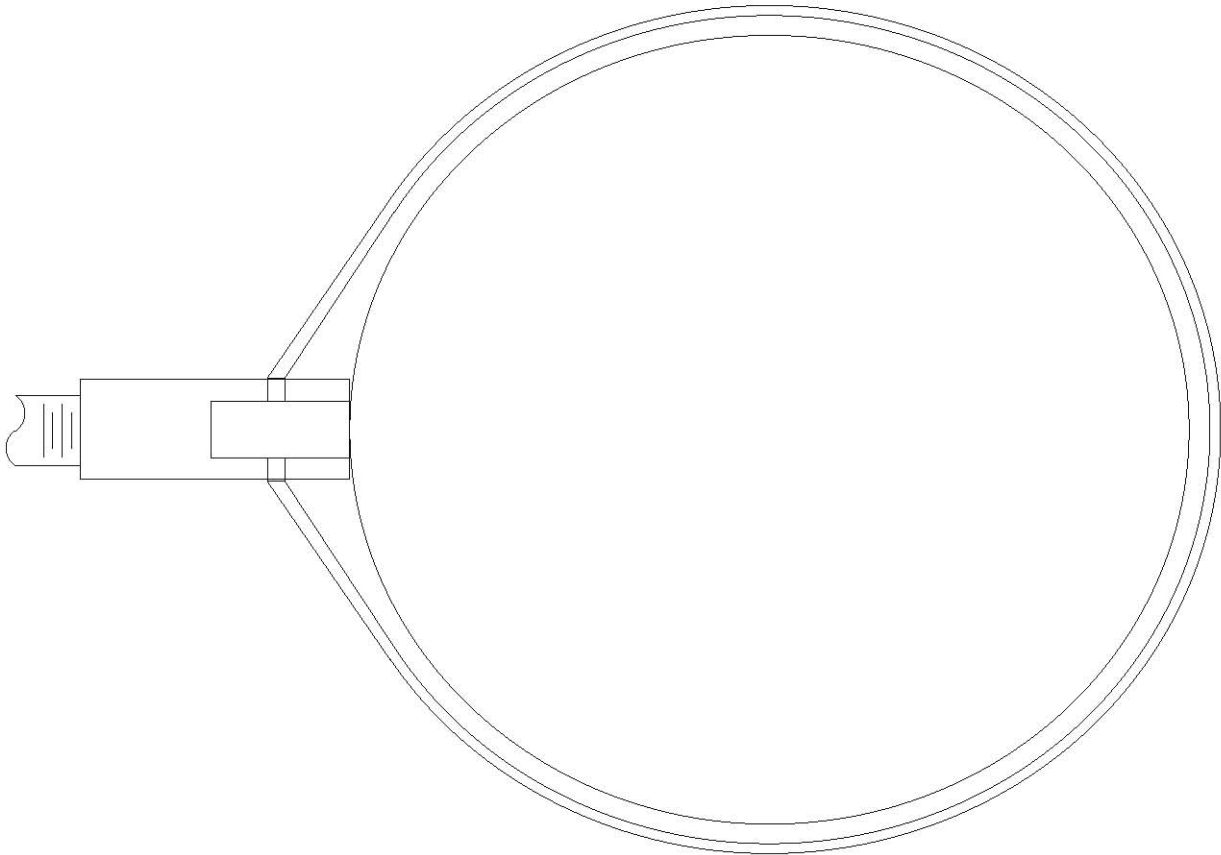
Mounting

See included drawing number 001-0901-00

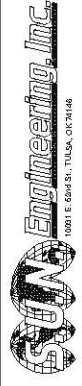
To mount the detector's base to a pipe, use $\frac{3}{4}$ " carbon or stainless steel banding. Measure a length twice as long as needed to wrap around the pipe, plus an additional 12". Double the banding in half and insert on end through the stirrup opposite the ratchet on the detector's base. Place 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 9/16" ratchet socket or a box end 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.

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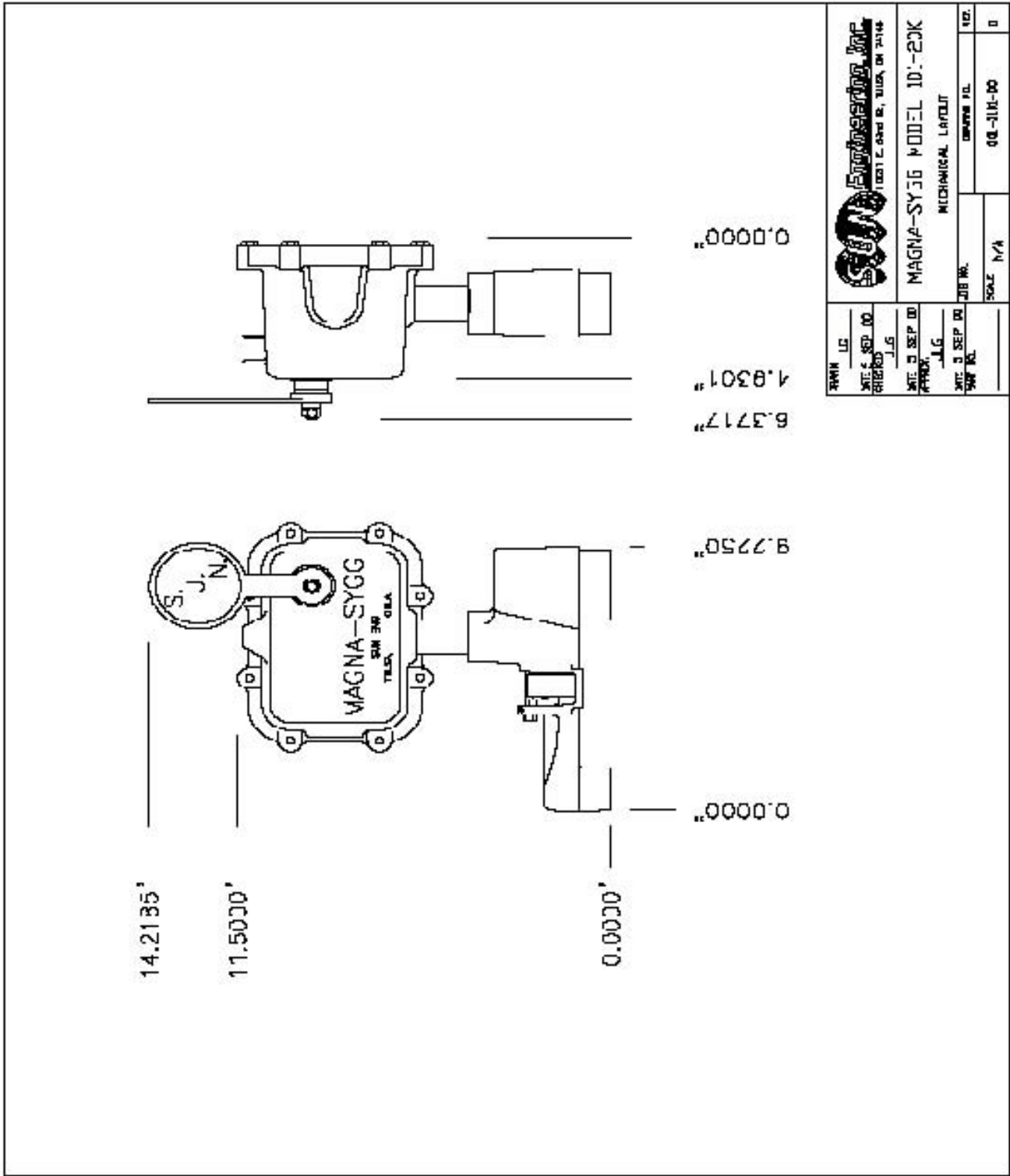
Revision date: February 2014



DRAWN	JLG
DATE	20 FEB 08
CHECKED	
DATE	
APPROV.	
DATE	
PART NO.	
JOB NO.	
SCALE	
DRAWING NO.	001-2801-00
REV.	

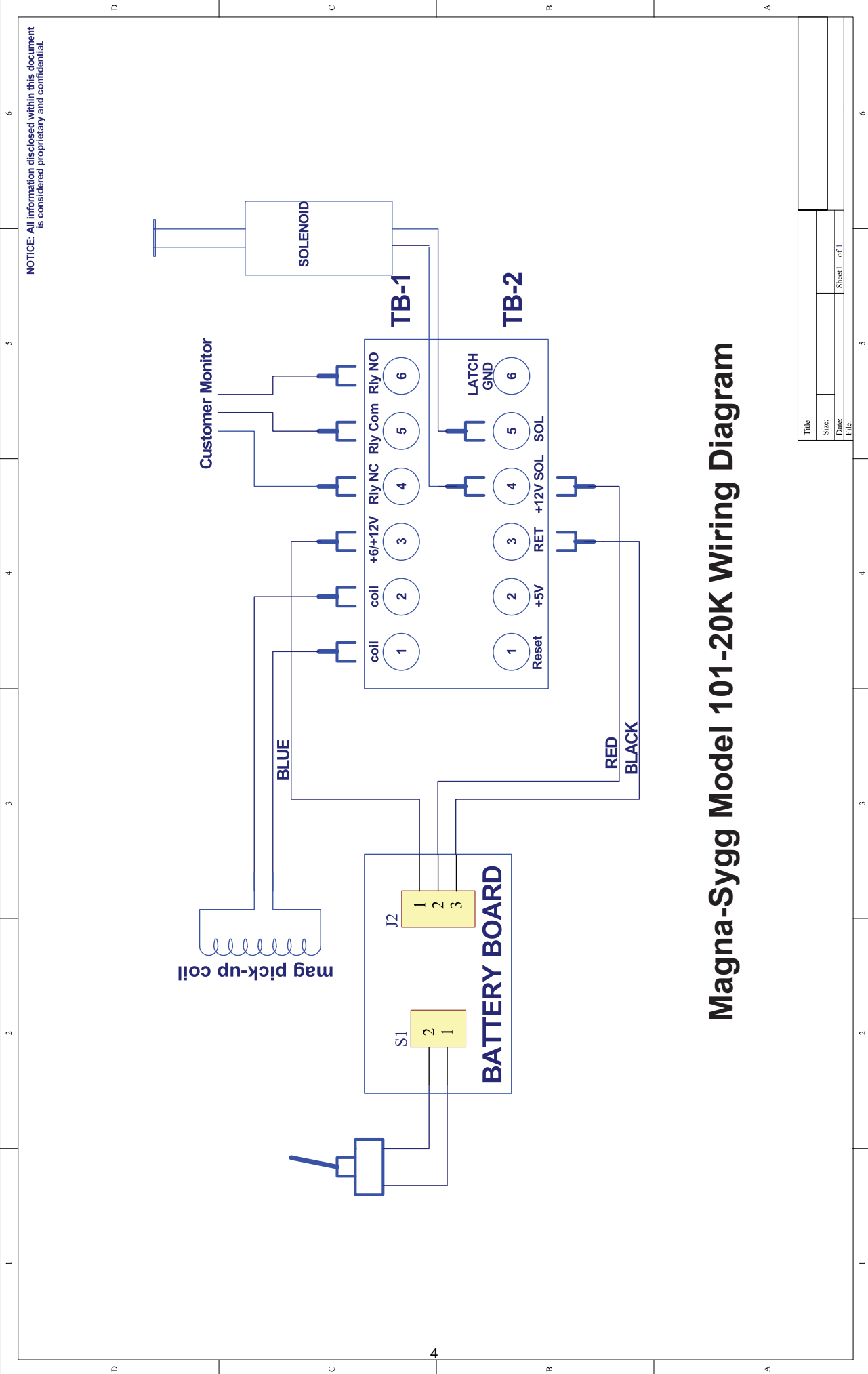


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	MAGNA-SYGG MODEL ID: -20K MECHANICAL LAYOUT
DATE: 02 SEP 10 CHECKED: JLG	JOB NO.
DATE: 03 SEP 10 APPROV: JLG	SCALE: 1/4" = 1'-0"
DATE: 03 SEP 10 DWG NO.	SHEET: 1/1
DATE: 03 SEP 10 CHECKED: JLG	JOB NO.
DATE: 03 SEP 10 APPROV: JLG	SCALE: 1/4" = 1'-0"
DATE: 03 SEP 10 DWG NO.	SHEET: 1/1

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NOTICE: All information disclosed within this document is considered proprietary and confidential.

Magna-Sygg Model 101-20K Wiring Diagram

Title	
Size	
Date	
File	Sheet 1 of 1

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 startup 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.
- 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.
- 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.
- Shipping costs of the returned items will be at the expense of the customer.

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