INSTRUCTION BOOKLET FOR

#A-1 SONIC-TRACKER

ATTENTION: PLANT MANAGER

Thank you for purchasing Durant equipment. Enclosed are very important safety instructions, operating instructions, and setup procedures.

Read all these materials completely and carefully. Please distribute copies to your SAFETY MANAGER, PRODUCTION MANAGER, and MACHINE OPERATORS.

If there is any help required in setup or operation, we will be readily available for your assistance.

Thank you again and we look forward to developing and maintaining a fine relationship with your company.

Sincerely,

DURANT TOOL COMPANY

SAFETY INSTRUCTIONS FOR ALL DURANT EQUIPMENT

The enclosed information and instructions must be forwarded and distributed to the Plant Safety Director, Plant Manager, Production Manager, and all Operators of Durant equipment.

Operators of Durant equipment must have a minimum of (3) three years operating experience with similar Durant press room equipment or a minimum of (3) three years experience with identical equipment manufactured by other press room equipment manufacturers.

WARNING

Never operate, install, or maintain this machine without understanding the complete and safe operation thereof.

It is the employer's responsibility to provide proper safety devices and equipment to safeguard the operator from harm and to safeguard this machine at all times to meet all current government safety codes and standards.

CAUTION

All Durant equipment must be securely fastened to the floor. This will prevent the machine from tipping. Failure to follow the above instructions could cause harm to the operator or machine.

ATTENTION

If any danger points are observed:

1. Immediately stop machine.
2. Do not run machine until danger point is eliminated.
3. Report danger point in writing to your employer.
4. Keep a copy of your report for your records.
5. Do not run machine again until danger point has been corrected.
6. It is your employer's responsibility to safeguard this machine to meet all government safety codes and standards.
7. There are U.S. companies that specifically specialize in safe guarding machines to plant requirements and government codes. The safe guarding companies are located throughout the United States, Canada, and foreign countries. Representatives will visit your site to advise and recommend safe guarding procedures for your company.

IMPORTANT

Before the first use and monthly thereafter, all nuts, screws, and bolts should be checked for tightness. Gears, sprockets, chains, and belts should also be checked for tightness.

Grease and oil fittings and reducers monthly.

SONIC-TRACKER UNTRASONIC CONTROLLER

MECHANICAL SET-UP:

1. **Sensor Module Location:** Mount Sensor Module using bracket attached to the Sensor to rigid framework.

   Loop Application: Sensor must be placed perpendicular to the center of the loop.

   Level Application: Place sensor facing perpendicular to the surface being measured. **[Warning: Do not use with combustible liquid or materials.]**

   Diameter Application: Mount the sensor at a right angle to the roll of material being sensed. The sensor should be mounted so that an imaginary line can be drawn from the sensor to a point on the axis of the roll perpendicular to the axis.

2. The main enclosure which is 10"H x 8"W x 6"D is to be mounted to customers equipment using the mounting ears connected to the enclosure.

WIRE SETUP:

1. See wiring diagram MSC-1000.
2. Connect 115 vac to terminal L1 & N.
3. Connect leads from Sensor Module marked 1, 2, & 3 to terminal blocks 1, 2, & 3.
4. Terminals 2(-) & 1(+) are the output terminals. Output equals, 0-10vdc non-isolated.
   [Note: if connecting to a DC Drive, Drive must have an isolated input.]

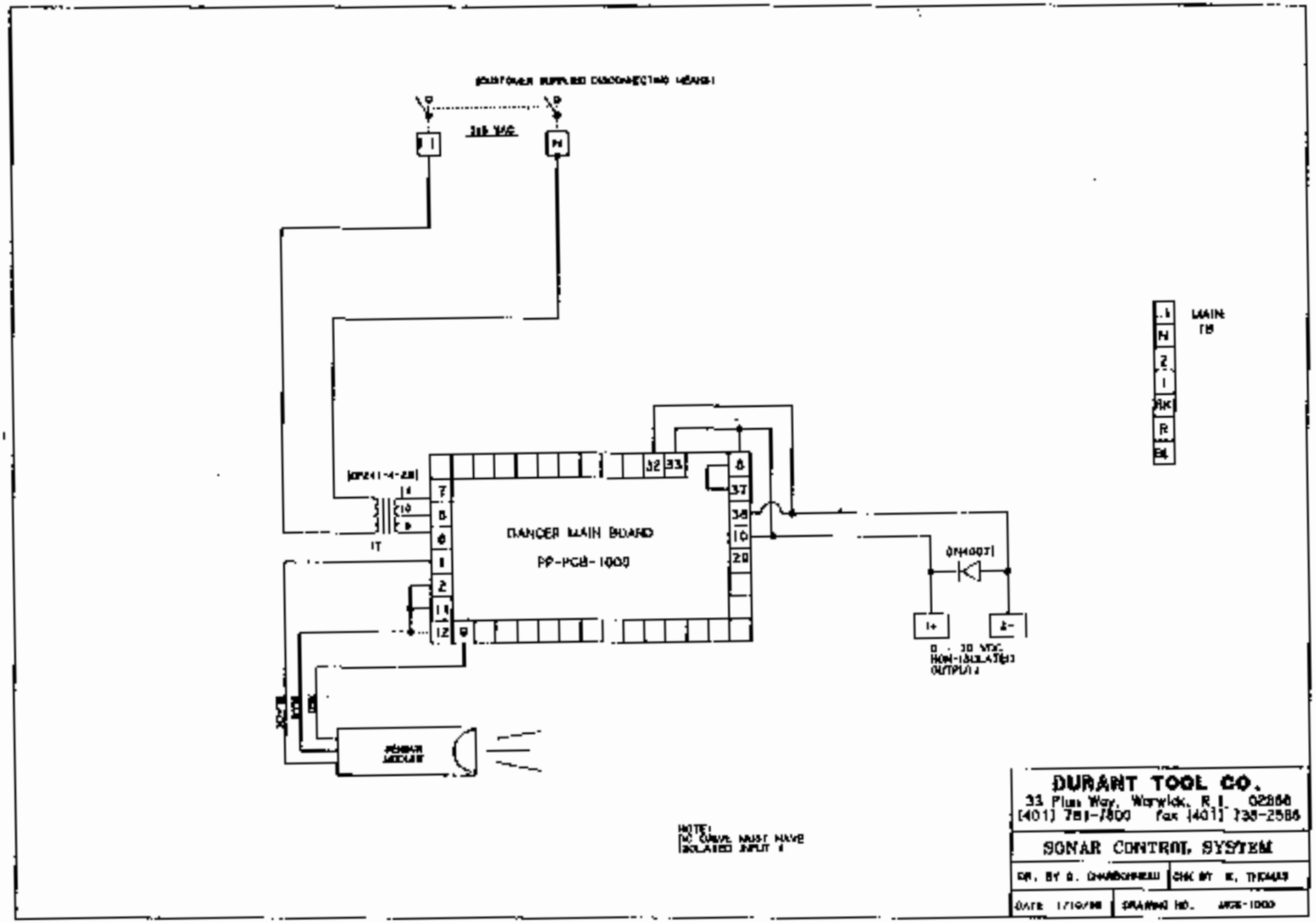
CALIBRATION PROCEDURE:

1. With material placed in the zero speed position, set potentiometer P1 to measure 0vdc out of terminals #1 & 2. [Note: Voltage increases as object gets closer to sensor module.]

2. With material in the full speed position, set P2 for 10vdc or maximum desired output. Measurement terminals 1 & 2 will be approximately 0-10vdc non-isolated.

3. Relay outputs. Relay #1 (Green LED) is adjusted by P8.
   [Note: as object approaches sensing module Relay #1 will energize.]

4. Relay output. Relay #2 (Red LED) is adjusted by P13.
   [Note: as object moves away from sensing module, Relay #1 will energize.]



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SONAR CONTROL SYSTEM

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DATE 1/10/98 | DRAWING NO. ARDS-1000