Operator Instructions for Pine AFASR2 Rotator

Document LMASR2

IMPORTANT NOTE

This document describes the operation of a product which is no longer manufactured by Pine Instrument Company (Grove City PA) and is not available from Pine Research Instrumentation (Raleigh NC). The information in the attached document was current information at the time the product was still in production by Pine Instrument Company (Grove City PA).

Both Pine Instrument Company and Pine Research Instrumentation consider the Pine AFASR2 rotator to be an obsolete product, and on-going support for this product, if any, is extremely limited. Pine now offers several more modern electrode rotator models, and owners of this older model rotator are encouraged to upgrade their equipment.

For more information, please contact us at the address below:

Pine Research Instrumentation
5908 Triangle Drive
Raleigh, NC 27617
Phone: +1 (919) 782-8320
FAX: +1 (919) 782-8323
www.pineinst.com/echem

PINE INSTRUMENT COMPANY
Grove City, Pennsylvania 16127

101 Industrial Drive, P.O. Box 429 Tel: (412) 458-6391

ASR2 ROTATOR

The Model ASR2 Rotator operates at speeds from 220 rpm to 10,000 rpm in the High range and 50 rpm to 2000 rpm in the Low range. The speed is set on the 10-turn dial and is calibrated to be accurate to better than 1% of dial reading. The spindle speed is 1000 rpm per turn of the dial for the High range and 200 rpm per turn for the Low range.

A second method of speed control is available. A d-c signal may be applied to the input jack and the spindle speed will be 1000 rpm per volt of input on the High range. The actual speed will be the sum of the dial setting and the input voltage.

The signal out jack will provide an analog voltage of the spindle speed. The output is 1 volt per 1000 rpm in the High range.

High precision, permanently lubricated bearings are used on the spindle. Springs are incorporated against the upper bearing to provide the proper pre-load on the bearings to give zero clearance. These units are checked out in manufacture to insure that the wobble at the end of the electrode is less than .002 inch.

Bearing covers are provided on the outside of the top and bottom bearings to reduce the possibility of foreign material entering the bearing. Care should be exercised also that strong acids or solvents do not splash on the rotator and attack the bearings or other parts.

Motor position is factory adjusted so that belt tension is adequate to drive the spindle without slip. The seamless mylar belt is very durable and under normal conditions will serve for years. Install the belt by placing it first on the smaller pulley and then on the larger pulley by turning the pulley so that the belt will roll onto the larger pulley.

Brushes, belts, and other parts are available from PINE INSTRUMENT COMPANY, P.O. Box 429, Grove City, Pa. 16127.

REPLACEMENT OF SPINDLE AND BEARINGS

1. Remove top brush holder and bottom lock nut 9.

2. Pull spindle assembly up out of the rotator body. The bottom bearing will remain in the body and the top bearing will come out with the spindle.

3. Remove top lock nut 8 and carefully remove the bearing from the spindle with your fingers. The bottom bearing can be removed by removing the bottom retainer 11 and taking the bearing out.

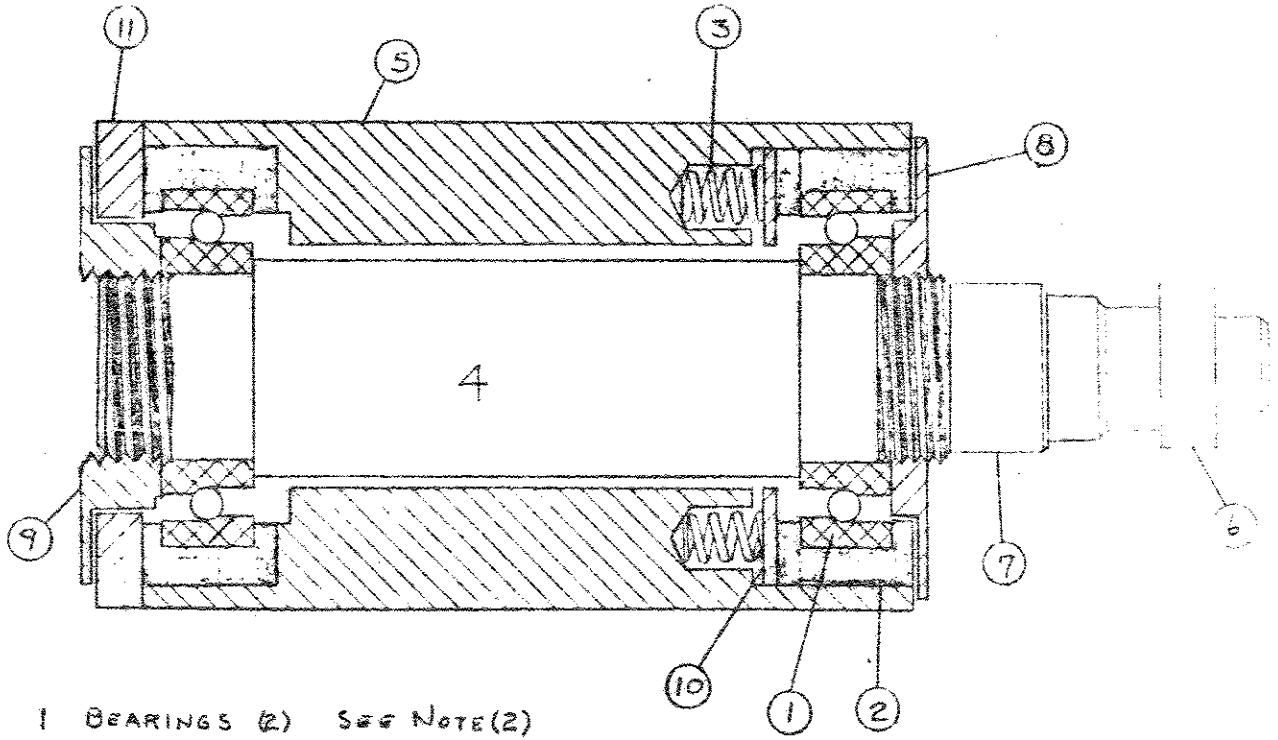
   To remove the top bearing from the ASR2 it is necessary to remove the 1½" Dia. pulley attached to the top of the spindle. Remove this pulley by applying heat to destroy the adhesive material. After the bearing has been replaced and checked for noise, clean pulley I.D. and spindle O.D. and replace using Locktite retaining compound 75 or equivalent.

4. Be very careful to keep the bearings clean and remove the rubber covers 2 from the bearings and place the covers on the new bearings.

5. Install the lower bearing with the numbers up or with the wider gap in the bearing down. Replace Retainer 11.

6. Place the upper bearing on the spindle so that the numbers will face down or toward the bottom bearing and the widest gap toward the lock nut. Replace top lock nut 8 and install spindle in body.

7. Replace bottom lock nut 9 and make sure that all nuts are tight.



1 BEARINGS (2) SEE NOTE(2)
2 RUBBER HOUSINGS (2)
3 SPRINGS (4) LC-032D-6SS
4 SPINDLE
5 BODY
6 PULLEY
7 BUSHING (BRUSH CONTACT)
8 TOP LOCK NUT
9 BOTTOM LOCK NUT
10 WASHER
11 [illegible]

NOTE:

(1) 3 SMALLER PULLEY STEPS ARE PART OF THE SPINDLE

(2) BEARINGS MUST BE ASSEMBLED WITH THE SIDE WITH THE WIDEST GAP TOWARD THE LOCK NUT

S/N 16 & UP

PINE INSTRUMENT CO.
GROVE CITY, P

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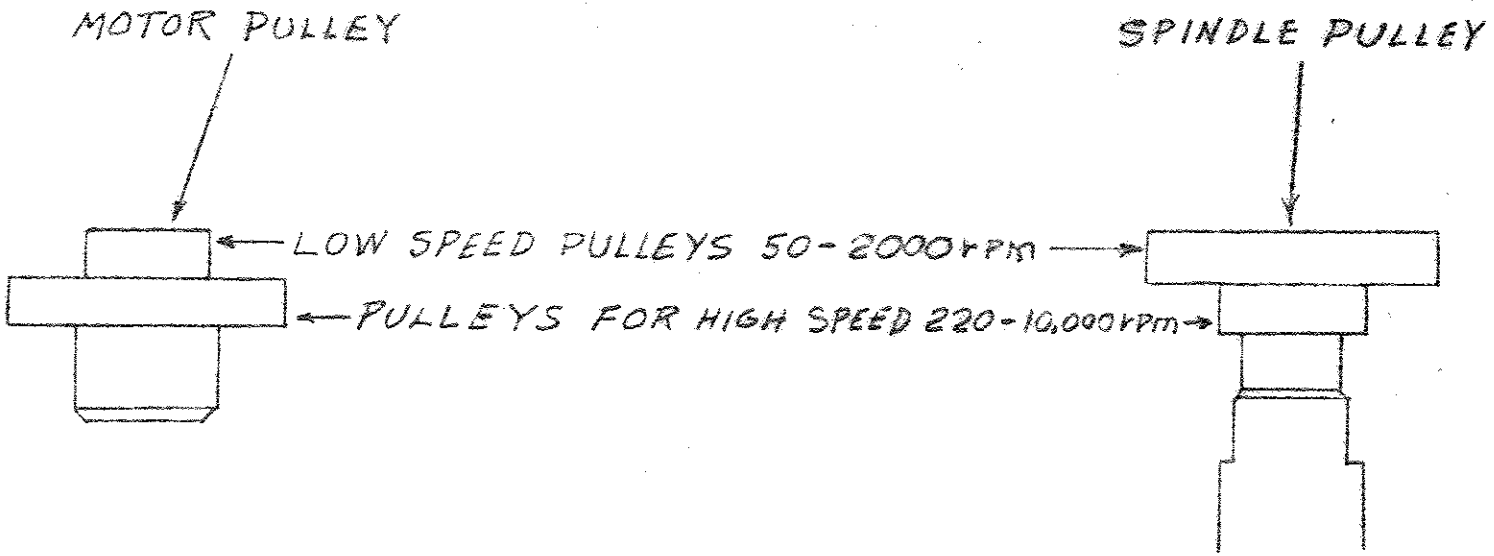
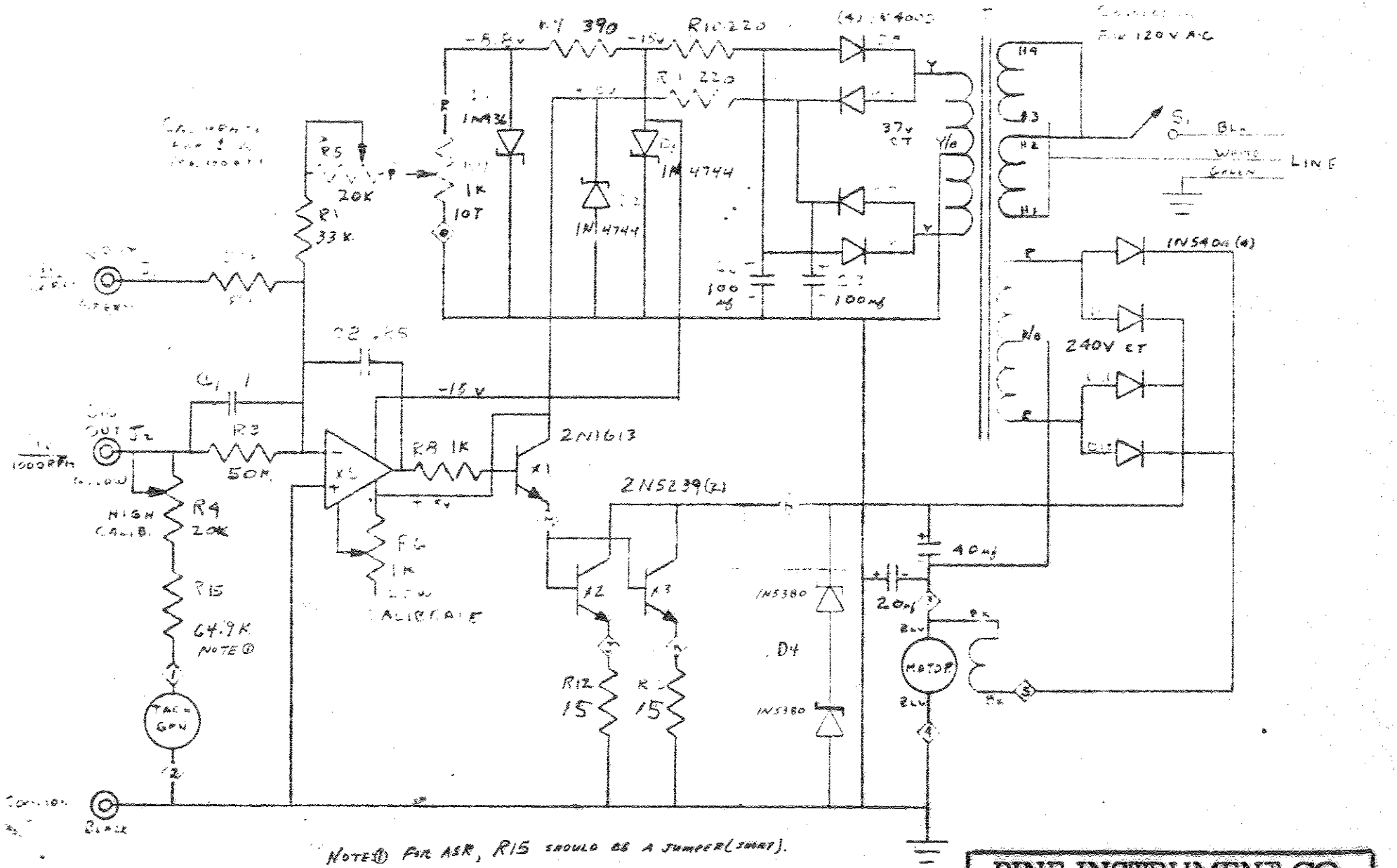
Date 1-[illegible]-[illegible]



SEE PAGE ONE FOR BELT INSTALLATION



NOTE① FOR ASR, R15 SHOULD BE A JUMPER (SHORT).

PINE INSTRUMENT CO.	
GROVE CITY, PA.	
Drawn by T. HUGES	Title ASR & CCDP CONTROL
Date UPDATE 7/78	Drawing No.