

Havlicek, Maynard

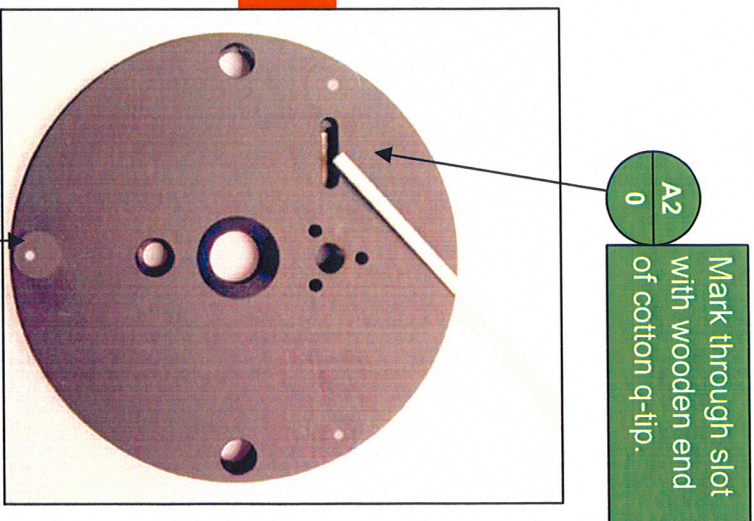
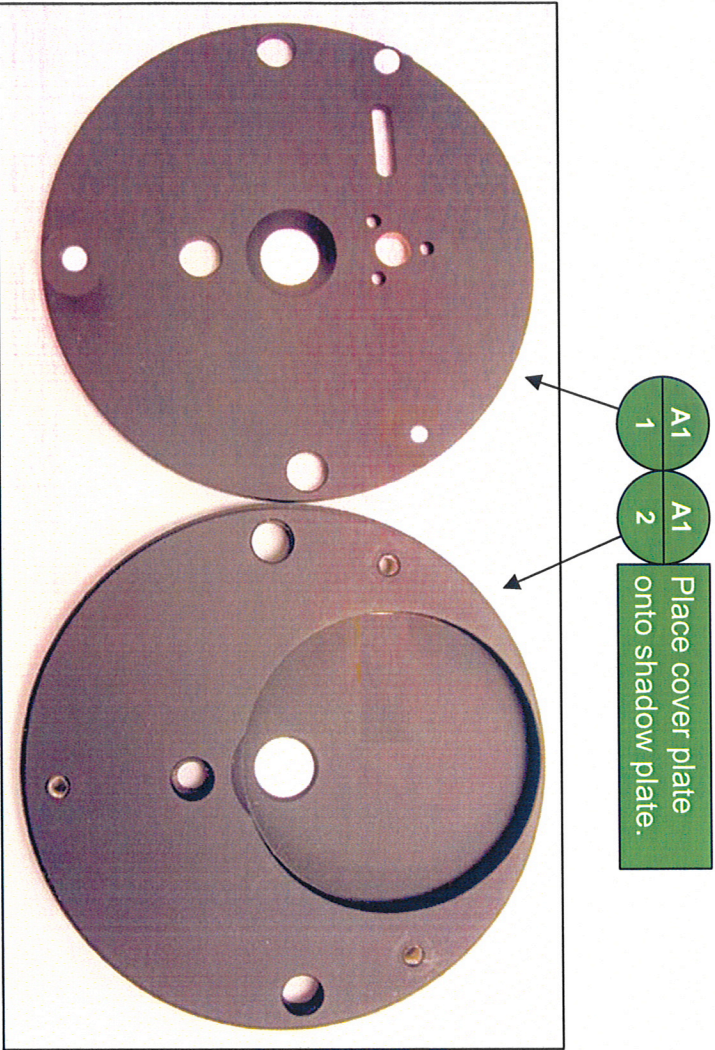
From: Havlicek, Maynard
Sent: Tuesday, January 22, 2008 3:52 PM
To: 'mh@tsi.com'
Subject: Chopper Blade Motor replacement.

To replace the Chopper Blade Motor follow the instructions below.

1. Use the 3563 manual starting on page 8-19 Cleaning the Reference Chopper to page 8-25 Figure 8-21 Reference Chopper, don't worry about cleaning the Chopper Blade you will only be replacing the Chopper Blade motor.
 2. Use 1035485 part number 10000002614A "Chopper Motor Neph 3563" instruction sheets, on page 8 of 14 and use 0.05 inch Allen wrench and remove Chopper Blade from motor.
 3. Use page 5 of 14 and remove the 3 Allen set screws holding the chopper motor in place.
 4. Install new chopper motor making sure the cable from the chopper motor is in the correct location see page 5 of 14.
 5. Install Chopper blade using Wax paper as shown on page 8 of 14, hold down chopper blade as you tighten set screw.
 6. Reassemble chopper assemble and use 3563 manual to re-install chopper assemble back into Neph.
- thanks

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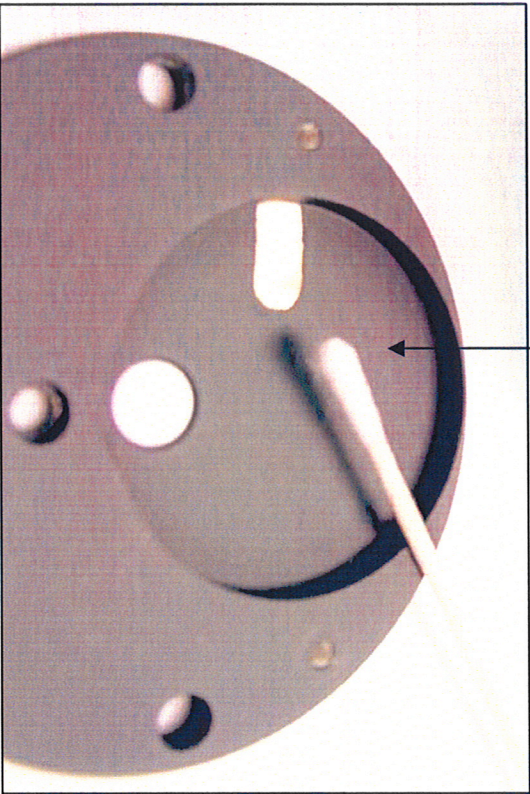
Ref	Qty	Part Number	Description
1	1	1503825	PLATE CHOPPER COVER 355X/6X
2	1	1503084	PLATE SHADOW PMT#1 NEPH



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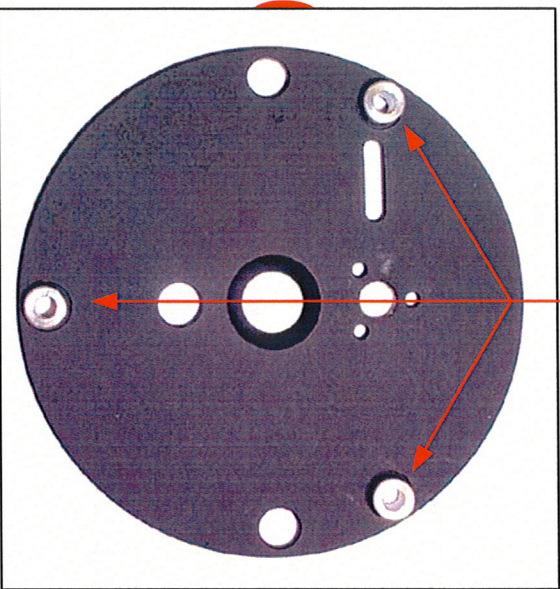
Ref	Qty	Part Number	Description
1	AS NEEDED	2300084	REAGENT ACETONE
2	1	1503925	PLATE CHOPPER COVER 355X16X
3	3	2903873	SPCR PEM .143 IDX.281ODX.250

A1
1 Using acetone remove paint on shadow plate in area marked.



Attach spacers using arbor press.

A2
2 A2
3



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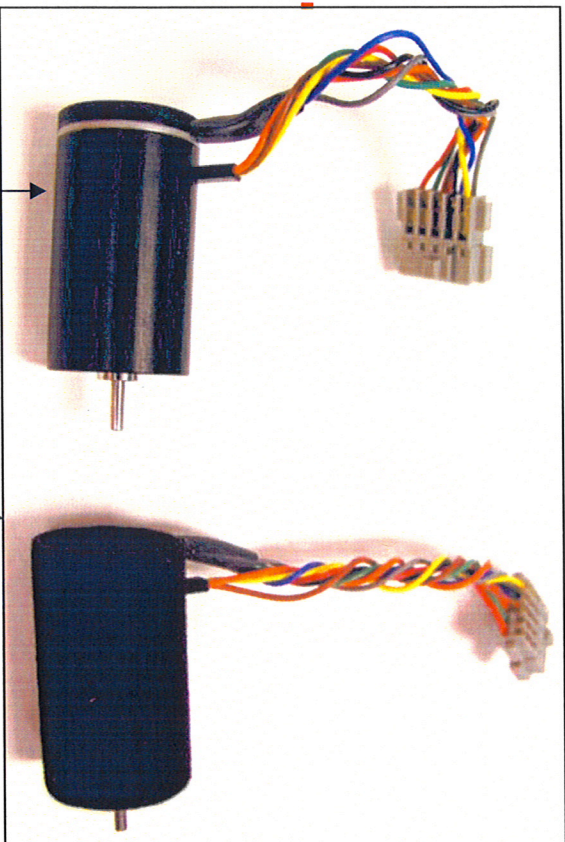
Ref	Qty	Part Number	Description
1	AS NEEDED	2608015	PAPER FLOCK BLK ADHBACK 20X30
2	1	1035539	S/A MOTOR BRUSHLESS DC NEPH

A1
1 Using template to cut paper for motor.



Template for cutting Flock paper

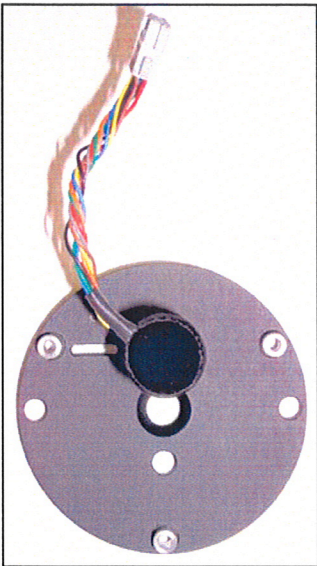
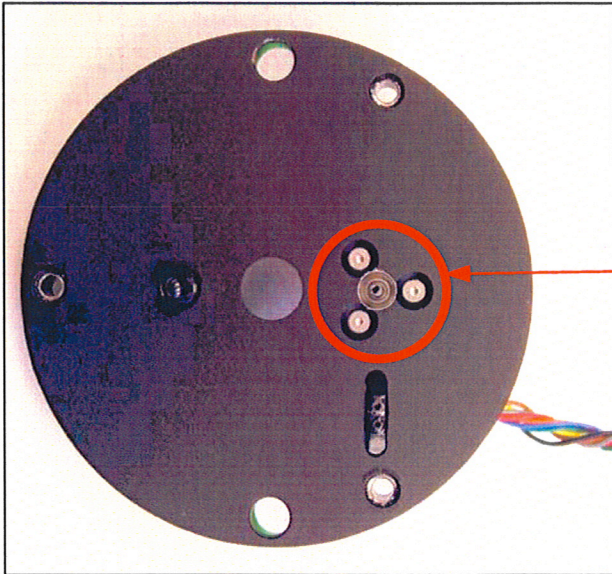
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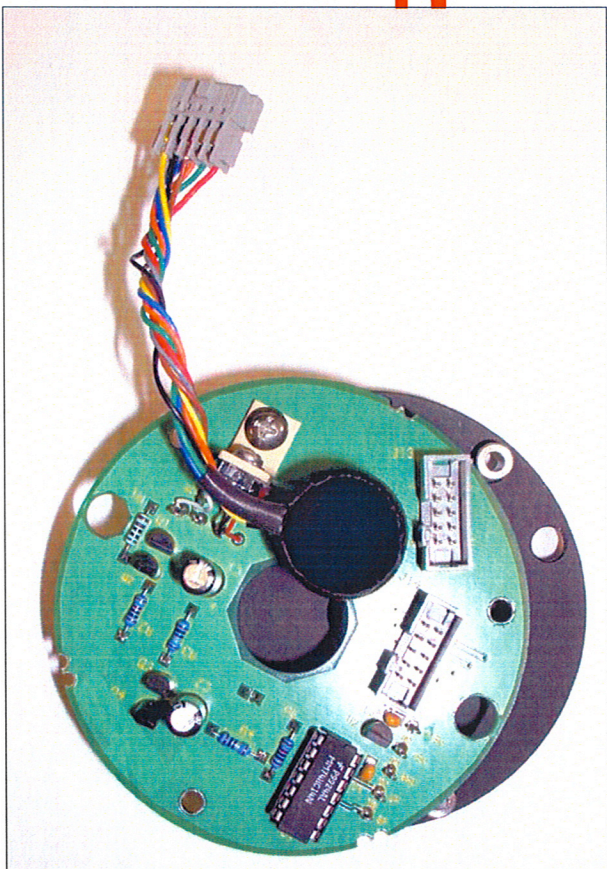
A2
0 Place circle cut out on end of motor first then put rectangle piece on.

Ref	Qty	Part Number	Description
1	3	5000121	SCR M2 X 4 FLAT HD SKT SS
2	1	1035529	S/A PCB CHOPPER MOTOR NEPH

A1
1
Screw motor to plate.
Note: Wires toward the top.

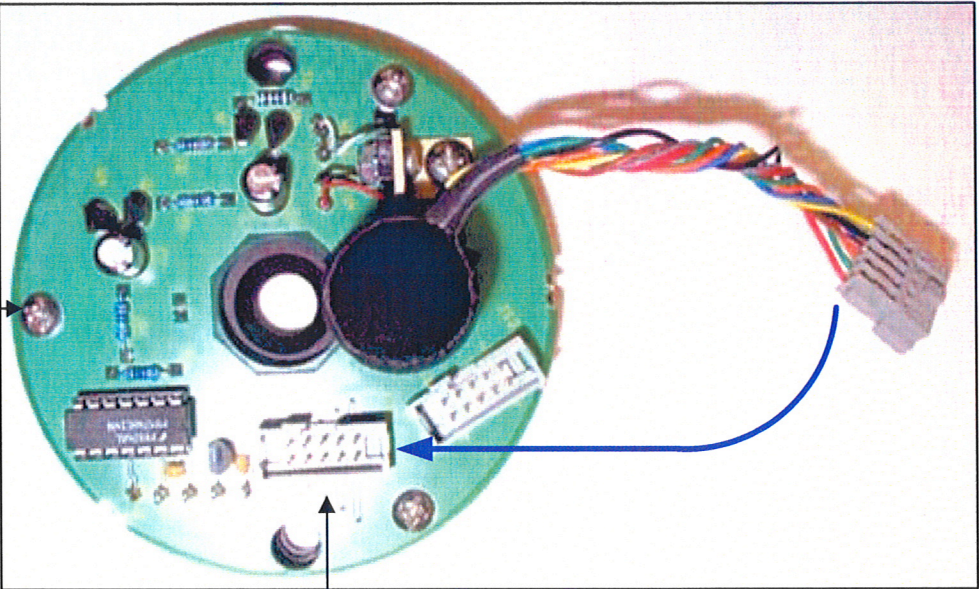


A2
2
Twist pcb counter clockwise over motor and screw to plate.



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Ref	Qty	Part Number	Description
1	3	5073090	SCR 6-32X 5/8 PAN HD PHH SS \$
2	3	5328031	WSHR #6X9/32LOCK INTTOOTH ZN \$
3	1	1035487	S/A CHOPPER SHUTTER 35SX/6X
4	AS NEEDED	2300084	REAGENT ACETONE

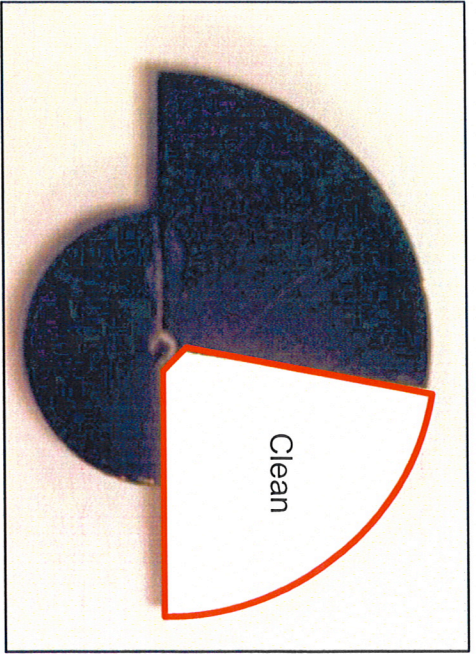
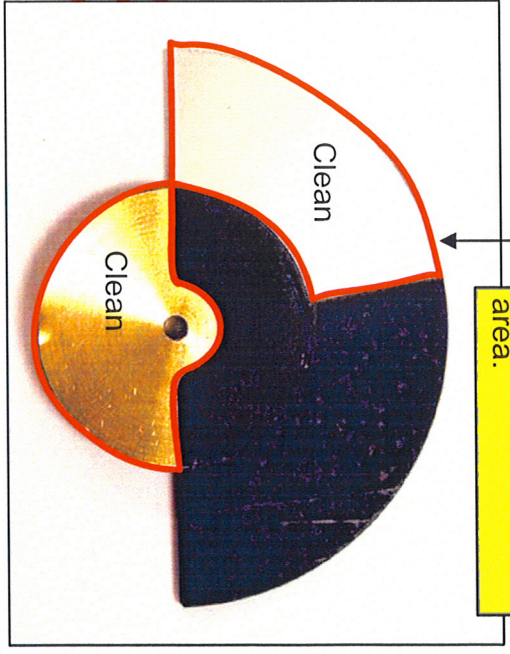


A1 A1
1 2
Screw pcb to plate.

A2
0
Plug in connector.

Confide

A3 A3
3 4
Using acetone clean chopper assembly.
Do not clean painted area.



Proprietary and Confidential Information
Operational Method Sheet

Filename: 10000002614A.vsd
Sequence: 1060
Part Number: 10000002614A
Description: Chopper Motor Neph 3563
TSI TSI Incorporated, St Paul MN 55126
Page 6 of 14

Ref	Qty	Part Number	Description
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A1
0

Store in special handling container.



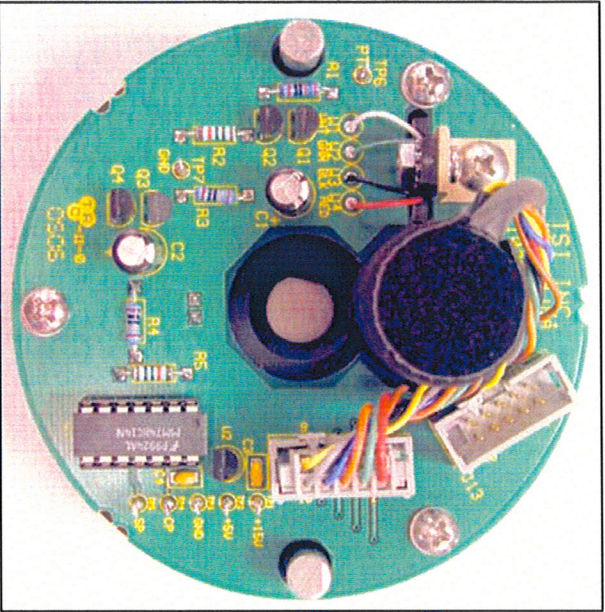
A4
0

Give the pc board assembly and the chopper assembly to technician.

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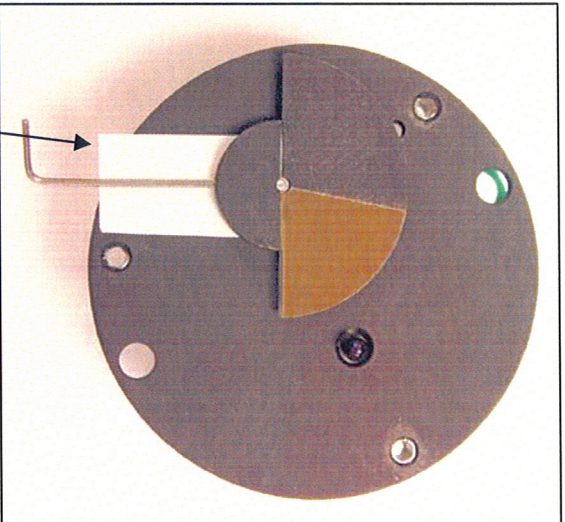
Proprietary and Confidential Information	Filename: 10000002614A.vsd	Part Number: 10000002614A	Description: Chopper Motor Neph 3563
Operational Method Sheet	Sequence: 1070	TSI Incorporated, St Paul MN 55126	Page 7 of 14

Ref	Qty	Part Number	Description
1	1	1503084	PLATE SHADOW PNT#1 NEPH



A1
1 Remove screws.

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Place a piece of wax paper (the wax paper from 1503830 works good) on plate.
Holding the chopper blade in place tighten set screw with allen wrench.
Remove wax paper.

Verify the blade moves freely.
Verify there is a gap between the plate and chopper blade.

Ref	Qty	Part Number	Description
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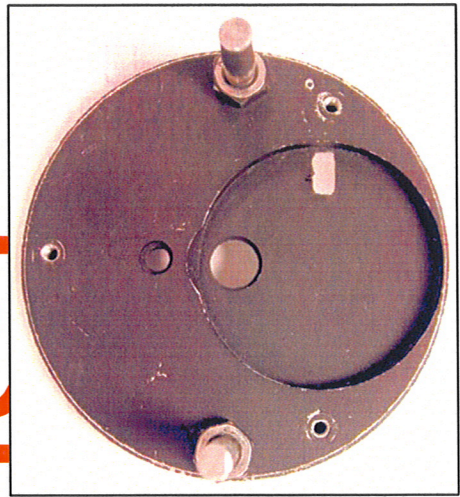
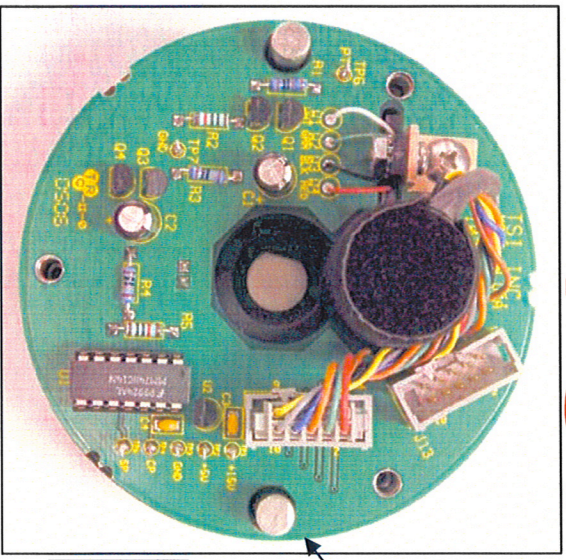


Figure 01

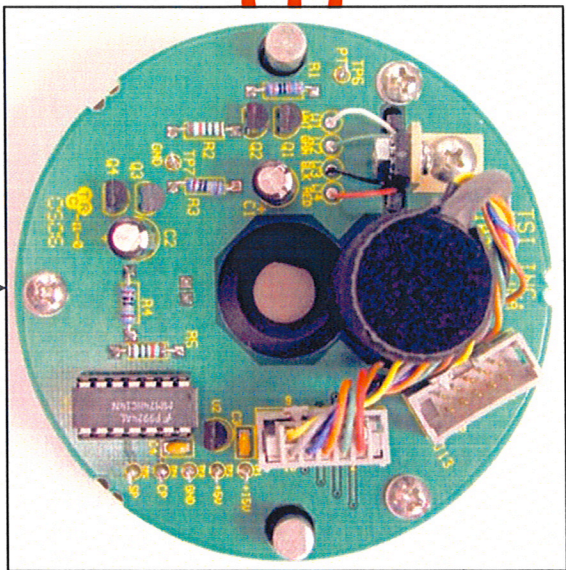


C
Before placing the pc board assembly Check the blade rotates freely and properly.

A1
0
Place pc board assembly into fixture.

Verify the blade rotates freely and properly.

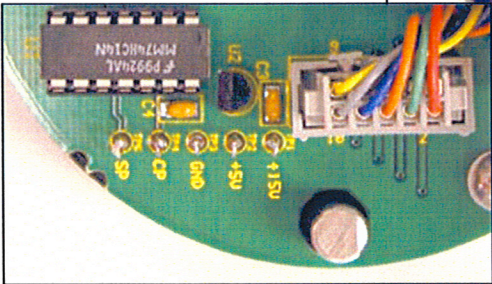
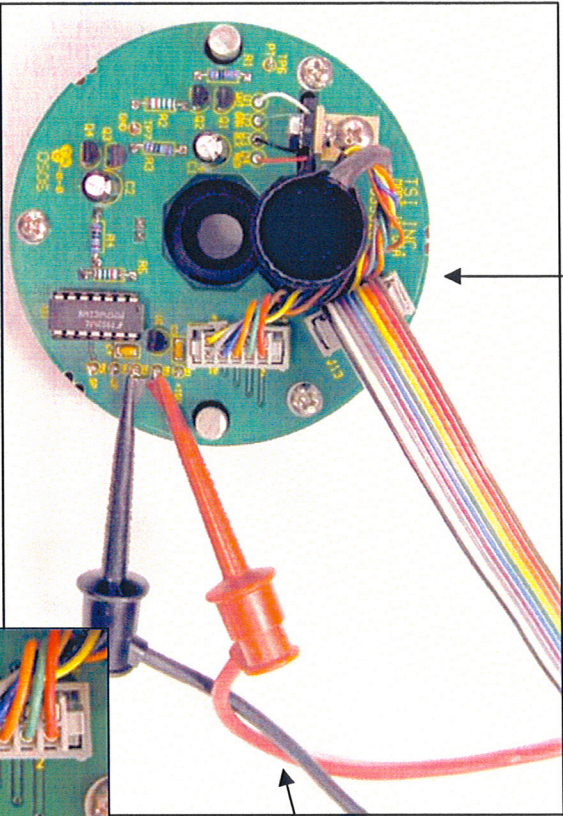
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A2
0
Replace the screws/washers.

Ref	Qty	Part Number	Description
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A2
0 Plug cable
in J13.

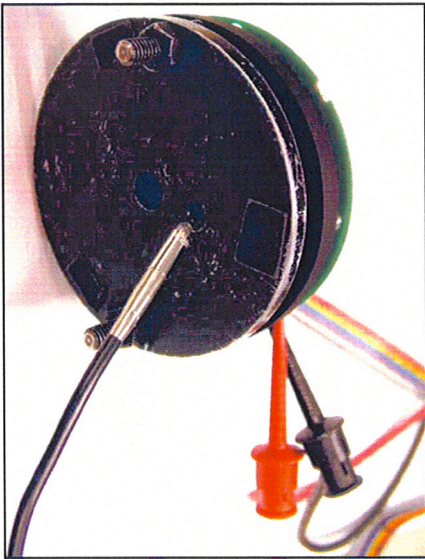


fidon

A3
0

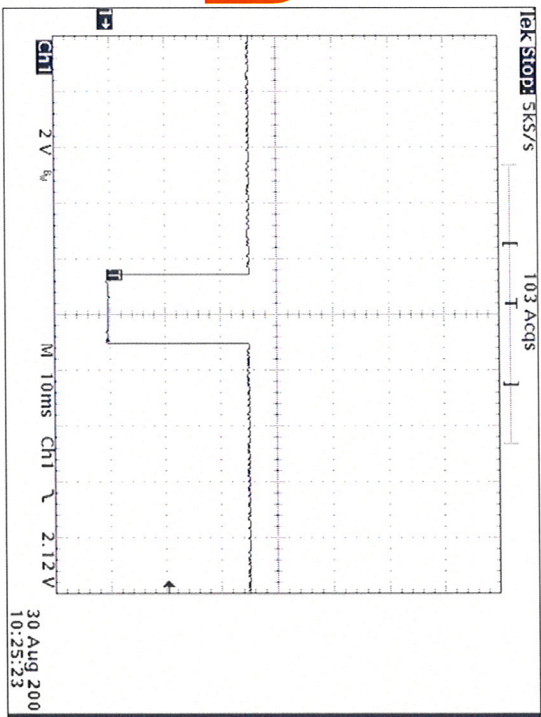
Attach probes to GND (Black)
+5V (Red).
Measure +5 volts. **Verify +5 volts.**
Move Red probe to +15V.
Measure +15 volts. **Verify +15 volts.**

Ref	Qty	Part Number	Description
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A1
0

Use a bend-a-lite to verify that the detector is working. Wave the bend-a-lite to create a wave signal.



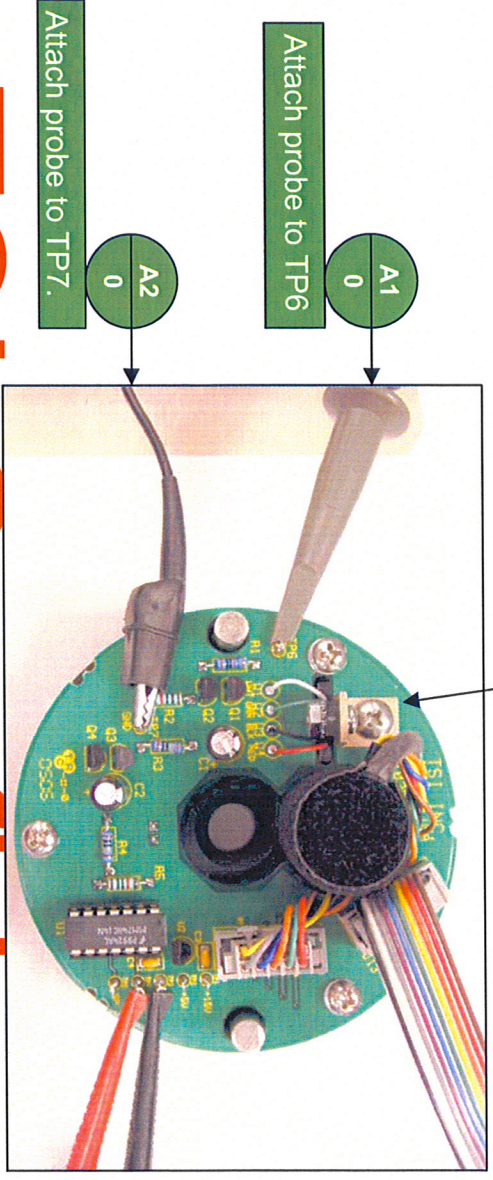
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Proprietary and Confidential Information	Filename: 10000002614A.vsd	Part Number: 10000002614A	Description: Chopper Motor Neph 3563
Operational Method Sheet	Sequence: 10120	TSI TSI Incorporated, St Paul MN 55126	Page 12 of 14

Ref	Qty	Part Number	Description
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A4
0 Adjust the Detector to produce signal on Oscilloscope and fasten screw.

Push on Detector to verify the detector does not touch chopper shutter.



A1
0 Attach probe to TP6.

A2
0 Attach probe to TP7.

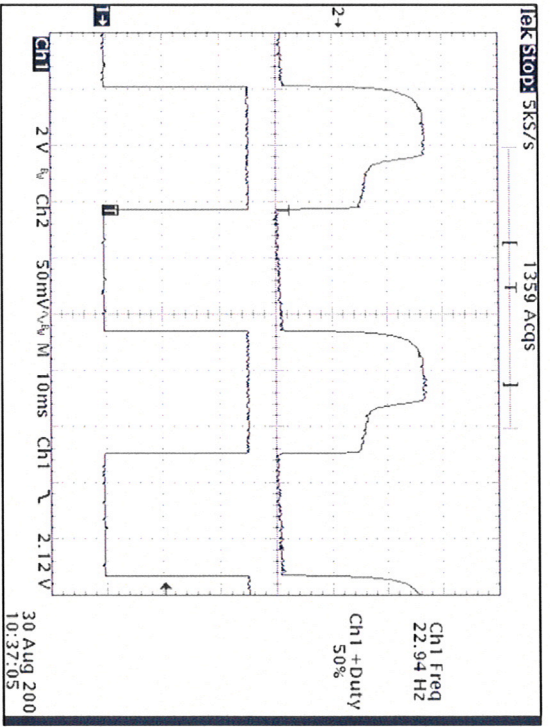
A3
0 Move Red probe to CP.

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A5
0 Tighten in place.

A6
0 Turn off.

Verify the chopper blade is not in window.

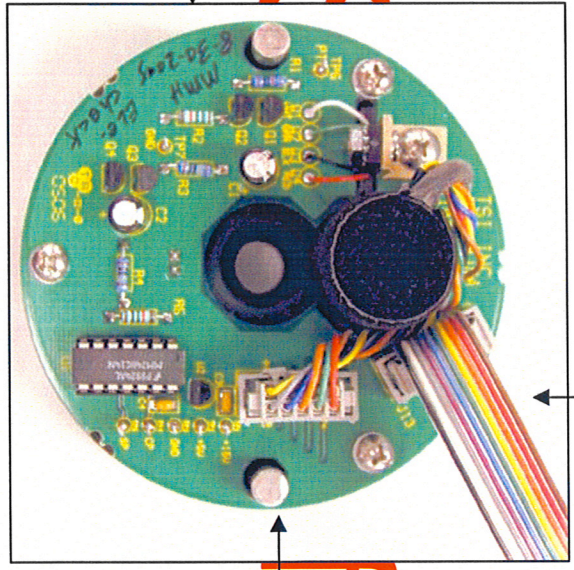


Proprietary and Confidential Information	Filename: 10000002614A.vsd	Part Number: 10000002614A	Description: Chopper Motor Neph 3563
Operational Method Sheet	Sequence: 10130	TSI TSI Incorporated, St Paul MN 55126	Page 13 of 14

Ref	Qty	Part Number	Description
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Mark board with:
Initials
Date
Ele check.

A1
0



A2
0
Remove
cable.

A3
0
Remove
fixture.

A4
0
Place in esd bag and
return to assembly.

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Proprietary and Confidential Information	Filename: 10000002614A.vsd	Part Number: 10000002614A	Description: Chopper Motor Neph 3563
Operational Method Sheet	Sequence: 10140	TSI Incorporated, St Paul MN 55126	Page 14 of 14