

# Diskette Drive Modifications

Some diskette drives require a minor modification before they will work reliably with MatchPoint-PC. These drives reject the Apple data because it is at a slightly different frequency from normal data. If the diskette drive that you are going to use with MatchPoint-PC needs to be modified, it will still work properly with standard diskettes after the modification.

## How to determine if a drive needs modification

You can quickly determine if your diskette drive needs modification. First you should follow the directions in the MatchPoint-PC manual for installation of the card. Next, install the *UniForm-PC* software package and try to initialize a diskette in Apple SoftCard CP/M format. If your diskette drive needs modification, the following symptoms will appear:

- 1) In the lower numbered tracks there will be more than 2 retries per track.
- 2) Around track 20 the number of retries will decrease.
- 3) The last few tracks will format without any retries.

If you noticed a retry every few tracks or so, you shouldn't have to modify your drive. If your drive doesn't need modification, you can skip reading this.

## Drives known to need modification

It is impossible to print a list of all computers that use drives which need modification. This is because computer manufacturers seem to have no loyalty to one particular drive manufacturer. Since the problem exists in the drive and not the computer, we can only list drives that need modifications by manufacturer and model. We have determined that the following drives need modification to work with MatchPoint-PC:

Oki	3305U
Teac	55A, 55B, 55C, 55D
Qume	Qumetrak 142 (used in the IBM Portable)

If your drive is listed here, we have included directions on how to modify your drive. This modification should only be done by a competent technician. If you can't find a technician to perform the needed modification, you can send your drive to us and we'll perform the modification. If you decide to let us do the modification, please note the following points:

- Contact our technical support staff at (815) 756-3411 and obtain an RMA number. This number must be clearly printed on the outside of the box.
- Please insure your package and label your drive with your name, street address, and telephone number.
- Your drive will be modified within 2 working days and returned to you via UPS Two Day Air service.
- Enclose a check for \$50.00 payable to Micro Solutions.

## Drives that are not in the list

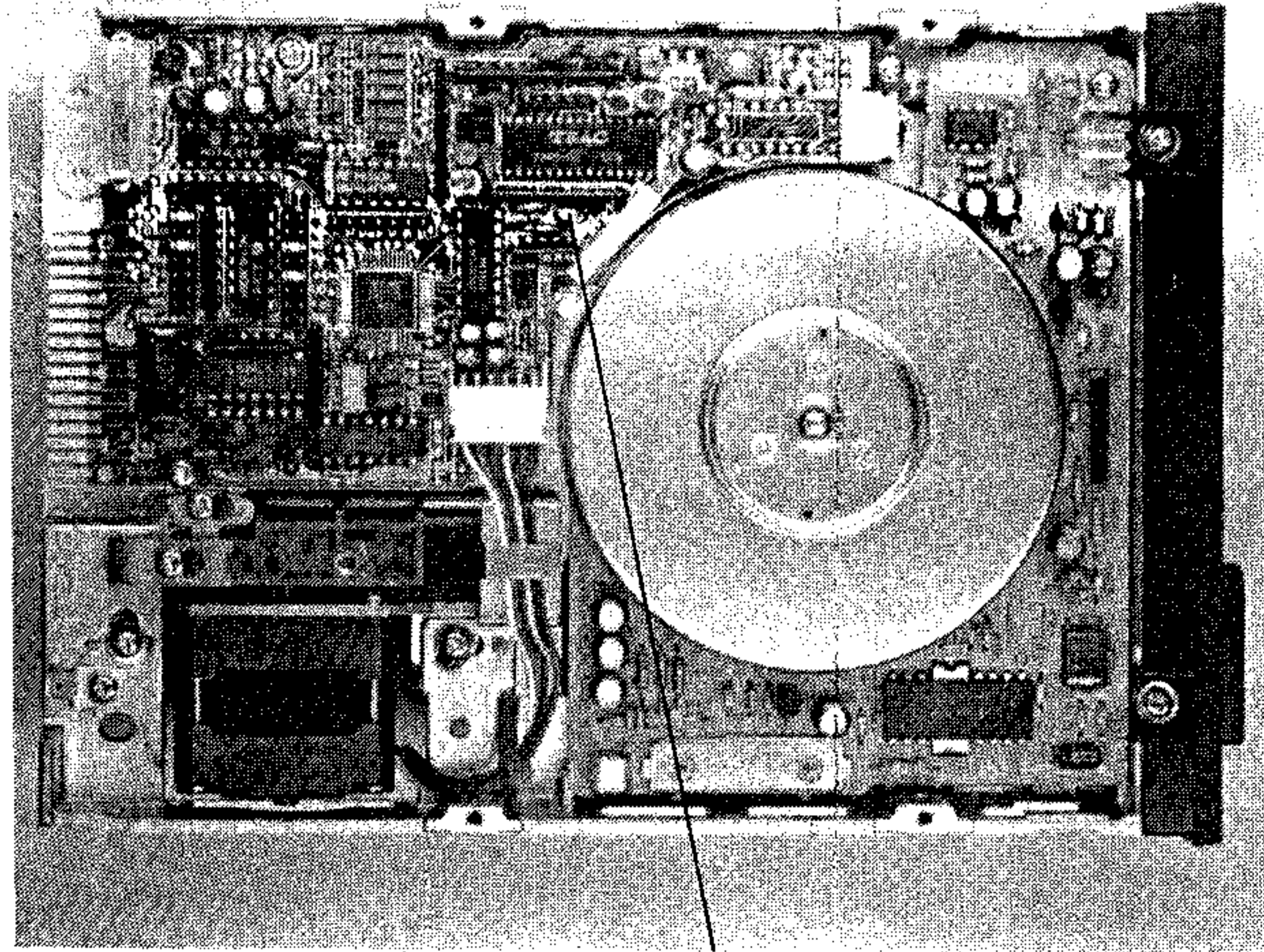
If your drive needs modification and is not listed above, contact our technical support staff at (815) 756-3411 to check if we have a modification for it. Be sure you know the manufacturer and model of your drive before calling.

# TEAC 55A, 55B, 55C, 55D

TEAC disk drives must be modified before they will work properly with MatchPoint-PC. This modification should be performed by a qualified technician since it involves replacing a capacitor on the drive electronics board.

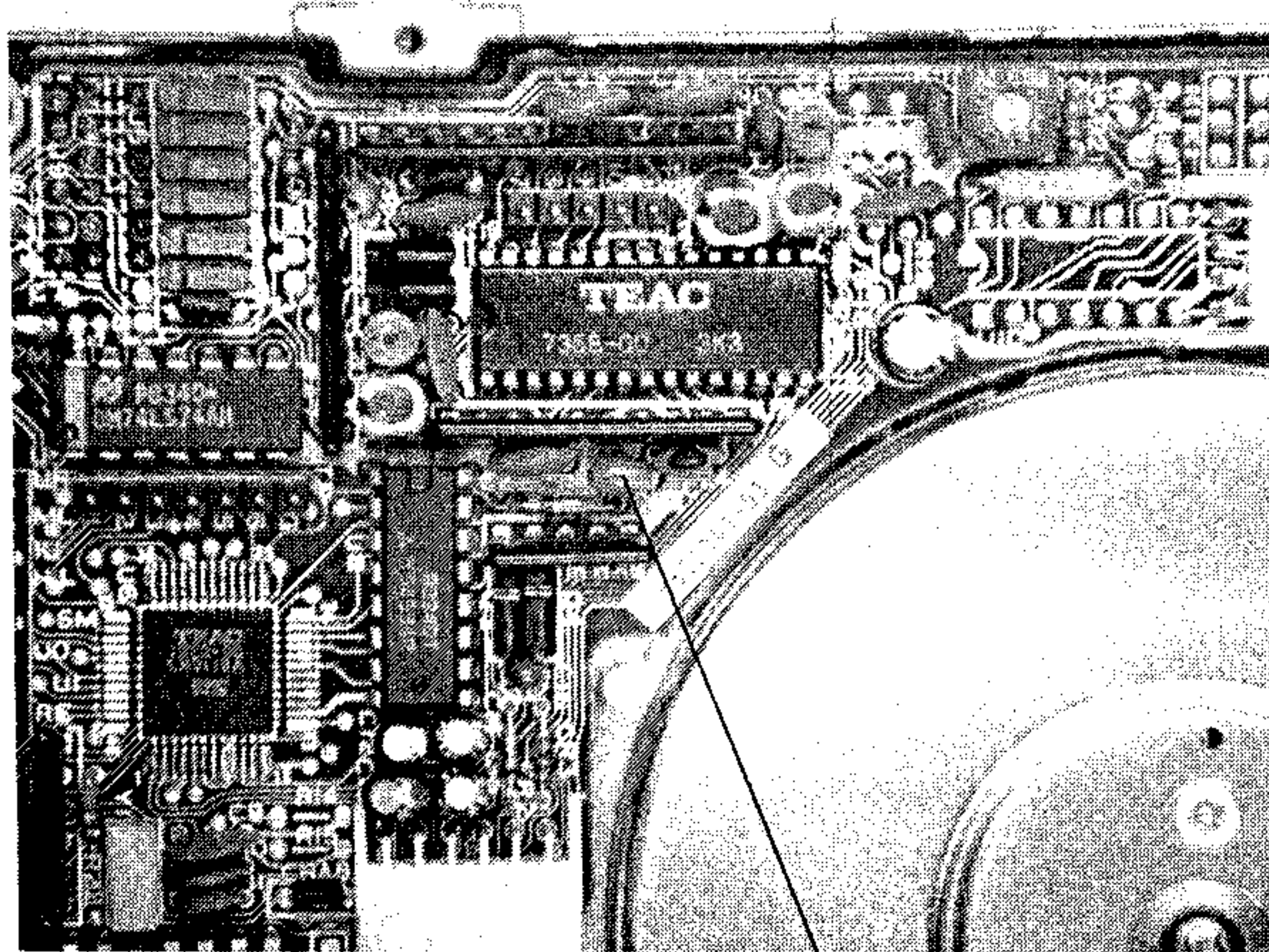
Follow this procedure to modify a TEAC disk drive:

- 1) Remove the disk drive from the computer and position it in front of you as shown in the next photo.



C23

- 2) Locate capacitor C23 on the drive electronics board. The next photo shows C23 and the surrounding components.



C23

- 3) Carefully remove the drive electronics board from the drive chassis.
- 4) Remove C23 and replace it with a 140 pf capacitor.
- 5) Install the drive electronics board back in the drive chassis.

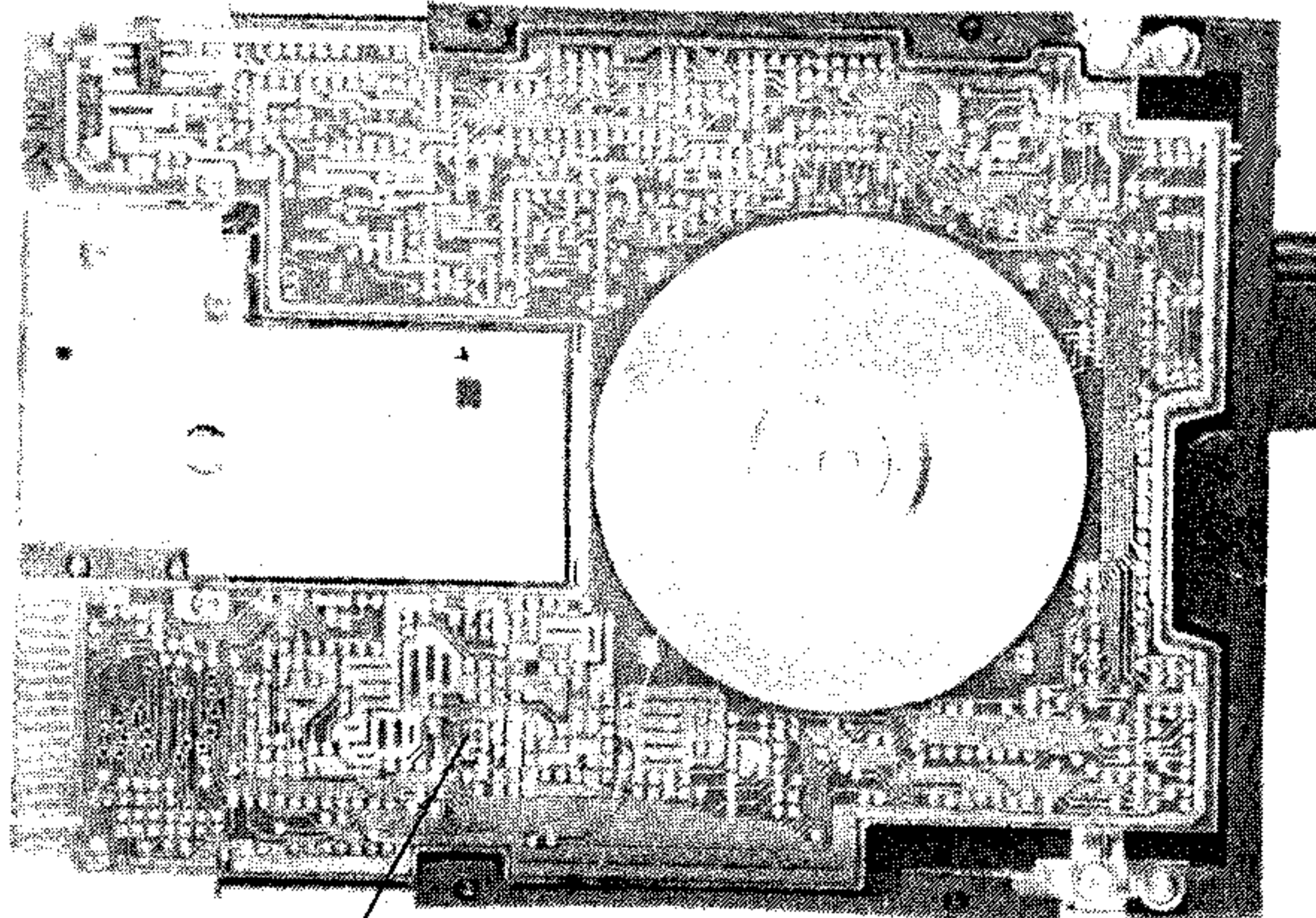
This completes the TEAC disk drive modification. This modification will not affect normal drive operation.

# OKI 3305HU

OKI disk drives must be modified before they will work properly with MatchPoint-PC. This modification should be performed by a qualified technician since it involves the addition of a capacitor on the drive electronics board.

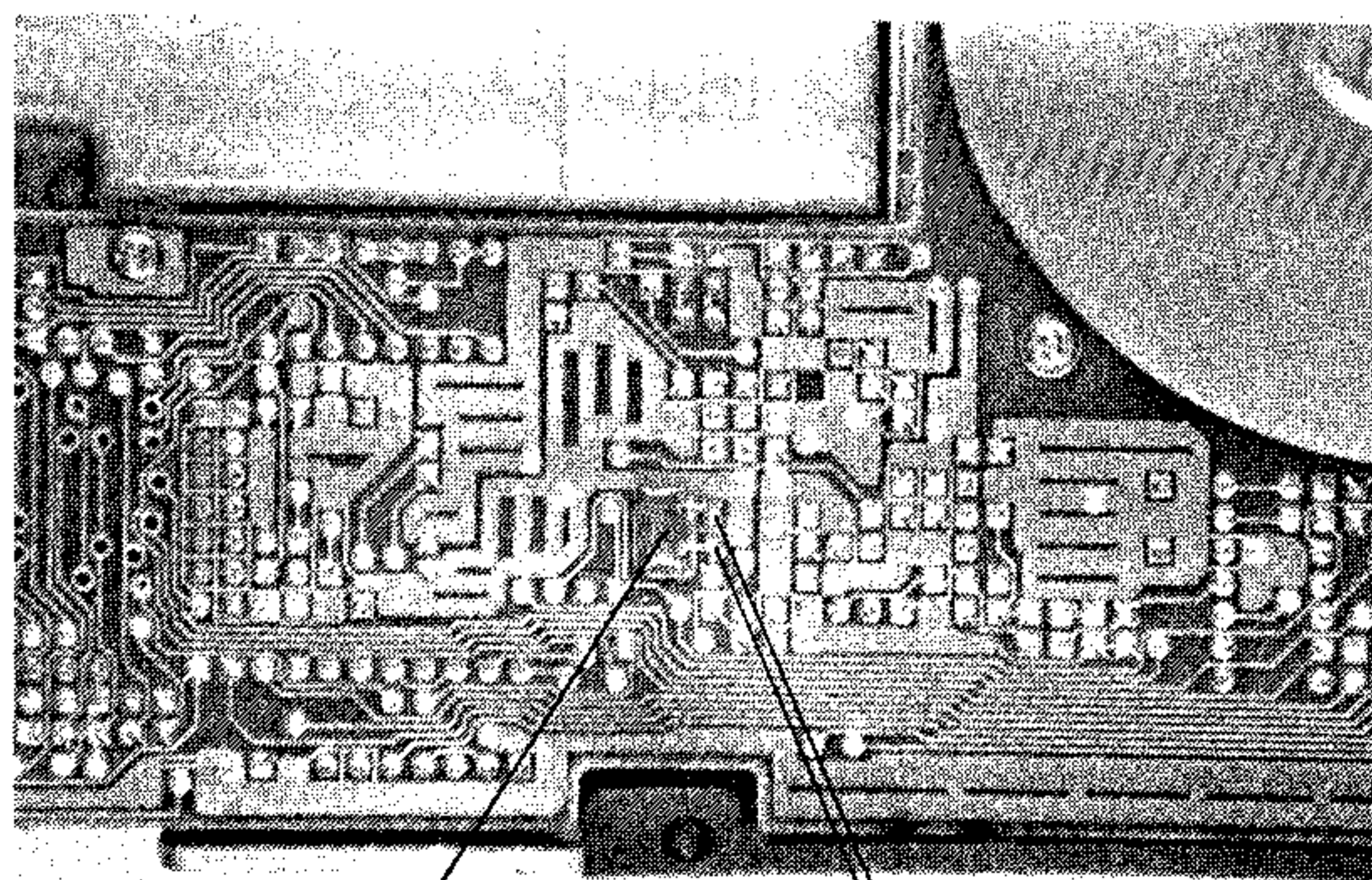
Follow this procedure to modify a OKI disk drive:

- 1) Remove the disk drive from the computer and position it in front of you as shown in the next photo.



New Capacitor

- 2) A 240 pf capacitor must be soldered to the drive electronics board. Use the following photo to locate the area where the capacitor is connected. The capacitor leads are soldered to the two pads just to the right of the new capacitor. Use the next photo to locate the proper position.



New Capacitor

Solder leads here

This completes the OKI disk drive modification. This modification will not affect normal drive operation.

# QUME Qumetrak 142

Qumetrak 142 disk drives must be modified before they will work properly with MatchPoint-PC. This modification should be performed by a qualified technician since it involves replacing a resistor on the drive electronics board.

Follow this procedure to modify a Qumetrak 142 disk drive:

- 1) Remove the disk drive from the computer and position it in front of you.
- 2) Carefully remove the drive electronics board from the drive chassis.
- 3) Locate resistor R20 on the drive electronics board.
- 4) Remove R20 (51 ohms) and replace it with a 390 ohm resistor.
- 5) Install the drive electronics board back in the drive chassis.

This completes the Qumetrak 142 disk drive modification. This modification will not affect normal drive operation.

MATCHPOINT-PC Drive Modifications**CHINON F-502L, FZ-502** (Reading APPLE data)

- 1) Replace 180 ohm resistor at R5 with 330 ohm.

(Reading NORTHSTAR)

- 1) Locate three square pads adjacent to C22 and C23 noting orientation of READY and DS markings;
- 2) Cut trace between center pad and pad nearer READY;
- 3) Connect center pad to pad nearer DS.

**FUJITSU M2551A** (Reading APPLE data)

- 1) Install 560 ohm resistor in series with L3.

**OKI 3305HU** (Reading APPLE data)

- 1) Install 240 pf capacitor according to photo in mod sheet.

**OMEX OM55AT** (aka SYSDYNE) (Reading APPLE data)

- 1) Replace 330 ohm resistor at R6 with 820 ohm resistor.

**QUMETRACK 142** (Reading APPLE data)

- 1) Replace 51 ohm resistor at R20 with 390 ohm resistor.

**TANDON TM65** (Reading APPLE data)

- 1) Replace 390 ohm resistor at R7 with 560 ohm resistor.

**TANDON TM65-2L** (Reading APPLE data)

- 1) Replace 820 ohm resistor at R12 with 1.5 K-ohm resistor.  
(Circuit board is Assy. No. 830320-00)

**TANDON TM100-2A** (Reading APPLE data)

- 1) Replace 1.8k ohm resistor at R13 with 2.7k (3.3k on subsequent failure).

**TEAC 54** (Reading APPLE data)

- 1) Replace 100 pf capacitor at C21 with 140 pf capacitor, or put 39 pf capacitor in parallel with existing C21;
- 2) replace R21 with 240 ohm resistor.

**TEAC 55A, 55B, 55C, 55D** (Reading APPLE data)

- 1) Replace 100 pf capacitor at C23 with 140 pf capacitor, or put 39 pf capacitor in parallel with existing C23.

**TEAC 55BV** (Reading APPLE data)

- 1) Replace 200 ohm resistor at R22 with 560 ohm resistor.

(Reading NorthStar data)

1) Remove jumper at E2, put it at E0.

**TEAC 55BV-221-U/55BR**

(Reading Apple data)

[R22=100 ohms]

1) Replace 165 ohm resistor at R19 with 560 ohm resistor.

**WELTEC M48D-22**

(Reading Apple data)

1) Replace 200 ohm resistor at R20 with 470 ohm resistor.

**YD-580**

(Reading NorthStar data)

- 1) Cut trace on bottom of board leading to pin 13 on IC2;
- 2) Cut trace on bottom of board between pins 12 & 13 of IC2;
- 3) Connect IC2 pin 10 to IC2 pin 12;
- 4) Connect pin 13 of IC2 to test point 3.

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mjc