
Attention Service Manager/Parts Department

Bulletin Level: 2*

Specific Warranty Coverage: Std Coverage

Subject: Burnisher Vibration

Models Affected: ECB1500 & 2000 (All models), Advolution 20 & 20XP (All models),
Advolution 20 & 20BT (All models)

Parts List Form Number(s) Affected: 71281A, 71279A, 78886A

ECO#: EO- 31314

Issue: Machine vibrates during use.

Cause: The ECB 1500/2000 & Advolution 20/20XP burnisher feature of not having to adjust pad pressure is made possible by the counter-spring action between the handle and the light burnishing head. The high-speed pad rotation creates suction that pulls the light burnishing head to the floor. Being light, the burnishing head is susceptible to vibration caused by an unbalanced condition. An unbalanced condition can result from the following factors:

1. A non-uniform or damaged pad
2. Improper pad installation or the pad holder allowing the pad to shift during operation
3. A missing or worn dust skirt (on high speed models with dust skirts only)
4. Operating the machine with the handle height too low
5. The screws between pad holder and pad holder hub loosening

Corrective Action: Factory: A revised version of pad holder 54198A and 56925A with a grip lock style face for improved pad retention were implemented as follows.

<u>Model</u>	<u>RPM</u>	<u>SN</u>
ECB1500	1500	HC707
Advolution 20	1500	HC186
ECB2000	2000	HC782
Advolution 20XP	2000	HC1390
Advolution 20B & 20BT	2000	See table below

01595A	HB 0638
01597A	HB 1402
01586A	HB 2032
01604A	HA 1195
01584A	HB 2034
01594A	HB 1784
01610A	HB 0544
01602A	HB 0030
01596A	HA 0281
01587A	HB 0632

Field: If machine vibration occurs follow steps 1-5 below.

* **Technical Service Bulletin Levels:**

Level 1: These Bulletins contain general information and are without specific warranty coverage.

Level 2: These Bulletins describe continuous quality improvements that are made to products. Specific warranty coverage may apply and if so is noted in the Bulletin.

Level 3: These Bulletins describe a quality problem that has been determined to require a mandatory update to the product. Specific warranty coverage is as noted in Bulletin.

To prevent or minimize vibration follow the steps below.

Step 1- Ensure the pad is rated for the proper speed of rotation, is uniform in thickness and density, and is positioned so that it is aligned around the perimeter of the pad holder with no gaps or overlap.



Fig 1-Place your machine in the handle-up storage position to gain access to pad and pad holder.

Examine the pad – is it a **High Speed Burnishing Pad** rated for **2000 RPM**?

On this Glit catalog page, the pad is rated for a burnishing speed of 1000 – 3000 RPM, and is an acceptable pad for the ECB machine.

Glit/Microtron
A Katy Company

Glit/Microtron's Online Catalog

ONLINE CATALOG
TABLE OF CONTENTS

- Floor Maintenance Pads
 - Conventional Thickline / Ultra Valuline™
 - UHS Ultra Performers Thickline / UltraValuline™
- Burnishing Pads
 - Blue Ice
 - Beige / Beige Polythermal
- Burnishing Pads II
 - Aqua
 - Champagne / UHS Tan
- Buffing Pads
 - Peach / 100-D Neutral Polythermal
- Specialty Burnishing
 - Joey™
- Natural Hair Pads
 - Jackaroo Line™ / Natural
 - Jackaroo™ / Natural Poly
 - Buckaroo™ / Natural Fiber
- Fiber Naturals®
- Maximum Performance Stripping
- High Performance Stripping

Floor Maintenance Pads

UHS Ultra Performers Thickline / Ultra Valuline™

Burnishing Pads [Go to Next page](#)

AQUA...learn more
A superior soft pad that lightly polishes the floor for a reflective appearance. Recommended for use on machines operating at 1000-3000+ R.P.M.

GLIT ITEM NO. SIZE PADS/ CASE CASE WT. CUBE ITEM NO.

n/a	16"	5	3.00	.86	13516
n/a	17"	5	3.00	.97	13517
n/a	18"	5	3.00	1.08	13518
n/a	19"	5	4.00	1.18	13519
n/a	20"	5	4.00	1.31	13520
n/a	21"	5	5.00	1.57	13521
n/a	22"	5	5.00	1.57	13522
n/a	24"	5	6.00	1.73	13524
n/a	27"	2	4.00	2.00	13527
n/a	28"	2	4.00	2.00	13528

n/a = Not Available
[Cross Reference Chart of Other Pads](#)

CHAMPAGNE [UHS TAN...learn more](#)

Low Speed pads mounted on a high-speed burnisher rapidly distort in shape as they are spinning and cause vibration.

Low Speed pads are not an appropriate pad to be used on the ECB.

Looking at this Glit catalog page, the pad is rated for 350 – 1000 RPM.

Do not use this type of pad on a high-speed burnisher such as the ECB.

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A Katy Company

Glit/Microtron's Online Catalog

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TABLE OF CONTENTS

- Floor Maintenance Pads
 - Conventional Burnish / Ultra Valuline™
 - UHS Ultra Performers Thickline / UltraValuline™
- Burnishing Pads
 - Blue Ice
 - Beige / Beige Polythermal
 - Burnishing Pads II
 - Aqua
 - Champagne / UHS Tan
- Buffing Pads
 - Peach / 100-D Neutral Polythermal
- Specialty Burnishing
 - Joey™
- Natural Hair Pads
 - Jackaroo Lite™ / Natural Light
 - Jackaroo™ / Natural Poly
 - Buckaroo™ / Natural Fiber
- Fiber Naturals®
- Maximum Performance Stripping

Floor Maintenance Pads

UHS Ultra Performers Thickline / Ultra Valuline™

Buffing Pads [Go to Next page](#)

PEACH  **100-D NEUTRAL POLY THERMAL** 

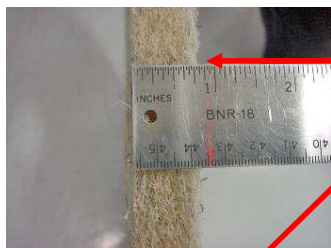
[...learn more](#)

A mildly aggressive spray buffing pad that is an excellent cleaner and shiner. Recommended for use on machines operating at 350-1000 R.P.M.

GLIT ITEM NO.	SIZE	PADS/CASE	CASE WT.	CASE CUBE	MICROTRON ITEM NO.
20515	15"	5	2.00	.76	44815
20517	17"	5	3.00	.97	44817
20518	18"	5	3.00	1.08	44818
20519	19"	5	4.00	1.18	44819
20520	20"	5	4.00	1.31	44820
20521	21"	5	5.00	1.57	44821
20522	22"	5	5.00	1.57	44822
20524	24"	5	6.00	1.73	44824
20543	*27"	2	4.00	2.00	44837
23628	**27"	2	4.00	2.00	44827
20528	28"	2	4.00	2.00	44828

* = 1/4" PinH Hole ~ ** = 1/4" Center Hole

Examine pad for variation in thickness or density. **Consistent density and thickness are the most critical factors** in preventing vibration of a high-speed burnisher. Although thickness can be easily measured, pad density is the single most important factor driving stability, and may be subjective. If your pads are consistently giving you trouble, choose a different brand. Although Nilfisk-Advance, Inc. does not endorse a particular brand, factory **tests have confirmed that the Glit High Speed Burnishing pads give the most consistent pad performance on ECB burnishers.**



This pad has **irregularity** in thickness and will cause vibration in a high-speed burnishing application.

If your pad exhibits irregularity in thickness...

...DO NOT USE on a high-speed burnisher.



Step 2- Verify the pad is properly installed and is not shifting during operation

Removing a pad from the pad holder causes distortion to the pad that will increase the probability of machine vibration. If possible, **retain the same pad on the pad holder and use until it is worn out**, without removal for flipping or later re-use.

Verify that the pad is **aligned with the perimeter of the pad holder**, not with the center hole position. Aligning the pad using only the center hole as reference may result in vibration as pad stretches during rotation.

In these photos the pad overlaps the edge of the pad holder on one side, while being too short on the other. As the pad stretches while spinning, it may cause vibration.



If the pad is shifting or elongating during use, inspect pad holder 54198A or 56925A. If the design is as shown in Fig 2, replace the original pad holder with the new design shown in Fig 3. The pad holder part numbers have not changed, but the design was revised effective 3/1/09 and with the SN's noted above.

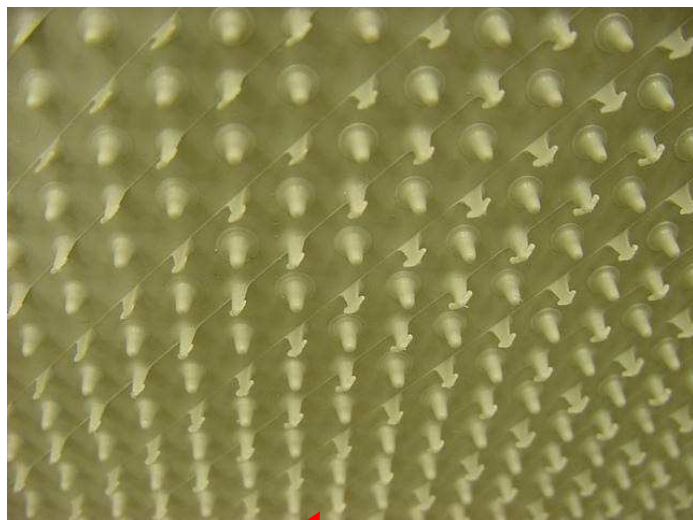


Fig 2- Original pin style surface on pad holder

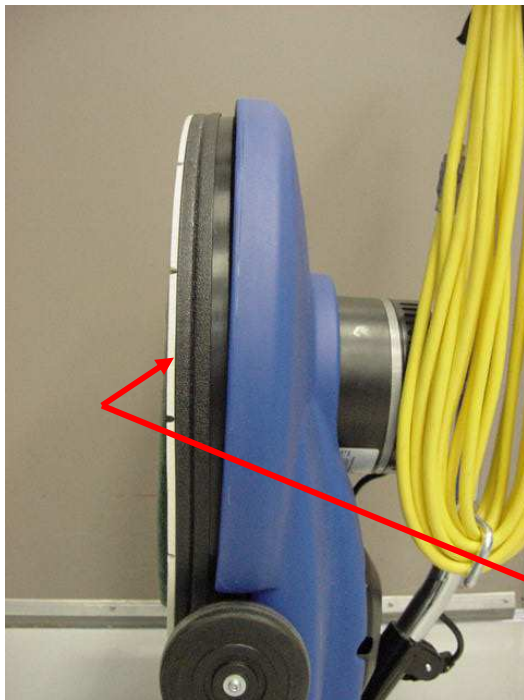


Fig 3- New grip lock style surface on pad holder

Step 3- Ensure the felt dust skirt is properly attached and is replaced if it has worn down to the dust shroud or the slots have become blocked (Advolution 20XP, 20B/20BT, ECB2000 units only).
Verify the dust shroud is not damaged (Advolution 20XP, 20B/20BT, ECB2000 units only).

Ensure dust skirt is installed and that the pad is pulling down to the floor while operating.

Note: ECB1500 & Advolution 20 models do not use a dust skirt.



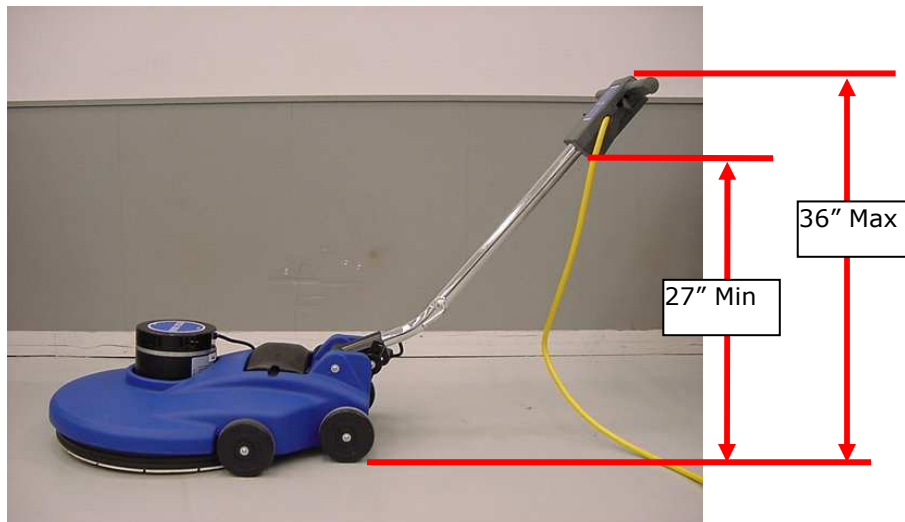
Dust Skirt



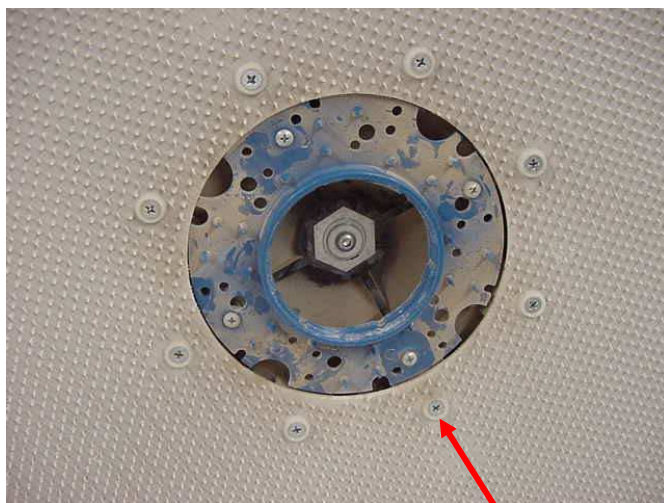
Make sure felt Inserts in dust skirt are contacting floor around the perimeter, not off the floor as shown.

Step 4- Verify the handle position is at or above the minimum operating height

The handle of the (ECB1500/2000 or Advolution 20/20XP) must be positioned a minimum of 27" from the floor to prevent the burnishing pad from losing contact with the floor surface.



Step 5- Verify the screws that secure the pad holder face driver to the pad holder retainer are tight



Make sure the screws that fasten the pad holder face driver to the pad holder retainer are not loose.