

RAZORS[®] BY THUNDERSTRUCK AG **EDGE** **CONCAVES**



**INSTALLATION MANUAL
JOHN DEERE X9 MACHINES**

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THANK YOU FOR CHOOSING RAZORS EDGE CONCAVES

Valued Razors Edge Customer,

Welcome to the Thunderstruck Ag family! We're thrilled you've chosen Razors Edge Concaves to optimize your harvest. These concaves were built with one clear goal in mind: reduce loss, maximize performance, and improve efficiency across all crops and conditions.

To help you get the most out of your Razors Edge system, we've included access to Harvey AI: Your Combine Settings Companion. Harvey AI is a simple, powerful tool designed to help you fine-tune your combine settings with confidence—based on crop, moisture, and field conditions. You now have lifetime access to Harvey AI.

Here's what you'll find in your package:

Harvey AI Registration Card

This card contains your one-time access code and login instructions. Please use the email address you used to place your Razors Edge order when registering. You'll enter the provided code and then create your own password.

Settings Cards

These crop-specific cards offer quick, at-a-glance recommendations to help you set up your combine for peak performance using Razors Edge Concaves.

QR Code Stickers

These stickers link to our Customer Resources Platform, where you'll find manuals, install guides, frequently asked questions, support articles, and direct access to Harvey AI. Stick one in your combine cab for quick access during harvest.

Warranty Registration Card

Be sure to register your Razors Edge Concaves for warranty using the QR code on the Warranty Registration Card included in this package. This ensures we can quickly access your information and provide effective support if you ever need help—no need to visit our website directly.

Note: If you've purchased from a dealership, they'll complete this step for you.

If you have any questions, need support, or want to share your results—we're always here to help. Your success is our success, and we're proud to be part of your harvest journey

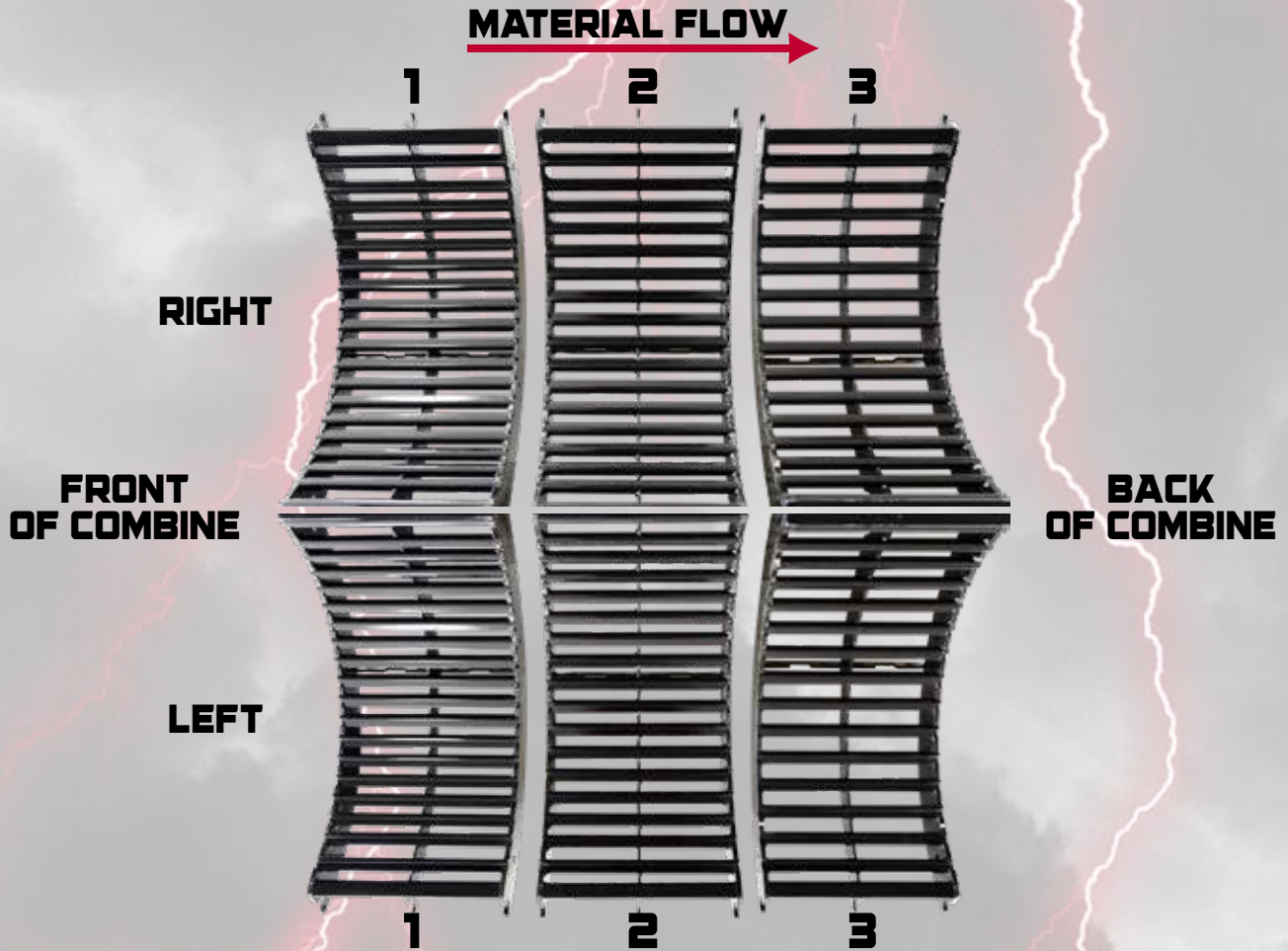
Thanks again for trusting us.
Let's make this season your best yet!

Sincerely,
Jeremy Matuszewski



CHECKLIST

- * **CONCAVES INSTALLED - IN THE ORDER SHOWN BELOW**
- * **CONCAVES LEVELLED**



LEVELING YOUR CONCAVES

You **MUST** level your concaves when installing any concave system.

Improper levelling may result in rotor contact with the concaves. Always verify concave-to-rotor clearance per the John Deere X9 operator's manual before operating.

Cover plates are not recommended unless necessary.

Note: If it is absolutely necessary to use cover plates, please install the cover plate in the **first concave section only**. If this does not resolve your issue, please contact your sales representative for further support.

INSTALLING RAZORS EDGE CONCAVES - JD X9 MODELS

Thank you for choosing Razors Edge Concaves for your John Deere X9 combine.

For the safest and most accurate installation, **we strongly recommend following the original John Deere X9 operator's manual** that came with your combine. This ensures that nothing is missed during installation and that all safety protocols are followed correctly.

Razors Edge Concaves are designed to install using your existing combine's mounting points and hardware. Simply remove the existing concaves and replace them with your new Razors Edge Concaves.

If you have any questions or run into any challenges during installation, **please don't hesitate to reach out to your sales representative.** We're always here to help.



One Tip: If section 1 does not want to fit into the machine, adjust the transition cone towards the z bar. Scan the QR code for further clarification.



COMBINE SETTINGS

CROP	CONCAVE	ROTOR SPEED	FAN SPEED	CHAFER	SIEVE
Corn	28-32	250-280	900-1000	18-20	10-12
Soybeans	14-18	400-650	900-1100	14-18	6-12
Canola	16-24	400-650	700-900	12-16	8-12
Oats	16-20	600-800	600-850	12-16	6-10
Barley	8-14	600-800	1100-1200	14-16	6-10
Milo/Sorgum, Maise	18-22	450-750	1100-1250	12-16	8-12
Rice	16-20	600-800	1050-1200	14-20	6-10
Edible Beans	26-30	250-350	1100-1300	13-18	6-10
Wheat	8-12	700-850	900-1100	14-20	6-10
Rye Grass	8-12	700-850	1000-1200	14-20	6-10
Hard Wheat	4-8	800-950	900-1100	12-16	4-8
Lentils	20-24	400-600	1100-1200	14-18	6-8
Peas	20-24	350-550	950-1100	16-20	6-8
Flax	4-8	800-1000	1100-1200	12-16	4-8

IDENTIFYING GRAIN LOSS: FIRST STEPS

1. Drop a Pan and Quantify the Loss
2. Begin by dropping a pan to correctly assess and measure grain loss.
This method provides a benchmark for further adjustments.
3. Perform a Power Shutdown
4. Conduct a power shutdown to distinguish between sieve loss and rotor loss. If uncertain, adjust settings based on observations, then re-drop the pan to see if the changes improved or worsened the loss.
5. Utilize Yield Loss Monitor
6. Regularly calibrate and benchmark your yield loss monitor using the pan results to track real-time losses accurately.

ROTOR LOSS DIAGNOSIS AND ADJUSTMENT

1. Calibration Check
2. Verify that the concaves are zeroed and calibrated to the rotor during installation.
3. Steps to Reduce Rotor Loss
 - Open the Concave
 - If the concave is set too tightly, it restricts the section from properly filling and unloading, increasing loss. Gradually open the concave to improve separation.
 - Slow the Rotor
 - A high rotor speed can push material through the back of the machine before grain separation occurs. Reducing rotor speed allows for a more thorough separation process.

SIEVE LOSS DIAGNOSIS AND ADJUSTMENT

1. Calibration Check
2. Ensure the sieves are calibrated at the start of the harvest season.
3. Steps to Minimize Sieve Loss
 - Adjust Chaffer and Bottom Sieves
 - Open the chaffer and bottom sieves incrementally until the sample becomes too dirty, then close them slightly. This enables more grain to fall through the sieves, increasing capture while maintaining grain quality. Always start adjustments with the chaffer, followed by the bottom sieve
 - Modify Wind Speed
 - Adjust wind speed based on crop type. In lighter crops, reduce wind speed to prevent it from blowing grain out with the Material Other than Grain (MOG). Balanced sieves support lower wind speeds, reducing grain loss effectively.

LIMITED WARRANTY - 1 YEAR COVERAGE

We stand behind the quality of our workmanship and materials. This product is backed by a **1-year limited warranty** from the date of purchase.

What's Covered:

- **Workmanship** – This includes defects in welding or structural failures resulting from manufacturing issues.
- **Steel Integrity** – If a failure occurs due to defective or poor-quality steel, we will take full responsibility.
- **Fitment** – Products are welded using jigs that have been reviewed and approved by Thunderstruck Ag Equipment. Proper fitment is ensured at the time of delivery.

What's Not Covered:

- **Performance Guarantees** – As long-term field testing is still ongoing, we do not guarantee specific in-field results or performance metrics.
- **Normal Wear** – Wear and tear resulting from regular use is not covered.
- **Damage from Foreign Objects** – Any damage caused by external materials (e.g., rocks or debris entering the rotor) is not covered under this warranty.

If you have any questions about your warranty or need to file a claim, please contact our team for support.



SATISFACTION GUARANTEE & RETURN POLICY

At Thunderstruck Ag, we stand behind the performance of our Razors Edge Concaves. We are committed to ensuring every customer achieves optimal results in their operation.

If a customer is not satisfied, returns may be considered under the following conditions:

1. Mandatory Setup Support Process

To qualify for any return authorization, the customer must complete the following steps:

- **Initial Consultation:** Customer must contact their sales representative to clearly outline the performance issues being experienced.
- **Remote Support:** Thunderstruck Ag will provide access to a product specialist who will work directly with the customer to properly dial in combine settings.
- **On-Farm Support (if required):** If the issue cannot be resolved remotely, Thunderstruck Ag reserves the right to send a representative to the customer's farm to assist with setup and optimization.

2. Return Eligibility

Returns will only be authorized if:

- All support steps above have been completed, including an on-farm visit, and
- Thunderstruck Ag is unable to resolve the performance issue.
- Products returned without completing this process will not be eligible for return or credit.

3. Return Terms

Approved returns are subject to a 15% restocking fee.

- Customer is responsible for all return shipping costs to the designated Thunderstruck Ag warehouse.
- Refund will be issued for the original purchase price less the restocking fee, once the product has been inspected and approved.

4. Product Condition

Concaves must be returned in usable condition. Excessive damage, abuse, or modification may result in additional deductions or denial of return.

