



Instruction Manual

BG248 2" x 48" Belt Grinder

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GENERAL POWER TOOL SAFETY WARNINGS

 WARNING: TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN, LIQUID, OR MOISTURE.

READ AND SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

Precautions (Grinding & Power Tool Use)

- Personal protective equipment (PPE)

Work area & environment

- Keep the area clean, dry, and well-lit; remove trip hazards.
- Never operate in explosive atmospheres (flammable liquids, gases, or dust).
- Keep children, bystanders, and pets away from the work zone.
- Provide adequate ventilation and, where possible, use dust collection.
- Keep a Class ABC fire extinguisher within reach and know how to use it.

Clothing & personal safety

- Tie back or cover long hair; remove jewelry and secure hoodie strings.
- Wear close-fitting clothing—no loose sleeves or dangling items near moving parts.
- Use non-slip, closed-toe footwear.

Machine & accessory checks (before powering on)

- Verify guards, tool rests, and spark deflectors are installed and adjusted correctly.
- Inspect sanding belts/pully/contact wheel for damage, cracks, or wear; replace if questionable.
- Confirm tracking and tension on belts.
- Ensure workpieces and fixtures are secure and clear of the belt/wheel path.
- Check power cords, plugs, and switches.

After use & maintenance

- Power off and unplug/lock out before changing belts/wheels or performing maintenance.
 - Allow parts and accessories to stop completely and cool before handling.
 - Clean the work area, empty spark/dust collectors safely, and store tools properly.
 - Repair any damage before the next use.
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OPERATING INSTRUCTIONS

- Stand to the side of the belt/contact wheel on start-up and allow it to reach full speed before contacting the work.
- Maintain a firm grip; keep hands and fingers clear of pinch points.
- Apply even pressure—do not force the tool or stall the motor.
- Grind on the intended surface of the accessory; avoid side-loading unless rated for it.
- Never remove guards or defeat safety devices.
- Keep sparks directed away from yourself, others, and combustibles.
- Disconnect power before making any adjustments
- Abrasive belt rotation is clockwise. If the abrasive belt is lap spliced, be sure of correct rotation. Butt spliced belts are bi-directional.
- Belt tension is pre-set with tension spring (13). No belt tension adjustment is needed.
- Belt changing – disconnect power, loosen tracking knob (15), compress spring belt tension shaft (12). Remove belt and replace with new belt.
- Belt tracking – with power disconnected, rotate belt by and to center or “track” sanding belt. Rotate tracking knob (15) and tracking collar (14) left and or right turns the tension shaft (12) to “track” the belt. Re-lock the tracking knob (15) to lock in belt tracking.
- Examine the abrasive belt carefully before use. Never use an abrasive belt with a nicked or cut edge, crease, or handling damage.

Grinding Head Adjustment

Loosen the hex bolts (8), adjust to the desired position, and retighten the hex bolts (8).

BG248 2" x 48" Industrial Belt Grinder – Machine Overview

Description:

The Kalamazoo Industries BG248 is a robust 2" x 48" industrial belt grinder built for versatility and reliability in demanding metalworking environments. Constructed with a heavy-duty frame and precision-balanced contact wheels, the BG248 delivers consistent performance and long belt life. This grinder is designed for smooth operation, quick belt changes, and superior control, making it ideal for a wide range of grinding, deburring, and finishing tasks.

Intended Use:

Engineered for metalworking professionals, fabricators, and maintenance shops, the BG248 is suited for grinding, shaping, deburring, and finishing both ferrous and non-ferrous metals. It's ideal for tool sharpening, weld preparation, edge finishing, and surface conditioning. Its compact design allows it to fit easily into small or large workshops while maintaining industrial-grade performance.

Key Benefits:

- Heavy-duty construction ensures durability and long service life.
 - 2" x 48" belt size offers a balance of control and coverage for detailed or large-area grinding.
 - Quick belt change system for efficient workflow and minimal downtime.
 - Fixed-speed motor delivers steady power for consistent results.
 - Multiposition belt grinding head.
 - Adjustable work tables and contact wheel positions allow flexibility for a variety of applications.
 - Smooth, vibration-free operation for precise material removal and improved operator comfort.
 - Compatible with a wide range of 2" x 48" belts, allowing you to achieve the finish you need for any material.
 - Made in the USA – backed by Kalamazoo Industries' reputation for quality and performance.
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Setup and Installation – BG248 2" x 48" Industrial Belt Grinder

Unpacking and Inspection

- Carefully remove the grinder from its shipping container.
- Inspect for any shipping damage before discarding packaging materials.
- Verify that all components, hardware, and accessories are included.

Mounting the Grinder

- Securely mount the BG248 to a stable, level workbench or stand using appropriate fasteners.
- Ensure the mounting surface can support the grinder's weight and resist vibration during operation.
- Confirm that the unit is positioned for safe and convenient access to the on/off switch and belt area.

Electrical Connection

- Verify that the available power supply matches the voltage and phase rating on the grinder's motor nameplate.
- Have a qualified electrician perform all electrical connections in accordance with local electrical codes.
- Ensure the grinder is properly grounded before use.

Belt Installation

- Release belt tension by rotating the tension lever.
- Install a 2" x 48" abrasive belt over the contact wheel, idler, and drive pulley.
- Reapply tension and check that the belt tracks properly before operation.
- Adjust the tracking as needed to ensure the belt runs centered on all pulleys.

Pre-Operation Check

- Verify that all guards and covers are securely in place.
 - Confirm that work tables and tool rests are adjusted to the correct position and locked.
 - Run the grinder briefly to check for smooth, vibration-free operation.
 - Adjust tracking if needed before beginning work.
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Troubleshooting

Grinder will not start:

- Verify power supply matches motor voltage and phase requirements.
- Check that power cord and plug are in good condition.
- Ensure switch is in the ON position.
- Inspect circuit breaker or fuse and reset or replace as necessary.

Belt slips or will not track properly:

- Check belt tension and adjust as needed.
- Inspect tracking knob and collar for proper adjustment.
- Ensure pulleys and contact wheels are clean and free of debris.
- Verify belt is installed correctly and not worn or stretched.
- Crown on the idler pulley is worn (needs to be replaced)
- Contact wheel is damaged (needs to be replaced)

Excessive vibration or noise:

- Confirm grinder is securely mounted to a stable surface.
- Check belt for damage, uneven wear, or improper tension.
- Inspect contact wheel and pulleys for balance or bearing wear.
- Tighten all mounting and guard fasteners.

Poor grinding performance:

- Replace worn or glazed abrasive belt.
 - Verify correct belt grit and type for the material being ground.
 - Check that belt tracking is properly centered.
 - Clean buildup from contact wheel and work surface.
 - Check for damaged contact wheel and or idler pulley.
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Preventive Maintenance

Daily:

- Inspect abrasive belt for wear, damage, or loading; replace if necessary.
- Check belt tracking and tension before operation.
- Ensure all guards and covers are securely in place.
- Clean dust and debris from around the grinder, pulleys, and motor vents.
- Verify on/off switch operates properly.

Weekly:

- Inspect contact wheel, idler wheel, and drive pulley for wear or buildup; clean as needed.
- Check fasteners and mounting bolts to ensure the machine is securely tightened.
- Inspect electrical cord and connections for signs of wear or damage.
- Confirm belt alignment and tracking knob function smoothly.

Monthly:

- Inspect motor ventilation openings and clean thoroughly to prevent overheating.
- Examine machine frame and stand for signs of vibration fatigue or loose hardware.
- Check overall grinder performance for unusual noise or vibration and address issues promptly.

General Tips:

- Always disconnect power before performing maintenance.
 - Use only recommended replacement belts and parts.
 - Keep maintenance records to track performance and part replacement intervals.
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Technical Information – BG248 2" x 48" Industrial Belt Grinder

Model: BG248

- Belt Size: 2" x 48" (50.8mm x 1219mm)
- Belt Speed: 7200 SFPM (fixed speed)
- Motor: .5 HP, 1 PH, 115V only
- Contact Wheel: 8" OD x 2" W 70 durometer with standard serrations
- Work Table: Adjustable, heavy-duty steel
- Construction: Fully welded steel frame
- Overall Dimensions: 12" W x 16" D x 24" H (approx.)
- Weight: 50 lbs. (approx.)
- Origin: Made in the USA

Features

- Heavy-duty industrial design for continuous use.
- Quick belt change system for minimal downtime.
- Accepts a wide range of 2" x 48" abrasive belts for various materials and finishes.
- Adjustable work table and contact wheel setup for versatile grinding angles.
- Fixed-speed motor provides consistent power for efficient material removal.

Electrical Requirements

- Operates on 115V, single-phase power only.
- Use a properly grounded outlet and power cord rated for 115V service.
- All wiring and electrical connections must comply with local electrical codes.
- Disconnect power before servicing or making any adjustments.

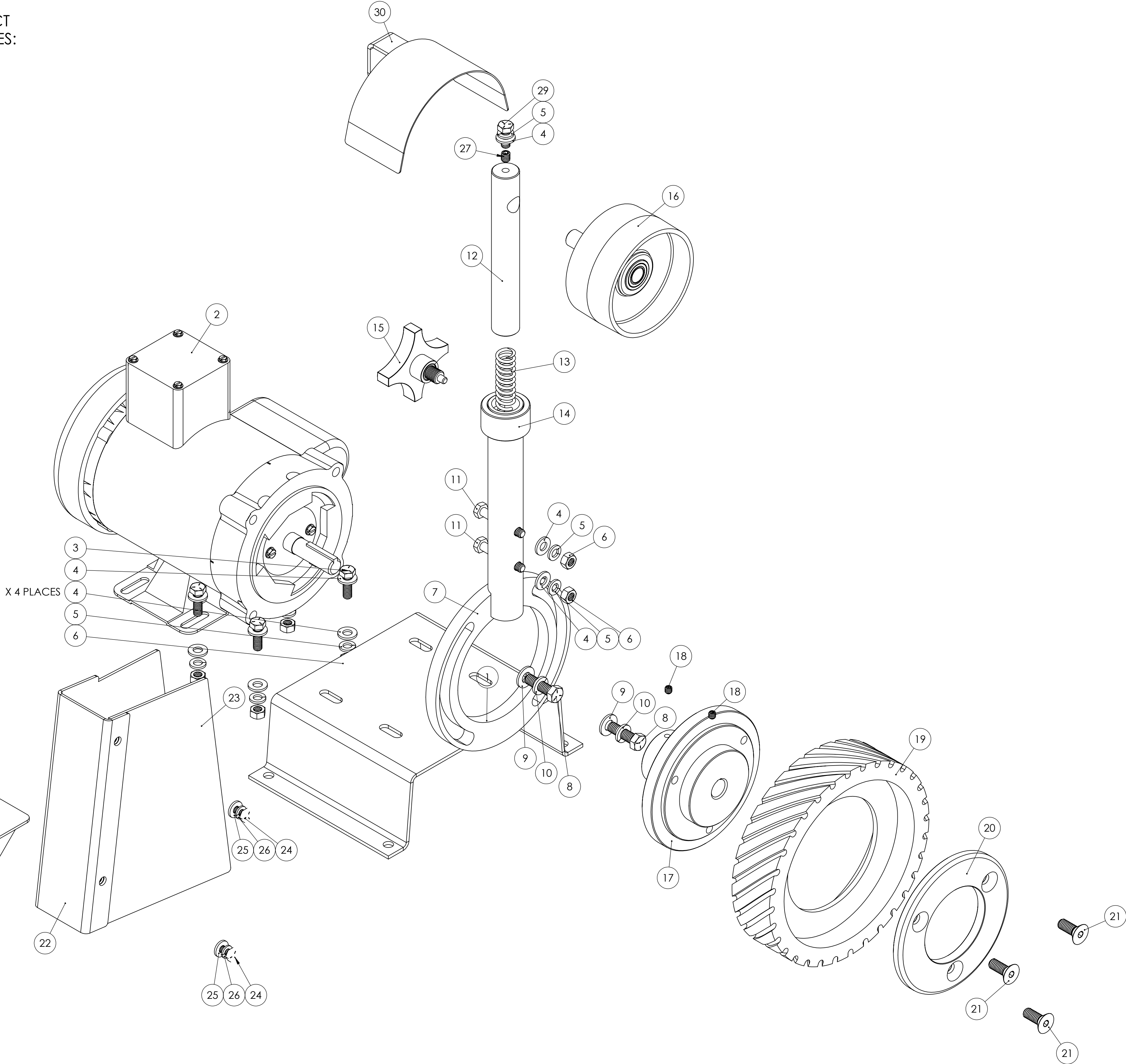
Replacement Belts and Parts

Contact Kalamazoo Industries, Inc. for parts, accessories, or technical support.

- Phone: (269) 382-2050
 - Website: www.kalamazooind.com
 - info@kalamazooindustries.com
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ORDER 936-018 ASSY FOR
COMPLETE DRIVE CONTACT
WHEEL ASSEMBLY. INCLUDES:

292-023
936-018
292-027



ITEM NO.	PART NUMBER	DESCRIPTION	
1	829-055	BASE FOR BG448 TO BENCH MOUNT MACHINE	1
2	486-077	1/2HP MOTOR FOR NEW STYLE 2FS72M AND BG248	1
3	HHC5031016	5/16-18 X 1 HHCS GR5 Z	4
4	UFWZ031	5/16 USS F/W Z	12
5	SLWZ031	5/16 SPLIT L/W Z	8
6	FHN5031	5/16-18 FHN GR5 ZINC	6
7	832-024	TUBE SUPPORT WITH RING FOR BG248	1
8	HHC5037020	3/8-16 X 1-1/4 HHCS GR5 Z	2
9	UFWZ037	3/8 USS F/W Z	2
10	SLWZ037	3/8 SPLIT L/W Z	2
11	HHC5031032	5/16-18 X 2 HHCS GR5 Z	2
12	645-008	TENSION ROD FOR 2FS, 2FSM, 2FS72, 2SK7 SANDERS	1
13	697-013	TENSION SPRING FOR 2FS, 2FS72, 2FSM, BG142, 2FS72M, K12-148	1
14	123-004	TRACKING COLLAR FOR 2FS, 2FS72, 2FSM, 2SK7, BG142	1
15	441-011	TRACKING KNOB FOR 2FS, 2FS72, 2FSM, 2SK7 SANDERS	1
16	936-003	NYLON IDLER PULLEY W BEARINGS FOR S272, BG272, 2FS72M, BG248	1
17	292-023	TIGHT FLANGE FOR CONTACT WHEEL 936-018	1
18	SSKA025004	1/4-20 X 1/4 SOC SET KNURL PT.	2
19	936-018	WHEEL, DRIVE (8X2) C134T, 8"DIA, 1.875 FACE, 70 DURO, STANDARD SERRATION FOR BG248 AND 2FS72M	1
20	292-027	LOOSE FLANGE FOR WHEEL ADAPTOR FOR 2FS72 AND BG448 (NEW STYLE)	1
21	FSCA037016	3/8-16 X 1 FSHCS	3
22	563-043	PLATEN FOR BG248	1
23	563-043SP	SIDE PLATE FOR BG248 PLATEN	1
24	HHC5025008	1/4-20 X 1/2 HHCS GR5 Z	2
25	UFWZ025	1/4 USS F/W Z	2
26	SLWZ025	1/4 SPLIT L/W Z	2
27	SSKA031006	5/16-18 X 3/8 SOC SET KNURL PT.	1
28	829-004-REV1	WORK TABLE FOR 2", 4", DS10-4 SANDERS/ REV1	1
29	HHC5031012	5/16-18 X 3/4 HHCS GR5 Z	2
30	342-009	GUARD, UMBRELLA FOR 2FS, 2FS72, 2FS72M, BG248 SANDERS	1

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		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL: ± ANGULAR: MACH ± TWO PLACE DECIMAL: ± THREE PLACE DECIMAL: ±	DRAWN CHECKED ENG APPR. MFG APPR.	NAME DATE	TITLE: BG248 ASSEMBLY
		INTERPRET GEOMETRIC TOLERANCING PER: MATERIAL	Q.A. COMMENTS:		SIZE DWG. NO. D BG248-EXPLODED
NEXT ASSY	USED ON	FINISH			REV
APPLICATION		DO NOT SCALE DRAWING			SCALE: 1:5 WEIGHT: SHEET 2 OF 2