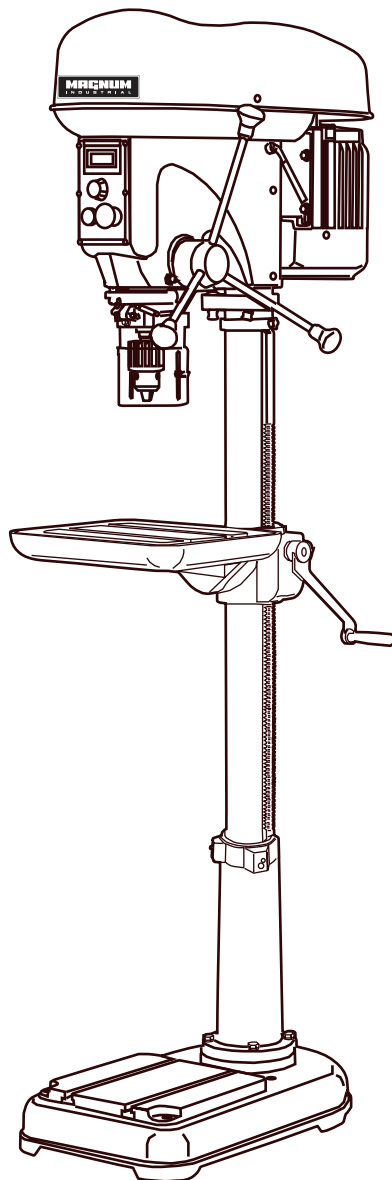


MAGNUM

INDUSTRIAL

MODEL NO.: MI-76390



PARTS BREAKDOWN

ASSEMBLY INSTRUCTIONS for Magnum Industrial Drill Press

MODEL: MI-76390

Before you assemble your drill press, review the parts breakdown and keep it ready for reference.

- Start by removing the parts from the packaging.
- Carefully check the packaging for small pieces before you continue.
- Lay out the parts on a large, clear and unobstructed area and ensure that all parts are accounted for.

ASSEMBLING THE DRILL PRESS

1. Fasten the column (4) to the base (1) with the four bolts (3)
2. Remove the rack collar (16) from the column (6) by tapping and rotating it slowly upwards.
3. Make sure the raising gears (10) (9) are in place. Insert the rack (5N) into the table bracket (12) and lower these two pieces onto the column at the same time. This may require two people or a forklift. The bottom of the rack (5N) slips into the slot provided on the lower collar (124). The top of the rack (5N) is held in place by the rack collar (16). Place the collar on the column and tighten the set screw (15).
4. Place the handle (7) on the worm gear shaft (9) and secure it with the hex head bolt (8)
5. Lower the main head onto the column and secure it with the set screws (20). This requires at least two people.
6. Attach the three feed handles (14) and knobs (13).

Once assembled, clean the protective coating from all surfaces (where applicable) using a rag dipped in kerosene, mineral spirits or paint thinner. (Dispose of potentially flammable solvent-soaked rags according to manufacturer's safety recommendations.)

A putty knife, held flat to avoid scratching the surface, may also be used to scrape off the coating followed by clean-up with solvent.

Avoid rubbing painted surfaces, as many solvent-based products will remove paint.

INSTALLING THE CHUCK

1. Degrease all pieces.
2. Slide the arbor (121) into the spindle (102) flat end up.
3. Slide the chuck (120) over the tapered end of the arbor and, using a wooden mallet, give the chuck a good tap. The taper is designed to hold the chuck securely in place.

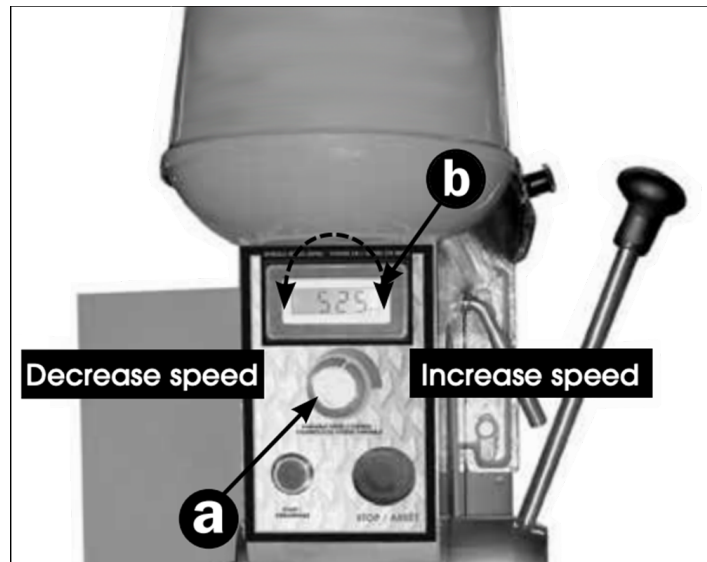
If you have any questions or require further information, please contact KMS Tools Service Department at 604.395.4134 or email repairs@kmstools.com

CONTROLLING SPINDLE SPEED

The MI-76390 has two speed variable speed ranges: 280 to 1,140 rpm and 800 to 3,200 rpm. You can select the setting by repositioning the drive belt on the pulleys. See the next page for instructions on repositioning the drive belt.

The spindle speed control knob (a) is located on the control box, just above the On/Off switch.

- Turn the knob clockwise to increase spindle speed.
- Turn the knob counter-clockwise to decrease spindle speed.
- The digital speed display (b) will show spindle speed.



The chart below suggests speed ranges based on materials and bit size.

Spindle Speed Selection Chart							
Material	Soft Wood	Hard Wood	Cast Steel	Tool Steel	Cast Iron	Mild Steel	Aluminum & Copper
Bit Size	Suggested Spindle Speed (RPM)						
5/64" / 2 mm	2800–3200	2800–3200	1910–2445	2865–3665	3820–4890	4775–6110	9550–12225
1/8" / 3 mm	2800–3200	2800–3200	1220–1275	1835–1910	2445–2545	3055–3185	6110–6365
3/16" / 5 mm	2800–3200	2800–3200	765–815	1145–1220	1530–1630	1910–2035	3820–4075
1/4" / 6 mm	2800–3200	2800–3200	610	915–955	1220–1275	1530–1590	3055–3180
5/16" / 8 mm	1980–2380	1980–2380	480–490	715–735	955–980	1195–1220	2390–2445
3/8" / 10 mm	1980–2380	1980–2380	380–405	570–610	765–815	955–1020	1910–2035
7/16" / 11 mm	1980–2380	1980–2380	350	520–525	700	870	1740–1745
1/2" / 13 mm	1980–2380	1620–2020	300–305	440–460	590–610	735–765	1470–1530

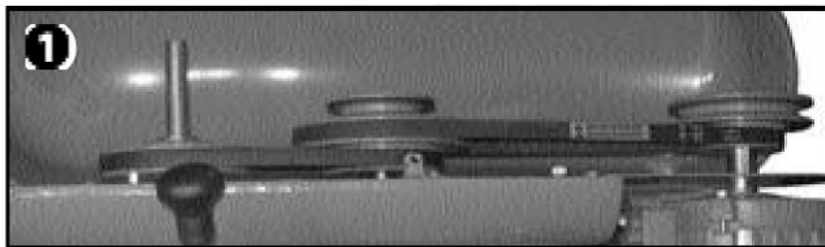
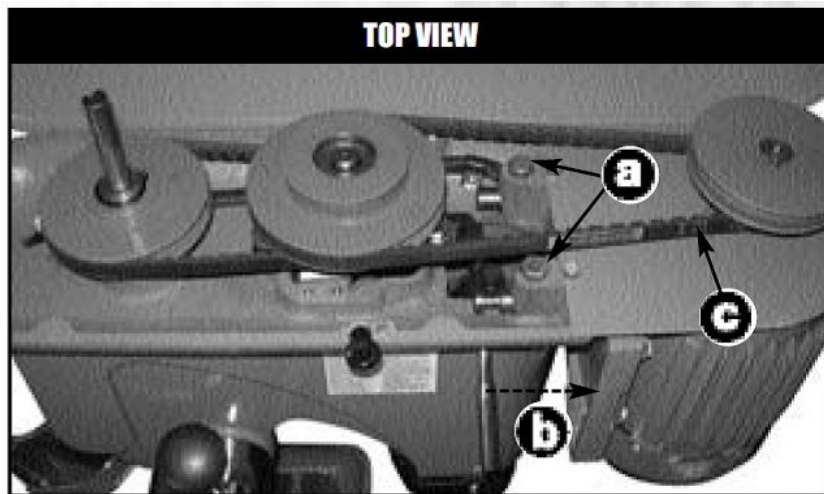
This chart is a guideline. Your results may vary with the quality and sharpness of your drill bits. For best results follow the recommendations of the drill bit manufacturer.

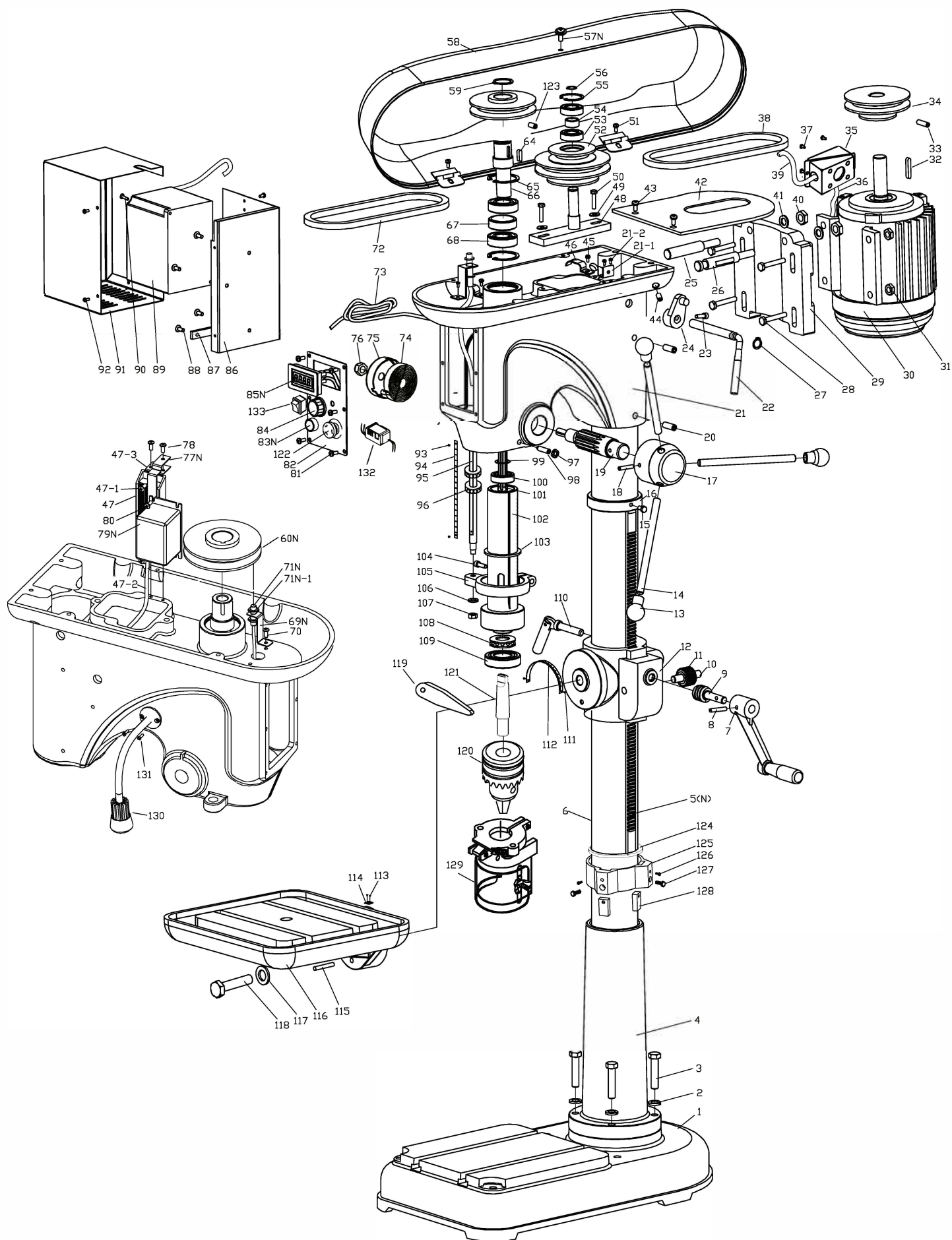
CHANGING SPINDLE SPEED RANGE

Before you adjust the drive belt, make sure the drill press is unplugged from the power source.

To change spindle speed range...

1. Open the pulley case cover and loosen the two locking bolts (a) with a 17 mm wrench.
2. Pull the belt tension adjust lever (b) to the rear of the drill press to loosen the drive belt.
3. To select the low speed range (280 – 1,140 rpm) position the drive belt (c) on the LOWER pulleys.
4. To select the high speed (800 – 3,200 rpm) position the drive belt (c) on the UPPER pulleys.
5. Push the belt tension adjust lever (b) to the front of the drill press to secure the drive belt
6. While holding the belt tension adjust lever (b) retighten the two locking bolts (a).





PARTS LIST FOR MI-76390

PART NO.	DESCRIPTION	QTY
MI-76390-1	BASE	1
MI-76390-2	SPRING WASHER	4
MI-76390-3	HEX HEAD BOLT	4
MI-76390-4	COLUMN FLANGE	1
MI-76390-5	RACK	1
MI-76390-6	COLUMN	1
MI-76390-7	TABLE BRACKET HANDLE BRACE	1
MI-76390-8	HEX SCREW	1
MI-76390-9	WORM	1
MI-76390-10	GEAR SHAFT	1
MI-76390-11	WORM GEAR	1
MI-76390-12	TABLE BRACKET	1
MI-76390-13	HANDLE KNOB	3
MI-76390-14	FEEDING HANDLE	3
MI-76390-15	COLUMN COLLAR SET SCREW	1
MI-76390-16	RACK COLLAR	1
MI-76390-17	PINION SHAFT BASE	1
MI-76390-18	SET SCREW	1
MI-76390-19	PINION SHAFT	1
MI-76390-20	INNER HEX SET SCREW	2
MI-76390-21	MACHINE HEAD	1
MI-76390-21-1	PULLEY COVER HOLDING PAD	1
MI-76390-21-2	SET SCREW	2
MI-76390-22	BELT TENSION ADJUST BRACE	1
MI-76390-23	INNER HEX BOLT	1
MI-76390-24	BELT TENSION ADJUST BLOCK	1
MI-76390-25	BELT TENSION ADJUST ROD B	1
MI-76390-26	BELT TENSION ADJUST ROD A	1
MI-76390-27	SNAP RING FOR SHAFT	1
MI-76390-28	HEX HEAD BOLT	4
MI-76390-29	MOTOR MOUNTING PLATE	1
MI-76390-30	MOTOR	1
MI-76390-31	HEX NUT	4
MI-76390-32	MOTOR SPINDLE KEY	1
MI-76390-33	MOTOR PULLEY SET SCREW	1
MI-76390-34	MOTOR PULLEY	1
MI-76390-35	MOTOR WIRING BOX	1
MI-76390-36	MOTOR DIRECT COOLING FAN CONNECT WIRE	1
MI-76390-37	SCREW	4
MI-76390-38	BELT	1
MI-76390-39	MOTOR POWER CORD	1
MI-76390-40	NUT	2
MI-76390-41	SPRING WASHER	2
MI-76390-42	MOTOR PULLEY PROTECT GUARD	1
MI-76390-43	SET SCREW	2
MI-76390-44	HEX HEAD BOLT	2
MI-76390-45	SET SCREW	1
MI-76390-46	WIRE HOLDER	1
MI-76390-47	BRAKE RESISTOR	1

PARTS LIST FOR MI-76390

PART NO.	DESCRIPTION	QTY
MI-76390-47-1	SET SCREW	2
MI-76390-47-2	BRAKE RESISTOR CONNECT WIRE	1
MI-76390-47-3	BRAKE RESISTOR HOLDING FRAM	1
MI-76390-48	CENTER PULLEY FRAM	1
MI-76390-49	WASHER	2
MI-76390-50	HEX BOLT	2
MI-76390-51	SET SCREW	2
MI-76390-52	CENTER PULLEY FRAM	1
MI-76390-53	BALL BEARING	2
MI-76390-54	BEARING SPACER	1
MI-76390-55	SNAP RING FOR HOLE)	1
MI-76390-56	SNAP RING FOR SHAFT)	1
MI-76390-57N	SET SCREW	1
MI-76390-58	PULLEY COVER	1
MI-76390-59	SNAP RING (FOR SHAFT)	1
MI-76390-60N	SPINDLE PULLEY	1
MI-76390-64	SHAFT DRIVER KEY	1
MI-76390-65	SNAP RING FOR SHAFT)	1
MI-76390-66	SHAFT DRIVER	1
MI-76390-67	BEARING SPACER	1
MI-76390-68	BALL BEARING	2
MI-76390-69N	SPEED DETECTOR HOLDING FRAM	1
MI-76390-70	SET SCREW	1
MI-76390-71N	SPEED DETECTOR	1
MI-76390-71N-1	NUT	2
MI-76390-72	BELT	1
MI-76390-73	POWER CORD	1
MI-76390-74	TENSION SPRING	1
MI-76390-75	TENSION SPRING CAP	1
MI-76390-76	LOCK NUT	1
MI-76390-77N	TRANSFORMER HOLDING FRAM	1
MI-76390-78	SET SCREW	2
MI-76390-79N	TRANSFORMER	1
MI-76390-80	SET SCREW	2
MI-76390-81	SWITCH PLATE SET SCREW	6
MI-76390-82	SWITCH PLATE	1
MI-76390-83N	START SWITCH	1
MI-76390-84	RPM ADJUST KNOB	1
MI-76390-85N	SPEED DIGITAL PANEL	1
MI-76390-86	INVERTER MOUNTING PLATE	1
MI-76390-87	WIRING TERMINAL	1
MI-76390-88	SET SCREW	1
MI-76390-89	INVERTORS	1
MI-76390-90	SET SCREW	2
MI-76390-91	INVERTER PROTECT BOX	1
MI-76390-92	SET SCREW	2
MI-76390-93	RIVET	2
MI-76390-94	FEEDING SCALE	1
MI-76390-95	FEEDING SCALE ROD	1

PARTS LIST FOR MI-76390

PART NO.	DESCRIPTION	QTY
MI-76390-96	DEPTH STOP JAM NUT	2
MI-76390-97	NUT	1
MI-76390-98	SET SCREW	1
MI-76390-99	RETAINING RING	1
MI-76390-100	BALL BEARING	1
MI-76390-101	SPINDLE	1
MI-76390-102	QUILL	1
MI-76390-103	QUILL RUBBER PAD	1
MI-76390-104	INNER HEX BOLT	1
MI-76390-105	SCALE ROD HOLDING FRAM	1
MI-76390-106	WASHER	1
MI-76390-107	HEX NUT	1
MI-76390-108	ROLLER THRUST BEARING	1
MI-76390-109	BALL BEARING	1
MI-76390-110	TABLE BRACKET HOLDING BOLT	1
MI-76390-111	RIVET	2
MI-76390-112	TABLE ANGLE SCALE	1
MI-76390-113	RIVET	2
MI-76390-114	TABLE ANGLE ZERO MARK	1
MI-76390-115	SET SCREW	1
MI-76390-116	WORKING TABLE	1
MI-76390-117	SPRING WASHER	1
MI-76390-118	HEX BOLT	1
MI-76390-119	DRIFT KEY	1
MI-76390-120	CHUCK	1
MI-76390-121	ARBOR	1
MI-76390-122	EMERGENCY STOP	1
MI-76390-123	SET SCREW	2
MI-76390-124	RACK RING	1
MI-76390-125	RACK HOLDER	1
MI-76390-126	SCREW	2
MI-76390-127	SET SCREW	2
MI-76390-128	SRACER	2
MI-76390-129	CHUCK GUARD 75MM	1
MI-76390-130	LED LIGHT	1
MI-76390-131	SCREW	2
MI-76390-132	TRANSFORMER	1
MI-76390-133	LIGHT SWITCH	1