

Operating Manual

Manual de operación Manuel d'utilisation Bedienungsanleitung 操作手册

Y-6 AC Magnetic Yoke Y-7 AC/DC Magnetic Yoke Y-8 DC Magnetic Yoke





155 Harlem Avenue, Glenview, Illinois 60025 USA +1 847-657-5300 www.magnaflux.com

Fax: +1 847-657-5388 support@magnaflux.com



Part Numbers: Y-6 Yoke: 630404, 630405 Y-7 Yoke: 43509, 620741, 625643, 625644 Y-8 Yoke: 628994, 630540, 630550

Version: 2.A.06182021

TABLE OF CONTENTS

Precautions 2
Product Specifications
Operation
Accessories 4
Maintenance 4
Service 4
Troubleshooting5
Figures & Parts 6
EU Declaration of Conformity 9
UKCA Declaration of Conformity 10
Warranty 10
Support

ÍNDICE

Precauciones11
Especificaciones del producto 12
Funcionamiento 12
Accesorios13
Mantenimiento 13
Servicio 13
Detección y resolución de problemas 14
Figuras y piezas 15
Declaración de conformidad CE 18
Garantía 18
Asistencia 18

INHALT

Sicherheitsvorkehrungen	27	'
Produktspezifikationen	28	6
Bedienung	29)
Zubehör	29)
Wartung	29)
Service	30)
Fehlerbehebung	30)
Daten & Bestandteile	31	
EU-Konformitätserklärung	34	
Garantie	34	
Unterstützung	34	

目录

注意事项	
产品规格	
操作	
配件	
维护	
保养	
故障排除38	
图示和零部件39	
质保	
质保	
支持42	

TABLE DES MATIÈRES

Précautions 19
Spécifications des produits 20
Fonctionnement 21
Accessoires 21
Maintenance 21
Intervention de service 22
Solution des problèmes22
Schémas & Pièces 23
Déclaration de conformité UE 26
Garantie
Assistance26

PRECAUTIONS

Inspect yoke before each use. If damage to the cord or housing is present, it is strongly recommended the yoke be sent to a Magnaflux Authorized Service Center for repair. If field repair is absolutely necessary, see maintenance section for instructions.

	WARNING Yoke produces a strong magnetic field.					
	WARNING Persons with pacemakers or medical implants must stay 10 ft / 3.0 m away from equipment while in operation, or wherever the magnetic field is less than 1 gauss.					
<u>/</u>	WARNING Spraying the yoke directly or immersing the yoke in liquid of any kind can result in electrical shock. Do not use yoke in damp or wet locations. Do not use yoke in the rain.					
Â	WARNING Y-7 Yoke Model Only: Do not switch between AC and DC while the yoke is energized. Operating the switch while the yoke is in use will cause permanent damage to the control circuit; damage is not covered under warranty					
°*ް	CAUTION GFCI / GFI / RCCB / ELCB protection is recommended to prevent electrical shock.					
$\overline{\mathbb{N}}$	CAUTION Do not exceed the rated duty cycle. Continuous use of the yoke over extended times will generate excessive heat and may permanently damage the yoke.					
\bigwedge	CAUTION Do not abuse cord. Never carry yoke by cord or yank to disconnect from receptacle. Never retrieve yoke by pulling on cord. Do not suspend the yoke by the cord.					
\bigwedge	CAUTIONOnly use outdoor rated extension cordsSW-A, SOW-A, STW-A, STOW-A, SJW-OA, SJOW-A, SJTW-A, or SJTOW-ACord Rating 0-6 A0-25 ft / 0-7.6 m18 AWG min26-100 ft / 7.6-30.4 m16 AWG min101-150 ft / 30.4-45.7 m14 AWG min					
\bigwedge	CAUTION Y-8 Yoke Model Only: Charge battery for 12 hours or overnight before first use. Battery ships from factory with at least 75% charge.					
\bigwedge	CAUTION Do not position equipment so that it is difficult to disconnect from line power.					
\bigwedge	CAUTION Use of equipment other than manufacturer recommendations may invalidate safety meaures.					

PRODUCT SPECIFICATIONS

Model	Y-6	Y-7	Y-8	
Waveform	AC	AC / HWDC	DC	
Leg Span / Pole Spacing		2.0-11.0 in / 5.1-27.9 cm)	
Leg / Pole Contact Size	1.00	x 1.00 in / 25.4 x 25.4	mm	
Cord Length	12 ft /	3.7 m	6 ft / 1.8 m	
Duty Cycle	25%	, maximum on time 90) sec	
Lift Strength (4-6 in / 100-150 mm spacing)	> 10 lb / 4.5 kg	AC: > 10 lb / 4.5 kg HWDC: > 50 lb / 22.7 kg	50 lb / 22.7 kg	
Magnetic Field	2.5 kA/m at 6 in /	/ 152 mm spacing	9.8 kA/m at 6 in / 152 mm spacing	
Dimensions	7.5 x 2.0 x 10 in / 190 x 51 x 254 mm	7.5 x 2.0 x 12 in / 190 x 51 x 305 mm	7.5 x 2.0 x 10 in / 190 x 51 x 254 mm	
Weight	8.0 lb / 3.6 kg	8.3 lb / 3.8 kg	Yoke: 8.0 lb / 3.6 kg Battery: 5.2 lb / 2.4 kg	
Ingress Protection (IEC 60529)	IP 54			
Grounding	Complies with IEC 61010-1 grounding requiremen			
Electrical	115 VAC, 60 H 230 VAC, 50/6	6 VDC, 4 A max		
Battery Capacity	Ν	/Α	6 VDC, 12 A-hr	
Battery Charger	N	NA CEC: 115 V, 60 Hz, 1.25A max Global: 100-240 V, 50/60 Hz, 0.2A max		
Environmental	32-120°F / 0-49°C, up to 100% RH non-condensing, up to 16,300 ft / 5,000 m altitude			
Regulatory	Designed for Mains +/- 10%, Overvoltage Category II, Wet locations, Pollution Degree 2 environment			

OPERATION

- 1. Y-8 Model Only: Charge battery before use.
- 2. Connect yoke to power supply / battery pack.
- 3. Select AC or DC operating mode using switch on back of yoke. WARNING: Do not operate selector switch while yoke is energized.
- 4. Position yoke legs at right angles to the direction of suspected discontinuities. Adjust legs as needed for best contact with surface.
- 5. Depress trigger to energize yoke. Apply magnetic particles to area between legs.
 - a. If using dry powder, blow off excess while yoke is energized to reveal indications.
 - b. If using fluorescent particles, view surface with UV-A in darkened environment to reveal indications.
- 6. Evaluate indications for size, shape, and relevant location.
- Reposition yoke legs at 90-degrees to previous position and repeat steps 4-5 to reveal indications in all directions.
- 8. Y-6 and Y-7 Models Only: Demagnetize by energizing yoke then slowly withdrawing it from the surface, up to 18 in / 45 cm distance. NOTE: Use AC mode for demagnetization.

ACCESSORIES

Part Number	Description			
624115	Calibrated Test Weight, 10 Lb			
169799	Pie Field Gage			
008M004	Magnetic Flux Indicators, set of 5			
2480	480 Field Indicator Gauge, 10 Gauss			

MAINTENANCE

- Use mild soap and a damp cloth to clean the yoke housing.
- Do not spray yoke housing or immerse any part of yoke in liquid.
- Legs may be detached at the joints for cleaning.
- Use a rust-preventative spray (LPS-2 or equivalent) on legs for lubrication.

Battery Charging

- Recharge battery after every 8-10 hours of use or if stored for extended time.
- Extreme discharge of battery will reduce battery life.
- Connect battery to charger before plugging charger into line power.
- Typical charging time is approximately 1.25 hours per 1 hour of use.
- Typical use over 8-10 hour shift would require 10-12 hours to recharge.

SERVICE



WARNING

Disconnect coil from line power before any disassembly or service.

CAUTION

To assure product safety and reliability, repairs should be performed by Magnaflux Authorized Service Center using original parts.

WARNING

If the AC/DC Conversion Assembly or the switch is replaced, gasketing must be inspected for integrity and replaced as needed. Failure to do so may allow liquid intrusion during use, which can result in electrical shock hazard and permanent damage to the yoke.

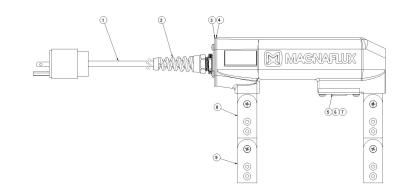


TROUBLESHOOTING

English

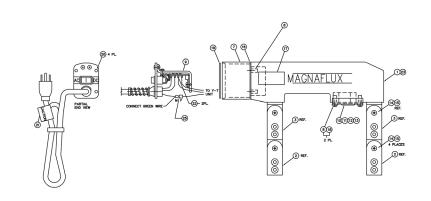
Problem	Possible Cause	Possible Solution	
Yoke will not energize	Cord Unplugged	Plug cord into a fully grounded outlet or extension cord	
	Damaged or defective cord	Contact Authorized Service Center to repair or replace cord	
	Damaged or defective switch	Contact Authorized Service Center to repair or replace switch	
	Blown fuse or breaker in power supply	Reset breaker or replace fuse	
	Defective extension cord	Replace extension cord	
	Tripped GFI	Reset GFI button	
Yoke will not lift test weight	Foot sections of legs are worn or rounded	File or grind feet back to original flat condition or replace	
	Foot sections turned and not making full contact	Adjust feet to make flat full contact with weight	
	Extension cord too light to supply adequate current	See table in precautions section for proper size	
Legs still or do not move	Leg bolts too tight	Loosen slightly with properly sized wrench	
	Legs rusted at joints	Remove bolts and legs and clean with wire brush to remove rust. Reassemble using a rust remover/preventer such as LPS-2 or equivalent. Retighten bolts until legs are tight but still move freely.	

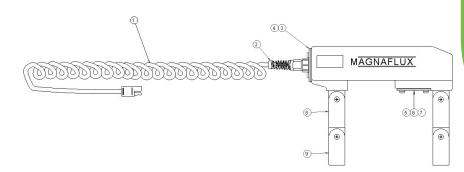
Y-6 YOKE FIGURES & PARTS

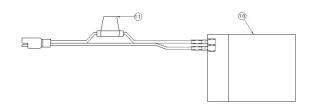


Index	Part Number	Qty	Description
1	630487	1	CORD ASSY, NA 115V (TYPE B PLUG)
1	630399	1	CORD ASSY, EU 230V (TYPE F PLUG, TYPE G ADAPTER)
2	630434	1	CORD GRIP
3	630408	1	COVER, REAR
4	630407	1	GASKET, COVER
5	43526	1	COVER, SWITCH
6	43527	1	DIAPHRAGM, SWITCH
7	4944	1	SWITCH
8	55176	2	LEG ASSEMBLY
9	55175	2	FOOT ASSEMBLY
	628099	1	ADAPTER, PLUG, TYPE F TO TYPE G, REPLACEMENT FUSE BS1362 13A

English







Index	Part Number	Qty	Description
1	629968	1	CORD ASSY, COILED, Y-8
2	630434	1	CORD GRIP
3	630408	1	COVER, REAR
4	630407	1	GASKET, COVER
5	43526	1	COVER, SWITCH
6	43527	1	DIAPHRAGM, SWITCH
7	4944	1	SWITCH
8	55176	2	LEG ASSEMBLY
9	55175	2	FOOT ASSEMBLY
10	520795	1	BATTERY ASSY, 6V, 12AH, NONHAZARDOUS
11	-	1	Fuse, AB19, 15A

Index	Part Number	Qty	Description
1	43531	1	MOLDED YOKE
2	55175	2	FOOT ASSEMBLY
3	55176	2	LEG ASSEMBLY
7	620453	1	HOUSING
8	513977	6	INSERT NUT
0	620457	1	AC/DC CONVERSION ASSY, 115V NOTE: ASSY INCLUDES PCB, SWITCH, CORD AND COVER
9	620458	1	AC/DC CONVERSION ASSY, 230V NOTE: ASSY INCLUDES PCB, SWITCH, CORD AND COVER
10	43526	1	SWITCH COVER
11	43527	1	SWITCH DIAPHRAGM
12	4944	1	SWITCH
16	620764	1	GASKET, HOUSING
19	620455	1	GASKET, COVER

EU DECLARATION OF CONFORMITY

In accordance with EN ISO 17050-1:2010 Object of the declaration:

English

AC Yoke
Y-6, Y-8
Magnaflux
155 Harlem Avenue, Glenview, IL 60025, USA
issued under the sole responsibility of the manufacturer.

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

2014/35/EU	The Low Voltage Directive
2014/30/EU	The Electromagnetic Compatibility Directive
2009/125/EC	Eco Design Directive

Conformity is shown by compliance with the applicable requirements of the following documents:

Reference & Date	Title
EN61010-	Safety requirements for electrical equipment for measurement, control,
1:2010+A1:2019	and laboratory use - Part 1: General requirements
IEC 61326-1:2020	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
EN ISO 9934-3:2015	Non-destructive testing – Magnetic particle testing – Part 3: Equipment

Signed for and
on behalf of:MagnafluxPlace of issue:DeWitt, Iowa, United States of AmericaDate of issue:December 2020Name:Mike FryaufPosition:Engineering Manager

Signature:



UKCA DECLARATION OF CONFORMITY

In accordance with EN ISO 17050-1:2010

Object of the declaration:

Product:	AC Yoke		
Model/type:	Y-6, Y-8		
Manufacturer:	Magnaflux		
Address:	155 Harlem Avenue, Glenview, IL 60025, USA		
This declaration is issued under the sole responsibility of the manufacturer.			

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

Electrical Equipment (Safety) Regulations 2016 Electromagnetic Compatibility Regulations 2016 2009/125/EC Eco Design Directive

Conformity is shown by compliance with the applicable requirements of the following documents:

Reference & Date	Title
EN61010-	Safety requirements for electrical equipment for measurement, control,
1:2010+A1:2019	and laboratory use - Part 1: General requirements
IEC 61326-1:2020	Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
EN ISO 9934-3:2015	Non-destructive testing – Magnetic particle testing – Part 3: Equipment

Signed for and on behalf of:	Magnaflux
Place of issue:	DeWitt, Iowa, United States of America
Date of issue:	April 2021
Name:	Mike Fryauf
Position:	Engineering Manager

Signature:

Mident & Fingenf

WARRANTY

Refer to the Magnaflux Warranty Statement at www.magnaflux.com.

SUPPORT

If you have a question please contact Magnaflux at:

1-847-657-5300 support@magnaflux.com www.magnaflux.com

You can also contact your local Distributor or Magnaflux Authorized Service Center directly; contact information is available at www.magnaflux.com.