

MAGNUM[®] 450WC



The Magnum 450WC Water-Cooled Gun and Cable Assembly

K684

The Magnum 450WC is a water cooled gun and cable assembly designed for both gas-shielded solid (GMAW) and gas-shielded, flux-cored (FCAW-GS) continuous feed arc welding wires.

To function properly, the 450WC must be connected to a water cooler. Water flows through the gun cables and handle to the end of the gun tube, cooling the gas diffuser and nozzle.

In addition to keeping the contact tip cool, the outgoing end of the gun tube is specially designed for maximum heat transfer between the cooling water and the gas nozzle. The gas nozzle will not overheat, even when operating the gun at 100% duty cycle.

This results in cool operation in applications such as spray transfer, pulse welding and when using argon blended gas.

The gun has two ratings when cooled at a minimum water flow rate of .58 gallons (2.2 liters) per minute.

With straight CO₂ gas:
450 amps, 100% duty cycle.

With argon/CO₂ blended gas:
400 amps, 100% duty cycle.

The wire diameter range is .035 - 5/64" (0.9 - 2.0mm):

Solid Wire:
.035 - 1/16" (0.9 - 1.6mm)
Flux-cored Wire:
.045 - 5/64" (1.2 - 2.0mm)

Choose from 10 ft. or 15ft. (3 or 4.5m) cable lengths.

The gun tube angle is 60 degrees.

Cable liners for aluminum wire feeding are available. See Expendable Replacement Parts table on page 3.

The 450WC gun can be connected to a wire feeder with a Lincoln Fast-Mate™ adapter or a European-style gun adapter. The following connector kits allow connection of the 450WC gun to wire feeders without Fast-Mate receptacles:

Connector Kit	Feeder Type
K489-1	Lincoln LN-7 Series, LN-8 or LN-9
K489-2*	Lincoln LN-25 or DH-10
K489-3	Miller wire feeders
K489-4	Tweco adapted wire feeders
K489-5	Hobart Series 2000 wire feeders
K489-6	ESAB wire feeders
K489-7	Lincoln 10-Series feeders, LN-10, DH-10, PF-10, STT-10.

* To install a K489-2 Adapter Kit on a 10-Series wire feeder, a K1500-1 wire feeder connector is also required.

ORDERING INFORMATION

Product No.	Cable Length ft. (mm.)	Wire Size In. (mm.)	Contact Tip	Gas Diffuser	Gas Nozzle	Cable Liner
K684-X	10 (3.5)	.035 (.9) .045 (1.2)	S22334-035 S22334-045	S22030-1	M18210-4	M16083-1
K684-X	15 (4.5)	.035 (.9) .045 (1.2)	S22334-035 S22334-045	S22030-1	M18210-4	M16083-1
K684-X	10 (3.5)	.052 (1.3) 1/16 (1.6)	S22334-052 S22334-116	S22030-1	M18210-4	M16083-2
K684-4	15 (4.5)	.052 (1.3) 1/16 (1.6)	S22334-052 S22334-116	S22030-1	M18210-4	M16083-2
K684-5	10 (3.5)	1/16 (1.6) 5/64 (2.0)	S22334-116 S22334-564	S22030-1	M18210-4	M16083-3
K684-6	15 (4.5)	1/16 (1.6) 5/64 (1.6)	S22334-116 S22334-564	S22030-1	M18210-4	M16083-3

Customer Assistance Policy

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer's particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

EXPENDABLE REPLACEMENT PARTS

Description	Part No.	Size Inches	Size mm.
CABLE LINER for 15' (4.5m) and less (Steel wire)	M16083-1	.035-.045	.9-1.2
	M16083-2	.052-1/16	1.3-1.6
	M16083-3	1/16-5/64	1.6-2.0
CABLE LINER for 15' (4.5m) and less (Aluminum wire)	M18732-2 (black)	.030-.035	.8-.9
	M18732-4 (red)	1/16	1.6
	M18732-6 (blue)	.035-3/64	.9-.2
CABLE LINER for 10' (3.0m) and less (Aluminum wire)	M18732-1 (black)	.030-.035	.8-.9
	M18732-3 (red)	1/16	1.6
	M18732--5 (blue)	.035-3/64	.9-1.2
CONTACT TIPS⁽¹⁾	S22334-035	.035	.9
	S22334-035A	.035A	.9A
	S22334-040	.040	1.0
	S22334-040A	.040A	1.0A
	S22334-045	.045	1.2
	S22334-364A	3/64A	1.2A
	S22334-052	.052	1.3
	S22334-116	1/16	1.6
	S22334-116A	1/16A	1/16A
	S22334-564	5/64	2.0
GAS DIFFUSER	S22030-1		
NOZZLE INSULATOR	S22031-1		
GAS NOZZLE (flush)	M18210-1	.39 ID	10 ID
(flush)	M18210-2	.51 ID	13 ID
(flush)	M18210-3	.59 ID	15 ID
.12" (3mm) recess	M18210-4	.59 ID	15 ID
.12" (3mm) recess	M18210-5	.76 ID	19.2 ID
Spot	M18210-6	.76 ID	19.2 ID
GUN TUBE ASSEMBLY REPLACEABLE PARTS:			
GUN TUBE INSULATION	S22333-7A		
NOZZLE HOLDER⁽²⁾	S22333-7B		
FIXING NUT	S22333-7C		
CERAMIC INSULATOR⁽²⁾	S22333-7D		
INSULATION CONE	S22333-7F		
JOINT COMPOUND	T12837		

⁽¹⁾ Add suffix "D" for 10-pack, "M" for 20-pack.⁽²⁾ Joint compound is required for assembly of these parts.

USA

ALABAMA

BIRMINGHAM 35124-1156
(205) 988-8232
MOBILE 36693-4310
(334) 666-6524

ALASKA

Contact SEATTLE
District Office
(206) 575-2456

ARIZONA

PHOENIX 85260-1768
(602) 348-2004

ARKANSAS

LITTLE ROCK 72116-7034
(501) 771-4842

CALIFORNIA

FRESNO 93722-3949
(209) 276-0110
LOS ANGELES 90670-2936
(562) 906-7700
SACRAMENTO 95677-4729
(916) 630-1885
SAN DIEGO 92108-3911
(619) 208-9001
SAN FRANCISCO 94550-9657
(925) 443-9353

COLORADO

DENVER 80112-5115
(303) 792-2418

CONNECTICUT

NORTH HAVEN 06238
(860) 742-8887

WASHINGTON DC

HERNDON, VA 20170-5227
(703) 904-7735

FLORIDA

JACKSONVILLE 32259-4396
(904) 287-9595
MIAMI 33014-6719
(305) 556-0142
ORLANDO 32714-1974
(407) 788-8557
TAMPA 33619-4480
(770) 475-0955

GEORGIA

ATLANTA 30076-4914
(770) 475-0955
SAVANNAH 31401-5140
(912) 231-9604

HAWAII

See SEATTLE
District Office
(206) 575-2456

ILLINOIS

CHICAGO 60521-5629
(630) 920-1500
PEORIA 61607-2046
(309) 697-8240

INDIANA

FT. WAYNE 46825-5547
(219) 484-4422
SOUTH BEND 46530-0577
(219) 277-8619
INDIANAPOLIS 46038-9459
(317) 845-8445

IOWA

CEDAR RAPIDS 52402-3160
(319) 362-6804
DAVENPORT 52806-1344
(319) 386-6522
DES MOINES 50265-6218
(515) 224-4121

KANSAS

KANSAS CITY 66214-1625
(913) 894-0888
WICHITA 67037
(316) 788-7352

KENTUCKY

LOUISVILLE 40203-2906
(502) 636-5125

LOUISIANA

BATON ROUGE 70809-2256
(504) 922-5151
SHREVEPORT 71108-2521
(318) 869-3531

MARYLAND

BALTIMORE 21050
(443) 831-0416

MASSACHUSETTS

BOSTON 02154-8414
(781) 899-2010

MICHIGAN

DETROIT 48034-4005
(248) 353-9680
FLUSHING 48433-1855
(810) 487-1310
GRAND RAPIDS 49512-3924
(616) 942-8780

MINNESOTA

MINNEAPOLIS 55447-5435
(612) 551-1990

MISSISSIPPI

JACKSON 39212-9635
(601) 372-7679

MISSOURI

KANSAS CITY (KS) 66214-1625
(913) 894-0888
ST. LOUIS 63146-3572
(314) 993-5465

MONTANA

Contact SEATTLE
District Office
(206) 575-2456

NEBRASKA

OMAHA 68046-2826
(402) 339-1809

NEW JERSEY

EDISON 08837-3939
(732) 225-2000

NEW MEXICO

ALBUQUERQUE 87111-2158
(505) 237-2433

NEW YORK

ALBANY 12065-1139
(518) 877-8278
BUFFALO 14225-5515
(716) 681-5554
NEW YORK CITY
(888) 269-6755
EAST SYRACUSE 13057-1040
(315) 432-0281

NORTH CAROLINA

CHARLOTTE 28273-6200
(704) 588-3251
RALEIGH 27604-8456
(919) 231-5855

OHIO

CINCINNATI 45242-3706
(513) 554-4440
CLEVELAND 44143-1433
(216) 289-4160
COLUMBUS 43221-4073
(614) 488-7913
DAYTON 45439-1254
(937) 299-9506
TOLEDO 43528-9483
(419) 867-7284

OKLAHOMA

OKLAHOMA CITY 73119-2416
(405) 686-1170
TULSA 74146-1622
(918) 622-9353

OREGON

PORTLAND 97230-1030
(503) 252-8835

PENNSYLVANIA

BETHLEHEM 18020-2062
(610) 866-8788
ERIE 16506-2979
(814) 835-3531
JOHNSTOWN 15905-2506
(814) 535-5895
PHILADELPHIA 19008-4310
(610) 543-9462
PITTSBURGH 15275-1002
(412) 787-7733
YORK 17404-1144
(717) 764-6565

SOUTH CAROLINA

GREENVILLE 29681-4724
(864) 967-4157
COLUMBIA 29209
(803) 783-2851

SOUTH DAKOTA

SIOUX FALLS 57108-2609
(605) 339-6522

TENNESSEE

KNOXVILLE 37923-4506
(423) 693-5513
MEMPHIS 38115-5946
(901) 363-1075
NASHVILLE 37210-3816
(615) 316-9777
TRI-CITIES 37604-3338
(423) 928-6047

TEXAS

DALLAS 76051-7602
(817) 329-9353
HOUSTON 77060-3143
(281) 847-9444
SAN ANTONIO 78133-3502
(830) 964-2421

UTAH

MIDVALE 84047-3759
(801) 233-9353

VIRGINIA

HERNDON 20170-5227
Washington, D.C.
(703) 904-7735
ROANOKE 24153-1447
(800) 916-0778
WILLIAMSBURG 23602-7048
(571) 870-5508

WASHINGTON

SEATTLE 98188-7615
(206) 575-2456
SPOKANE 99005-9637
(509) 468-2770

WEST VIRGINIA

CHARLESTON 25526-9796
(304) 757-9862

WISCONSIN

GREEN BAY 54302-1829
(920) 435-1012
MILWAUKEE 53186-0403
(262) 650-9364

CANADA

ALBERTA

CALGARY T2H 2M3
(403) 253-9600
EDMONTON T6H 2K1
(403) 436-7385
WINNIPEG R3N 0C7
(204) 488-6398

BRITISH COLUMBIA

VANCOUVER V3B 7A2
(604) 844-5209

MARITIMES

NOVA SCOTIA B2X 3N2
(902) 434-2725

MANITOBA

WINNIPEG R3N 0C7
(204) 488-6398

ONTARIO

TORONTO M4G 2B9
(416) 421-2600

QUEBEC

MONTREAL J5Y 2G3
(514) 654-3121

LINCOLN INTERNATIONAL HEADQUARTERS

LATIN AMERICA

Miami, Florida U.S.A.
Phone: (305) 556-0142

EUROPE

The Netherlands
Phone: 31 24 3522 911

RUSSIA, AFRICA & MIDDLE EAST

Cleveland, Ohio U.S.A.
Phone: (216) 481-8100

ASIA PACIFIC

Singapore
Phone: 65 276 0878

HARRIS CALORIFIC DIVISION

2345 Murphy Blvd., Gainesville, Georgia 30504 U.S.A.
Phone: 1-800-241-0804 • Fax: (770) 535-0544 • Web Site: www.harriscal.com



THE
LINCOLN ELECTRIC
COMPANY

Local Sales and Service through Global
Subsidiaries and Distributors

Cleveland, Ohio 44117-1199 U.S.A.

TEL (216) 481-8100

FAX (216) 486-1751

WEBSITE www.lincolnelectric.com

Magnum
E12.70 3/00

DISTRIBUTED BY: