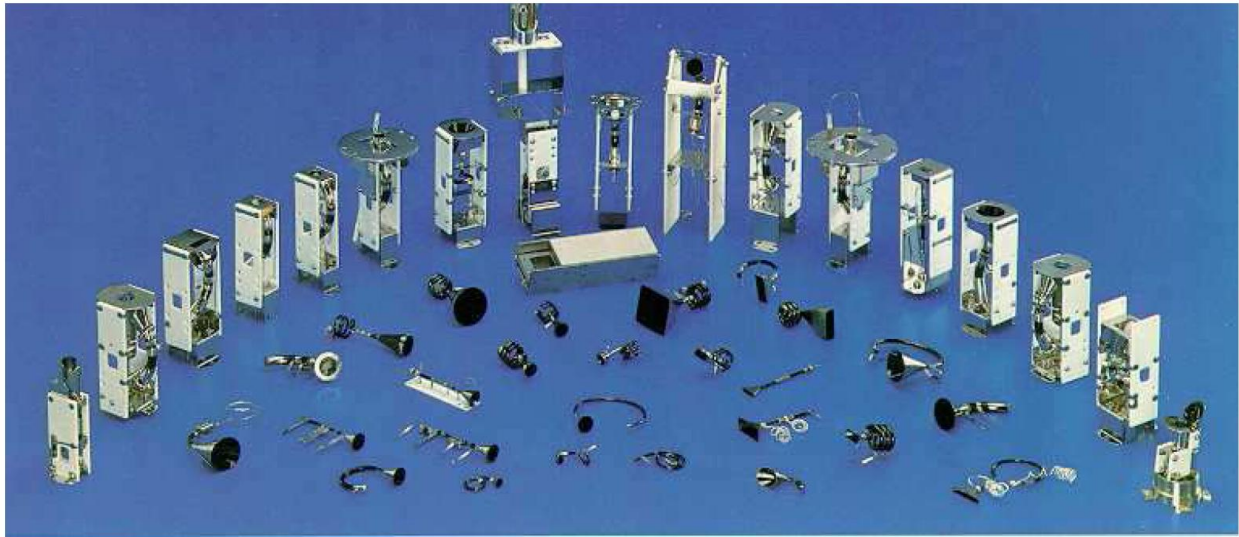


# PHOTONIS

## Electron Multiplier, Microchannel Plate And Ion Detector Replacement Guide



PHOTONIS offers a full range of replacement electron multipliers, microchannel plates and ion detectors for mass spectrometers, FIB, SEM, SIMS and residual gas analyzers.

Replacement Channeltron® single channel Electron Multipliers, Microchannel Plates and Advanced Performance Detectors are manufactured and tested to the original performance specifications.



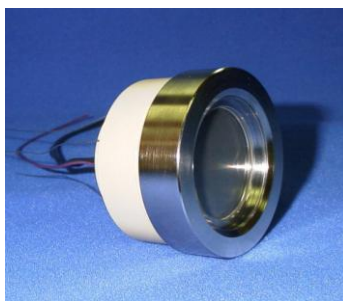
次世代技術知識集団

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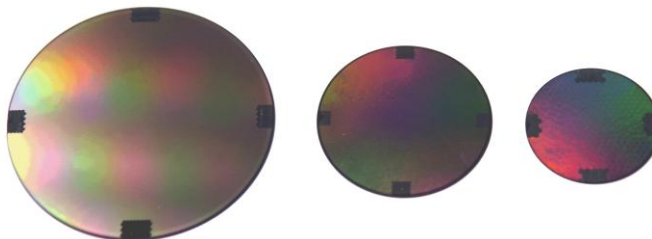
# Advanced Performance, MCP and Time-of-Flight Detector Replacement Guide

Advanced Performance, MCP and Time-of-Flight Detector Replacement Guide				
Manufacturer	Instrument	Type	MCP or APD	PHOTONIS Part Number
Agilent Technologies	LC-MSD TOF	MALDI	APD	<a href="#">33014</a>
	6220 Accurate Mass	TOF LC/MS	APD	<a href="#">33014</a>
	6530 Accurate Mass	Q-TOF LC/MS	APD	<a href="#">35711</a>
	6230 Accurate Mass	TOF LC/MS	APD	<a href="#">35711</a>
Analytica of Brandford	Corsair	API-TOF	APD	<a href="#">31369</a>
Applied Biosystems	Mariner	TOF	APD	<a href="#">30013</a>
	Voyager	TOF	APD	<a href="#">30035 / 34137</a>
	4800 MALDI TOF/TOF	MALDI	APD	<a href="#">(2) 30035</a>
	API QSTAR-XL Hybrid	LC-MSMS	MCP	<a href="#">33550</a>
	Voyager Linear HCD		MCP	<a href="#">30392</a>
Bruker	Ultraflex TOF/TOF	TOF	MCP	<a href="#">(2) 30300</a>
	Ultraflex MALDI-TOF	MALDI-TOF	APD	<a href="#">30035</a>
	PROTEINEER	TOF	APD	<a href="#">30035</a>
	BIFLEX	TOF	MCP	<a href="#">30300</a>
	Autoflex II	High Productivity TOF	MCP	<a href="#">30300</a>
FEI/Micrion	Vectra Vision, 986, 986+, IET		APD	<a href="#">30011</a>
	9500, 2500, Vectra 980		APD	<a href="#">30009</a>
	Accura 800, 850, xT		APD	<a href="#">34695</a>
IMAGO Scientific Instruments	LEAP	Atom Probe TOF	MCP	<a href="#">30377</a>
ION-TOF GmbH	TOF SIMS5	Secondary Ion MS	MCP	<a href="#">33771</a>
	TOF SIMS300	Secondary Ion MS	MCP	<a href="#">33771</a>
JEOL	AccuTOF	TOF	MCP	<a href="#">31342</a>



## Advanced Performance, MCP and Time-of-Flight Detector Replacement Guide

Manufacturer	Instrument	Type	MCP or APD	PHOTONIS Part Number
Shimadzu Biotech	AXIMA QIT	MALDI TOF	MCP	<a href="#">33793</a>
	AXIMA CFR plus	MALDI TOF	APD	<a href="#">32516</a>
LECO Corporation	Pegasus IV	TOF	APD	<a href="#">33774</a>
	Pegasus I, II, III	TOF	APD	<a href="#">31374</a>
MDS Sciex	API QSTAR	LC-MS	MCP	<a href="#">31345</a>
	API QSTAR-XL Hybrid	LC-MSMS	MCP	<a href="#">33550</a>
	API QSTAR PULSAR		MCP	<a href="#">31345</a>
	API QSTAR PULSAR i		MCP	<a href="#">31345</a>
Metara	Corsair	TOF	APD	<a href="#">31369</a>
Physical Electronics Inc	Trift III	TOF	MCP	<a href="#">33785</a>
Scientific Analysis Instruments Ltd	LaserTOF RS	Bench TOF-MS	MCP	<a href="#">31361</a>
	LaserTOF	Linear TOF-MS	MCP	<a href="#">31361</a>
	LaserTOF TT	TOF TOF	MCP	<a href="#">34447</a>
Sequinome	Bruker BiFlex	Linear TOF	MCP	<a href="#">30300</a>
THERMO Finnigan	Tempus	Fast GC-MS TOF	MCP	<a href="#">30293</a>
Waters Micromass Ltd.	MALDI Micro	TOF	MCP	<a href="#">30300 or 33724</a>
	Q-TOF API-US	LC-MS	MCP	<a href="#">33724</a>
	Q-TOF MICRO	LC-MS	MCP	<a href="#">30300</a>
	Q-TOF ULTIMA	MALDI	MCP	<a href="#">33724</a>
	Q-TOF Premier	TOF	MCP	<a href="#">33724</a>
	LCT	LC-MS	MCP	<a href="#">30300</a>
	Q-TOFP	TOF	APD	<a href="#">35817</a>
	GCT Premier	TOF	MCP	<a href="#">30300</a>
	Q -TOF2		MCP	<a href="#">31343</a>



# Channeltron® Electron Multiplier Replacement Guide

Channeltron® Channel Electron Multipliers					
Manufacturer	Instrument	Part Number	Style	Model	P/ N
ABB EXTREL	Benchmark LCMS	Y-61	Pulse	4870E	<a href="#">30139</a>
	C50, ELQ, EOQ 400, MEXM/EXM		Pulse	4879	<a href="#">30145</a>
	Quad	U-1150	Analog Only	4716	<a href="#">30073</a>
	Quad	U-1149	Analog & Pulse	4816	<a href="#">30110M</a>
	QMS Series	U-411	Analog	4770E	<a href="#">30094</a>
	Questor	Y-61	Pulse	4870E	<a href="#">30139</a>
AEI/Shimadzu	Axis	59-030		4800K	<a href="#">30108</a>
	Quad Surface Analysis	59-905	Analog & Pulse	4816	<a href="#">30110M</a>
	MS9, MS30			4780	<a href="#">33958</a>
Agilent (Hewlett Packard)	5970, A, B	1970-0075	Original Standard	4772	<a href="#">30096</a>
		05970-80102	On Circuit Board	5772	<a href="#">30147</a>
			Cartridge	5900 MAGNUM	<a href="#">31308</a>
				5900 Frame	<a href="#">32819</a>
		05971-80103	Cartridge - K&M size	5902 MAGNUM	<a href="#">32336</a>
		5971 / 5972 / 5973	05971-80101	Original Standard	4778
			On Circuit Board	5778	<a href="#">30148</a>
		5975		Cartridge	5900 MAGNUM
			Frame for Cartridge Only	5900 Frame	<a href="#">32819</a>
			05971-80102	Cartridge + Mount	Individual
		05971-80103	Cartridge - K&M size	5902 MAGNUM	<a href="#">32336</a>
	5985 / 5987 / 5988	05985-60180	Positive + Negative Ions	4770B	<a href="#">30093</a>
	5930 / 5980 / 5980A	1970-0063	Positive Ions	4770	<a href="#">30092</a>
	5981 / 5982 / 5983 / 5984	1970-0063	Positive Ions	4770	<a href="#">30092</a>
	5985 / 5985B / 5987 / 5988	1970-0063	Positive Ions	4770	<a href="#">30092</a>
	5989	05989-80043	W/O HED		
			With HED	4772H	<a href="#">30097</a>
	5992, 5993, 5995	1970-0075	Positive Ions	4772	<a href="#">30096</a>
	5993	05985-60182	Positive + Negative Ions	4770B	<a href="#">30093</a>
			Positive Ions	4772	<a href="#">30096</a>
	GCD		Cartridge	5900 MAGNUM	<a href="#">31308</a>
			Frame for Cartridge Only	5900 Frame	<a href="#">32819</a>
			05971-80102	Cartridge + Mount	
	05971-80103	Cartridge - K&M size	5902 MAGNUM	<a href="#">32336</a>	
1100 LC/MSD		Cartridge	5900 MAGNUM	<a href="#">31308</a>	



Channeltron® Channel Electron Multipliers					
Manufacturer	Instrument	Part Number	Style	Model	P/ N
API	5000/4000/3000/150EX			4822B	<a href="#">30118</a>
	3200		mounted	4899	<a href="#">35119</a>
<b>Bear Instruments</b>	Cub 800, Kodak			5904 MAGNUM	<a href="#">33328</a>
Bruker	Ion Trap			5902 MAGNUM	<a href="#">32336</a>
	Esquire			5902 MAGNUM	<a href="#">32336</a>
Cameca	MAC 3			4820	<a href="#">30114</a>
CVC	1100			4700	<a href="#">30189</a>
Dionex	MSQ			5903 MAGNUM	<a href="#">32906</a>
DuPont/CEC	21-103, 21-104, 21-110			4735	<a href="#">33868</a>
	21-490, 21-491, 21-492	299480		4730G	<a href="#">30080</a>
Hiden Analytical	RGA (Analog)			4774H	<a href="#">32393</a>
	EPIC Halo, Maxim				<a href="#">30142/33135</a>
Hitachi	LC & GC/MS Ion Trap			4839	<a href="#">30131</a>
	3DQ			5902 MAGNUM	<a href="#">32336</a>
	ICP/MS			4839	<a href="#">30131</a>
	RMU-6D			4839	<a href="#">30131</a>
Inficon (Mass Spec) (Leybold Inficon)	ELS22			4775	<a href="#">30101</a>
	Auditor II			4775	<a href="#">30101</a>
	Hapsite			4799	<a href="#">33959</a>
Inficon (RGA)	Quadrex 100, 200, PPC, QX2000			4775	<a href="#">30101</a>
	Transpector (High Performance)			4775	<a href="#">30101</a>
	XPRII			XPR	<a href="#">32276</a>
	Compact			RGA MARK VII	<a href="#">30043</a>
LKB	9000			4736	<a href="#">33869</a>



5903 MAGNUM

4800

4769M

**Channeltron® Channel Electron Multipliers**

Manufacturer	Instrument	Part Number	Style	Model	P/ N
<b>Mass Analyzer Products</b>	MAP215-50			4869	<a href="#">30135</a>
<b>McCallister Tech</b>	Electron Energy Loss Spect.			4128	<a href="#">33857</a>
<b>Micromass/Waters</b>	PT1/PT2 ICP/MS			4769M	
	Isoprobe			4800 EIC SL	<a href="#">30107</a>
<b>MKS Instruments</b>	PPT Series			4769M	<a href="#">30091</a>
	Orion Compact			4769M	<a href="#">30091</a>
	HPQ2 RGA			4775	<a href="#">30101</a>
<b>MKS-Spectra</b>	Mini-Lab MS			4775	<a href="#">30101</a>
<b>Nermag</b>	R1010			4753G	<a href="#">30083</a>
<b>Omicron</b>	EA125			7013C HC B1	<a href="#">30153</a>
	CMA			4831G COA SFF	<a href="#">30129</a>
	SED			4731G	<a href="#">31585</a>
<b>Orbital</b>	Mass Spec, CAM MK II			4830G	<a href="#">30123</a>
<b>PE / Sciex</b>	ELAN5000 (, 500, 250		unmounted	4816B	<a href="#">30111</a>
	API III LCMS	014032A		4879	<a href="#">30145</a>
	ELAN 5000A	WE02-0328	mounted	4880	<a href="#">30146</a>
	ELAN 250	N810-1069	unmounted	4816B	<a href="#">30111</a>
	ELAN 500	N810-1069	unmounted	4816B	<a href="#">30111</a>
	ELAN 5000	N810-1069	unmounted	4816B	<a href="#">30111</a>
	ELAN 6000 / 6000A / 6100	N810-1069	unmounted	4816B	<a href="#">30111</a>
	API 100, 200, 300, 3000, 4000, 5000	020048B	mounted	4822B	<a href="#">30118</a>
	API 2000, 3200		mounted	4899	<a href="#">35119</a>
4000 QTRAP	020048B	mounted	4822C	<a href="#">33440</a>	
<b>Perkin Elmer</b>	15-255		unmounted	4219 SL	<a href="#">31444</a>
	15-255		mounted	4831G	<a href="#">30117</a>
	20-075			4219 SL	<a href="#">31444</a>
	Q-Mass			4727	<a href="#">33865</a>
	Ion Trap			4715	<a href="#">30071</a>
	3025, 3045, 3067, 3500, 3600, 5500	602914		4831G	<a href="#">30129</a>
	6000, 6300, 6700, 6600, 600	602914		4831G	<a href="#">30129</a>
	25-270 CMA, AES-590, AES-548	602914		4831G	<a href="#">30129</a>
	5000LS	608144		4821G	<a href="#">30117</a>
	3010, 10-155, 15-155	616530		4839	<a href="#">30131</a>





Channeltron® Channel Electron Multipliers					
Manufacturer	Instrument	Part Number	Style	Model	P/ N
Pfiffer Vacuum/ Balzers	Prisma			4775	<a href="#">30101</a>
Riber	QX100, QX200, SQ156			4730	<a href="#">30079</a>
Shimadzu	Amicus, ESCA 3200			CEM 4139S C WL/NM MNT	<a href="#">30068</a>
	ESCA 3400			CEM 4870E	<a href="#">30139</a>
	MS9, MS30			4780	<a href="#">33958</a>
	Axis			4800K	<a href="#">30108</a>
	QP5050A		Multiplier Only	4797	<a href="#">34225</a>
	QP8000		Multiplier Only	4797	<a href="#">34225</a>
	QP5000			4797	<a href="#">34225</a>
	QP, 1000, QP2000			4870E	<a href="#">30139</a>
Stanford Research	RGA 100, 200, 300			4220	<a href="#">33929</a>
Teledyne	3DQ			5902 MAGNUM	<a href="#">32336</a>
Thermo Jarrel Ash	ICP/MS POEMS			4870V	<a href="#">30140</a>
Thermo Finnigan	1015 (on axis), 3000	30004-60160		4750G	<a href="#">32102</a>
	1015 (off Axis), 3000	30004-60160		4751G	<a href="#">30081</a>
	3100, 3200, 4000, 4500, 4600	01504-60110		4751G	<a href="#">30081</a>
	Sola ICP			4870V	<a href="#">30140</a>
	PPINICI 4000, 4500, 4600	40007-98020		4752G	<a href="#">30082</a>
	PPINICI 5100	40007-98020		4752G	<a href="#">30082</a>
	PPINICI INCOS 50	40007-98020		4752G	<a href="#">30082</a>
	OWA (before 8/81). 1020, 5100			4750G	<a href="#">32102</a>
	OWA (after 8/81). 1020, 5100		Base	4752G	<a href="#">30082</a>
	CH7, CH8	422097		4733	<a href="#">33866</a>
	ITD 700, 800, ITS40, MAGNUM			4765G	<a href="#">30088</a>
				5905 MAGNUM	<a href="#">34002</a>
	Polaris Q / GCQ / LCQ		Full Assembly	5903 MAGNUM	<a href="#">32906</a>
	GCQ, LCQ, SSQ, TSQ 7000		Replacement element	5903 MAGNUM	<a href="#">32906</a>
	LCQ Deca / Duo		Full Assembly	5905 MAGNUM	<a href="#">34002</a>
	LTQ, LTQ FT			5903 MAGNUM	<a href="#">32906</a>
	LTQ, LTQ FT		Replacement element	5903 MAGNUM	<a href="#">32906</a>
	TSQ Quantum			5903 MAGNUM	<a href="#">32906</a>
	TSQ			5903 MAGNUM	<a href="#">32906</a>
	LC-MSQ		Full Assembly	5905 MAGNUM	<a href="#">34002</a>
TSQ 70 W/20kV Dynode, TSQ 700	94011-60052		4715	<a href="#">30071</a>	
TSQ 70, ITMS	40007-98020		4752G	<a href="#">30082</a>	
Thermo Elemental	Plasma Quad PQ1			4870V	<a href="#">30140</a>

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Channeltron® Channel Electron Multipliers					
Manufacturer	Instrument	Part Number	Style	Model	P/ N
Torion	Guardion-7		Multiplier	4230	<a href="#">36046</a>
VG Elemental	PQ2+, PQ3 Standard			4870V	<a href="#">30140</a>
Ulvac	Analog			4731G	<a href="#">31585</a>
	Pulse Counting			4831G	<a href="#">30129</a>
UTI (MKS)	Analog - 100C	100C	unmounted	4717	<a href="#">30074</a>
	Analog (mounted) - 100 C			4776	<a href="#">30102</a>
	Pulse Counting RGA - 100C		mounted	4876	<a href="#">30144</a>
Varian	Auger Analyzer			4720	<a href="#">30075</a>
	Saturn I & II		unmounted	4755	<a href="#">32782</a>
	Saturn I, II, III		mounted	4765G	<a href="#">30088</a>
	1200 Triple Quad			5904 MAGNUM	<a href="#">33328</a>
	Saturn (pre 2000)		mounted	4765G	<a href="#">30088</a>
	Saturn 2000			4765GM	<a href="#">32754</a>
	Saturn 2100, 2200			4765GM	<a href="#">32754</a>
	Saturn 4000 GC/MS			4765	
Vestec	201 (Off axis)			4782	<a href="#">30105</a>
	201 (on axis) + ion mode			4783	<a href="#">33871</a>
V&F Gas Analysis	CIMS 500			4823G	<a href="#">30121</a>
VG Quadrupoles	Quad Mass Spec (analog)	102-400-880		4774	<a href="#">30099</a>
	Quad Mass Spec (Pulse Counting)				
	QX200, SQ300, SQ400			4771	<a href="#">30095</a>
	SX200, SX300, SQ300	MGR4073B		4774	<a href="#">30099</a>
	ZABIF, 7070, ZAB			4773G	<a href="#">30098</a>
	VG Smart IQ, VGQ			4769	<a href="#">30090</a>
VG Microtech	Clam2 Hemispherical Analyzer		single channel detection	7010	<a href="#">30150M</a>
	Clam2 Hemispherical Analyzer		triple channel detection	4800 C B1 4X19	<a href="#">30106</a>
VG Scientific	ESCA Lab (single)			7010	<a href="#">30150M</a>
	ESCA Lab Mark II (triple)			7010	<a href="#">30150M</a>
	ESCA Lab mark II (Five)			7013C/B1	<a href="#">30155</a>
VG Elemental	Genesis			4870V	<a href="#">30140</a>
	PQ-3			4870V	<a href="#">30140</a>
	PQ-Excel			4870V	<a href="#">30140</a>
VG		X919VL		4800 C WL C1	<a href="#">36452</a>
		X919BL		4800 C WL C1	<a href="#">36452</a>
		B310VL		7012	<a href="#">33872</a>
		X812VL		7013C/B1	<a href="#">30155</a>
		X913VL		4800 C B1 4X19	<a href="#">30106</a>
VSW	Mass Analyst Quad Type			4771	<a href="#">30095</a>