



MP-5101  
APRIL 3, 2013



# MEP100, MEP100P, MEP101, MEP102, MEP103, MEP104, MEP105, MEP106, MEP107, MEP108, MEP109, MEP130, MEP141 and MEP149 PROGRAMMER MODULES



FOR USE WITH THE FIREYE® MODULAR  
MicroM™ CONTROL TO BE USED  
WITH MEC120 AND MEC230 CHASSIS

## DESCRIPTION

The Fireye MEP100, MEP100P, MEP101, MEP102, MEP103, MEP104, MEP105, MEP106 MEP107, MEP108, ME109, MEP130, MEP141 and MEP149 Programmer Modules are used with the Fireye Modular MicroM control. The operational characteristics of the control are determined by the selection of the programmer module (e.g. re-light, 2-stage capability, pilot cutoff, etc.). The programmer module incorporates a plug-in design for easy installation.

The advantages of the Micro M are zero dependence on discrete components previously used for timing functions. The MicroM, through the use of micro-controller technology, incorporates smart diagnostic LED's, smart reset function for multi-burner applications, optional alpha-numeric display output (ED510) and serial communications via a Modbus-RTU.

Flame Failure Response Time (FFRT) is determined by the selection of the amplifier module. Test jacks are also provided on the flame amplifier module to permit flame signal measurement during operation. For proper and safe application of this product, you must refer to Fireye bulletin MC-5000 for a detailed description of the various programmer modules, including installation instructions, amplifier selection, operating sequences for each programmer module, etc.



**WARNING: Selection of this control for a particular application should be made by a competent professional, licensed by a state or other government agency. Inappropriate application of this product could result in an unsafe condition hazardous to life and property. Installation should not be considered complete until pilot turndown and other appropriate performance tests have been successfully completed.**

## PROGRAMMER MODULE SELECTION

MicroM Programmer Models	
MEP100	Relight operation, 10 sec. PTFI.
MEP101	Relight operation, allow flame signal until 60 seconds after interlock closed.
MEP102	Non-recycle on flame fail, 5 second PTFI.
MEP103	Fixed 10 second SISP*, 10 second MTFI, re-try once on igniter failure, fixed 30 second post purge.
MEP104	Non-recycle on flame fail, 10 second PTFI.
MEP105	Non-recycle on flame fail, lockout on air-flow open with flame present, 10 second PTFI.
MEP106	Same as MEP100. 12 second pre-purge, added reset from lockout via line voltage.
MEP107	Same as MEP100. Force 5 minute purge delay after main flame fail.
MEP108	Immediate ignition and pilot, 15 second PTFI, non-recycle on flame fail. Not FM approved.
MEP109	Immediate ignition and pilot, 10 second fixed PTFI, 10 second MTFI, intermittent pilot, non-recycle on flame fail.
MEP100P	Relight operation, 10 second PTFI, fixed 15 second post purge.
MEP130	Relight operation, 30 sec PTFI, no agency approvals
MEP141	Non-recycle on flame fail, 30 second purge, 5 second fixed PTFI, 8 second pilot stabilization period, intermittent pilot, 15 second post purge, prove air open at start.
MEP149	Non-recycle on flame fail, 30 second purge, 5 second fixed PTFI, 8 second pilot stabilization period, intermittent pilot, 90 second post purge, prove air open at start.

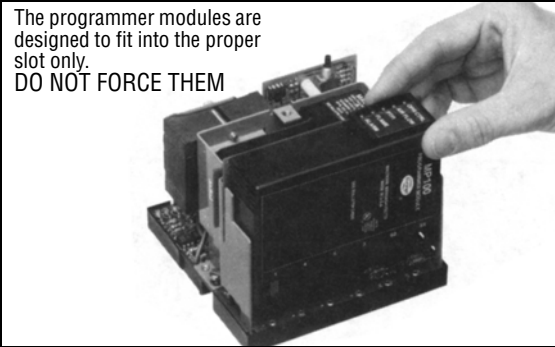
\*Spark Igniter Sensing Period



**WARNING: Remove power from the control and remove the control from its wiring base before proceeding.**

## INSTALLATION

The Programmer Modules are used with the Fireye modular MicroM Chassis (P/N MEC120, MEC120RC, MEC120R, MEC120D and MEC120C for 120VAC and MEC230 for 230 VAC). They are installed in the chassis by grabbing hold of the programmer module by the ridged finger grips on the side on the module, aligning the module with the guide slots on the opening farthest from the transformer, and inserting the module into the pin connectors.



## LOCKOUT CODES

MSGN		DESCRIPTION	OP CTRL	AIRFLOW INTLCK	PTFI	FLAME	ALARM
DEC	HEX						
6	6	Lockout Line Frequency Noise Detected	●	○	○	●	*
7	7	Lockout Flame Fail - PTFI	○	●	●	●	*
15	0F	Lockout Fault Unknown	●	●	●	●	*
16	10	Lockout Amplifier High Count Fail	○	○	○	○	*
19	13	Lockout Flame Fail - MTFI	○	○	●	●	*
20	14	Lockout False Flame - STANDBY	○	●	○	○	*
21	15	Lockout Intrlck Open	●	●	●	○	*
22	16	Lockout Intrlck Closed	○	●	●	○	*
24	18	Lockout Chassis Opto	●	●	○	●	*
37	25	Lockout Flame Fail - AUTO	○	●	○	●	*
39	27	Lockout Fuel Valve State Change	○	○	○	●	*
54	36	Lockout Check Chassis	○	○	○	●	*
55	37	Lockout Check Programmer	○	○	●	○	*
56	38	Lockout Check Amplifier	●	○	○	○	*
58	3A	Lockout Amplifier Auto Check Fail	●	○	●	○	*
59	3B	Lockout Check BLOWN FUSE	●	○	●	●	*
76	4C	Lockout Check Scanner	●	●	○	○	*

○ = NOT LIGHTED

● = LIGHTED

\* = FLASHING

All MicroM chassis are shipped with a convenient peel off label that can be applied to any surface (inside cover) for future reference.



FIREYE  
3 Manchester Road  
Derry, New Hampshire 03038 USA  
www.Fireye.com

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