SWARCO

McCAIN RAMP METER SOFTWARE PROGRAM 2042

FOR MODEL 2070 TRAFFIC SIGNAL CONTROLLERS

McCain Ramp Meter Software Program 2042 provides users an easy-to-use means of controlling traffic flow on freeway entrance ramps. Compatible with 2070 traffic signal controllers, the ramp meter software is capable of handling a variety of ramp configurations. When used in conjunction with mainline vehicle detectors, Program 2042 has proven to breakup entering platoons, help optimize mainline traffic flow, and enable freeway systems to accommodate larger traffic volumes.

KEY BENEFITS

- Construct virtually any ramp meter with ease
- Optimize ramp meter wait times and freeway speeds
- Configure by time-of-day or in response to demand
- Accumulate vehicle data including volume, occupancy, and speed
- Integrate with central management software
- Compatible with standard, off-the-shelf Model 2070 traffic signal controllers

PRODUCT DESCRIPTION

SWARCO McCain's Program 2042 controls traffic signals at freeway interchanges having up to six ramp lanes and 24 mainline lanes. Each lane is controllable via a pre-programmed time-of-day schedule, remotely from a central computer, or locally via front panel entry.

Integrated with vehicle and mainline detectors, the ramp meter software collects volume, occupancy, and speed. Accumulated data is available for transmission to a central computer where it may be leveraged to help optimize ramp meter operations.

The ramp lanes can operate independently or in groups, such that only one lane in each group has a green light.

McCAIN RAMP METER 2042 SOFTWARE

AT-A-GLANCE

SUPPORTED CONTROLLER MODULES	
Models	Model 2070 Model 2070 NEMA (with 2070-8 base)
RAMP LANES	
Lanes Supported	Up to 6, 4 detectors each
Mutually Exclusive Grouping	x
Free Running	x
Fixed Offset Green	x
MAINLINE LANES	
Lanes Supported	Up to 24, 2 detectors each
METERING ADJUSTMENT MODES	
Rate- Adjusts by Increments of VCH	6 rates
Level - Preset Metering Levels by Volume, Occupancy, or Speed	6 presets
DATA COLLECTION	
Volume, Occupancy, Speed, Length	x
Data Archived	Every 5 and 15 minutes
Archive History	Up to 7 days
MODES OF OPERATION	
Manual	x
Fixed Rate	x
Traffic Responsive	5 modes
METERING STARTUP AND SHUTDOWN	
Startup Intervals	6
Shutdown Intervals	4
COMMUNICATION PROTOCOL	
McCain QuicComm	x
AB3418	x
RS-232	x
IP	x

HOW IT WORKS

Metered Lane Sequencing Modes
- Mutually exclusive - one green per lane at any given time
- Free running - unrestricted greens at any given time
- Fixed green offset - offset time between start of green from lane to lane

Detector Failure Modes
- Erratic count
- Maximum presence
- No activity

Detector Types[1]
- Demand - one per metered lane, placed at stop bar; types of recall: full-time, normal actuation with recall upon failure, normal actuation with no recall upon failure
- Passage - one per metered lane, placed beyond stop bar; types of recall: full-time, normal actuation with recall upon failure, normal actuation with no recall upon failure
- Queue - two per metered lane; operate in intermediate or excessive mode

Scheduling
- Control manually, remotely, or according to schedule
- Four time-of-day schedules with 16 events each
- Holiday schedules enabled by date, day of week, or week of month

Operation Modes
- Control manually, remotely, or according to schedule
- Four time-of-day schedules with 16 events each
- Holiday schedules enabled by date, day of week, or week of month

Warning Beacons
- Integrate with blank-out signs or beacons
- Steady or flashing outputs

Feedback Displays
- Real-time screens display status of all operational parameters
- Operational mode, signal interval, control source, current metering level and rate for each ramp lane
- Volume, occupancy, and speed for each mainline lane
- Status of all field I/O pins
- Status of all ramp and mainline detectors

CUSTOMER SUPPORT

SWARCO McCain's ITS Solutions group provides support from system selection through integration, ensuring end-to-end functionality. Ongoing support is available online, over the phone, and via on-site or web-based trainings.

[1]For Metered Lanes

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