SiteOne Green Tech

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RAIN MASTER

Satellite Assemblies

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SA **SATELLITE ASSEMBLY –** Central communicating capable with one or multiple sites.

RM2	**Rain Master Eagle Plus-I**	8,16,24,32,40,48,TW (two wire up to 200 stations)
RM3	**Rain Master Eagle-I**	6,12,18,24,30,36,TW (two wire up to 36 stations)
RM6	**Rain Master DXI**	8 to 96 Conventional in 8 station increments,

TW (two wire up to 200 stations)

UL APPROVED ENCLOSURES – VIT Strong Box

CODE	MODEL	DIMENSIONS	TYPE
1	SB-18SS	18”w x 36”h x 12”d	Front Entry
2	SB-18DSS	18”w x 36”h x 24”d	Front & Rear Door
3	SB-24SS	24”w x 36”h x 12”d	Front Entry
4	SB-24DSS	24”w x 36”h x 24”d	Front & Rear Door
5	MPS-A16-10K	18”w x 52”h x 32”d	Metered
6	SB-16SS	16”w x 38”h x 15.5”d	Top Entry
7	SB-22SS	24”w x 38”h x 17”d	Top Entry
8	SB-36SS	36”w x 36”h x 12”d	Double Front Entry
9	BB-16SS	14”w x 32”h	Backboard & Tray (SB-16)
10	BB-18SS	16”w x 32”h	Backboard (SB-18)
11	BB-24SS	22”w x 32”h	Backboard (SB-24)
12	LD-16SW (N.A. DX2)	16.75”w x 30”h x 8.25”d	Light Duty Wall Mount
13	LD-16S (N.A. DX2)	16.75”w x 30”h x 8.25”d	Light Duty Front Entry
14	LD-18SW (N.A. DX2)	18”w x 18”h x 8”d	Light Duty Wall Mount
15	LD-16STS (N.A. DX2)	16.75”w x 36”h x 12”d	Light Duty Top Entry
16	SB-18SSW	18”w x 36”h x 12”d	Front Entry Wall Mount
17	SB-24SSW	24”w x 36”h x 12”d	Front Entry Wall Mount

UL FACTORY APPROVED ENCLOSURES – Rain Master

CODE	MODEL	DIMENSIONS	TYPE
01	EGP-PWM	11”w x 16”h x 5.625”d	EGP Painted Wall Mount
01	EG-PWM	13.25”w x 10.25”h x 4.75”d	EG Painted Wall Mount
01	DX-PWM	19.5”w x 23”h x 8”d	DX Painted Wall Mount
03	EGP-SWM	11”w x 16”h x 5.625”d	EGP Stainless Wall Mount
03	EG-SWM	13.25”w x 18”h x 4.5”d	EG Stainless Wall Mount
03	DX-SWM	19”w x 23”h x 9”d	DX Stainless Wall Mount

EXAMPLE PART NUMBER

SA6-RM2-48/ - Satellite Assembly; 16” top entry Strong Box stainless steel enclosure with 48 station Eagle Plus-I Central controller with antenna and I-Card.

Tel: 949-455-7465 • 800-427-0779 • Fax: 949-455-7492

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DXI CENTRAL COMMUNICATION

ETHERNET & HARD WIRE COMMUNICATION - The Satellite Assembly shall be provided with Ethernet and Hard Wire Communication as Standard Equipment. Hardwire cable is required between controllers sharing a single flow sensor/master valve.

DXICA **CELLULAR COMMUNICATION** - The Satellite Assembly shall be provided with a Cellular Modem and enclosure mount antenna assembly for cellular communication with the central computer.

DXIWF **WI-FI COMMUNICATION** - The Satellite Assembly shall be provided with a Wi-Fi Modem assembly for communication with the central computer.

RXHG **RADIO COMMUNICATION with HIGH GAIN ANTENNA** - The Satellite Assembly shall be provided with a UHF Radio and High Gain Antenna Assembly for radio communication with the central computer. This assembly consists of a UHF radio, power supply, high gain antenna, mounting kit and 20 feet of cable.

RXLP **RADIO AND LOW PROFILE ANTENNA ASSEMBLY** - The Satellite Assembly shall be provided with a Radio and Lo-Pro Antenna Assembly for UHF radio communication. This assembly consists of a UHF radio, power supply, low profile antenna (installed on the enclosure) and an interconnect cable.

DXIRPTR-ETR **ETHERNET TO UHF RADIO REPEATER** - The Satellite Assembly shall be provided with an Ethernet to UHF Radio Repeater.

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RAIN MASTER-TWO WIRE DECODERS

RMD **TWO-WIRE DECODERS** – Rain Master Decoders are installed to operate one, two or four valves/solenoids. Each decoder includes 4-water tight electrical connectors. (Required for Five-Year Warranty)

Part Number	Valves Controlled
RMD1	1
RMD2	2
RMD4	4

RMLA **TWO-WIRE SURGE PROTECTION** – A two-wire path must be surge protected and grounded every 500 feet or every 8 decoders, whichever is smaller, in conjunction with a grounding kit (Grounding kits sold separately)

TWO WIRE CABLE

CAB14 **14 GAUGE 2-WIRE CABLE** – 14 gauge (Red/Black), polyethylene coated, double jacketed wire; ensures communication integrity between TW Controller and Decoder (Required for Five-Year Warranty)

Part Number	OUTER JACKET CABLE COLOR
CAB14-B	BLUE
CAB14-BL	BLACK
CAB14-BR	BROWN
CAB14-G	GREEN
CAB14-O	ORANGE
CAB14-P	PURPLE
CAB14-R	RED
CAB14-W	WHITE
CAB14-Y	YELLOW

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RAIN MASTER REMOTES

PMR

PERMANENT MOUNT RECEIVER & PROMAX REMOTE TRANSMITTER - For Rain Master Controllers. The Controller Assembly shall be provided with a PROMAX hand held remote radio transmitter for remote operation of the controller and a permanently mounted receiver installed inside the enclosure with antenna installed on the enclosure. The PROMAX is pre-programmed with a Radio Access Code (RAC) and the receiver is pre-programmed with a Controller Access Code (CAC) to protect against unauthorized operation from an unauthorized transmitter.

PMR-CAC **PERMANENT MOUNT RECEIVER WITH CONTROLLER ACCESS CODE** - For Rain Master Controllers. The Controller Assembly shall be provided with a PROMAX permanently mounted receiver installed inside the enclosure with antenna installed on the enclosure. The receiver is pre-programmed with a Controller Access Code (CAC) to protect against unauthorized operation from an unauthorized transmitter.

GROUNDING - Required for Five-Year Warranty

GR-K

GROUNDING ROD – Includes 8’ ground rod, grounding clamp and 15’ of 6-gauge bare copper wire.

GRP-3

GROUNDING PLATE KIT – Includes 4” X 36” copper plate with 10’ of 10-gauge copper wire, 50lbs Paige Powerset.

GRP-K

GROUNDING PLATE KIT – Includes 4” X 96” copper plate with 25’ 6-gauge copper wire, 100lbs Paige Powerset.

GRPA

GROUNDING PLATE & ROD ASSEMBLY – Includes 4” X 96” copper plate with 25’ 6-gauge copper wire, 8’ ground rod, Cadweld L connector, grounding clamp and 100lbs Paige Powerset earth grounding material

LINE PROTECTION

LPP

LINE PRIMARY PROTECTION - The Controller Assembly shall be provided with a Line Primary Protection assembly for the purpose of protecting the components against electrical surge coming in on the 120 volt A.C. power source wiring. This assembly shall consist of a surge arrestor installed on each leg of the 120 volt A.C. wiring that shall be housed in an electrical enclosure within the assembly. The LPP is located at the point where the electrical power enters the assembly. This option is included in all “SA” assemblies.

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RAIN, FREEZE and WIND SENSOR SHUT OFF OPTIONS

RSE

RAIN SWITCH ENCLOSURE MOUNTED ASSEMBLY - The Satellite Assembly shall be provided with a rain switch enclosure-mounted assembly to shut down the irrigation system during rainy weather conditions. This assembly shall consist of a Mini-Clik® in a vandal-resistant housing mounted on the enclosure. The rain switch interconnect wire harness shall be pre-wired to the controller's sensor terminals**.** The rain switch shall actuate after ¼", rainfall. For two Controllers in the same enclosure use RSE2.

RS

RAIN SWITCH ASSEMBLY - The Satellite Assembly shall be provided with a remote rain switch assembly to shut down the irrigation system during rainy conditions. This assembly shall consist of a Mini-Clik® and a mounting bracket (for installation on a nearby structure). The rain switch interconnect wire harness shall be pre-wired to the controller's sensor terminals**.** The rain switch shall actuate after user-selected rainfall set-points.

RSP

RAIN SWITCH POLE MOUNTED ASSEMBLY -The Satellite Assembly shall be provided with a rain switch pole-mounted assembly to shut down the irrigation system during rainy weather conditions. This assembly shall consist of a Mini-Clik® in a vandal-resistant housing for 2" Galvanized pole mount. The rain switch interconnect wire harness shall be pre-wired to the controller's sensor terminals.

WRS

WIRELESS RAIN SWITCH ASSEMBLY -The Satellite Assembly shall be provided with a wireless rain switch assembly to shut down the irrigation system during rainy weather conditions. This assembly shall consist of a Wireless Rain-Clik® and a mounting bracket (for installation of the sensor on a nearby structure). The receiver module is shall be pre-wired to the controller's sensor terminals.

RFRZE

RAIN & FREEZE SWITCH ENCLOSURE MOUNTED ASSEMBLY - The Satellite Assembly shall be provided with a rain switch and freeze switch enclosure-mounted assembly to shut down the irrigation system during rainy & freezing weather conditions. This assembly shall consist of a Mini-Clik® & Freeze-Click® in a vandal-resistant housing mounted on the enclosure. The sensor interconnect wire harnesses shall be pre-wired to the controller's sensor terminals.

FRZE

FREEZE SWITCH ENCLOSURE MOUNTED ASSEMBLY - The Satellite Assembly shall be provided with a freeze switch enclosure-mounted assembly to shut down the irrigation system during freezing weather conditions. This assembly shall consist of a Freeze-Click® in a vandal-resistant housing mounted on the enclosure. The sensor interconnect wire harness shall be pre-wired to the controller's sensor terminals.

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FRZ

FREEZE SWITCH ASSEMBLY- The Satellite Assembly shall be provided with a freeze switch assembly to shut down the irrigation system during freezing weather conditions. This assembly shall consist of a Freeze-Click® and a mounting bracket (for installation on a nearby structure). The sensor interconnect wire harness shall be pre-wired to the controller's sensor terminals.

FRZP

FREEZE SWITCH POLE MOUNTED ASSEMBLY - The Satellite Assembly shall be provided with a freeze switch pole-mounted assembly to shut down the irrigation system during freezing weather conditions. This assembly shall consist of a Freeze-Clik® in a vandal-resistant housing for pole mount. The rain switch interconnect wire harness shall be pre-wired to the controller's sensor terminals

.**WRFZ** **WIRELESS RAIN & FREEZE SWITCH ASSEMBLY** - The Satellite Assembly shall be provided with a rain and freeze sensor assembly to shut down the irrigation system during rainy & freezing weather conditions. This assembly shall consist of a remote rain/freeze sensor with a mounting bracket (for installation on a nearby structure) and receiver module mounted in the satellite assembly. The module shall be pre-wired to the controller's sensor terminals.

HWS

HIGH WIND SHUT-OFF ASSEMBLY - The Satellite Assembly shall be provided with a High Wind Shut-Off assembly to shut down the irrigation system during windy conditions. This assembly shall consist of a Wind-Clik® for pole mount. The wind sensor interconnect wire harness shall be pre-wired to an adjustable set point relay into the controller and to the controller's sensor terminals. The Wind Sensor shall actuate after winds of 12 mph to 35 mph are detected.

EAL

EXTERNAL ALARM LIGHT ASSEMBLY - The Satellite Assembly shall be provided with an External Alarm Light assembly for use in conjunction with sensor assemblies that cause irrigation shut down. Sensor assemblies and a master valve are used to monitor and shut down the irrigation system. This assembly shall consist of an externally mounted indicator light prewired to sensor-controlled relays.

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FLOW SENSING

FS-CAB

16 GAUGE, 1 PAIR CABLE – The flow sensor cable shall be 16-gauge, single pair. The construction shall include tin coated copper conductors, an aluminum shield to prevent cross-talk, a drain wire for grounding the cable, and an overall PE jacket. The cable shall be listed for direct burial.

GTFS

FLOW SENSING ASSEMBLY – The Satellite Assembly shall be provided with a **Creative Sensor Technology** flow sensor for use with the purpose of receiving and reacting to flow data from flow sensor. The assembly consists of a tee mounted sensor. Master valve is required for each flow sensor in order to shut down the mainline when an abnormal or unwanted flow occurs.

Part Number	Pipe Size / Sensor Tee		Flow Range (GPM)
GTFS-100P	1.0”	PVC	1 - 52
GTFS-150P	1.5”	PVC	2 - 108
GTFS-150B	1.5”	BRASS	3 - 90
GTFS-200P	2.0”	PVC	3 - 170
GTFS-300S	3.0”	PP Saddle	6 - 300
GTFS-400S	4.0”	PP Saddle	10 – 480
GTFS-600S	6.0”	PP Saddle	45 - 1100

FSDI

FLOW SENSING ASSEMBLY – The Satellite Assembly shall be provided with a **Data Industrial** flow sensor for use with the purpose of receiving and reacting to flow data from flow sensor. The assembly consists of a tee mounted sensor. Master valve is required for each flow sensor in order to shut down the mainline when an abnormal or unwanted flow occurs.

Part Number	Pipe Size / Sensor Tee		Flow Range (GPM)
FSDI-100B	1.0”	Brass	2 – 40
FSDI-100P	1.0”	PVC	5 – 54
FSDI-150B	1.5”	Brass	4 – 80
FSDI-150P	1.5”	PVC	5 – 100
FSDI-200B	2.0”	Brass	10 – 100
FSDI-200P	2.0”	PVC	10 – 200
FSDI-250B	2.5”	Brass	16 – 160
FSDI-300P	30”	PVC	20 – 300
FSDI-400P	40”	PVC	40 – 500
FSDI-600S	60”	PP Saddle	90 – 1000

SFS

SONIC FLOW SENSOR - Uses sonic pulses to accurately gauge water movement. Excellent for systems using a combination of low flow drip and high flow rotors on a single point of connection. Comes with digital readout display. Does not include master valve.

Part Number	Pipe Size / Sensor Tee		Flow Range (GPM)
SFS-200	2.0	Cast Iron	0.5 – 250
SFS-300	3.0”	Cast Iron	1.0 – 500
SFS-400	4.0”	Cast Iron	1.5 – 1000
SFS-600	6.0”	Cast Iron	3.0 – 1600

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UFM

ULTRAONIC FLOW METER - Uses ultrasonic pulses to accurately gauge water movement. Excellent for systems using a combination of low flow drip and high flow rotors on a single point of connection. Does not include master valve.

Part Number	Pipe Size / Sensor Tee		Flow Range (GPM)
UFM-100P	1.0”	SCH80 PVC	0.22 - 33
UFM-150P	1.5”	SCH80 PVC	0.55 - 82
UFM-200P	2.0”	SCH80 PVC	0.92 - 138
UFM-300P	3.0”	SCH80 PVC	2.06 - 309
UFM-400P	4.0”	SCH80 PVC	3.58 - 537

FLOW SENSING & MASTER VALVE

GTFSV

FLOW SENSING ASSEMBLY WITH NORMALLY OPEN MASTER VALVE

The Satellite Assembly shall be provided with a Flow Sensing Assembly for use with the purpose of receiving and reacting to flow data from flow sensor. The assembly consists of a tee mounted sensor and a **Superior 3300** normally open master valve. Master valve is required for each flow sensor in order to shut down the mainline when an abnormal or unwanted flow occurs.

Part Number	Pipe Size / Sensor Tee		Flow Range (GPM)
GTFSV-100B	1.0”	Brass	2 - 30
GTFSV-100P	1.0”	PVC	1 - 52
GTFSV-150B	1.5”	Brass	4 - 80
GTFSV-150P	1.5”	PVC	2 - 108
GTFSV-200B	2.0”	Brass	10 - 100
GTFSV-200P	2.0”	PVC	3 - 170
GTFSV-250B	2.5”	Brass	16 - 160
GTFSV-300P	3.0”	Brass	20 - 300

GTFSVC

FLOW SENSING ASSEMBLY WITH NORMALLY CLOSED MASTER VALVE

The Satellite Assembly shall be provided with a Flow Sensing Assembly for use with the purpose of receiving and reacting to flow data from flow sensor. The assembly consists of a tee mounted sensor and a **Superior 3200** normally closed master valve. Master valve is required for each flow sensor in order to shut down the mainline when an abnormal or unwanted flow occurs.

Part Number	Pipe Size / Sensor Tee		Flow Range (GPM)
GTFSVC-100B	1.0”	Brass	2 - 30
GTFSVC-100P	1.0”	PVC	1 - 52
GTFSVC-150B	1.5”	Brass	4 - 80
GTFSVC-150P	1.5”	PVC	2 - 108
GTFSVC-200B	2.0”	Brass	10 - 100
GTFSVC-200P	2.0”	PVC	3 - 170
GTFSVC-250B	2.5”	Brass	16 - 160
GTFSVC-300P	3.0”	PVC	20 - 300

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NFS-PD

NETAFIM PHOTO DIODE HYDROMETER - Combines a master valve, flow sensor and analog volumetric water meter into a single unit. Saves space by not requiring any premeasured distances between pipe inlet and outlet. Uses a Photo Diode register for higher flow resolution. Ideal for high pressure and/or low flow systems.

Normally Closed – NFS-PDC-XXX(size)
Normally Open – NFS-PD-XXX(size)
With PR Option, Normally Closed – NFS-PDPRC-XXX(size)
With PR Option, Normally Open – NFS-PDPR-XXX(size)

Size	Valve Size	Flow Range (GPM)
150	1.5”	2-60
200	2.0”	5-120
300	3.0”	8-300
400	4.0”	10-500
600	6.0”	12-1000

PD-PWR

PHOTO DIODE POWER SUPPLY – Provides regulated 5VDC power for Photo Diode registers on Hydrometers.

NFS-RS

NETAFIM REED SWITCH HYDROMETER - Combines a master valve, flow sensor and analog water meter into a single unit. Saves space by not requiring any premeasured distances between pipe inlet and outlet. The reed switch register is a dry contact closure for communicating with control and monitoring equipment.

Normally Closed – NFS-RSC-XXX(size)
Normally Open – NFS-RS-XXX(size)
With PR Option, Normally Closed – NFS-RSPRC-XXX(size)
With PR Option, Normally Open – NFS-RSPR-XXX(size)

Size	Valve Size	Flow Range (GPM)
150	1.5”	2-60
200	2.0”	5-120
300	3.0”	8-300
400	4.0”	10-500
600	6.0”	12-1000

Normally Closed – NFS-RSC-XXX(size)

Normally Open – NFS-RS-XXX(size)

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ENCLOSURE MOUNTING PAD, PEDESTALS & COOLING FAN

EMP

ENCLOSURE MOUNTING PAD - The Satellite Assembly shall be provided with an Enclosure Mounting Pad assembly for the purpose of mounting to a "Strong Box" enclosure. This assembly consists of a reinforced plastic support base, a three-sixteenth inch thick 5052 H32 Marine Grade Aluminum mounting pad, and 304-grade stainless steel fastening brackets. The support base shall be installed and compacted in earth allowing the top two inches of the support base to be exposed above the grade.

Part Number	Assembly#	Enclosure Model#
EMP-18	CA1	SB-18SS
EMP-18D	CA2	SB-18DSS
EMP-24	CA3	SB-24SS
EMP-24D	CA4	SB-24DSS
EMP-MT	CA5	MPE
EMP-16	CA6	SB-16SS

PED

OPTIONAL PEDESTAL – The Satellite Assembly shall be provided with an optional 12" high pedestal for the purpose of mounting to a "Strong Box" enclosure.

Part Number	For Assembly#
PED-16SS	SA6 (Top Entry)
PED-18SS	SA1 (Front Entry 18")
PED-18DSS	SA2 (Back to Back 18")
PED-24SS	SA3 (Front Entry 24")
PED-24D	SA4 (Back to Back 24")
PED-36SS	SA8 (Side-by-Side 36")

FAN

THERMOSTATICALLY CONTROLLED FAN - Factory set at 90 degrees Fahrenheit the thermostat can be adjusted in the field to help maintain desired enclosure temperature. This option is for all Front Entry assemblies

FAN-16

THERMOSTATICALLY CONTROLLED FAN - Factory set at 90 degrees Fahrenheit the thermostat can be adjusted in the field to help maintain desired enclosure temperature. This FAN option is specifically built for the SA6 assembly.

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MASTER VALVE POWER

MVPE **MASTER VALVE POWER ASSEMBLY EXTERNAL ENCLOSURE** - The

Controller Assembly shall be provided with a Master Valve Power assembly for the purpose of powering a Normally Closed master valve circuit independent of controller operation to pressurize the mainline for supplemental watering. This assembly shall consist of a timing module (with variable timing from 1 second to 24 hours) with Enclosure mounted external access pushbutton switches to initiate and stop operation of the Master Valve.