



## Auto-Purge Sensor Function Remote Control Instruction

### SENSOR RANGE ADJUSTMENT FOR SENSOR OPERATED BOTTLE FILLER AND FAUCET

**OVERVIEW:** The -AP Sensor Function Remote Controller provides for adjustment of the Auto-Purge Timing Cycle, Infra-red Sensor Detection Range and Activation Lock-out settings. Auto-Purge Settings are Factory pre-set to activate Bottle Filler and Faucet for 10 second duration which occurs 24 hours after the last activation of the Fixture. *(Check product submittal for models provided with Adjustable Auto-Purge Sensor.)*

**OPERATION:** When programming the Sensor, place the Remote Control about an inch away and slightly offset to the left or right of the Sensor Eye. Placing it in front can activate the Sensor. You can then select from the below functions. Once the Sensor detects the signal from the Control it will continuously “flash” meaning it is in Program Mode. Please read through the document to understand the functionality of the Sensor and its Factory settings.

**NOTE:**

- Changes to the Purge Cycle Functionality should be as follows:  
When the “Pe” Button is pressed on the Remote, the Sensor will go into “PURGE SETTING” mode instead. The “+” and “-” Buttons on the Remote could then be used to increase or decrease.
- The Purge Intervals will be:  
OFF, 1 Hour, 2 Hours, 3 Hours, 6 Hours, 12 Hours, 24 Hours, 36 Hours, or 72 Hours.

Remote Functionality	
Function	Symbol
Increment	+
Decrement	-
Range	R
IN Delay	In
OUT Delay	Out
Fail Safe Time	To
Lock-Out-Time	LoT
Temporary OFF	M
Purge Enable	Pe
Purge ON Time	Pt
Teach Mode Delay	Td
Wave_OFF mode	W





## 1. LED Functionality Descriptions

LED Behavior	Description
<b>When Power First Applied</b>	
LED continuously ON	Sensor self-adjusts sensitivity or emitter power according to the environment
LED flashes continuously	Object detected within sensing range (sensor enters TEACH mode)
<b>When Sensor Detects Signal from Remote</b>	
LED flashes continuously	Sensor is in PROGRAM mode
LED skips 1 flash	Sensor detects + or – button from remote
<b>Object Detection</b>	
LED flashes 1 time	Object detected
LED flashes 2 times	Object detected and battery is near end of life
LED flashes 3 times	Object detected and battery is past end of life (sensor will not turn valve ON)
LED flashes 4 times	Object detected and LOT timer running (sensor will not turn valve ON)
LED flashes 5 times	Object detected and TEMP OFF timer running (sensor will not turn valve ON)

## 2. LED Adjustable Function Description

Adjustable Functions				
Function	Type	Description	Factory Default	Adjustability
Sensing range	Adjustable	Switching point distance from sensor face	Bottle filler (2563-395-001) default 0.8" (20mm)	Bottle filler (2563-395-001) 0.25" - 2"; 0.25" increments
			Faucet (2563-396-001) default 6" (152mm)	Faucet (2563-396-001) 2" – 20"; 1" increments
timer LOT	Adjustable	Lock-Out-Time in which sensor will not provide signal to turn valve ON after previous cycle	10 minutes	1 to 30 minutes; 1 minute increments
timer IN	Adjustable	IN delay	0 seconds	0 to 3 seconds
timer FAIL SAFE	Adjustable	fail safe timer	20 seconds	1 to 90 seconds
timer OUT	Adjustable	OUT delay	0 seconds for bottle filler (2563-395-001) 2 seconds for faucet (2563-396-001)	0 to 20 seconds
timer TEACH_ON	Adjustable	exit teach mode	5 seconds	0 to 30 seconds
timer PURGE	Adjustable	PURGE water run time	10 seconds	1 to 60 seconds; 1 second increments
timer TEMP_OFF	Adjustable	Time in which sensor is disabled in TEMPORARY OFF mode	15 minutes	1 to 60 minutes; 1 minute increments
timer PROGRAM	Fixed	Inactivity time before exiting program mode	3 seconds	n/a
timer TEACH	Fixed	accept new setting	5 seconds	n/a
timer PURGE_ON	Adjustable	timer restarts every time the valve is turned OFF; timer PURGE_ON should be paused if the sensor is in TEMPORARY OFF mode; after set hours without valve cycling, the sensor will turn the valve ON for the duration of timer PURGE	24 Hours	OFF, 1, 2, 3, 6, 12, 24 Hours



### 3. Operating Modes

Operating Modes							
Mode	Variable Type	Description	Activation / Deactivation	Factory Default	LED Functionality	Factory Default	Adjustability
AUTO ADJUST mode	Fixed	Adjustment of sensitivity or emitter power according to ambient environment	Sensor automatically enters 'AUTO ADJUST mode' when power is supplied.	n/a	LED continuously ON	ON	n/a
TEACH mode	Fixed	Adjustment of the sensing range to specific target distance without using remote control	Sensor automatically enters 'TEACH mode' after 'AUTO ADJUST mode' and then enters default 'operate OBJECT' mode when 'timer TEACH_ON' expires	n/a	LED flashes continuously while in 'TEACH mode'	ON	When power applied
PROGRAM mode	Fixed	Sensor detects signal from the remote control and adjusts programming	If sensor is in any 'OPERATE mode,' sensor will enter 'PROGRAM mode' when an input from the IR remote control is detected; when 'timer PROGRAM' expires sensor enters selected mode or defaults into 'operate OBJECT' mode	n/a	LED flashes continuously while in 'PROGRAM mode'; LED skips 1 flash when sensor detects '+' or '-' button from remote while in 'PROGRAM mode'	ON	n/a
Operate OBJECT mode	ON/OFF	Water turned on via object detection & turned off with timer expiration; default operating mode for both sensors	If sensor is in any 'OPERATE mode,' sensor will toggle 'operate OBJECT mode' when sensor detects signal from corresponding button on the remote followed by '+' or '-' button	ON	LED flashes 1 time when object is detected	ON	via remote
					LED flashes 2 times when object is detected and battery is near end of life		
					LED flashes 3 times when object is detected during 'past end of life' (sensor will not turn valve ON)		
					LED flashes 4 times when object is detected and LOT timer is running (sensor will not turn valve ON)		
					LED flashes 5 times when object is detected and TEMP OFF timer is running (sensor will not turn valve ON)		



Operating Modes (Continued)							
Mode	Variable Type	Description	Activation / Deactivation	Factory Default	LED Functionality	Factory Default	Adjustability
Operate HAND WAVE mode	ON/OFF	Water turned on via hand wave detection & turned off via hand wave detection or timer expiration	If sensor is in any 'OPERATE mode,' sensor will toggle 'operate HAND WAVE mode' when sensor detects signal from corresponding button on the remote followed by '+' or '-' button	OFF	LED flashes 1 time when object is detected	OFF	via remote
					LED flashes 2 times when object is detected and battery is near end of life		
					LED flashes 3 times when object is detected during 'past end of life' (sensor will not turn valve ON)		
					LED flashes 4 times when object is detected and LOT timer is running (sensor will not turn valve ON)		
					LED flashes 5 times when object is detected and TEMP OFF timer is running (sensor will not turn valve ON)		
PURGE mode	Adjustable	Purpose to run water for the duration of timer PURGE after set number of hours; timer PURGE_ON reset every time valve turns OFF; timer PURGE_ON should be paused if the sensor is in TEMPORARY OFF mode; can run concurrently with either OPERATE mode	If sensor is in any 'OPERATE mode,' sensor will adjust 'PURGE mode' when sensor detects signal from corresponding button on the remote followed by '+' or '-' button (OFF, 1, 2, 3, 6, 12, 24 HOURS)	24 HRS	LED will not flash during 'timer PURGE'	24 HRS	via remote
TEMPORARY OFF mode	ON/OFF	'TEMPORARY OFF mode' disables sensor from signaling water to turn on until timer TEMP_OFF expires or 'TEMPORARY OFF mode' toggled via remote; purpose to allow maintenance and cleaning without water running	If sensor is in any 'OPERATE mode,' sensor will toggle 'TEMPORARY OFF mode' when sensor detects signal from corresponding button on the remote followed by '+' or '-' button	OFF	LED flashes 5 times if object detected during 'timer TEMP_OFF'	OFF	via remote
LOCK OUT mode	ON/OFF	If 'LOCK OUT mode' enabled, timer LOT initiated every time water turns off; if sensor detects object / hand to turn water on, sensor will only signal to valve if timer LOT has expired; purpose to prevent continuously activating water to prevent plugging or conserve water (ie penal applications)	If sensor is in any 'OPERATE mode,' sensor will toggle 'LOCK OUT mode' when sensor detects signal from corresponding button on the remote followed by '+' or '-' button	OFF	LED flashes 4 times if object detected during 'timer LOT'	OFF	via remote
END OF LIFE mode	Fixed	CG will incorporate short circuit in the sensors to detect 'near end of life' and 'past end of life' phases	n/a	n/a	LED flashes 2 times when object is detected during 'near end of life'	ON	n/a
		EOL mode will only work properly if alkaline batteries are used;					
		'Near end of life' – sensor still operates valve					
		'Past end of life' – sensor will not activate the valve to turn water on so when the battery fails, it won't fail with the water running			LED flashes 3 times when object is detected during 'past end of life' (sensor will not turn valve ON)		