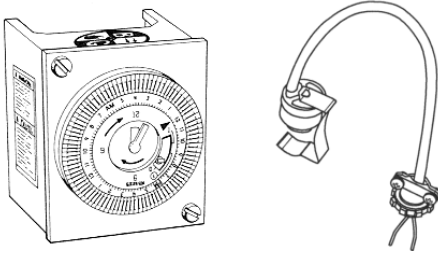


JOB:		REPRESENTATIVE:	
UNIT TAG:	ORDER NO.	DATE:	
ENGINEER:	SUBMITTED BY:	DATE:	
CONTRACTOR:	APPROVED BY:	DATE:	



## Automatic Timer Kit

### Model TC-1

## Aquastat

### Models: AQS-1/2, AQS-3/4

#### DESCRIPTION

**TC-1 AUTOMATIC TIMER KIT** - To increase the overall efficiency of a hot water recirculation system, the TC-1 timer control kit can be installed for use on any B&G NBF/NRF/SSF circulator. The TC-1 timer control is programmable to turn the circulator ON and OFF automatically at preset times. This permits the user to have the pump circulate hot water only during those times when high usage can be expected throughout the day.

**AQS-1/2 and AQS-3/4 AQUASTAT** - are designed to thermostatically turn any B&G NBF/NRF/SSF circulator ON and OFF. The AQS-1/2 or AQS-3/4 will switch the pump OFF at 120°F (48.9°C) and ON at 100°F (37.8°C). The aquastats are available in separate models that will sense the temperature for either 1/2" or 3/4" copper pipe.

**AUTOMATIC TIMER KIT and AQUASTAT COMBINATION** - The automatic timer and aquastat kits can be used in combination. When they are used together, the pump will only circulate water when the ON time conditions are met and when water temperature is low enough to cause the aquastat to switch ON.

#### OPERATIONAL LIMITS

##### TC-1 AUTOMATIC TIMER KIT:

Power Supply: 115/120 VAC, 60 HZ, 1Ø

Minimum Switch Interval: 15 minutes

Run Modes: ON (continuous run), OFF (at all times),  
TIMER (run at programmed intervals)

Maximum Switch Current: 16 amps

##### AQS-1/2, AQS-3/4 AQUASTATS

Thermostatic Switch Modes: OFF (open) at 120°F (48.9°C) water temperature and ON (closed) at 100°F (37.8°C) water temperature.

Thermostatic Element: Bimetal, senses surface temperature of outside diameter of pipe.

Pipe Size: AQS-1/2 clips onto 1/2" copper pipe or 3/8" steel pipe (OD of pipe 5/8"). AQS-3/4 clips onto 3/4" copper pipe or 1/2" steel pipe (OD of pipe 7/8").

Mounting: May be installed to sense temperature at the suction or discharge pipe of the pump.

#### CONSTRUCTION MATERIALS

##### TC-1 AUTOMATIC TIMER KIT:

Timer Body: Noryl Plastic

##### AQS-1/2, AQS-3/4 AQUASTATS:

Thermostat Covering: Epoxy (Environmentally Sealed)

Pipe Clip: Stainless Steel

Sensing Element: Bimetal

Wire Leads: Insulated 18" (457mm) #18 AWG

#### APPROX. SHIPPING WEIGHT

TC-1: 11oz. (.31Kg)

AQS-1/2: 5oz. (.14Kg)

AQS-3/4: 5oz. (.14Kg)

#### SCHEDULE

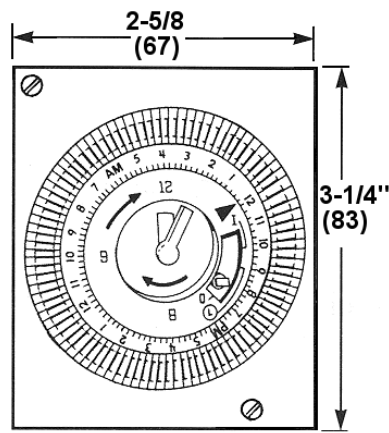
MODEL NUMBER	PART NUMBER	SIZE INCHES	VOLTAGE RATING 60 HZ 1Ø	TAGGING INFORMATION	QUANTITY
TC-1	113210	-	115-120		
AQS-1/2	113223	1/2	115-120		
AQS-3/4	113224	3/4	115-120		



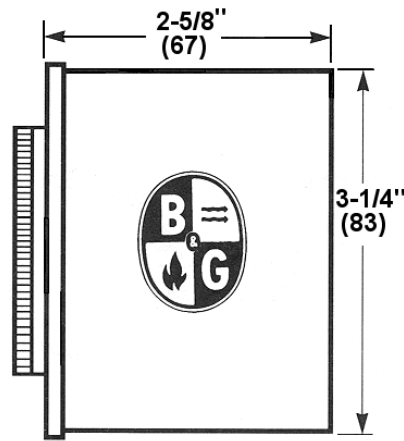
## AUTOMATIC TIMER KIT AQUASTATS

A-128C

### TIMER KIT DIMENSION IN INCHES (MM)



FRONT VIEW



SIDE VIEW

### TYPICAL SPECIFICATIONS

Furnish and install as shown on the circulator plans and in accordance with the following specifications:

#### AUTOMATIC TIMER KIT:

1. The timer kit shall be UL approved.
2. The timer kit shall be installed on the connection box of any Bell & Gossett NBF/NRF/SSF system lubricated circulator.
3. The timer kit will be suitable for 115/120V, 60 HZ operation.
4. The timer shall provide automatic ON-OFF control at minimum interval of every 15 minutes. It shall also have the option of providing manual ON-OFF control.

All units shall be Bell & Gossett Model No.: TC-1

#### AQUASTATS:

1. The aquastat shall be UL approved.
2. The aquastat shall be connected to the lead wires in the connection box of any Bell & Gossett NBF/NRF/SSF system lubricated circulator.
3. The aquastat will be suitable for 115/120V, 60 HZ operation.
4. The aquastat shall provide thermostat control to the circulator. It will turn OFF (open) at 120°F (48.9°C) water temperature and ON (closed) at 100°F (37.8°C) water temperature.

All units shall be Bell & Gossett Model No.:  
(Choose: AQS-1/2 or AQS-3/4).

### AUTOMATIC TIMER KIT AND AQUASTAT COMBINATION:

1. The automatic timer kit and either aquastat model can be combined to provide automatic time and temperature control to any Bell & Gossett NBF/NRF/SSF circulator.
2. When the automatic timer and the aquastat are used together, the pump will only circulate water when the ON time conditions are met and when the water temperature is low enough to cause the aquastat to switch ON.

All units shall be Bell & Gossett Model No.: TC-1 and Bell & Gossett Model No.: (Choose: AQS-1/2 or AQS-3/4).



# Bell & Gossett

Bell & Gossett  
8200 N. Austin Avenue, Morton Grove, IL 60053  
Phone (847)966-3700  
Facsimile (847)966-9052  
[www.bellgossett.com](http://www.bellgossett.com)

