



# AT-WFM Water Flow Monitor Commissioning Readiness Record

Please ensure you read the form carefully and accurately fill in all the parts. Setup and commissioning cannot be carried out without this information.

This guide is for information only, any figures/amounts shown are given as an example and should be verified as correct with your site conditions.

A simple overview of what we are trying to achieve, is to find out when the building is occupied and how much water should be used in this period (High Volume Amount) and alternatively how much water is expected to be used when the build is unoccupied (Low Volume Amount).

The most common setting used is Protection Level Mode set as Volume Per. Below outlines what basic information will be required to setup the panel correctly, for a list of protection level modes and their usage download the AquiTron AT-WFM Installation Instructions.

- Most commercial sites open regular working hours can use the weekday/weekend setting. However it is possible to have different times for all seven days.
- Low Level Amount will always be a smaller amount in volume than High Level Amount.
- This volume amount can be per: half hour, hour, day or timed. (For most accuracy, most projects are set up to half hour or hour time periods and unless directed otherwise we will set the system up for half hour time periods.)
- We would normally recommend the water usage figures are sought from the consultant or system designers.
- If these are not available it is important to consider the actual anticipated usage, NOT maximum flow rates. If maximum flow rates are used the system will obviously never be able to exceed these and will not go into alarm.

### EXAMPLE SETTINGS FOR A TYPICAL LARGE OFFICE PROGRAM MAY LOOK LIKE THE BELOW

- Protection level mode set as Volume Per and set at half hour.
- High Volume time period high volume period start: 08:30 , high volume period end 18:00
- Maximum anticipated actual water usage when the build is occupied in litres High Volume Amount
  2000 (system will alarm if more than 2000 litres is used in any half hour period between 8:30am and 6:00pm.)
- Maximum anticipated actual water usage when the building is unoccupied in litres Low Volume Amount - 100 (system will alarm if more than 100 litres is used in any half hour period between 6:00pm and 8:30am.)



# WATER USAGE CALCULATION

If necessary the following figures can be used as a rough guide to make a calculation:

ACTIVITY	HOW MUCH WATER USED?
Running a tap	8-12 litres per minute
Washing up in a sink	6-8 litres
Washing hands and face	3-9 litres
A normal (electric) shower	6-12 litres per minute
A power shower	13-22 litres per minute
Flushing a toilet	6-12 litres
Running a modern dishwasher	15 litres
Running a modern washing machine	60-80 litres
Having a bath	75-90 litres
Using a hosepipe	550-1000 litres per hour
Food and drink preparation	6-10 litres

Source: Anglian Water

N.B. While these figures are required to commission the system, all values are user adjustable if changes to site circumstances deem it necessary. Instructions on how to do this is part of the commissioning process.



Aquilar are the specialist distributor of the AquiTron AT-WFM pulse water meter leak detection system and BREEAM major leak detection system for WAT 03 (part 1) and are able to offer on-site system set-up and commissioning through our network of specialist partner installers. Please find listed below the system details required to commission the system.

**Important:** Commissioning cannot be carried out without this information.

## AT-WFM CONTROLLER SETUP DETAIL:

If you require assistance or guidance in answering these points, please contact the commissioning engineer or our technical team

A. PROTECTION MODE - Select C	Dne Option	
Volume Per	See A1	
Timed	See A2	
Crosscheck	See A3	

#### A1 - VOLUME PER

If Volume Per is selected one of the below settings and skip to Section B.

Daily - Times are the same for all days

Weekly - Different times can be set for each day (each day must be set individually)

Week/End - Times are set for week days and weekends separately

Ext Input – High and low volume times are triggered via an external input such as a key switch or alarm system i.e intruder alarm for entry / exit setting.

#### VOLUME

Half Hourly	By combining these values you increase or decrease
Houry	the 'sensitivity' of the systems measurement of flow
Dav	volume.

#### A2 - TIMED

Any uninterrupted flow above this user defined time will put the AT-WFM into alarm. In the example a unit is set for 10 minutes. If the water flows for 11 minutes the system will go into alarm. If the water runs for 9 minutes, stops, then flows for another 9 minutes, Protection Level - TIMED MODE stops and the system will not go into alarm.

If timed is selected insert the below requirements and skip to Section D - Installation

DURATION	TIME MODE RESET
10mins	Manually Reset
15mins	Automatically Reset
30mins	
60mins	



#### **A3 - CROSSCHECK**

e.g.1. Select tolerance 10% and volume per ½ hour. This means each half hour if the pulse input of each channel varies by more than 10% the system will go into alarm. On this setting an expected 100ltr measurement could vary by up to 20ltrs per half hour before an alarm would be given. Total of 480ltrs per 24 hour period.

e.g.2. Select tolerance 20% and volume per Day. This allows up to 20% difference in channel pulse inputs in any 24 hour period. On this setting an expected 100ltr measurement would only allow 40ltrs difference over a 24hr period.

If Crosscheck is selected insert the below requirements and skip to Section D - Installation

TOLERANCE	VOLUME
0%	Half Hourly
10%	Houry
20%	Day

#### B. DAYS OF THE WEEK WHEN THE BUILDING IS OCCUPIED - Select day and insert time.

	Occupied	Time occupied - TO : FROM
Monday		:
Tuesday		:
Wednesday		:
Thursday		:
Friday		:
Saturday		:
Sunday		:

#### C. WATER USAGE

Maximum **occupied** anticipated water usage in litres (NOT max flow rate) (Exceeding this limit during High Level Amount period time will cause an alarm)

Maximum **unoccupied** anticipated water usage in litres (NOT max flow rate) (Exceeding this limit during Low Volume Amount time period will cause an alarm)



#### D. INSTALLATION

Have the water meter(s) been installed

Access to the water meters will be required to check wiring. Access Available?

Has the solenoid valve (if supplied) been installed and wired (only aquilar valves can be used)

Has all cabling from the water meter(s) to the controller been installed. Note: 2-core screened cable, must not be run in close proximity to mains cables

Has a 230vac unswitched fused spur been provided and made live.

#### A. Project Information

Site Address

Additional Notes

Site Contact

Contact Email

**Contact Phone** 

Yes

No

Site Induction Required

PPE required?

List PPE

- Unit 30, Lawson Hunt Industrial Park, Broadbridge Heath, Horsham, West Sussex, RH12 3JR
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- info@aquilar.co.uk
- 😵 www.aquilar.co.uk