



ASC Liquid Level Alarm

Installation & Operation Guide Model ASC-ALARM



Document	ASC-Alarm — Installation & Operation Guide
Applies to	ASC Liquid Level Alarm (model ASC-Alarm)
Version	1.0
Issue date	August 2026
Distributed by	ASC Water Tanks

Important Safety Information

Read this guide in full before installing or operating the ASC Liquid Level Alarm. Keep it with the product for future reference. Failure to follow these instructions may result in electric shock, injury, property damage, or failure of the alarm to operate when required.

DANGER Qualified electrical installation required

The ASC-Alarm operates from a 230 V mains supply. Installation — including provision or verification of a suitable RCD-protected supply, siting the unit near a wet chamber, and any alteration, extension or hard-wiring of the supply lead — is electrical work and must be carried out by a licensed electrician in accordance with AS/NZS 3000.

Always isolate the supply and prove dead before opening the enclosure. Do not attempt any internal work while the unit is energised.

Signal words used in this guide

DANGER	Hazard that will cause death or serious injury if not avoided.
WARNING	Hazard that could cause death or serious injury if not avoided.
CAUTION	Hazard that could cause minor injury or equipment damage.
NOTE	Important information for correct installation or operation.

Contents

Important Safety Information	2
1. Introduction	4
2. Safety Information	4
3. Specifications	5
4. Package Contents	5
5. Tools & Materials Required	6
6. Before You Begin — Site Requirements	6
7. Installation	6
8. Commissioning & Operation	10
9. Functional Test	11
10. Maintenance	11
11. Troubleshooting	12
12. Compliance & Standards	12
13. Warranty	12
14. Installer Sign-Off Record	13

1. Introduction

Congratulations on the purchase of your new ASC Liquid Level Alarm. The ASC-Alarm provides a local warning when liquid in a chamber reaches a high or low level. It gives both a visual alarm, via a red flashing beacon, and an audible alarm, and can be configured for either high-level or low-level operation.

The unit is supplied pre-wired with a plug-terminated 230 V power cable and a 10m low-voltage float. It is designed as a plug-and-connect solution but must still be installed in compliance with local regulations by a suitably qualified person (see Section 2).

What the ASC-Alarm does

- Monitors a single float switch in a chamber, pit or tank.
- Raises a flashing beacon and audible siren when the set level is reached.
- Operates in either HIGH-LEVEL or LOW-LEVEL mode, selectable on the keypad.
- Allows the audible tone to be muted, and switched between continuous and intermittent.

What the ASC-Alarm does not do

NOTE The ASC-Alarm is an audible and visual alarm only.

- It is not a pump controller — your pump(s) are not operated through the ASC-Alarm.
- It does not network or integrate with external systems such as building management systems or remote alarm units.
- It monitors a single float switch only.

Supplied condition

The float counterweight is supplied loose and must be fitted before use (see Section 7.3). The unit is factory-tested and pre-wired; no internal wiring changes are required for a standard installation.

2. Safety Information

2.1 Qualified installation

DANGER Licensed electrician — mains connection

The 230 V supply connection, and any modification of the power cable, must only be carried out by a licensed electrician in accordance with AS/NZS 3000 and local requirements. Isolate and prove dead before opening the enclosure.

2.2 Electrical supply and RCD protection

WARNING Residual current protection is mandatory

The supply must be provided through an isolating transformer or an RCD with a rated residual operating current not exceeding 30 mA. Verify RCD operation as part of commissioning.

- The power flex and float cable must never be encased in metal piping or conduit.

- Do not run the unit from a damaged outlet or a lead with damaged insulation.
- Ensure the socket outlet remains accessible so the unit can be isolated.

2.3 Environmental protection (IP54)

CAUTION IP54 is not fully waterproof

The ASC-Alarm is rated IP54 under IEC 60529 (adopted locally as AS/NZS 60529): protected against limited dust ingress and water splashing from any direction. It offers good everyday protection for indoor or covered outdoor locations but is not fully waterproof or dust tight. Provide additional weather protection where appropriate and mount the unit above any possible flood level.

- Operate only within the rated temperature range of -25 °C to +55 °C.

2.4 General handling

- Position the float so it cannot be snagged, jammed, or otherwise rendered inoperable.
- Do not immerse the alarm enclosure; only the float is intended to enter the liquid.
- This appliance is not a life-safety device; do not rely on it as the sole means of preventing overflow or damage.

3. Specifications

Parameter	ASC-Alarm
Rated voltage	230 V, 50 Hz, single phase (+/- 10%)
Rated operating current	< 1 A
Audible alarm	88 dB(A) min @ 30 cm — single tone
Power cable	1.5 m, H05 neoprene (plug-terminated)
Float cable	10 m, H05 neoprene
Float circuit voltage	24 V (extra-low voltage)
Ingress protection	IP54
Operating temperature	-25 °C to +55 °C
Casing	UV-rated plastics with LCD protection layer
Dimensions	170 mm (L) x 230 mm (H) x 73 mm (D)
Net weight	1.85 kg (with float and counterweight)

All figures are nominal. ASC Water Tanks reserves the right to alter specifications without notice.

4. Package Contents

Check that the following items are present and undamaged before beginning installation:

- ASC-Alarm unit, pre-wired with a 1.5m plug-terminated 230 V power cable and a 10m float.
- Float counterweight (supplied loose — requires fitting).
- Wall bracket mounts and fixings.

NOTE Counterweight not pre-installed

The counterweight is not fitted at the factory. It must be installed on the float cable before the alarm is put into service — see Section 7.3.

5. Tools & Materials Required

The following are typically required to complete the installation. Electrical tooling and test equipment are for the licensed electrician.

- Cordless drill and masonry/timber bits appropriate to the mounting surface.
- Suitable wall fixings for the mounting surface
- Screwdrivers, side cutters and a spirit level.
- Cable ties
- Approved, RCD-protected socket outlet or supply point within reach of the 1.5m power lead (electrician).

6. Before You Begin — Site Requirements

Confirm the following before mounting the unit:

- A suitable RCD-protected supply (≤ 30 mA) is available within reach of the 1.5m power lead.
- A sheltered mounting position is available, above any possible flood level and away from direct weather.
- The float can reach the required switching depth within the 10m float-cable length.
- The chamber allows the float to swing freely without snagging on pipework, pumps or the chamber wall.
- Neither cable will need to pass through metal conduit or piping.

7. Installation

The diagram below shows a typical installation. Read the whole of Section 7 before starting and observe all safety requirements in Section 2.

Typical Installation — Schematic Overview

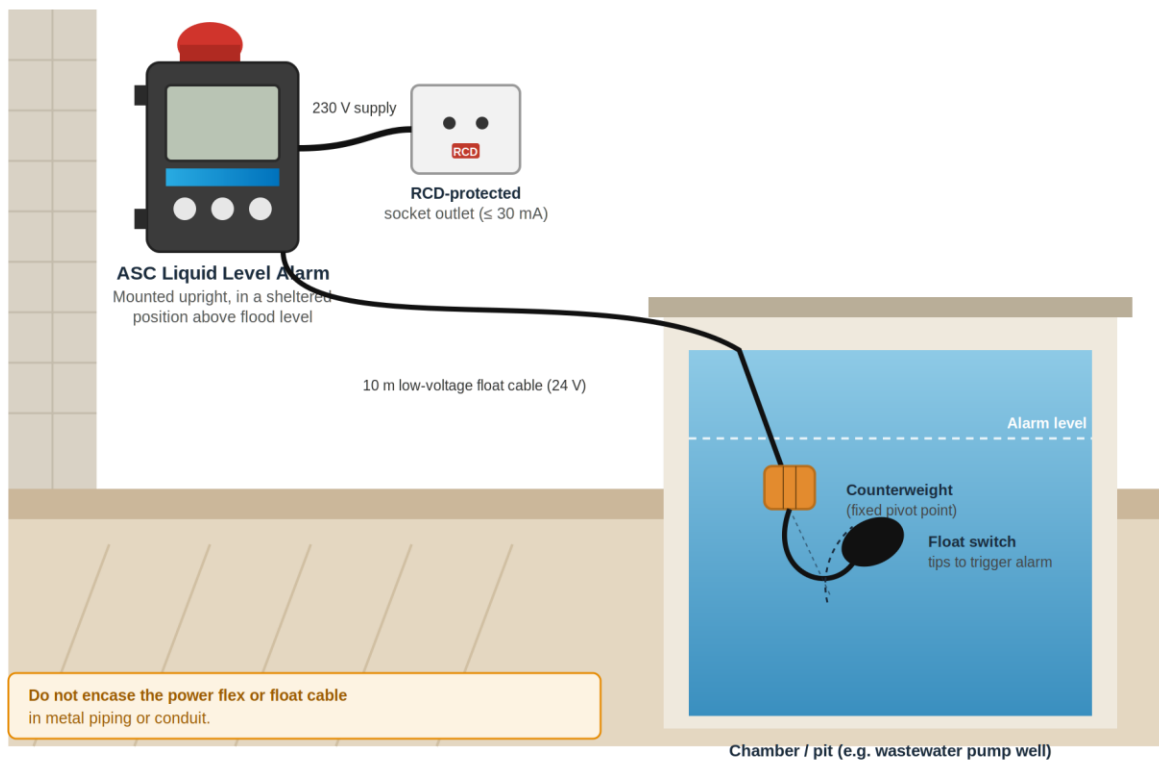


Figure 1 — Typical installation overview.

7.1 Mount the enclosure

1. Hold the supplied wall bracket at the chosen position and mark the fixing holes. Keep the unit upright, with the beacon at the top.
2. Drill and fix the bracket using fixings appropriate to the surface. Check it is level.
3. Locate the alarm onto the bracket and secure it. Ensure the cable glands at the base of the enclosure point downward.

7.2 Connect the electrical supply

DANGER Licensed electrician only — 230 V

The following work involves the mains supply and must be performed by a licensed electrician. Isolate and prove dead before opening the enclosure. The internal terminals are shown for reference only.

For a standard installation the unit is simply connected to an approved, RCD-protected socket outlet using the pre-fitted 1.5 m lead. Where the supply is hard-wired, or the lead is altered or extended, the electrician makes off the conductors at the internal terminal block as shown below.

Internal Terminal Connections

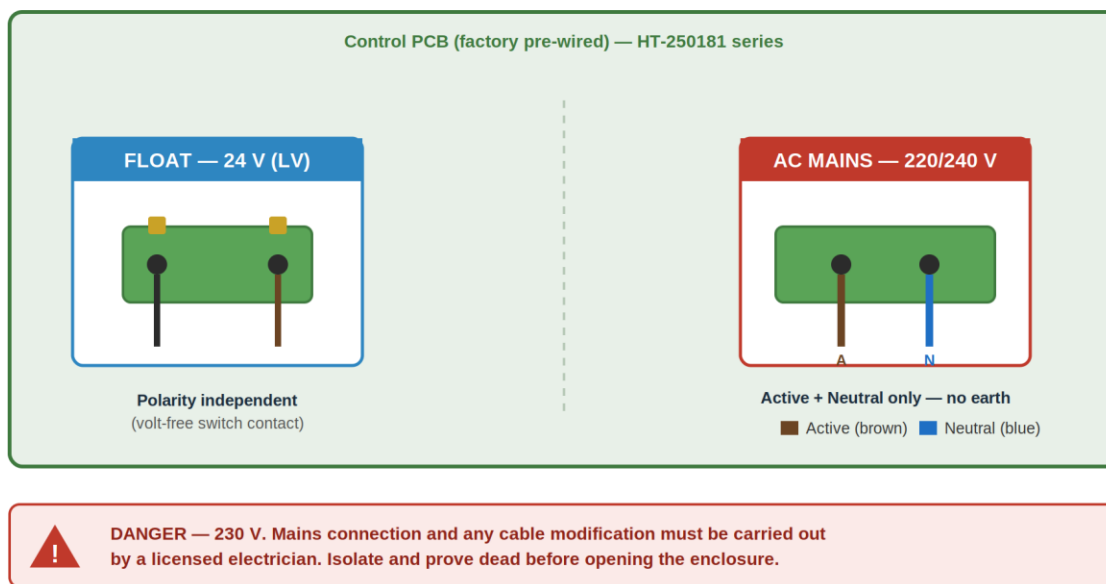


Figure 2 — Internal terminal connections (factory pre-wired).

1. Confirm the supply is isolated and proven dead.
2. Connect the mains at the AC terminal: Active (brown), Neutral (blue). Observe correct identification.
3. The float connects at the low-voltage FLOAT terminal (24V). As a volt-free switch contact, the two float cores are polarity-independent.
4. Verify all glands are tight and the enclosure lid is correctly seated to maintain the IP54 rating.
5. Restore the supply and confirm RCD operation before commissioning.

NOTE Reference photograph

The photograph below shows the internal layout, with the FLOAT terminal at the left and the AC-220/240 V terminal at the right.

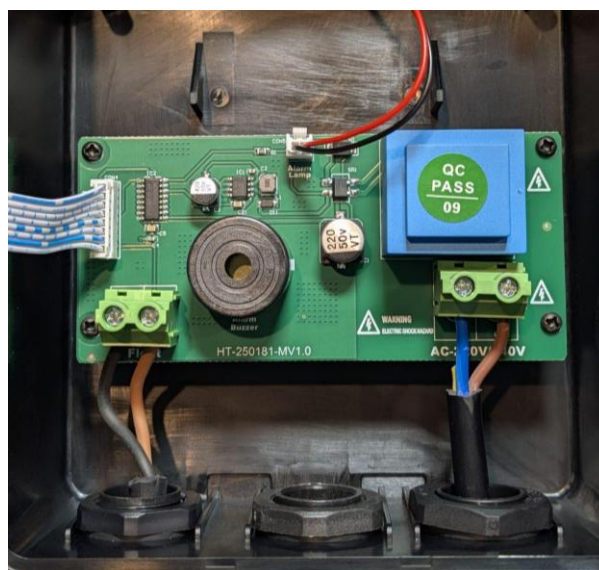


Figure 3 — Internal terminals and factory wiring (typical).

7.3 Fit the float counterweight

The counterweight provides the pivot point that lets the float tip over and switch. It is supplied loose and must be fitted before use. Where the float cable is instead secured to a fixed object, the counterweight sets the switching point on the cable.

1. Remove the float / switch from the unit so the counterweight can be threaded onto the cable.
2. When using the supplied float, remove the plastic collar from the counterweight.
3. Slide the counterweight to the position on the cable that gives the switching level you require.
4. Fit a cable tie at the top and bottom of the counterweight to lock it in place.
5. Re-connect the float to the unit.

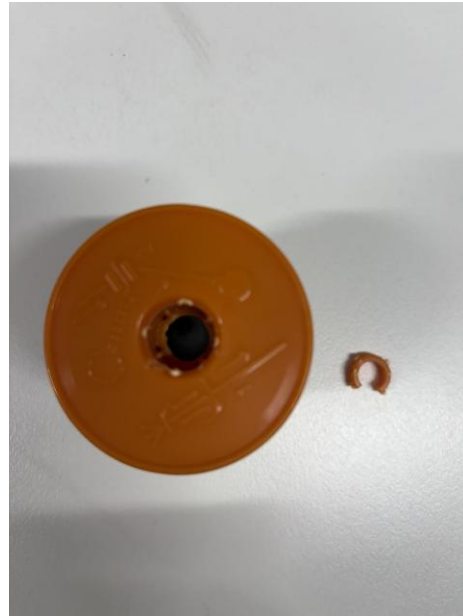
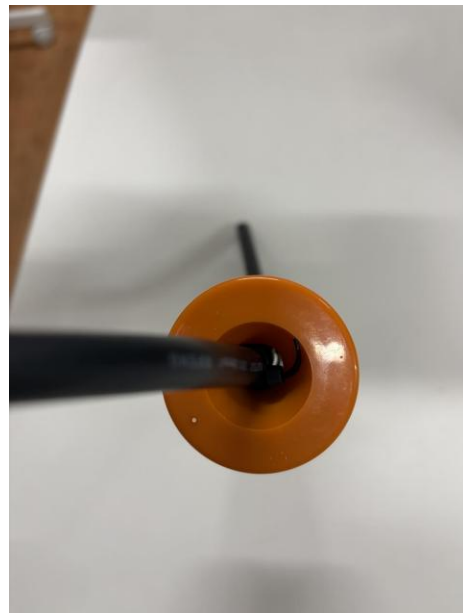
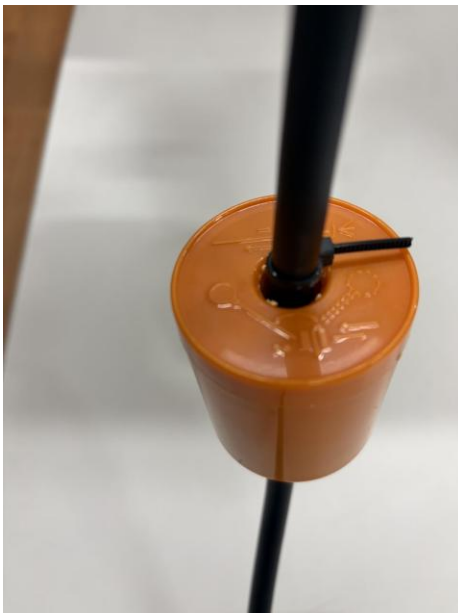
*Figure 4 — Counterweight, as supplied.**Figure 5 — Remove the plastic collar.*

Figure 6 — Counterweight positioned on the cable.

Figure 7 — Cable-tie top and bottom to lock in place.

7.4 Position the float and set the switching level

1. Lower the float into the chamber and set the cable length so the float switches at the desired level.
2. Confirm the float can move through its full arc without contacting pipework, the pump or the chamber wall.
3. Secure any surplus cable clear of moving parts, without encasing it in metal conduit.

8. Commissioning & Operation

8.1 Power up

1. With the float fitted and positioned, connect the unit to the RCD-protected supply and switch on.
2. The display illuminates and shows the current alarm mode. The default mode is HIGH LEVEL.

8.2 Selecting the alarm mode (MODE button)

Press and hold the MODE button for 5 seconds to switch between HIGH-LEVEL and LOW-LEVEL. The display shows the mode currently selected.

Alarm Modes

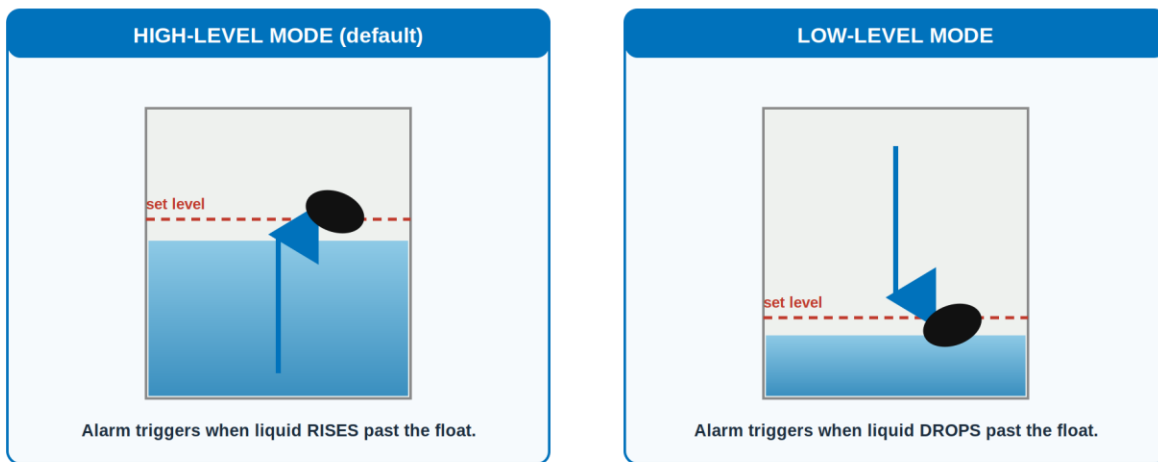


Figure 8 — High-level and low-level operating modes.

HIGH-LEVEL — activates the siren and beacon when the liquid level rises past the set float level.

LOW-LEVEL — activates the siren and beacon when the liquid level drops past the set float level.

8.3 MUTE button

If the alarm is active and you wish to silence the audible tone, short-press MUTE. Once muted, the audible siren cannot be reactivated for that event without switching the unit off at the outlet. The beacon continues to flash until the system returns to its normal state.

NOTE Automatic reset

When the system returns to a normal state, the audible and visual alarms stop automatically.

8.4 PULSE button

A short press of PULSE switches the audible alarm between a continuous tone and an intermittent tone.



Figure 9 — Continuous and intermittent audible patterns.

9. Functional Test

Before leaving site, confirm the alarm operates correctly:

1. Confirm the correct mode (HIGH or LOW) is selected for the application.
2. Manually raise (or lower) the float to the trigger position and confirm the beacon flashes and the siren sounds.
3. Press MUTE and confirm the audible tone silences while the beacon continues.
4. Return the float to its normal position and confirm both alarms clear automatically.
5. Confirm RCD operation, then complete the Installer Sign-Off Record (Section 14).

10. Maintenance

The ASC-Alarm requires little maintenance. Periodically:

- Test the alarm by operating the float, as described in Section 9 (at least every 6 months).
- Check the float and cable are free of debris and can move freely.
- Confirm the counterweight remains secured in position.
- Inspect the enclosure and glands for signs of water ingress or damage.
- Test the supply RCD in line with the RCD manufacturer's guidance.

WARNING Isolate before any inspection that requires opening the enclosure

Internal inspection is electrical work. Isolate and prove dead first, and have it carried out by a licensed electrician.

11. Troubleshooting

Symptom	Possible cause	Action
No display, unit dead	No power at socket outlet; RCD tripped	Have a licensed electrician verify the supply and RCD.
Display on, but no alarm at level	Float snagged, mis-positioned, or wrong mode selected	Free the float; re-check set height; confirm HIGH/LOW mode.
Alarm will not silence	Mute is a one-shot per event	Alarm clears automatically at normal state or switch off at the outlet.
Nuisance / intermittent alarms	Turbulence or float swinging on cable	Reposition float; check counterweight is secured as the pivot.
Audible tone but no beacon (or vice-versa)	Internal fault	Isolate power and contact ASC Water Tanks — do not open the enclosure.
Water ingress inside enclosure	Exceeds IP54; unsuitable location or damaged seal	Isolate immediately; relocate/shelter the unit; contact ASC.

If a fault cannot be resolved by the above, isolate the supply and contact ASC Water Tanks. Do not carry out internal repairs.

12. Compliance & Standards

The ASC-Alarm meets the requirements of AS/NZS 1546 — On-site domestic wastewater treatment units. Installation must additionally comply with:

- AS/NZS 3000 — Electrical installations (Wiring Rules).
- IEC 60529 / AS/NZS 60529 — Degrees of protection provided by enclosures (IP code).
- All applicable local regulations and the requirements of the relevant authority.

13. Warranty

The ASC-Alarm is warranted against defects in materials and workmanship for the period stated on your purchase documentation. The warranty is void where the unit has been installed other than in accordance with this guide and applicable regulations, subjected to conditions beyond its ratings, or opened or modified by an unauthorised person. Retain your proof of purchase and this completed guide.

14. Installer Sign-Off Record

To be completed by the licensed electrician / installer on commissioning and retained with the product.

Installer / company name	
Electrical licence no.	
Installation date	
Site address	
Supply verified RCD-protected (≤ 30 mA) ☐ Yes	
Alarm mode set (HIGH / LOW)	
Functional test completed ☐ Yes	
Installer signature	

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