Swan AMI Turbiwell
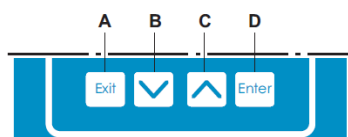# Quick Reference Guide

Overview
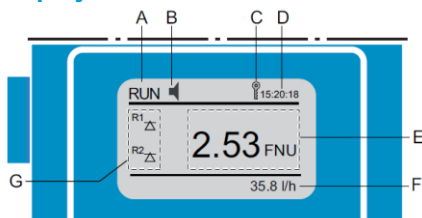

A – Panel
B – Transmitter
C – Cover with optical measurement system
D – Measuring chamber
E – Quick fastener screw
F – Waste 1
G – Drain valve
H – deltaT flow sensor (option)

Keys

A – to exit a menu or command (rejecting any changes) to move back to the previous menu level
B – to move DOWN in a menu list and to decrease digits
C – to move UP in a menu list and to increase digits
D – to open a selected sub-menu to accept an entry

Display

A – RUN normal operation
  HOLD input closed or cal delay: Instrument on hold (shows status of signal outputs).
  OFF input closed: control/limit is interrupted (shows status of signal outputs).
B – ERROR 🔊 Error ✳ Fatal Error
C – Transmitter control via Profibus
D – Time
E – Process value
F – Sample flow - 20–60 l/h
G – Relay status

Relay status, symbols

△ ▽	upper/lower limit not yet reached
▲ ▼	upper/lower limit reached
▯	control upw./downw. no action
▮	control upw./downw. active, dark bar indicates control intensity
▭	motor valve closed
▬	motor valve: open, dark bar indicates approx. position
🕐	timer
🕑	timer: timing active (hand rotating)

Maintenance

Weekly	Check sample supply for dirt. Check sample flow.
Monthly	Check measuring chamber for dirt. If necessary, clean it with a brush and/or drain the measuring chamber. If there is a growth of algae, disinfect the sample degasser and measuring chamber with concentrated NaOCl. Use a pipette to dose the disinfectant.
Quarterly	Perform a verification.

Cleaning

To clean the measuring chamber proceed as follows:

1. Stop sample flow
2. Check and clean constant head chamber behind measuring chamber
3. Release the two quick fastener screws
   - *The cover automatically slides up*
4. Move the cover completely backwards
5. Remove algae etc. from the barrier and measuring chamber walls with a soft brush
6. Open the drain valve to flush out the water. If the instrument is equipped with the automatic drain valve option: Select <Maintenance>/<Drainage>/<Manual operation>/<Motor valve>/<open>
7. Remove calcium deposits using a common household deliming agent in standard concentration. Fill up the measuring chamber, add the deliming agent.
8. Wait several minutes, then remove the deposits with a soft brush
9. Open the drain valve to flush out the polluted water
10. Close the drain valve, start sample flow and wait until the measuring chamber has been filled
11. Open the drain valve to flush again
12. If necessary, repeat steps 9 and 10
13. Slide the cover towards the front and fix it down with the quick fastener screws

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Calibration

Not Required

Verification

Each Swan Verification Kit must be individually matched with the Turbiwell prior to verification. Matching only needs to be done once per kit per Turbiwell. See the manual for instructions on how to match.
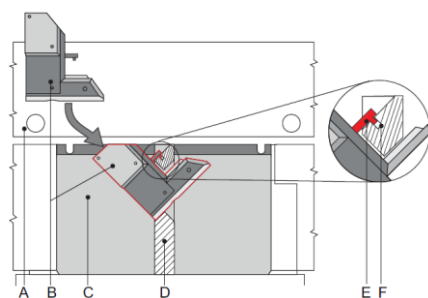
NOTE: Signal outputs are frozen during verification. When the verification is finished, the signal outputs remain frozen for the time programmed in <hold after cal.>. During this time the display shows HOLD.

Matching and Verification video

To carry out verification, proceed as follows:
1. Select <Maintenance>/<Verification>/<SWAN Verikit>
2. Select the previously matched Verikit from the list. Press Enter
3. Open the measuring chamber
4. Open the drain valve if the instrument is not equipped with an automatic drain valve
5. Wait until the measuring chamber is empty
6. Close the drain valve
7. Install the verification kit as shown in the diagram below.

A – Cover
B – Verification kit
C – Measuring chamber
D – Barrier
E – Fixing plate with cylindrical pin
F – Hole

8. Close the measuring chamber
9. Wait until the verification is finished. The results of the Verification are shown on the screen. Deviation should be <10%.
10. Press <Enter> to save
11. **Open the measuring chamber and remove the verification kit**
12. Close measuring chamber
13. Start sample flow
14. Press <Exit> until back at the home screen

Error Messages

To view active error messages, press ENTER to open menu system, select MESSAGES -> PENDING ERRORS. Consult the manual for a full list of error messages.

HINT: With any Swan system, press ENTER 3 times from the home screen to bring up the PENDING ERRORS list.