

Err 47	Invalid Credit Type	Only m ³ tokens accepted. No currency tokens
Err 48	Token Rejected	Maximum of 5 Valve Test Tokens. Load Credit.
Err 49	Token Expired	Expiry date reached on token
Err 50	Invalid Meter Mode	FBW mode does not accept STS tokens

CIU Messages

No Info	CIU did not load info from the meter. Press ## and check response message. Check if paired with meter & check range.
FAILED	The CIU is unable to communicate with your meter. Make sure there is no major obstruction between the meter and CIU. Press #91# to verify the Prepaid Number with the number printed on the PWC. If still not working, take the CIU closer to the meter. Press ## to re-check. Replace the CIU, else replace the PWC.
rFail 1,2,3	Radio failure. CIU needs to be replaced.
bAttErY	Replace CIU batteries with size AA Alkaline batteries available from any shop.
No UnIt	Sigfox radio not present or faulty
InVALId	Invalid response from Sigfox radio.
no rFld	CIU not paired to meter. Contact your Call Centre.

Frequently Asked Questions (FAQ's)

What is the difference between Prepaid Number and Meter Number?
The Meter Number is printed or engraved on the mechanical meter. The Prepaid Number is a number starting with 31, printed on a sticker on the PWC control box. The consumer needs his Prepaid Number to purchase credit, not the Meter Number. On the CIU press #0# to view the Prepaid Number.
How do I remove ERROR 3?
If the meter display Error 3, there is a good chance the valve is closed. Error 3 indicates that no pulses were received from the meter for the last 30 days. Enter a Valve Test token, to temporarily open the valve. When the valve opens, verify that water is flowing from a tap and the mechanical meter is turning. On the meter LCD (not CIU) check that the C icon is flashing. This indicates pulses are received by the PWC, and the Error 3 will be cleared. If no icon is flashing, no pulse is received from the meter, replace the sensor probe between the meter and PWC. If the meter is not turning, and there is water coming to the meter, replace the mechanical meter.
What is Sigfox?
The CIU may be fitted with an additional radio, connecting the meter to the Sigfox network. This enables the meter status information to be viewed daily on an internet application called Skyview.
Activated the Sigfox enabled CIU. I see "Success" on CIU, but get no e-mail message?
"Success" message only indicates the message was sent, does not indicate it was received by Skyview. Confirm the meter is registered on Skyview with your email address. It might be that there is poor Sigfox coverage at that point. Stand outside by the meter, and try again. It might be required to verify that there is good coverage in the area.
How do I check which SGC is loaded on the meter?
The factory loaded SGC can be viewed entering "#50#" on the CIU. A Key Change does not change to the SGC.
The SGC on the CIU shows "999931". What does this mean?
This is the meter manufacturer's default SGC. You can only vend tokens to this meter after a Key Change was performed to the SGC specific to this installation.
The SGC on the CIU shows "000000". What does this mean?
A Key Change was performed on the meter. Check on your Vending System for the latest SGC loaded to this meter.
How do I reset a water LEAK message?
Locate where the leak is and repair it. The LEAK message automatically clears after 24 hours.
How much water has this consumer used?
Press #7# to see how much was used today. Press #8# to see how much was used for this month. Press #9# to see how much was used on average over the previous 3 months. (Accurate only after 3 months from installation) Press #20# to see how much was used last month.
Can I pair another CIU to the meter for maintenance purposes?
Yes, use the same pairing procedure. All CIU Codes are available as well as entering of Test or Credit Tokens.

Ver. 5

PREPAID REFERENCE GUIDE



Installation Check List

Install Meter
Pair CIU with Meter
Mount CIU on a wall inside the house
Perform Valve Test
Activate Prepaid Mode
Perform Key Change (If required)
Activate Sigfox (If enabled)
Issue Prepaid User Guide to Consumer

Maintenance Check List

Check the PWC controller is functional
Check if the TAP icon is on or off
Check if there is credit on the meter
Confirm there is water to the meter
Check if an error code is present
Check Meter is not locked
Perform Valve Test
Check for any leaks on the property
Check the CIU is communicating with meter

Pairing a CIU to a Meter

Press #92#. Enter 6171# as the PIN code. Enter the full 11 digit prepaid number, starting with 31 followed by the # key. Press ## to test the connection.

Activate Prepaid Mode

The meter is shipped in "Conventional Mode" with the valve in the open position, for easy installation. Once installed enter the "Activate Prepaid Mode" token. The valve will close and the meter is in Prepaid Mode. If not done, the meter will not start to use credit.

Performing a Key Change

A new meter needs to be loaded with the correct Supply Group Code (SGC) before accepting credit tokens. A sticker on the PWC indicates the SGC loaded at the factory. If the SGC matches that of the installation, it is ready to accept tokens. If SGC "999931" is on the sticker, Key Change Tokens are required from your Vending Platform. Enter the first token, and see "1StKC" message on the display. Enter the second token and you should see the "ACCEPT" message. The meter is now ready to accept tokens.

Activate Sigfox (Only on CIU with "Sigfox Ready" sticker attached)

Confirm the meter was pre-registered on the Skyview application, with your e-mail address linked to your phone. Press #60#. Enter 6171# as the PIN code. Press 1 for ON. Press #63#. Within 10 seconds you should receive an e-mail confirming the meter was activated successfully.

Test Tokens accepted on all meters

1268 2136 5508 2836 4200	Activate Prepaid Mode
0000 0000 0001 5099 7584	Valve Test. Maximum of 5 times only. Thereafter load credit
0000 0000 0001 6777 4880	Show LCD Test Pattern
0000 0000 0002 0132 8896	Show Totalizer in m ³
1844 6744 0738 4377 2416	Show Key Revision Number
3689 3488 1475 5332 2496	Show Tariff Index
0000 0000 0344 9399 1426	Show Water Factor 50=0.5 Litre/pulse 100=1Litre/pulse 1000=10Litre/pulse 10000=100Litre/pulse

Reset Tokens generated by the Vending System, specific to the requested meter

Request "Clear Tamper" token from Vending System	Reset Tamper Condition
Request "Clear Credit Register" token from Vending System	Credit reset to 0.000m ³

CIU Codes

Code	Description	Result on CIU
# (and hold)	Keypad Lock or Unlock	LOCKEd / UnLOC
##	Refresh Display	Credit / x.xxx m ³ / Err xx
#0#	Show Prepaid Number of Meter	31xxxx xxxxx
#1#	Paid Credit Available	x.xxx m ³
#2#	Free Basic Water Available (If activated)	x.xxx m ³
#3#	Special Credit Available (If activated)	x.xxx m ³
#4#	Emergency Credit Available (If activated)	x.xxx m ³
#5#	Life Line Credit Available (If activated)	x.xxx m ³
#7#	Used Today	x.xxx m ³
#8#	Used This Month	x.xxx m ³
#9#	Average use over last 3 months	x.xxx m ³
#10#	Meter Reading (Totalizer)	xxxxxm ³
#11#	Leak Size (In m ³ per hour)	x.xxx m ³
#12#	Special Credit Used	x.xxx m ³
#13#	Total Used to Date	x.xxx m ³
#14#	Total Paid Credit Loaded to Date	x.xxx m ³
#15#	Paid Credit Used for the Month	x.xxx m ³
#20#	Used Last Month	x.xxx m ³
#21#	Used 2 Months Ago	x.xxx m ³
#22#	Used 3 Months Ago	x.xxx m ³
#30# #39#	Last 10 tokens entered (30 is the most recent, 39 the oldest)	1234567 8901234 567890
#40# #49#	Last 10 credit loaded with date (40 is the most recent, 49 the oldest)	Credit x.xxx m ³ , dd.mm.yy
#50#	Supply Group Code (Factory Loaded)	XXXXXX
#51#	Lock or Unlock Meter. Press 1 to confirm.	Locked, Open
#52#	Activate emergency Credit (if implemented)	E Credit, Off, finish, No Config, Reject
#53#	User Totalizer	x.xxx m ³
#54#	Reset User Totalizer	0.000 m ³

#60#	Activate Sigfox Radio (If fitted with Sigfox sticker)	1 On, Success
#63#	Send manual data packet	Success
#65#	Sigfox Configuration (See Sigfox Installation Guide)	Stored
#79#	Meter Firmware Version	Ver x.y Release z
#90#	CIU Firmware Version	Ver x.y
#91#	Show Paired Prepaid Number	31xxxx xxxx
#92#	Pair CIU with Meter (PIN: 6171)	31xxxxxxxx
#93#	CIU Battery Voltage (Replace if <2.1V)	bAt 2.95
#94#	Radio Background Noise	-110db to -120db
#95#	Radio Signal Strength	-20db to -99db
#96#, #97#	Reserved – Do not use	
#98#	Change PIN on CIU	Enter old and new PIN
#99#	LCD & Pushbutton Test on CIU	Press all keys

Error Codes

Code	Description	Action
Err 01	Tamper Mode (Optional)	Close Meter box. Enter Tamper Reset token
Err 02	Battery Empty	Replace battery pack on PWC in meter box
Err 03	No Flow or Meter Pulses	Check valve open, meter rotates, pulses on LCD. Replace pulse sensor. See FAQ's.
Err 05	Date & Time Reset	Set Date using the FMT application only
Err 06	Valve Stuck Open	Enter Valve Check Token. Replace Valve
Err 08	Valve Disconnected	Check wiring between PWC & Valve. Replace.
Err 11	Eeprom Memory Failure	Replace PWC unit in meter box
Err 12	Valve Timeout	Replace PWC unit in meter box
Err 13	Flash memory CRC Failure	Replace PWC unit in meter box
Err 14	Radio – SPI Failure	Replace PWC unit in meter box
Err 15	RTC Failure	Replace PWC unit in meter box
Err 16	Crystal Failure	Replace PWC unit in meter box
Err 17	Radio – Chip Failure	Replace PWC unit in meter box
Err 18	Radio – IRQ shorted	Replace PWC unit in meter box

STS Token Messages

Result on CIU	Type	Description
ACCEPT	Token Accepted	Valid credit token, or last KCT accepted
1StKct	Key Change Token 1	1 st KCT accepted but 2 nd token not entered yet
2ndKct	Key Change Token 2	2 nd KCT accepted but 1 st token not entered yet
InUalid	CRC Error on Token	Incorrect token or not entered correctly
Err 40	Invalid Manufacturer	Token not valid for this meter
Old	Token Expired	Older than oldest Token
USEd	Token Used	Token already loaded to meter
Err 41	Key Expired	Reached expiry date
Err 42	DDTK Key Error	Token not allowed under Default Decoder Key
FULL	Overflow Error	Credit register reached maximum value
Err 43	Function Error	Token cannot be processed by meter
Err 44	Range Error	Parameters out of range, or wrong TID date
Err 45	Key Type Error	Incorrect Key Type
Err 46	Sub Class Error	Token not supported