Pool LAB 1.0

User Manual
Handleiding
Brugervejledning
Kullanım kılavuzu
Руководство пользователя

CONTENT

Delivery content • Dosinhoud
Leveringsindhold • Teslimat içeriği
Комплектация поставки

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1 x	Crushing / Stirring Rods
1 x	10ml syringe
1 x	User guide
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20 x	DPD N° 1 Photometer tablets
10 x	DPD N° 3 Photometer tablets
10 x	CYA-Test Photometer tablets
10 x	Alkalinity-M Photometer tablets

Poison center Munich (24/7):
+49 (0) 89-19240 (German and English)

Reagents for water-analysis only!
Do not eat! Keep out of reach of children!
Store cool and dry!

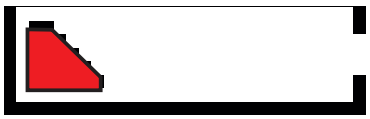
UReagentia voor alleen water-analyse!
Niet eten! Buiten het bereik van kinderen!
Bewaar koel en droog!

Reagenser kun til vand-analyse!
Må ikke spises! Opbevares utilgængeligt for børn!
Opbevares køligt og tørt!

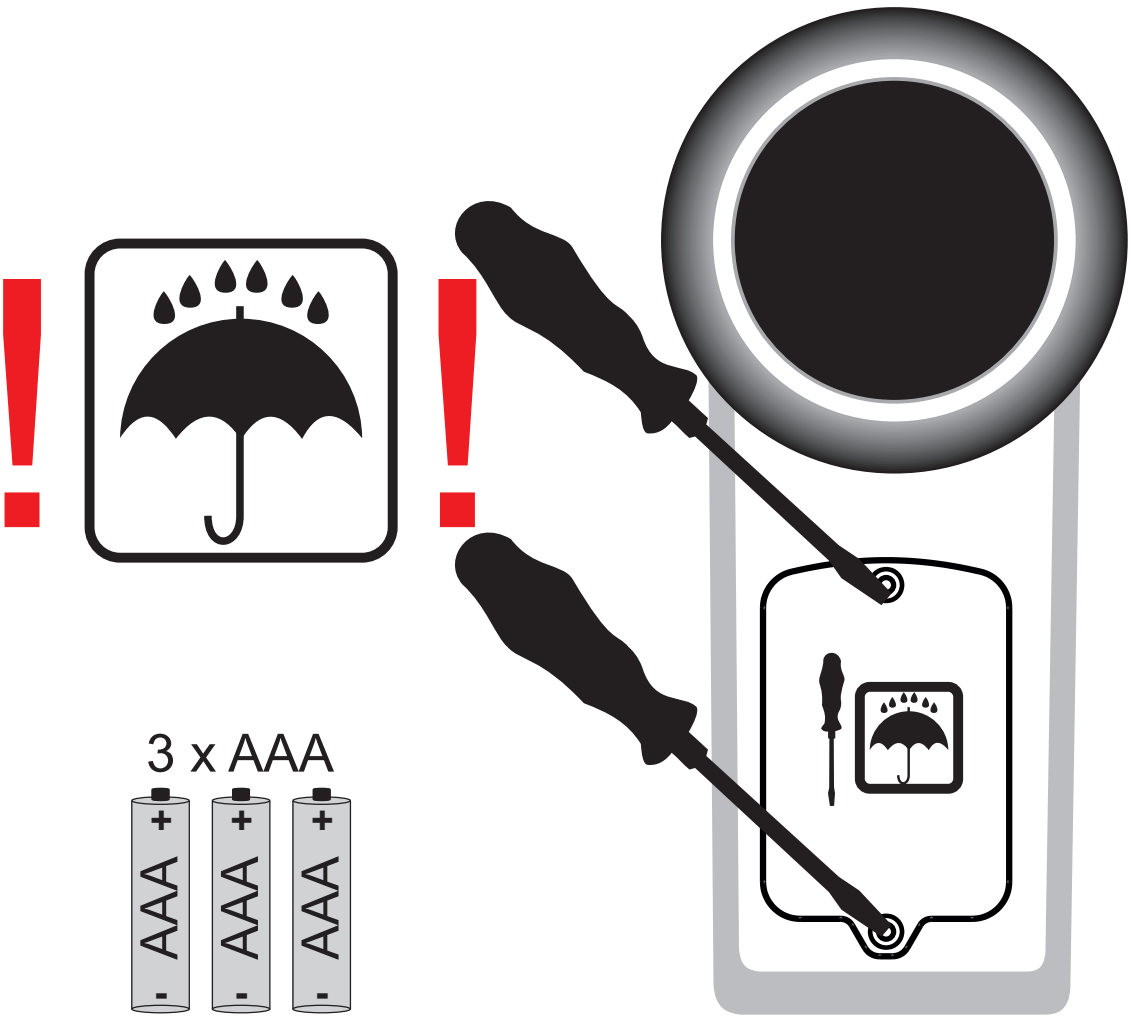
Sadece su analizinde kullanılan reaktifler!
Yeme! Çocukların eriin!
Serin ve kuru depolayın!

Реагенты только для анализа воды!
Не глотать! Хранить в недоступном для детей месте!
Хранить в прохладном и сухом месте!

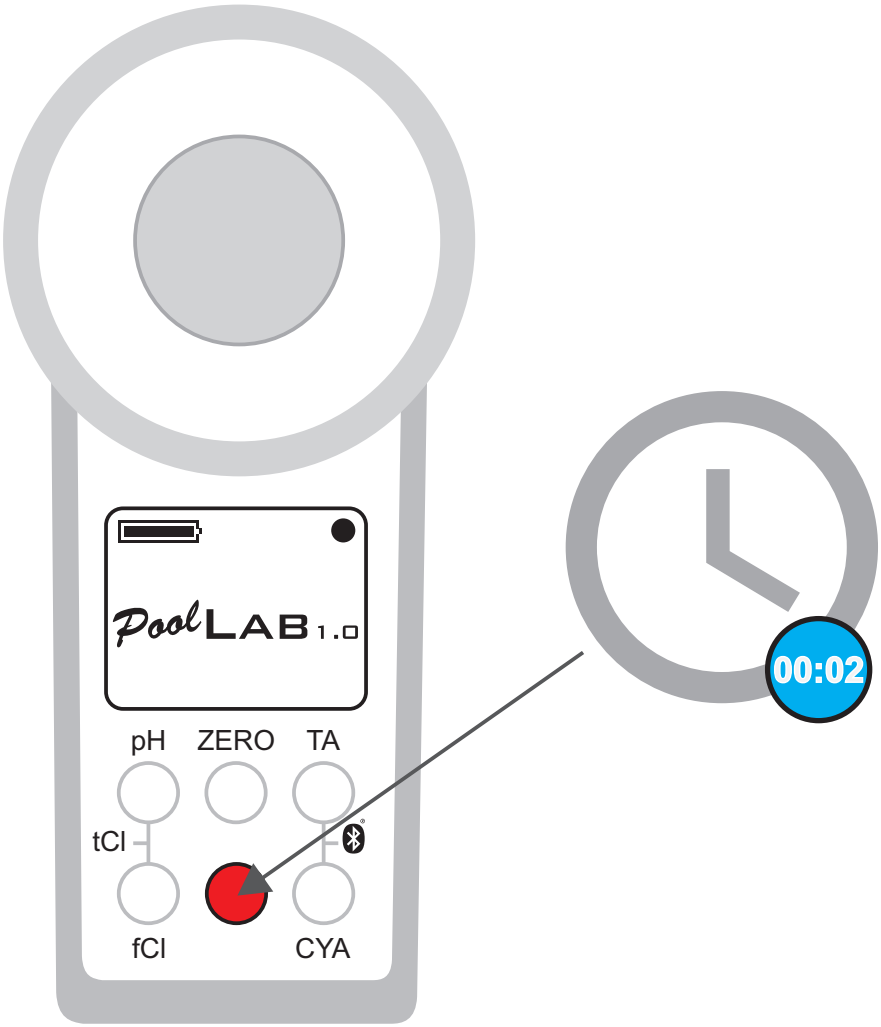
Batteries • Batterijen • Batterier
Piller • Батарейки



Change
Verandering
Skift
Değişiklik
Заменить



Switch on • Inschakelen • Tænd
Açmak • Включить



On/Off button can also be used to skip countdown during measurement (not recommended)
De On/Off knop kan ook gebruikt worden om het aftellen tijdens de meting af te breken (dit wordt niet aanbevolen)
On/Off kan også benyttes til at undlade nedtællingen under teste (anbefales ikke)
Aç/Kapa düğmesi ölçüm sırasındaki gerisayımi geçmek icin de kullanılır. (atlamak tavsiye edilmez)
Кнопка On/Off может также использоваться для отмены обратного отсчета во время измерения (не рекомендуется)

Advices • Adviezen • Råd
Öneriler • Советы

PHOTOMETER

Always use PHOTOMETER grade tablets!
Never use RAPID grade tablets!
Do not touch reagent tablets!

Gebruik altijd photometer tabletten en niet de zogenaamde rapid tebletten. Raak de tabletten niet met de vingers aan.

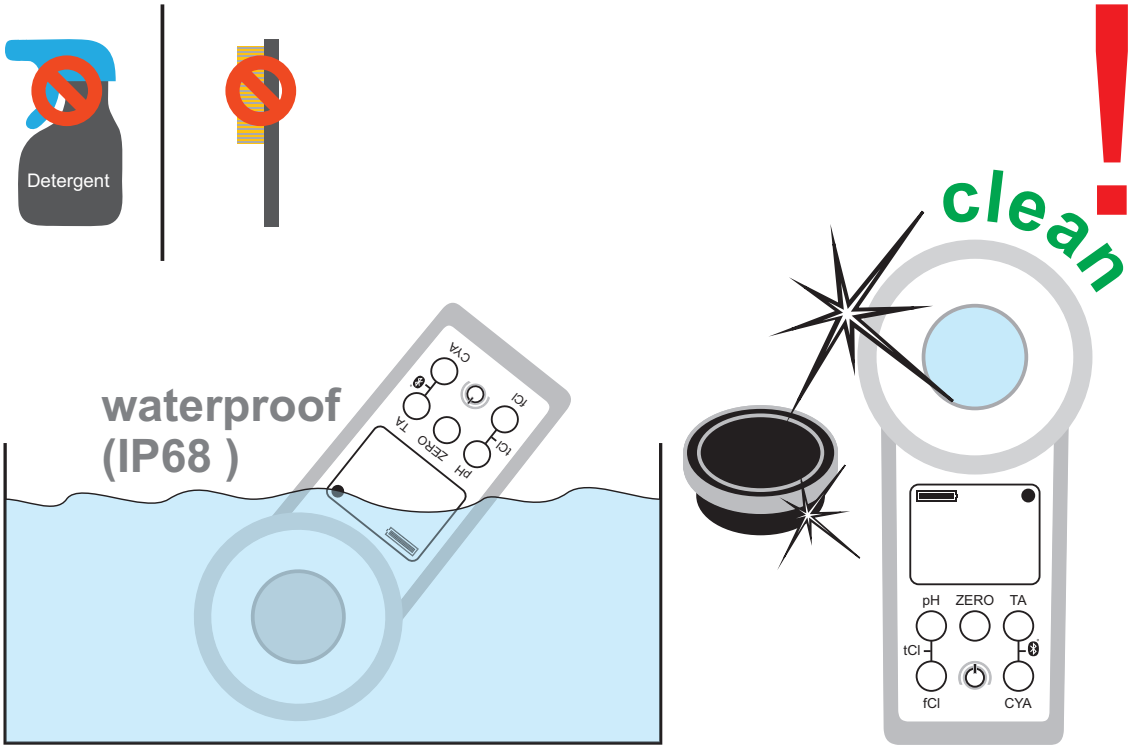
Brug altid test tabletter i PHOTOMETER kvalitet! Benyt ALDRIGtabletter i RAPID kvalitet! Berør ikke tabletterne!

Her zaman Fotometre orijinal tabletlerini kullanın! Orijinal olmayan başka tabletler kullanmaktan kaçının! Hiçbir zaman tabletlere dokunmayın!

RAPID

Всегда использовать таблетки для ФОТОМЕТРА! Не использовать таблетки RAPID! Не дотрагиваться до таблеток!

IMPORTANT • BELANGRIJK • VIGTIG
ÖNEMLİ • ВАЖНО



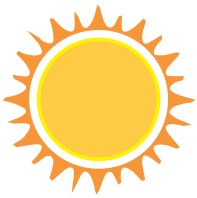
It is important to clean the device after each measurement to get rid of any reagent residues!

Het is belangrijk om het apparaat schoon na elke meting te ontdoen van alle reagentia restjes!

Det er vigtigt at rengøre enheden efter hver måling for at slippe af med alle reagensrester!

Herhangi bir reaktif kalıntısından kurtulmak için her ölçümden sonra cihazı temizlemeniz önemlidir!

Важно чистить прибор после каждого измерения, чтобы убрать остатки реагентов!



Do not leave the device in the sun!

Laat het apparaat niet in de zon liggen

Lad ikke enheden stå i solen

Cihazı doğrudan güneş ışığı altında bırakmayın.

Не оставляйте прибор на солнце

The PoolLab is also suitable for saltwater pools / salt electrolysis pools!

Het PoolLab is ook geschikt voor zoutwaterzwembaden/zoutelektrolysebaden.

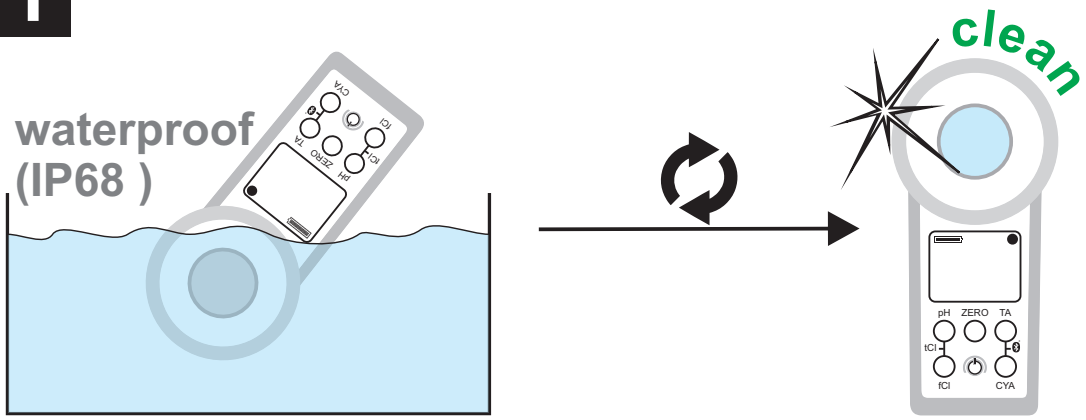
PoolLab er også velegnet til saltvandspools / saltelektrolysepools

PoolLab, tuzlu su havuzları / tuz elektroliz havuzları için de kullanıma uygundur.

PoolLab также подходит для бассейнов с соленой водой/ бассейнов с солевым электролизом!

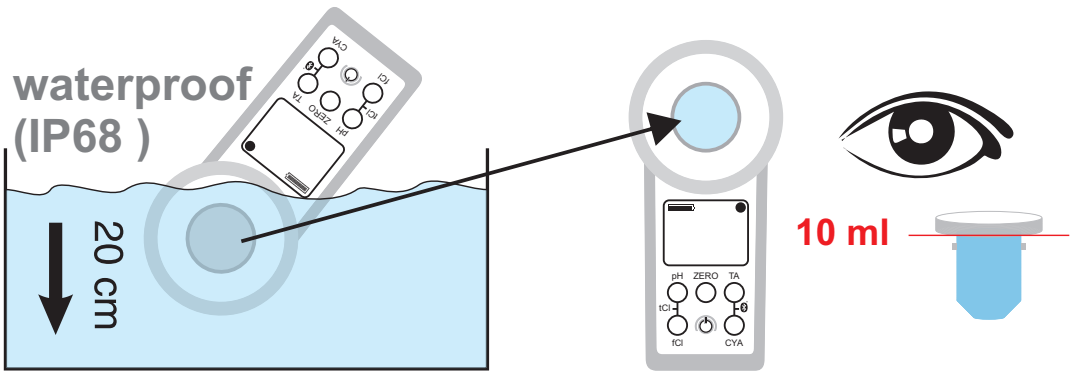
ZERO

1

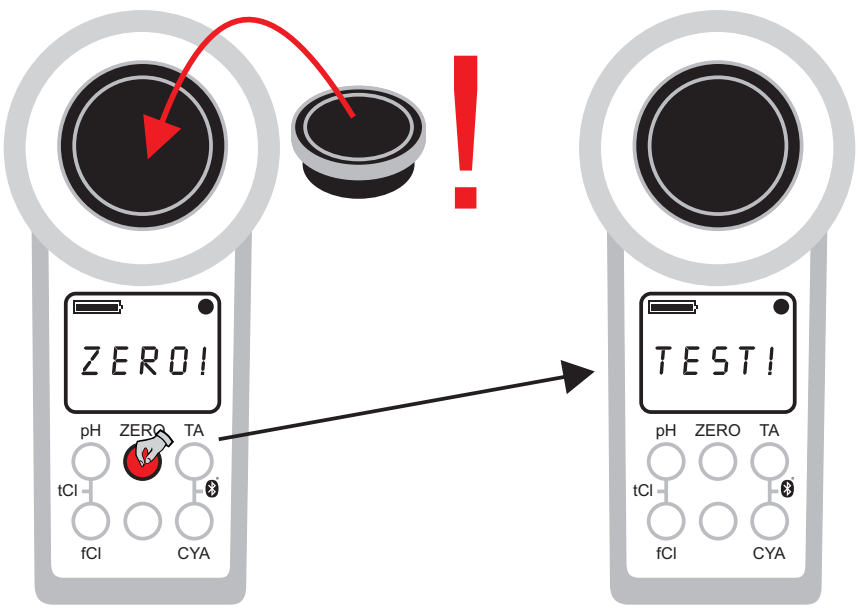


2

take 10 ml water sample



3



Only 1 time per test batch • Slechts 1 keer per test batch • Kun 1 gang pr. testbatch • Her test yığını için yalnızca 1 zaman • Только 1 раз в тестируемой партии

Once you performed ZERO, all measurements, like pH, chlorine... can be done one after each other without the need to do a ZERO again. The ZERO will be stored until the device will be switched off. Nevertheless, ZERO can be performed before each measurement, if wished.

De zogenaamde nulpuntmeting hoeft maar 1 x per meetsessie uitgevoerd te worden. Meteen hierna kunnen de metingen voor pH, chloor etc uitgevoerd worden. Deze nulpuntmeting blijft bewaard zoiang de meter aan blijft staan. Desgewenst kan per meting ook iedere keer een nulpuntmeting uitgevoerd worden.

Når du har udført ZERO måling så kan du efterfølgede udføre alle målinger såsom PH, Klor etc. uden behov for at udføre en ny ZERO måling. Hvis du ønsker det så kan man dog stadig udfører nye ZERO før efterfølgende målinger.

Bir kez sıfır ayarı (ZERO) belirledikten sonra, çesitli ölçümleri ardı ardına yapabilirsiniz. Cihaz kapanıp açılana kadar ayni sıfır ayarı kullanılabilir. Istenilirse, her ölçüm oncesi yeni ayar da alınabilir.

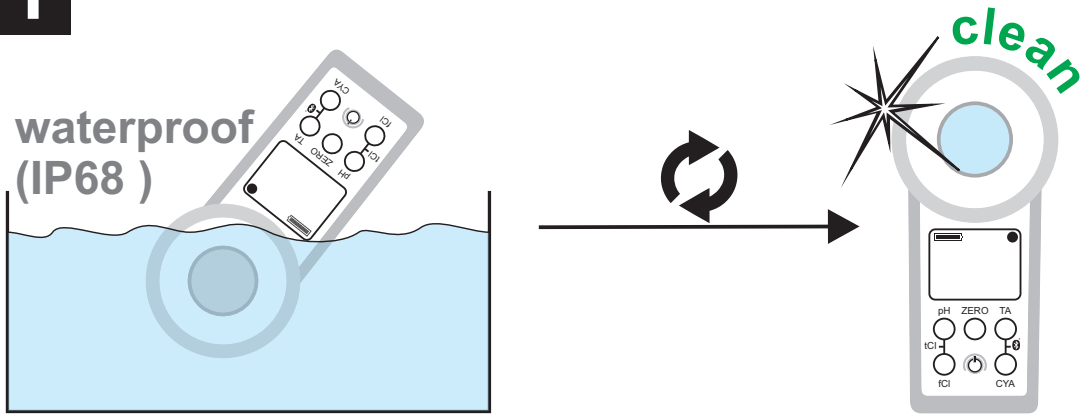
ZERO выполняется один раз перед серией измерений. После выполнения ZERO все последующие измерения (например pH, хлор и др.) можно делать последовательно, один за другим, не повторяя ZERO. Значение ZERO будет храниться, пока устройство не будет выключено. При желании ZERO может быть выполнено перед каждым измерением.

pH

6.50 - 8.40 pH

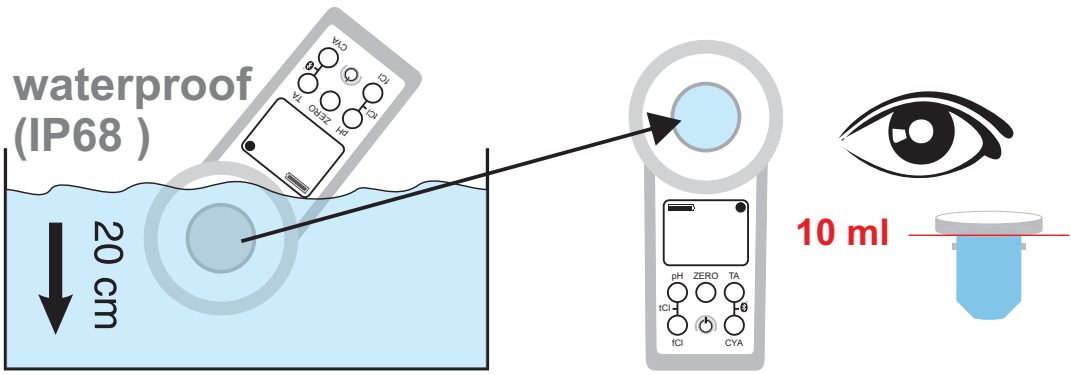
Phenol Red Photometer

1



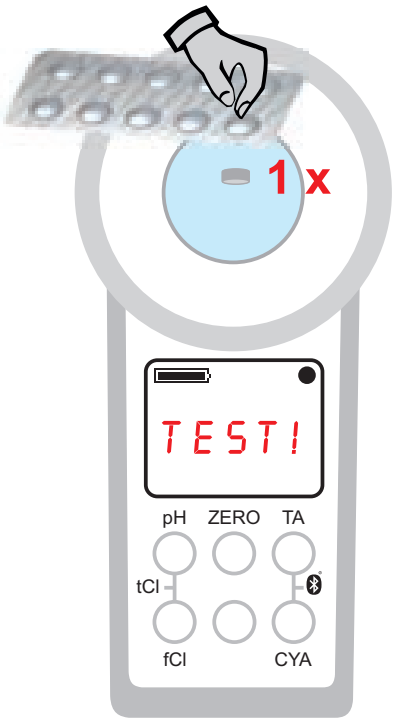
2

take 10 ml water sample



3

Phenol Red Photometer



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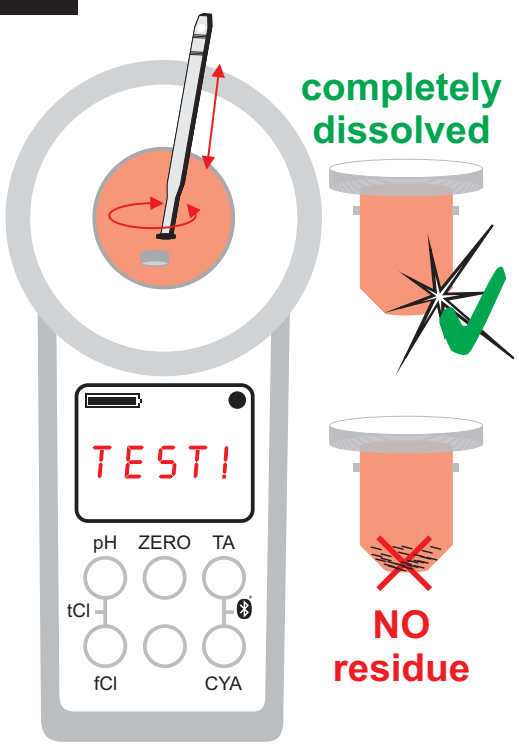

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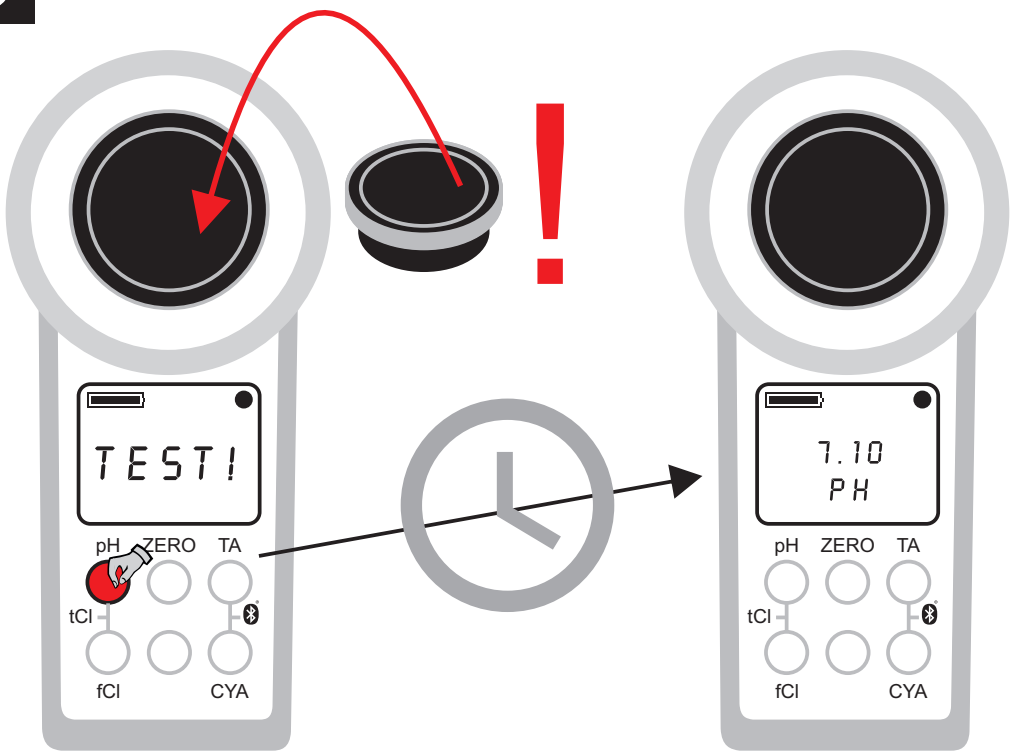


The Total Alkalinity value has to be minimum 50 mg/l to obtain a correct pH value.

De totale alkaliteit moet minimaal 50 mg/l zijn om een correcte pH-waarde te verkrijgen.

Den totale alkalinitetsværdi skal være mindst 50 mg / l for at opnå den korrekte pH-værdi.

Doğru bir pH değeri elde etmek için toplam Alkalinite değeri minimum 50 mg/l olmalıdır.

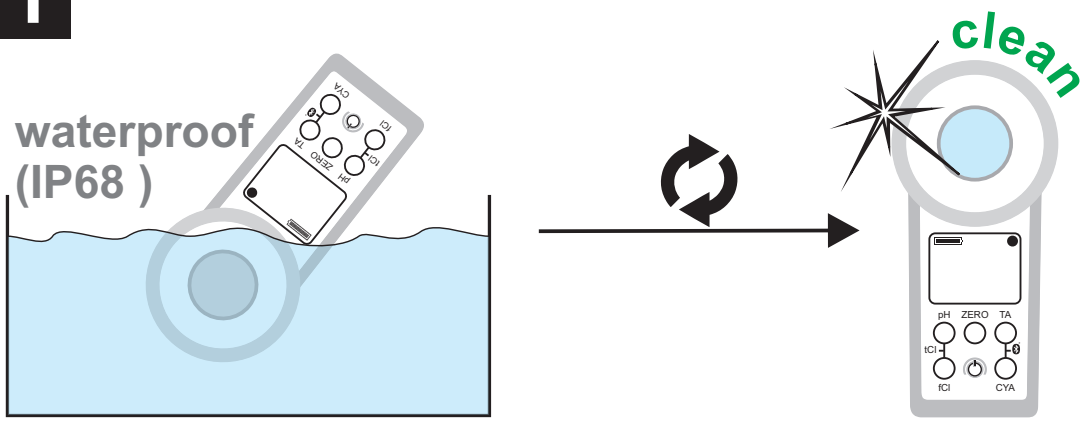
Значение Общей Щелочности должно быть не менее 50 мг/л, чтобы получить правильное значение pH.

Chlorine
Chloor
Klor
Хлор

0.00 - 8.00 mg/l (ppm)

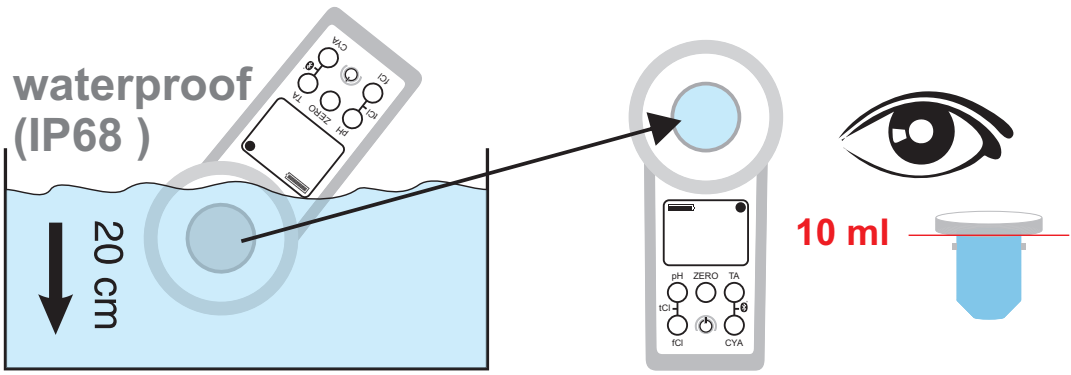
DPD N° 1 Photometer
DPD N° 3 Photometer

1



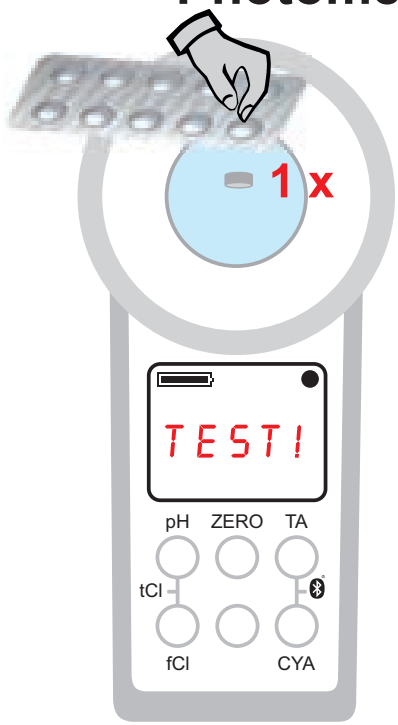
2

take 10 ml water sample

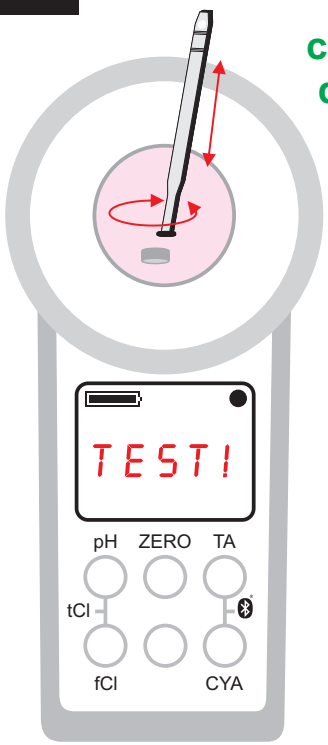


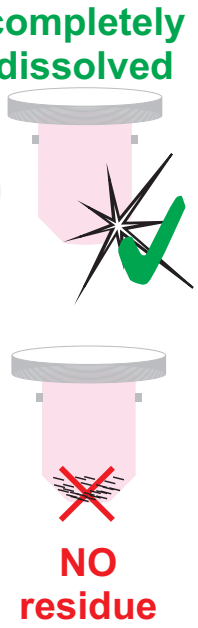
3

DPD N° 1
Photometer



4





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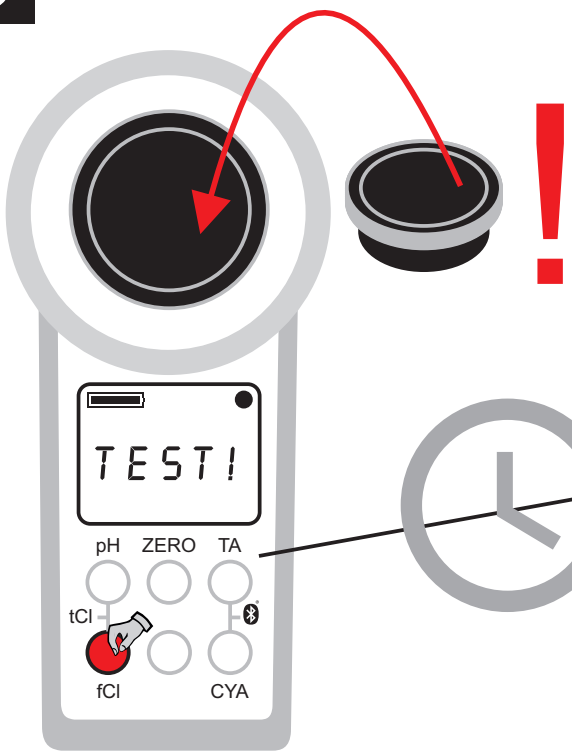
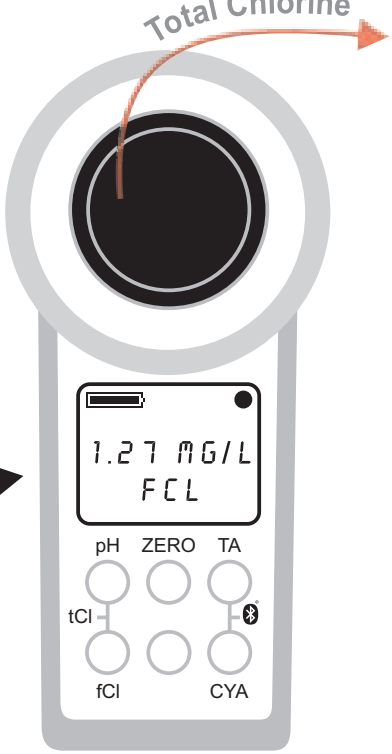


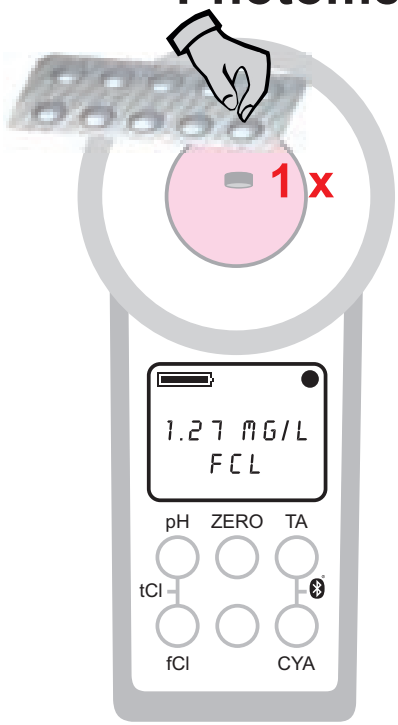
6



Total Chlorine • Totale Chloor • Total klor
Toplam Klor • Общий хлор

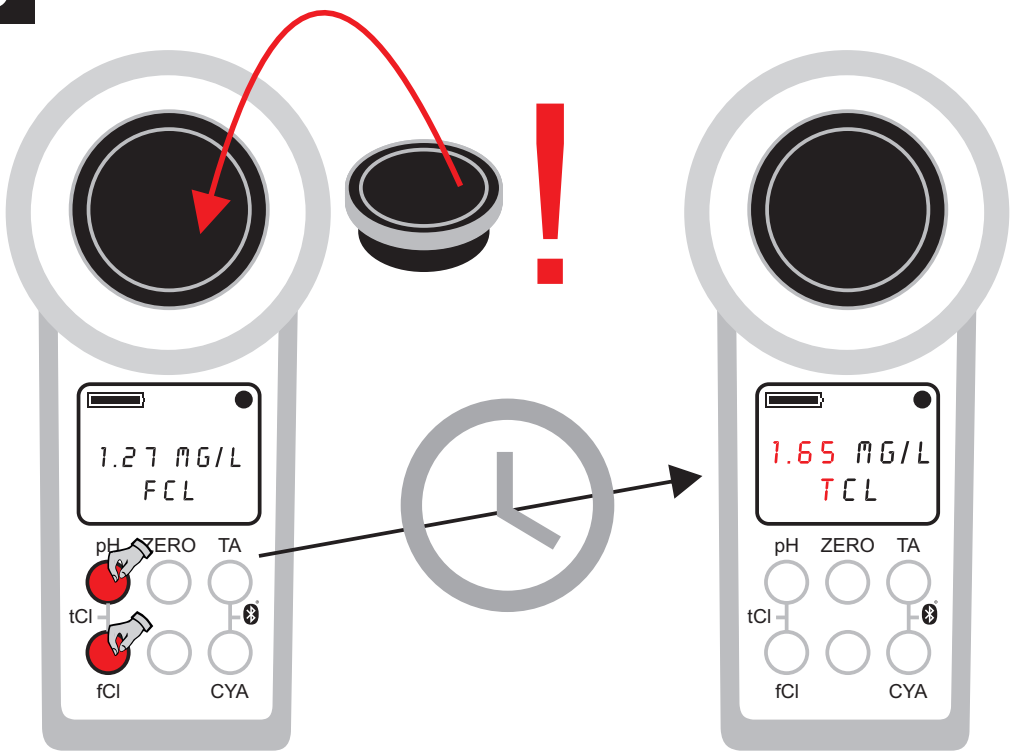
6

DPD N° 3
Photometer



7

8



Total Chlorine is measured directly after free Chlorine without emptying the cuvette. The DPD 3 tablet is added to the sample water which already contains the DPD 1 tablet (dissolved). Combined Chlorine is calculated as Total Chlorine minus free Chlorine.

De meting voor totaal chloor dient direct na de meting van vrij chloor uitgevoerd te worden zonder de testcuvette te legen. De DPD 3 tablet wordt toegevoegd aan het water waarin de DPD 1 tablet van de vrije chloormeting reeds is opgelost. De waarde van het gebonden chloor krijgt u door de waarde van vrij chloor van de totaal chloormeting af te trekken.

Total Klor måles direkte efter måling for Fri Klor uden at kammeret tømmes for vand. DPD 3 tilføjes til testvandet der allerede indeholder den opløste DPD 1 tablet. Kombineret Klor beregnes som Total Klor minus Fri Klor.

Toplam klor serbest klor ölçüldükten hemen sonra, su boşaltılmadan ölçülür. DPD 3 tableti önceden DPD 1 atılmış suyun içine atılır. Bağlı klor toplam klordan serbest klor çıkartılarak hesaplanır.

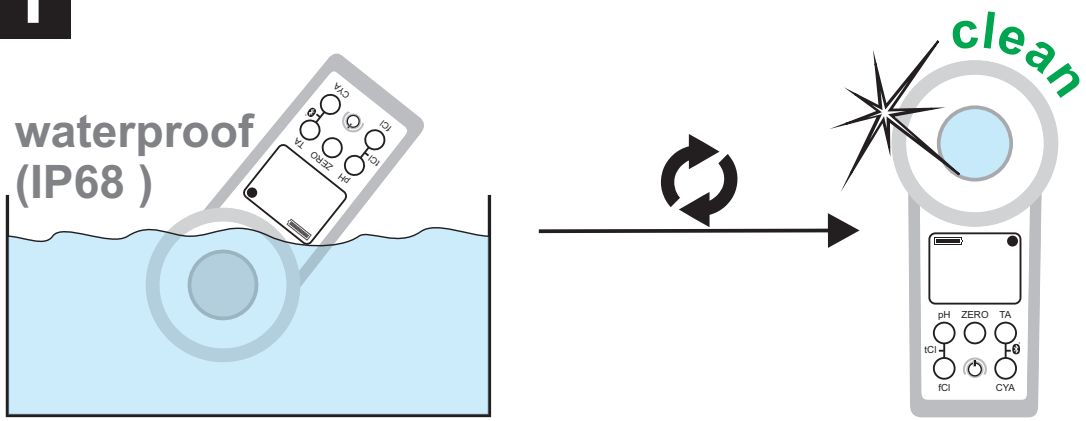
Общий хлор измеряется непосредственно после свободного хлора не выливая образец воды из кюветы прибора. Таблетки DPD 3 добавляют в образец воды, который уже содержит таблетку DPD 1 (растворенную). Связанный хлор рассчитывается как общий хлор минус свободный хлор.

Cyanuric Acid
Cyanuurzuur
Cyanursyre
Siyanürik Asit
Циануровая кислота

0 - 160 mg/l (ppm)

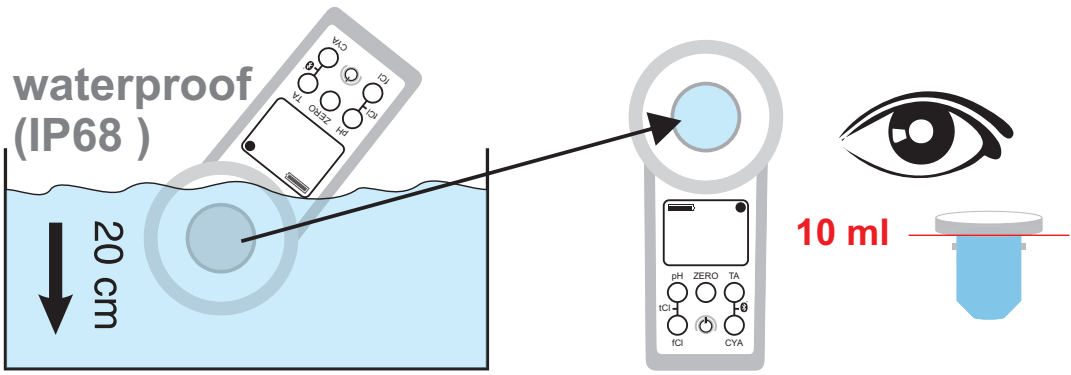
CYA-Test Photometer

1



2

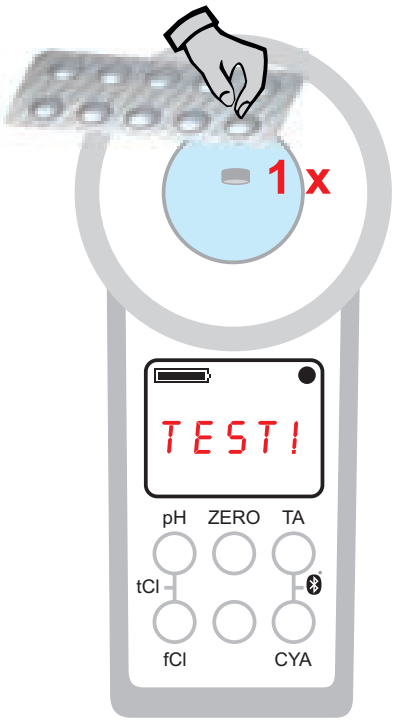
take 10 ml water sample



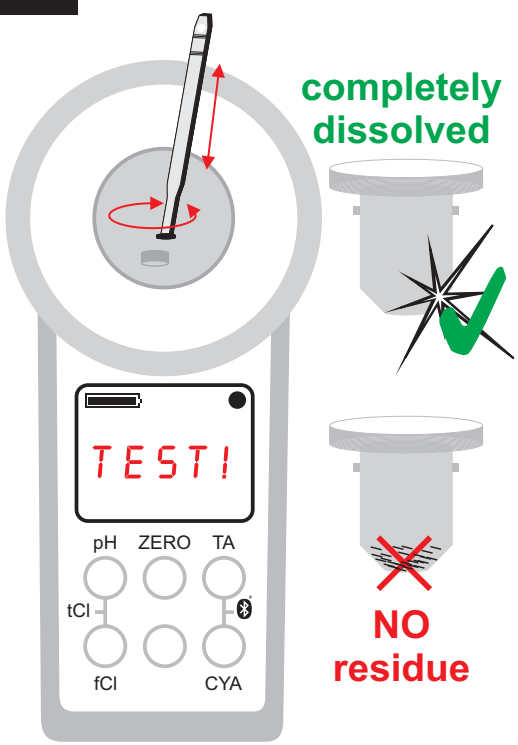
Cyan. Acid • Cyanuurzuur • Cyanursyre Siyanürik Asit • Циануровая кислота

3

CYA-Test Photometer



4



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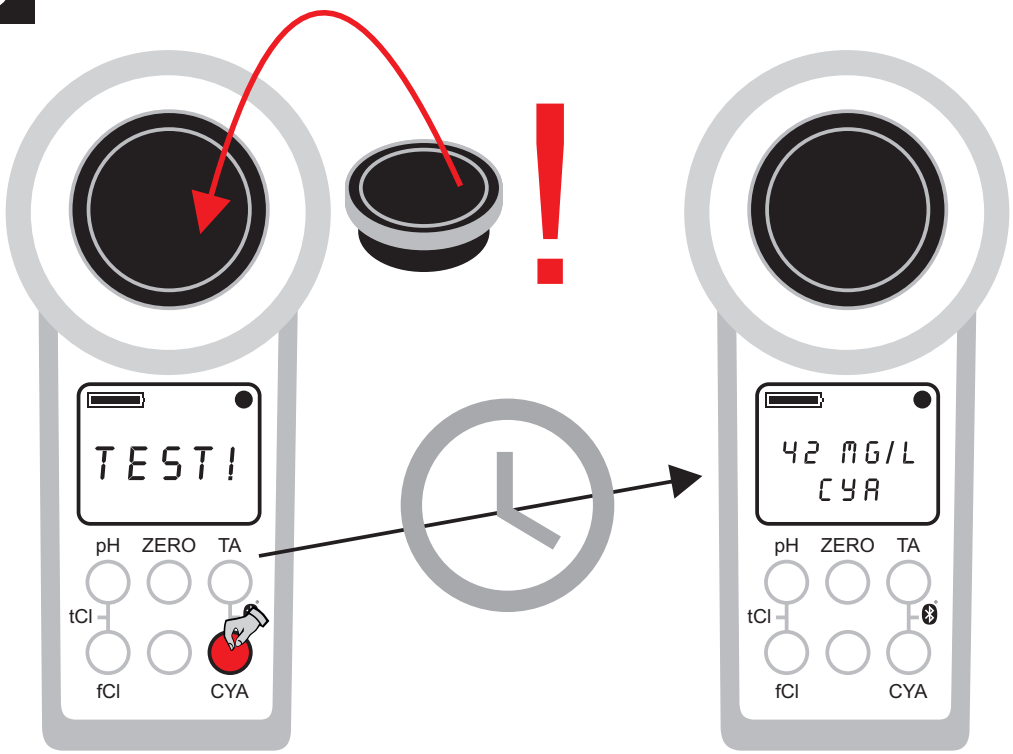
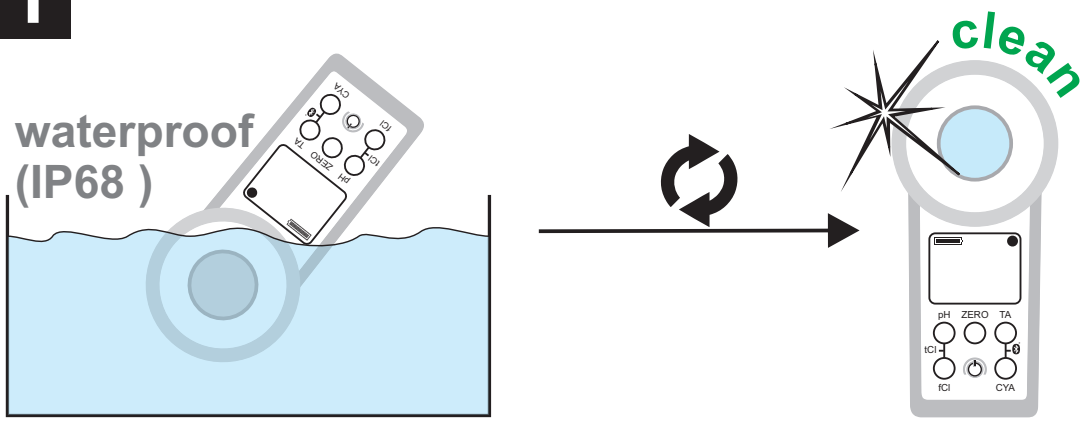


Alkalinity
Alkaliniteit
Alkalitet
Alkalinite
Щелочность

0 - 200 mg/l (ppm) $CaCO_3$

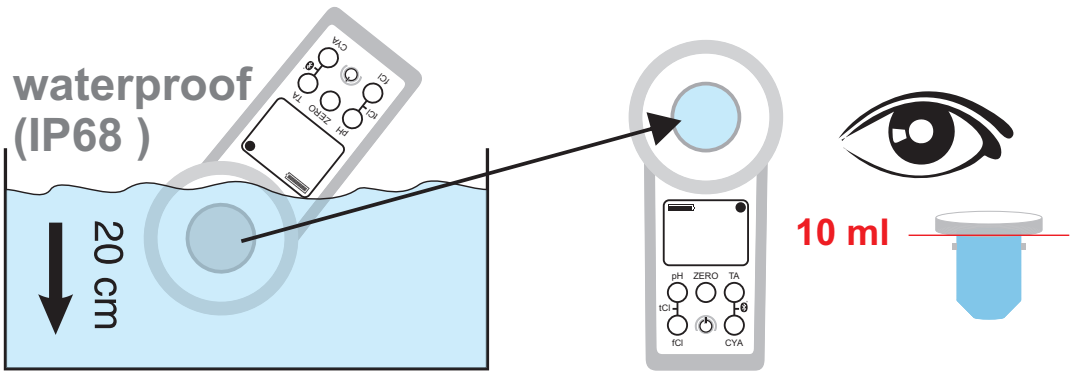
Alkalinity-M Photometer

1



2

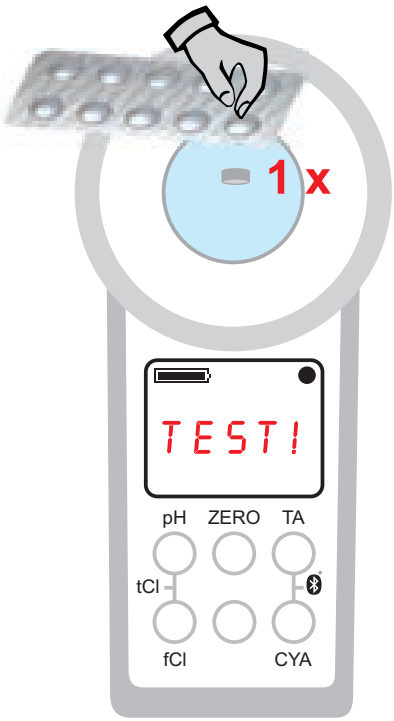
take 10 ml water sample



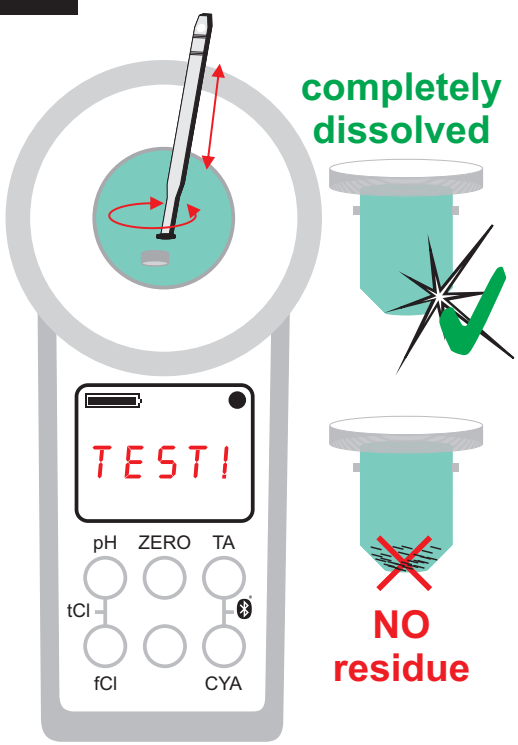
Alkalinity • Alkaliniteit • Alkalitet
Alkalinite • Щелочность

3

Alkalinity-M Photometer



4



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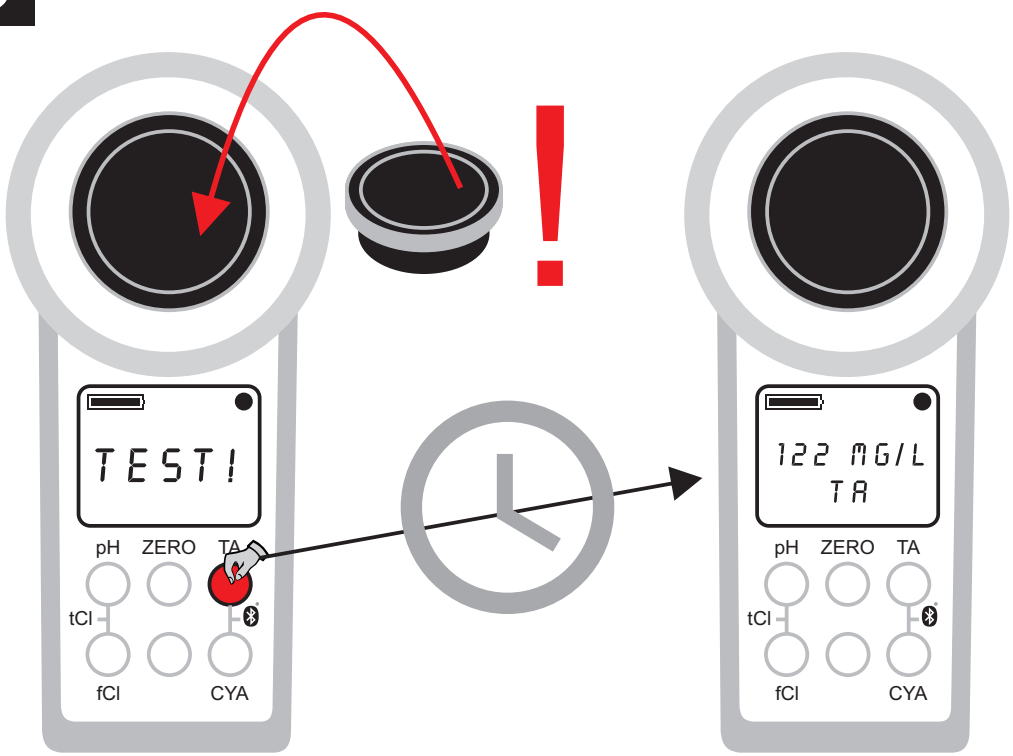


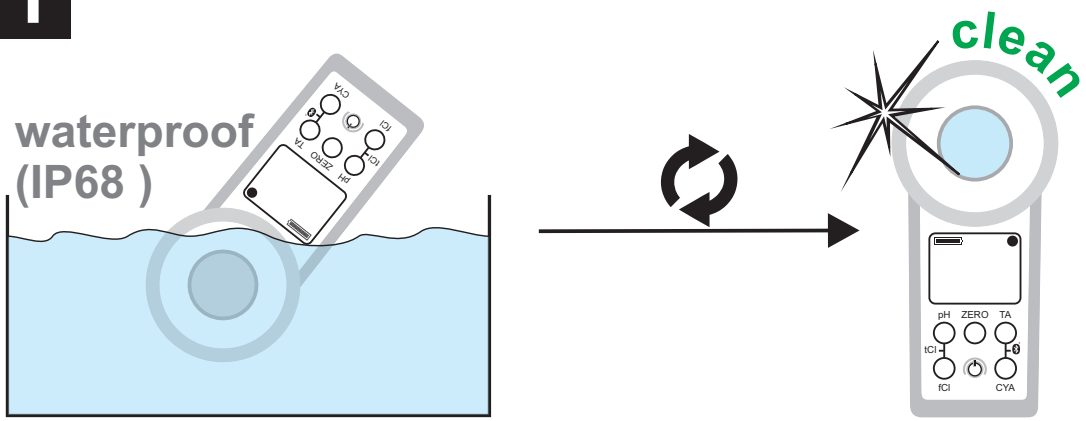
Active Oxygen
Actieve zuurstof
Aktiv ilt
Aktif Oksijen
Активный кислород
(MPS)

0.0 - 30.0 mg/l (ppm)

*DPD N° 4 Photometer**

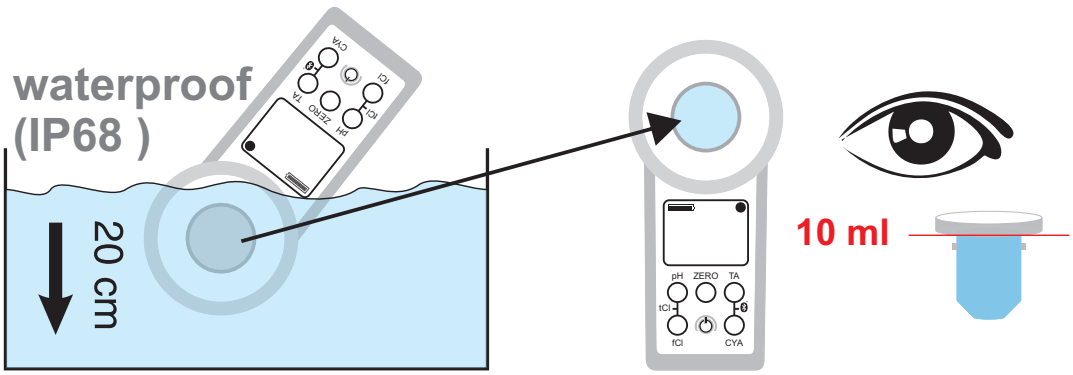
1

**not part of standard equipment*



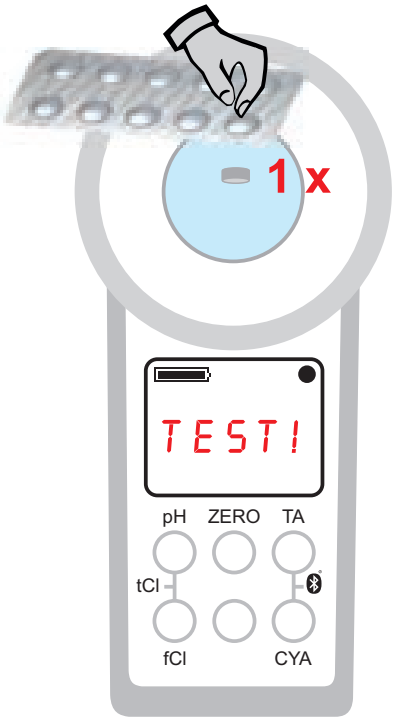
2

take 10 ml water sample

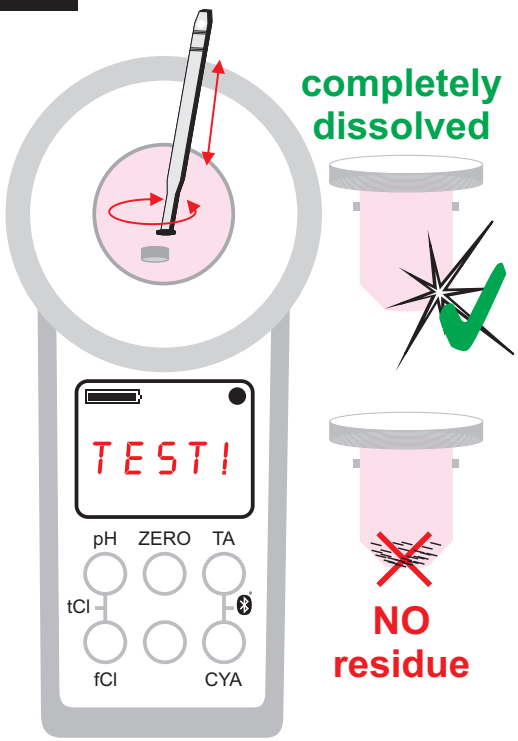


3

DPD N° 4
Photometer*



4



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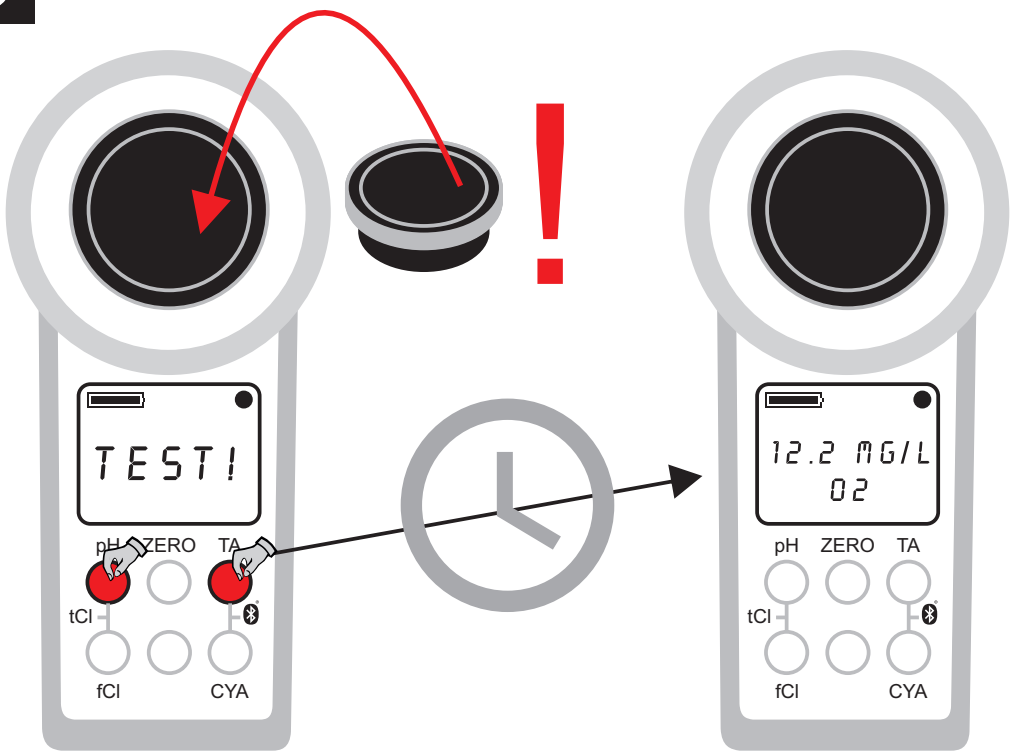


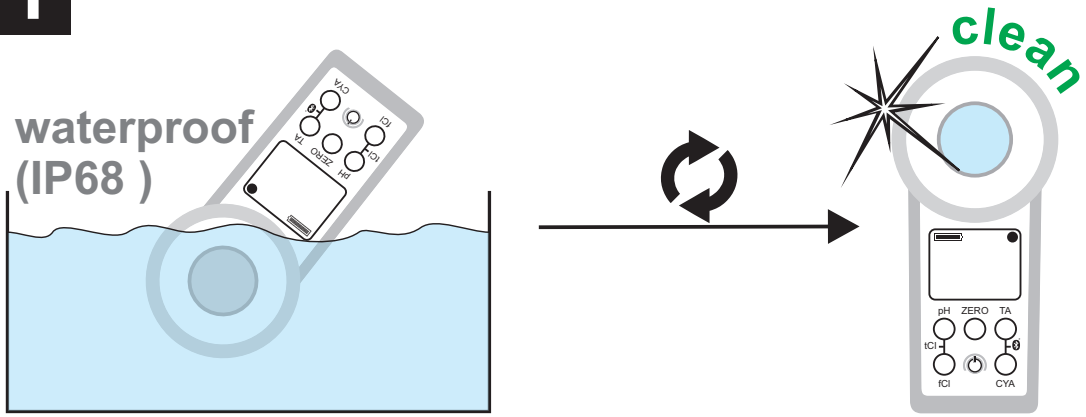
Chlorine Dioxide
Chloordioxide
Klordioxid
Klor dioksit
Диоксид хлора

0.00 - 11.40 mg/l (ppm)

DPD N° 1 Photometer
*Glycine**

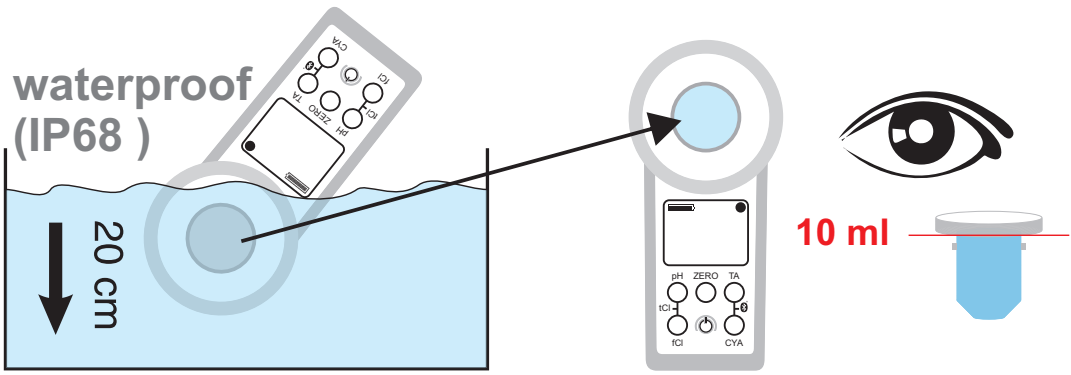
*not part of standard equipment

1



2

take 10 ml water sample



Cl.Dioxide • Chloordioxide • Klordioxid
Klor dioksit • Диоксид хлора

Only if your water sample does contain Chlorine next to Chlorine Dioxide (both disinfectants used), the following procedure "A" needs to be followed and Glycine* reagent needs to be used. Otherwise (only Chlorine Dioxide present), please follow procedure "B".

Alleen indien het water naast chloor ook chloordioxyde (beide desinfectiemiddelen naast elkaar) bevat dient men procedure "A" te volgen en moet een glycine tablet toegevoegd te worden. Indien alleen met chloordioxyde gedesinfecteerd wordt dient men proccedure "B" te volgen.

Kun såfremt vandprøven ud over klor også indeholder Klor Dioxid(begge desinfektionsmidler er benyttet) så skal den følgende procedure A følges og det er nødvendigt at benytte Glycine tabletter. Såfremt vandprøven alene indeholder Klor Dioxid så skal procedure B følges.

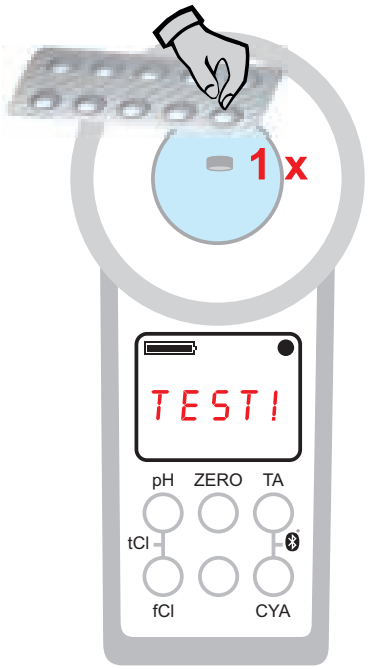
Test suyunuz hiç klor içermiyorsa, Prosedur A izlenmeli ve Glisin tabletleri kullanılmalıdır. Aksi takdirde (sadece klor dioksit bulunuyorsa), lütfen prosedur B'yi izleyin.

Если образец воды содержит хлор и диоксид хлора (использовались оба дезинфицирующих средства), выполняется процедура „A“ с добавлением реагента глицин*. В противном случае (присутствует лишь диоксид хлора) выполняется процедура „B“

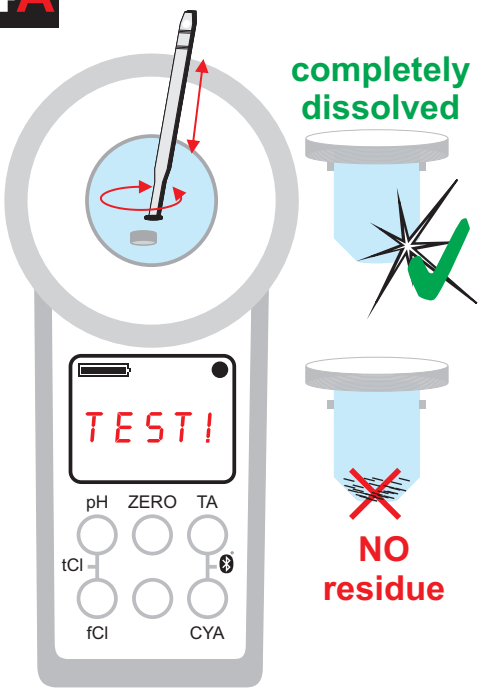
Cl.Dioxide • Chloordioxide • Klordioxid
Klor dioksit • Диоксид хлора

A With Chlorine / Met Chloor / Med Klor / Klorlu / С хлором

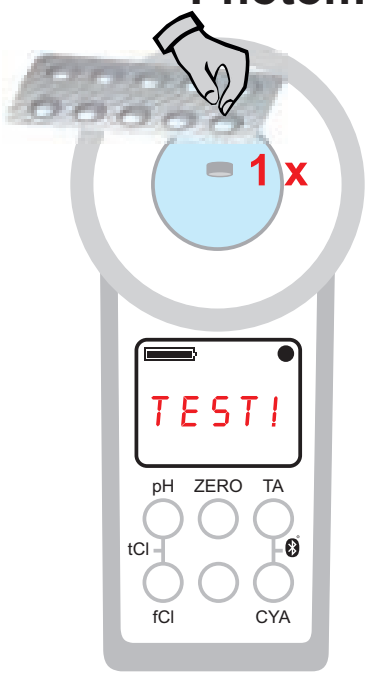
3A Glycine*



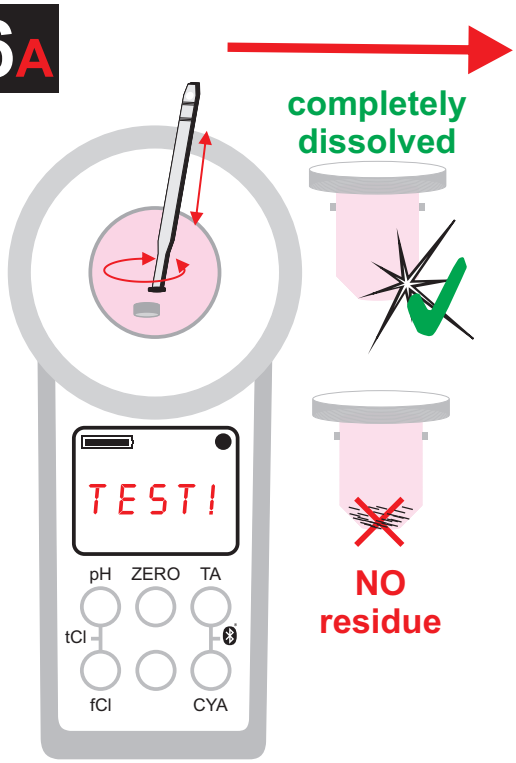
4A



5A DPD N° 1 Photometer



6A

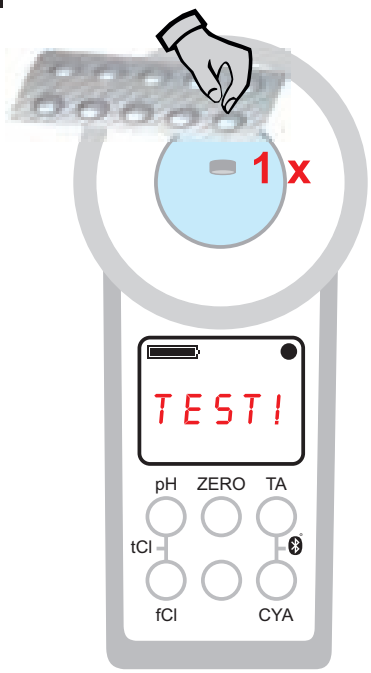


Cl.Dioxide • Chloordioxide • Klordioxid
Klor dioksit • Диоксид хлора

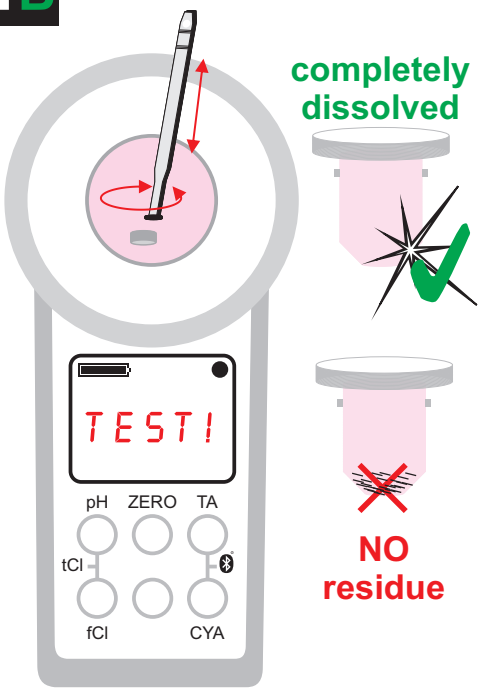
B Without Chlorine / Zonder chloor / Uden Klor / Klor olmadan / Без хлора

3B

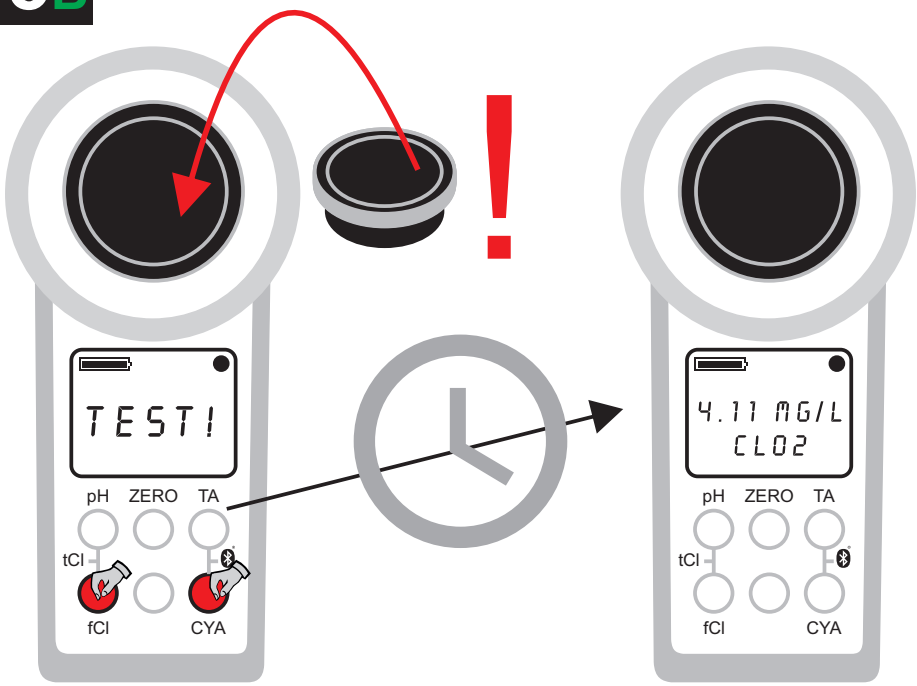
DPD N° 1
Photometer



4B



7A/5B



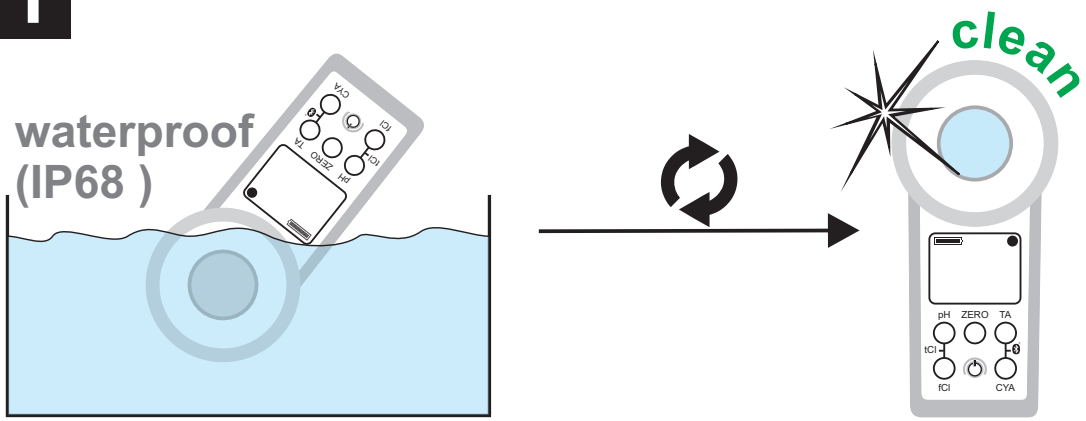
Bromine
Broom
Brom
Бром

0.0 - 13.5 mg/l (ppm)

DPD N° 1 Photometer
*Glycine**

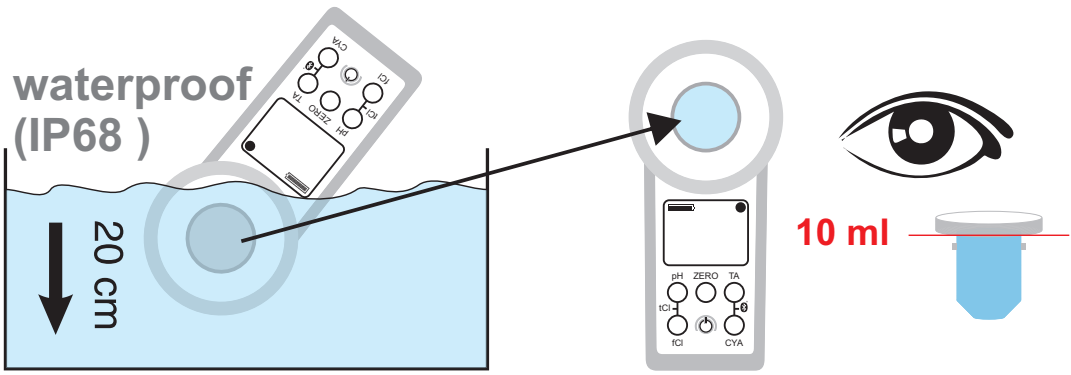
*not part of standard equipment

1



2

take 10 ml water sample



Bromine • Broom
Brom • Бром

Only if your water sample does contain Chlorine next to Bromine (both disinfectants used), the following procedure "A" needs to be followed and Glycine* reagent needs to be used. Otherwise (only Bromine present), please follow procedure "B"

Alleen indien het water naast chloor ook broom (beide desinfectiemiddelen naast elkaar) bevat dient men procedure "A" te volgen en moet een glycine tablet toegevoegd te worden. Indien alleen met broom gedesinfecteerd wordt dient men proccedure "B" te volgen.

Kun såfremt vandprøven ud over klor også indeholder Brom(begge desinfektionsmidler er benyttet) så skal den følgende procedure A følges og det er nødvendigt at benytte Glycine tabletter. Såfremt vandprøven alene indeholder Brom så skal procedure B følges.

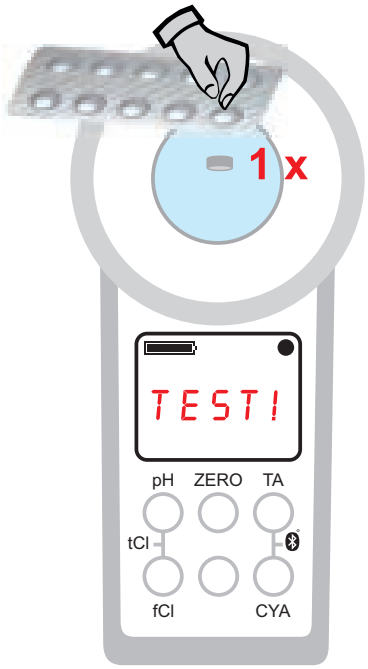
Test suyunuz hiç klor içermiyorsa, Prosedur A izlenmeli ve Glisin tabletleri kullanılmalıdır. Aksi takdirde (sadece brom bulunuyorsa), lütfen prosedur B'yi izleyin.

Если образец воды содержит хлор и Бром (использовались оба дезинфицирующих средства), выполняется процедура „A“ с добавлением реагента глицин*. В противном случае (присутствует лишь Бром) выполняется процедура „B“

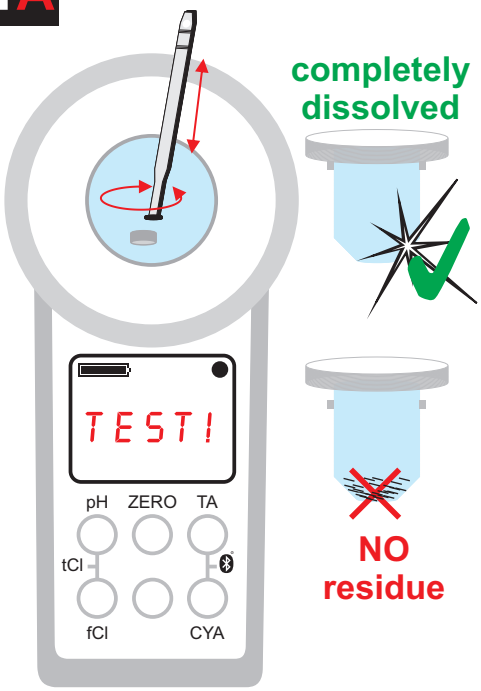
Bromine • Broom
Brom • Бром

A With Chlorine / Met Chloor / Med Klor / Klorlu / С хлором

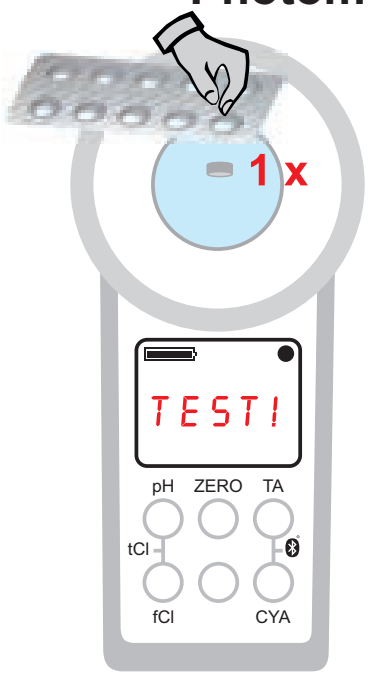
3A Glycine*



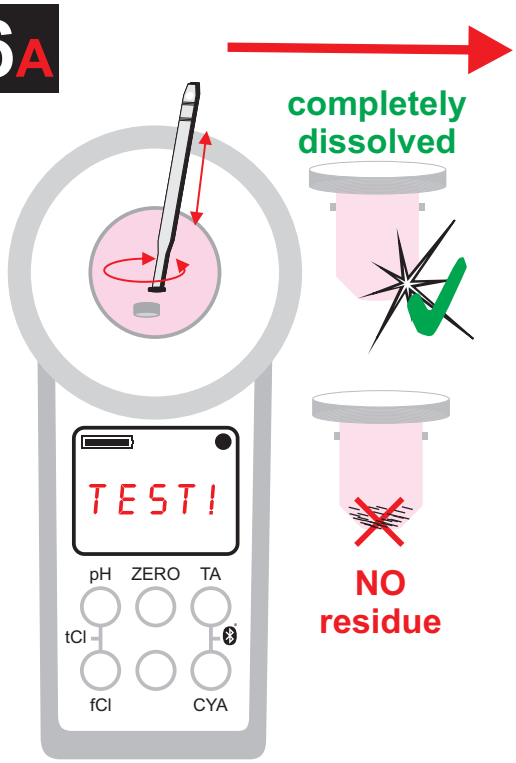
4A



5A DPD N° 1 Photometer



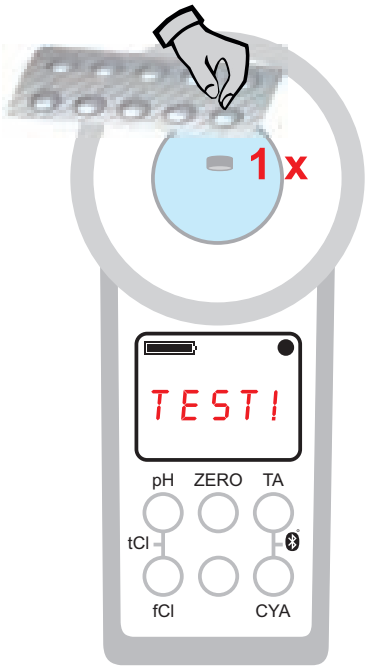
6A



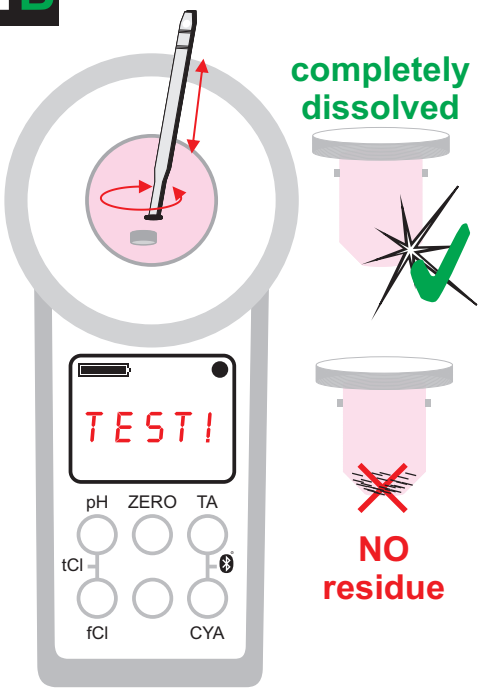
Bromine • Broom
Brom • Бром

B Without Chlorine / Zonder chloor / Uden Klor / Klor olmadan / Без хлору

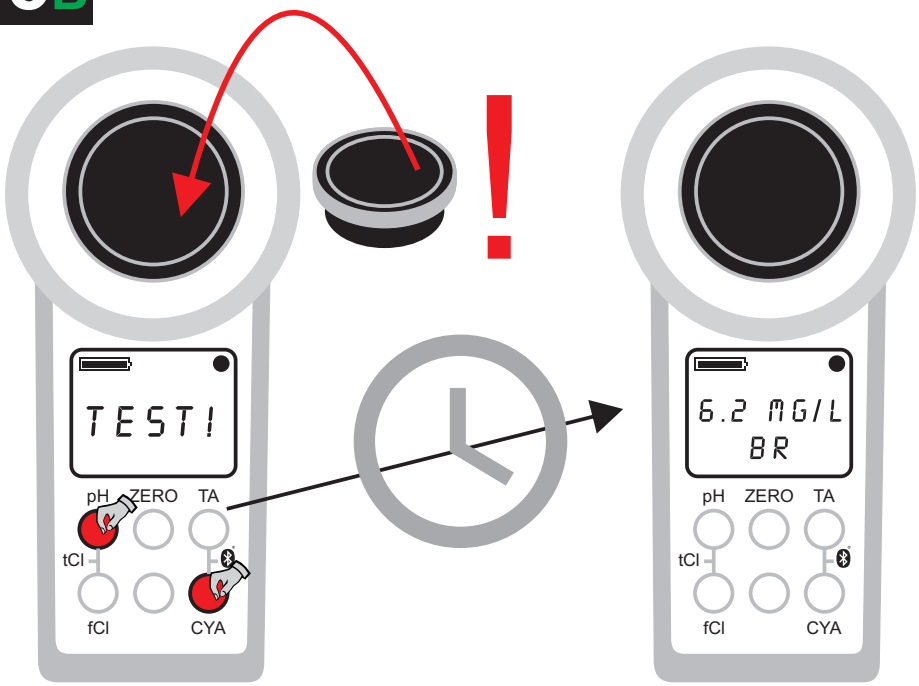
3B DPD N° 1 Photometer



4B



7A/5B



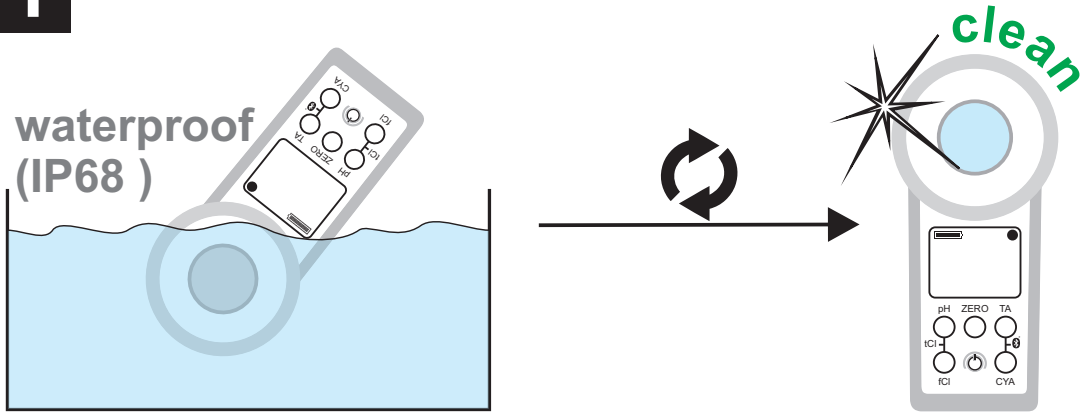
Ozone
Ozon
Озон

0.00 - 4.00 mg/l (ppm)

DPD N° 1 Photometer
DPD N° 3 Photometer
*Glycine**

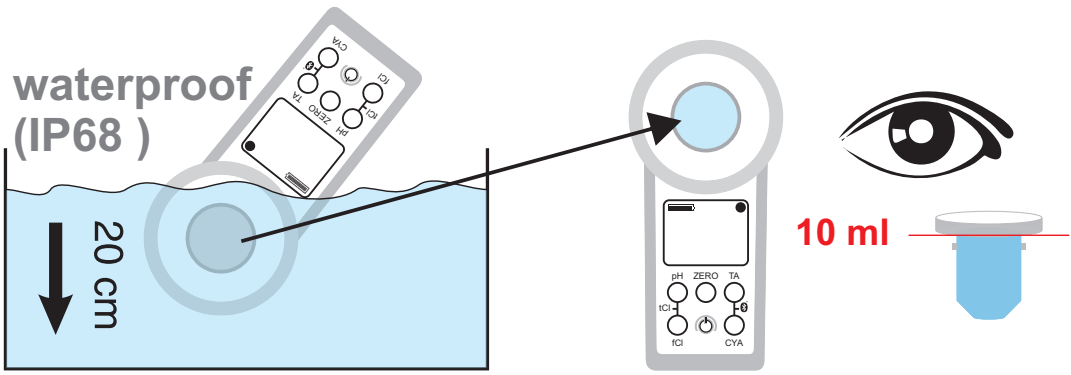
*not part of standard equipment

1



2

take 10 ml water sample



Ozone • Ozono • Ozon

Only if your water sample does contain Ozone next to Chlorine (both disinfectants used), the following procedure "B" needs to be followed and Glycine* reagent needs to be used. Otherwise (only Ozone present), please follow procedure "A".

Alleen indien het water naast chloor ook ozon (beide desinfectiemiddelen naast elkaar) bevat dient men procedure "B" te volgen en moet een glycine tablet toegevoegd te worden. Indien alleen met ozon gedesinfecteerd wordt dient men proccedure "A" te volgen.

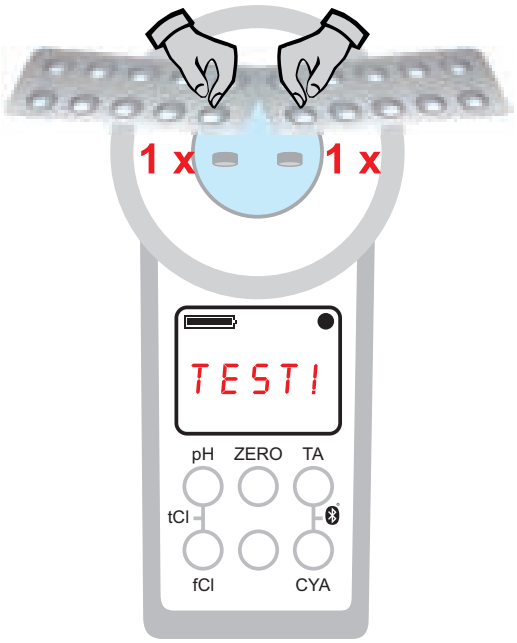
Kun såfremt vandprøven ud over klor også indeholder Ozon(begge desinfektionsmidler er benyttet) så skal den følgende procedure B følges og det er nødvendigt at benytte Glycine tabletter. Såfremt vandprøven alene indeholder Ozon så skal procedure A følges.

Test suyunuz hiç klor içermiyorsa, Prosedur B izlenmeli ve Glisin tabletleri kullanılmalıdır. Aksi takdirde (sadece ozon bulunuyorsa), lütfen prosedur A'yi izleyin.

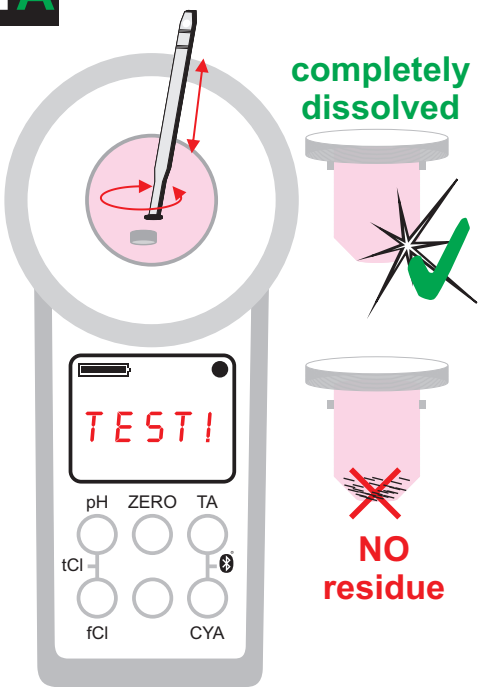
Если образец воды содержит хлор и Озон (использовались оба дезинфицирующих средства), выполняется процедура „B“ с добавлением реагента глицин*. В противном случае (присутствует лишь Озон) выполняется процедура „A“

A Without Chlorine / Zonder chloor / Uden Klor / Klor olmadan / Без хлору

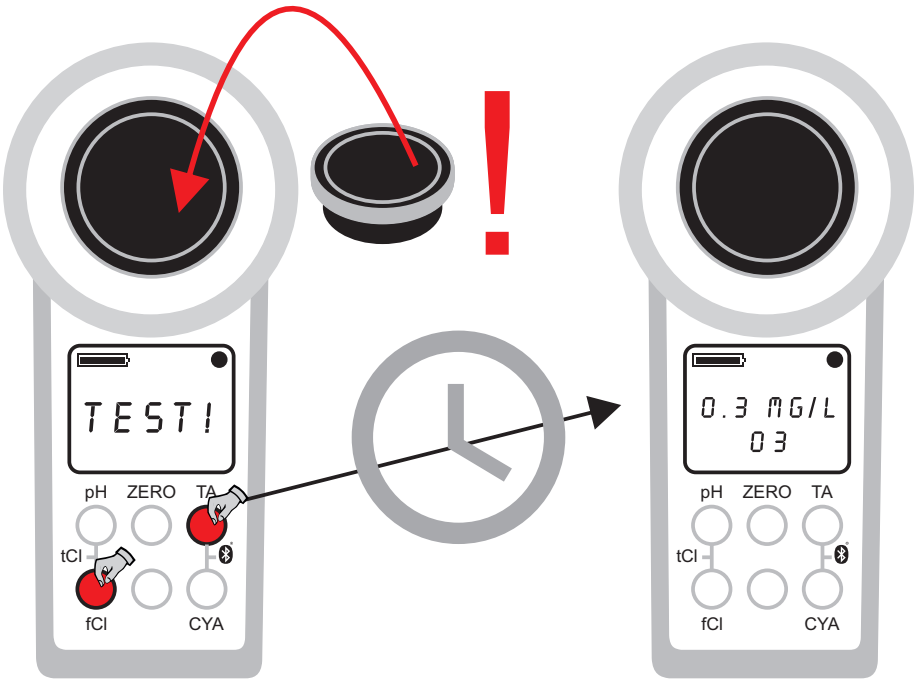
3A DPD N°1 & DPD N°3 (Photometer)



4A

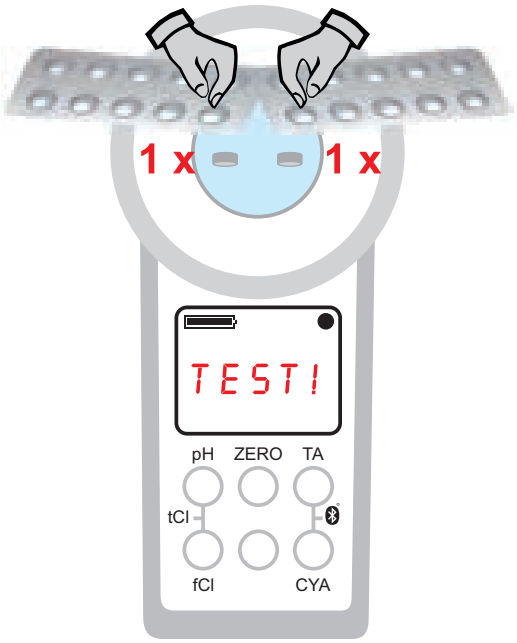


5A

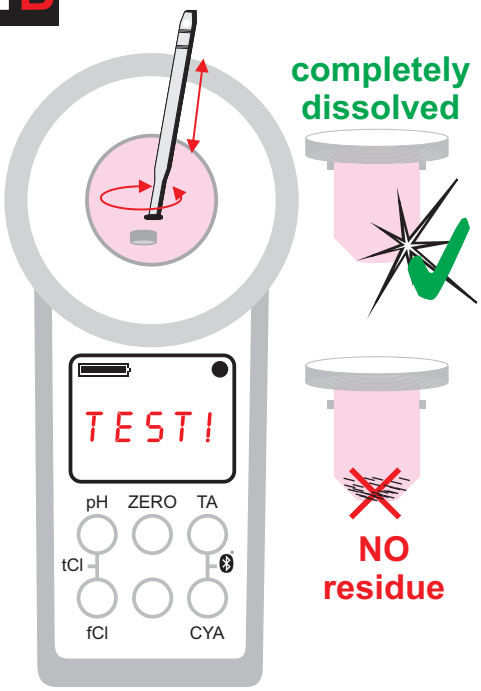


B With Chlorine / Met Chloor / Med Klor / Klorlu / С хлором

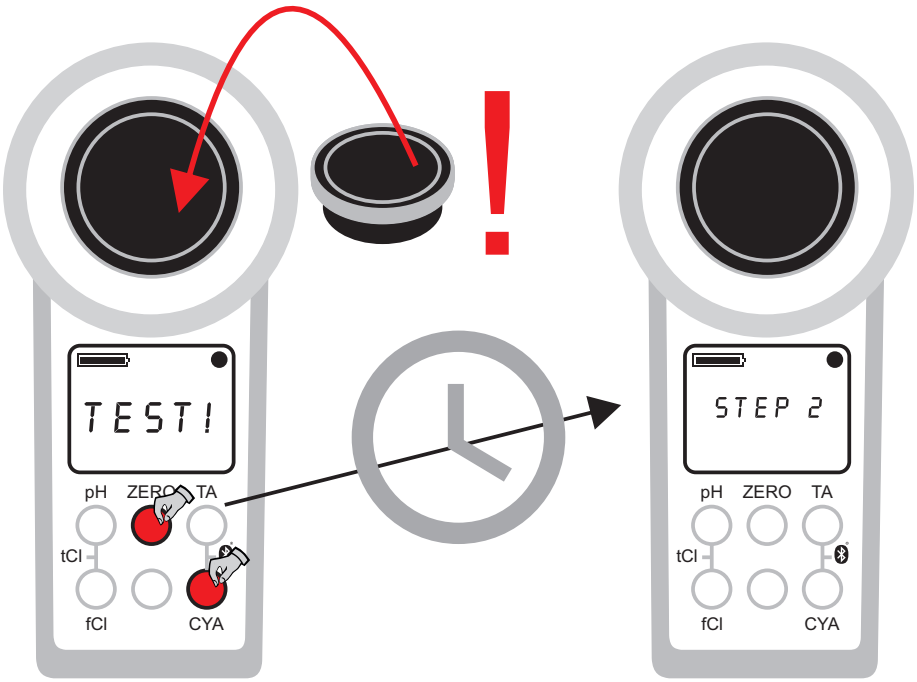
3B DPD N°1 & DPD N°3 (Photometer)



4B

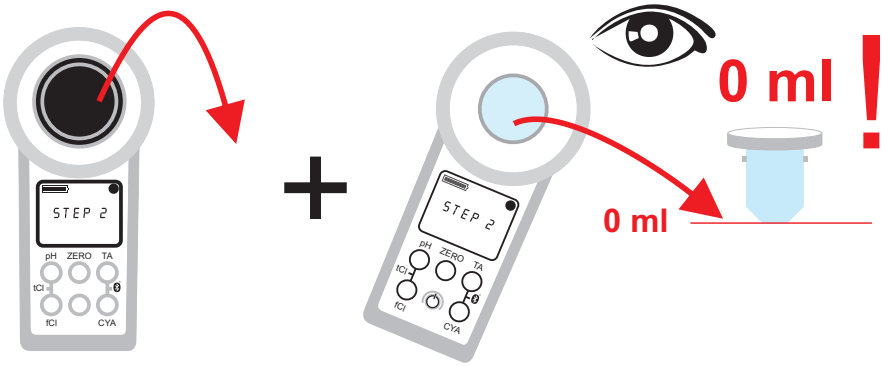


5B

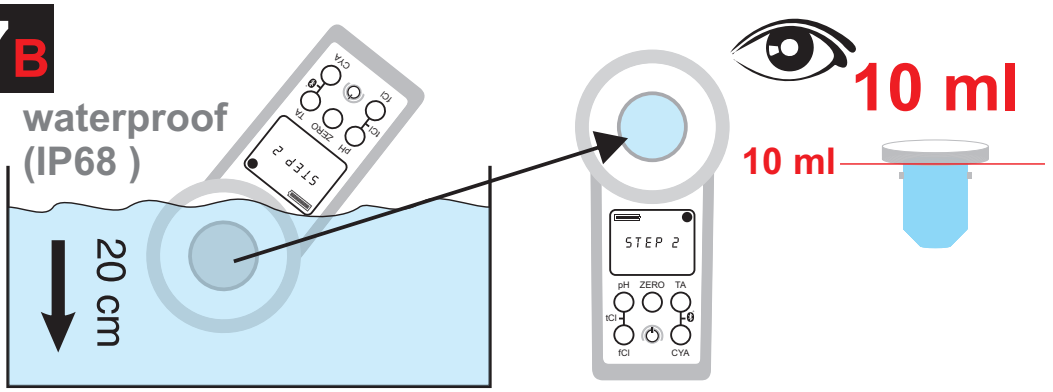


B With Chlorine / Met Chloor / Med Klor / Klorlu / С хлором

6B

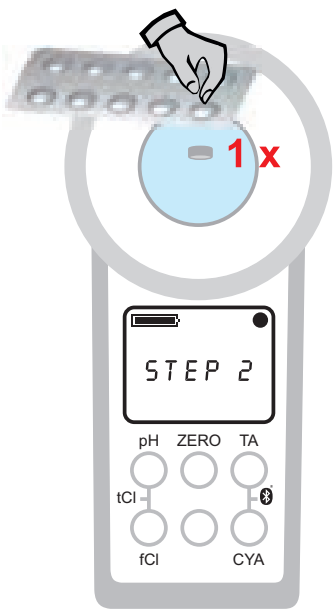


7B

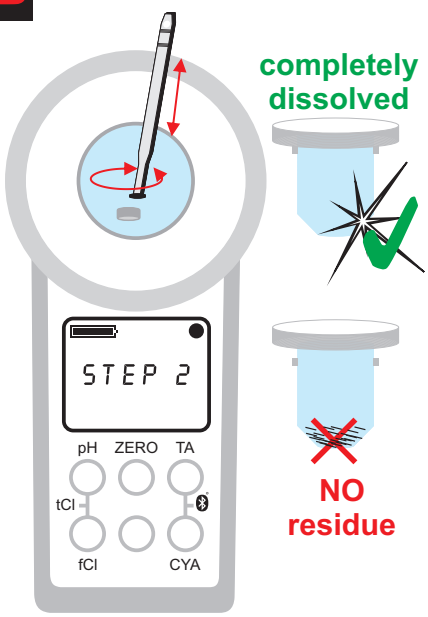


8B

Glycine*

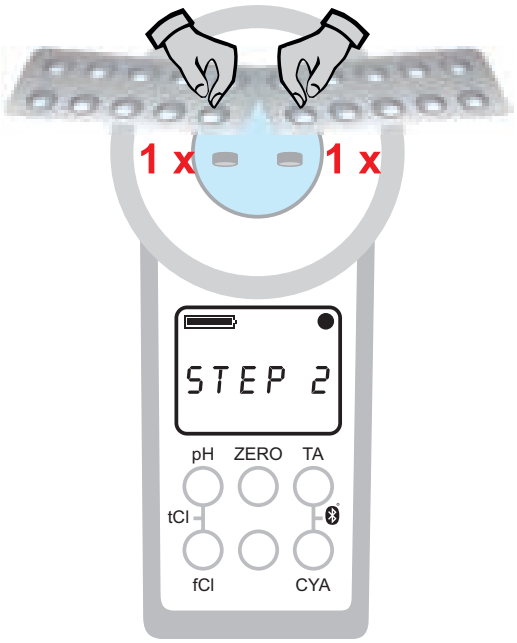


9B

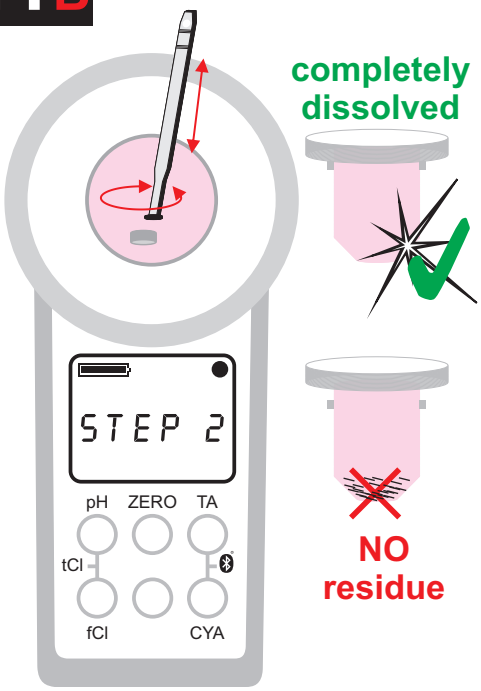


B With Chlorine / Met Chloor / Med Klor / Klorlu / С хлором

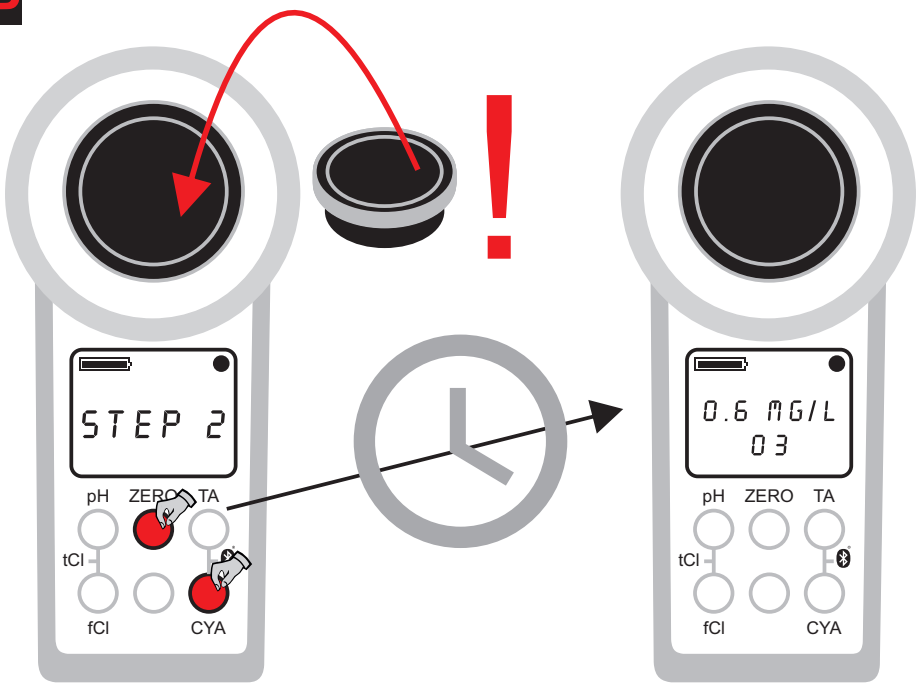
10B DPD N°1 & DPD N°3 (Photometer)



11B



12B



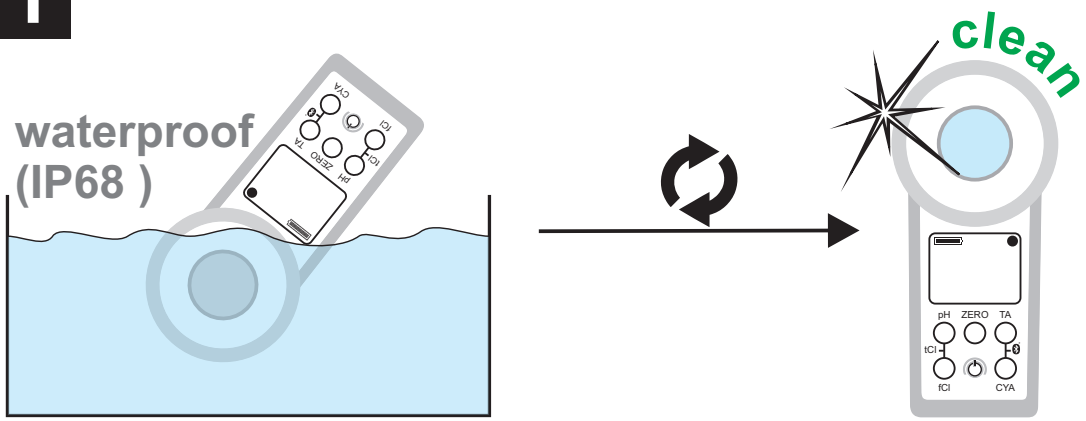
Hydrogen Peroxide
Waterstof peroxide
Brintoverilte
Hidrojen peroksit
Пероксид водорода
(LR)

0.00 - 2.90 mg/l (ppm)

*Hyd. Peroxide LR Photometer**

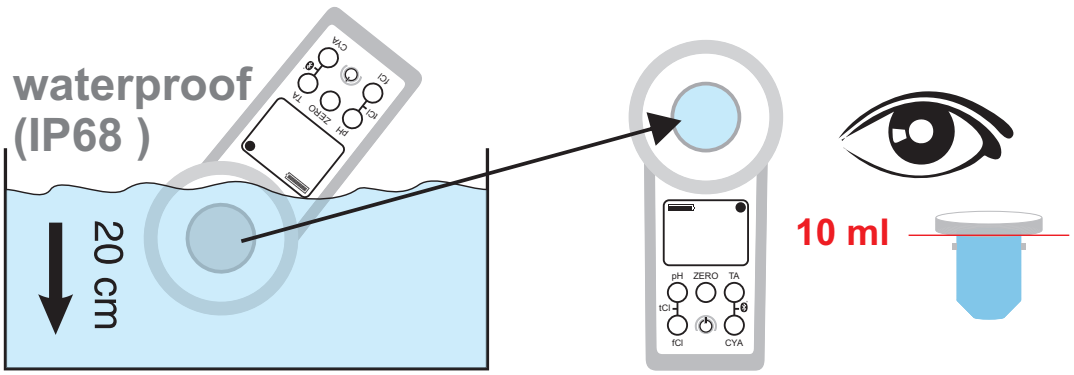
*not part of standard equipment

1



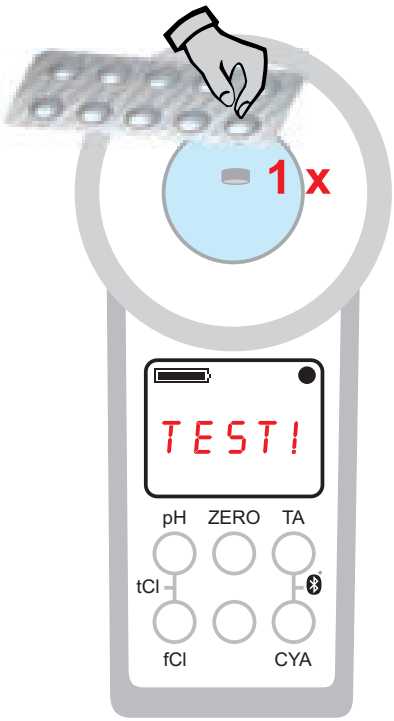
2

take 10 ml water sample

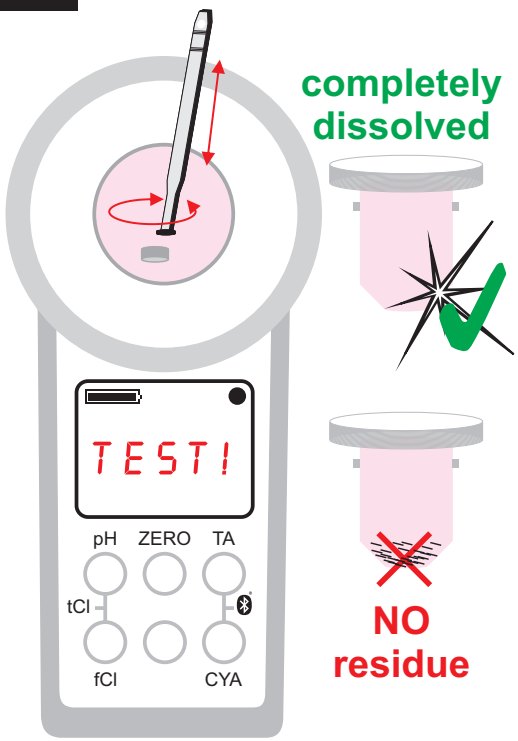


Hyd. Perox. • Waterstof perox. • Brintoverilte Hidrojen peroksit • Пероксид водорода

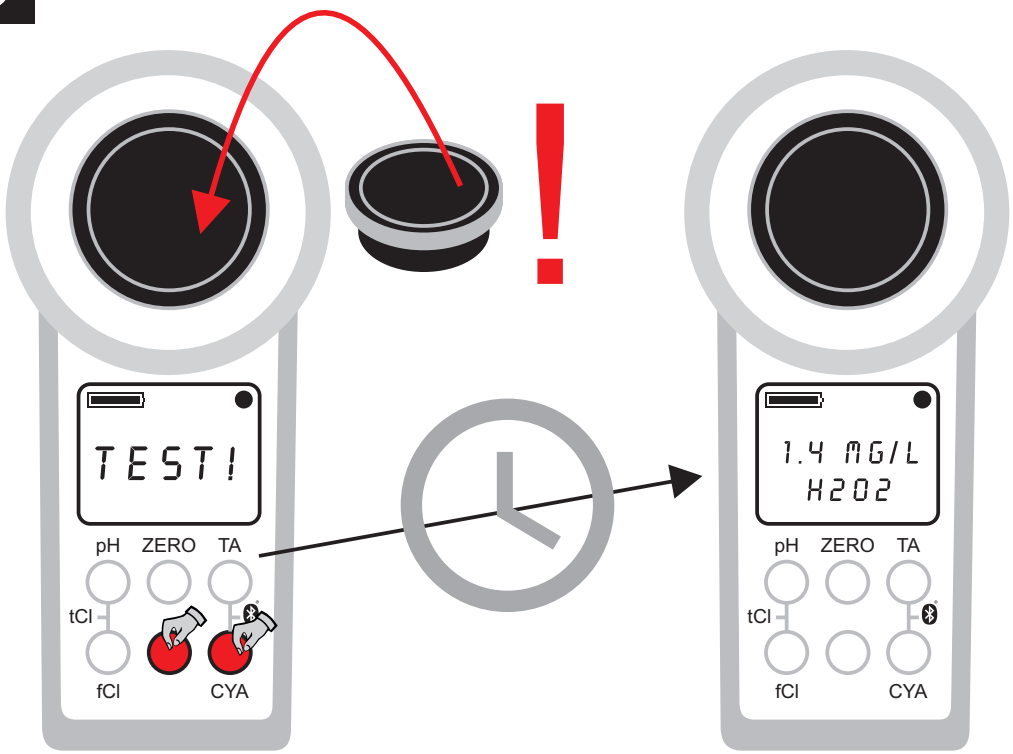
3 Hyd. Peroxide LR Photometer*



4



5



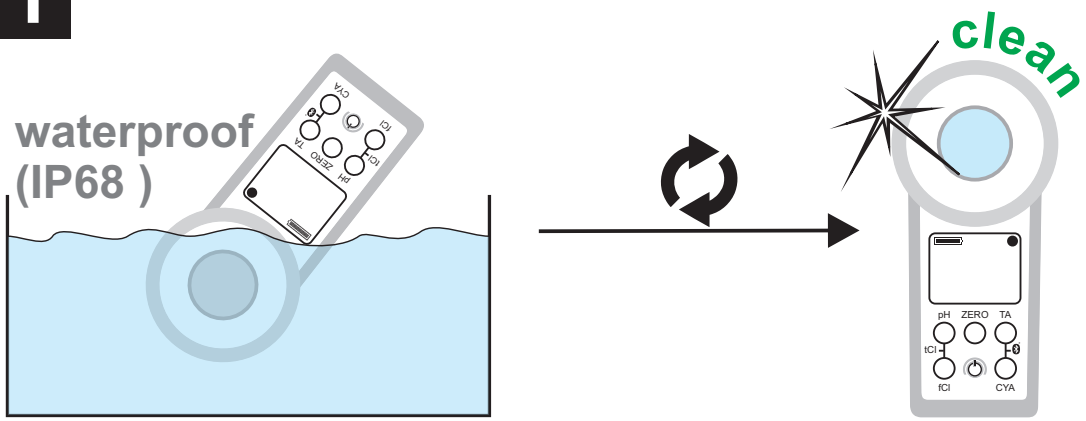
Hydrogen Peroxide
Waterstof peroxide
Brintoverilte
Hidrojen peroksit
Пероксид водорода
(HR)

0 - 200 mg/l (ppm)

*Hyd. Peroxide HR Phot.**
*Acidifying PT**

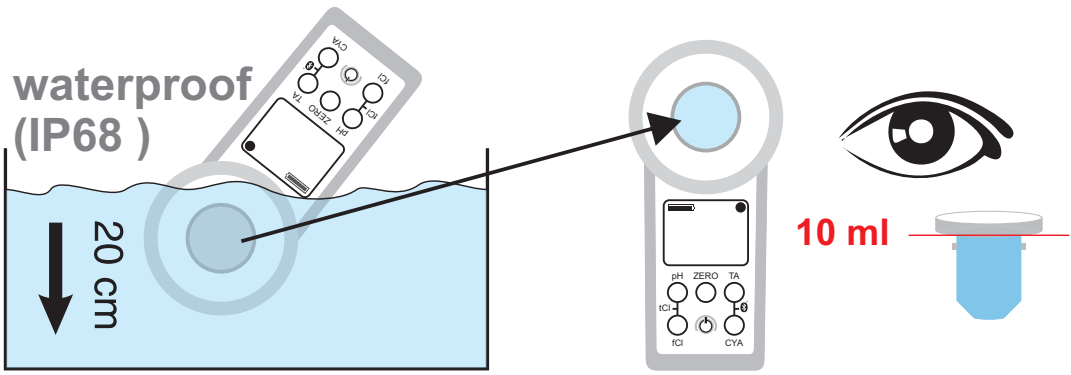
*not part of standard equipment

1



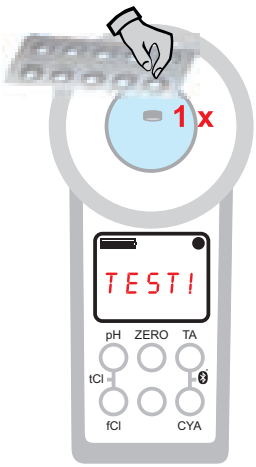
2

take 10 ml water sample

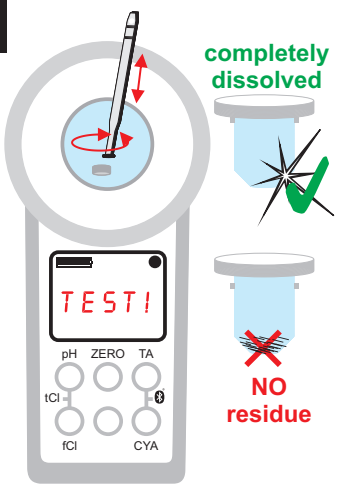


After / Na / Efter / Sonra / После ZERO (p. 10)
Hyd. Perox. • Waterstof perox. • Brintoverilte
Hidrojen peroksit • Пероксид водорода

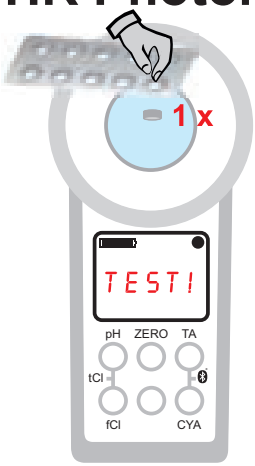
3 Acidifying PT*



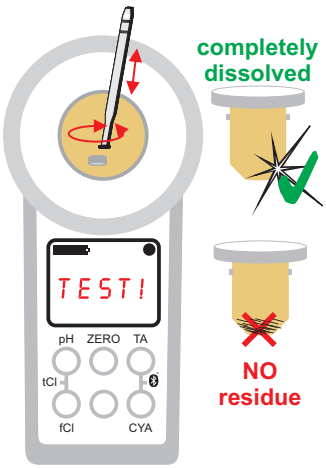
4



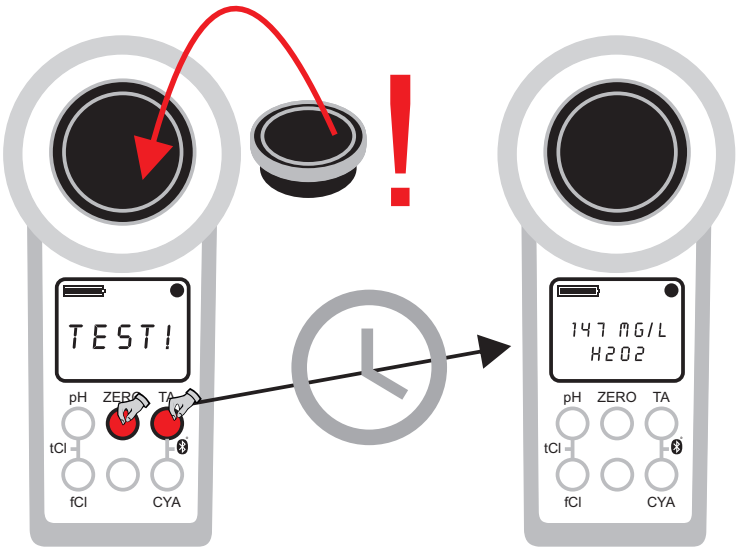
5 Hyd. Peroxide HR Photometer*



6



7



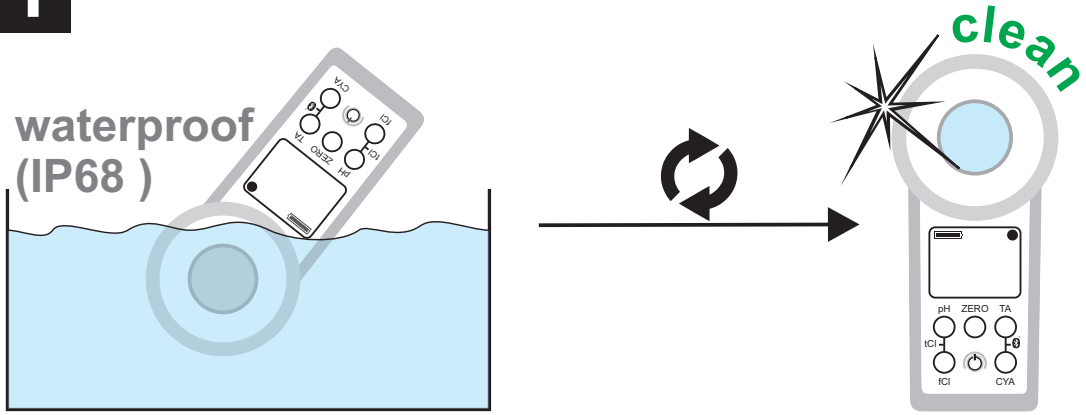
Total Hardness
Totale Hardheid
Total hårdhed
Toplam sertlik
Общая твердость

0 - 500 mg/l (ppm)

*POL20TH1**
*POL10TH2**

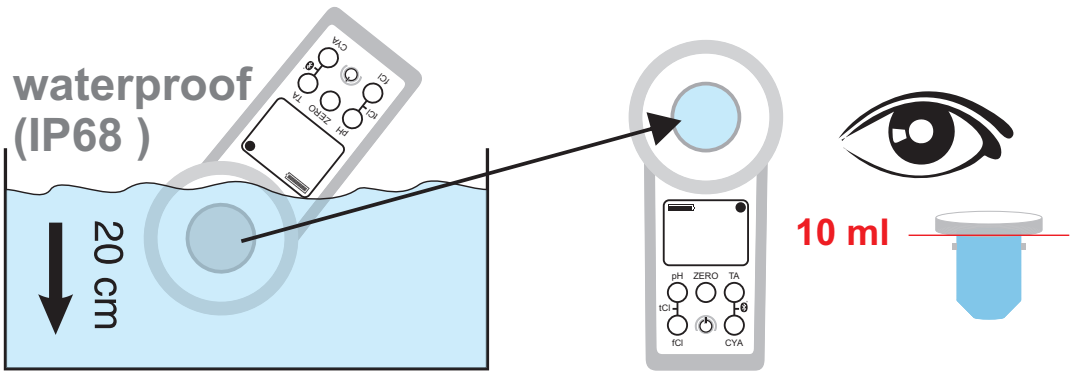
*not part of standard equipment

1



2

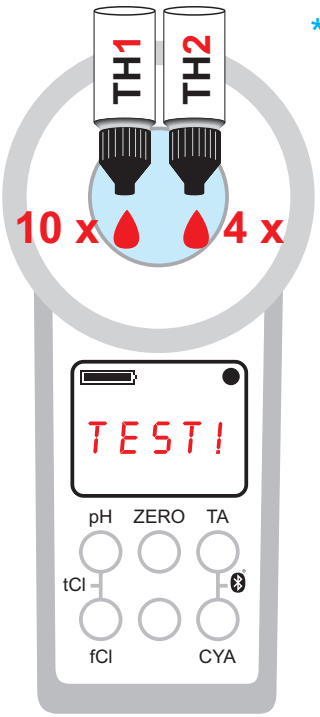
take 10 ml water sample



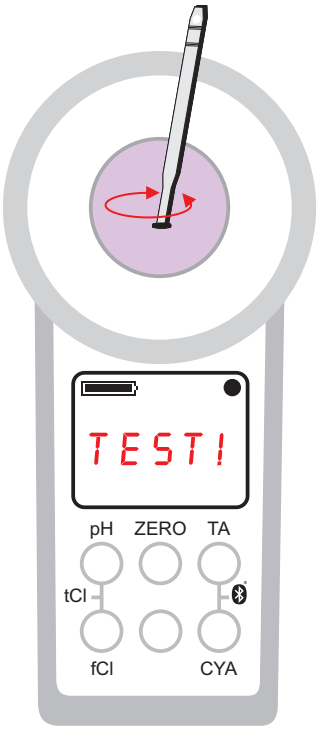
3

POL20TH1*
POL10TH2*

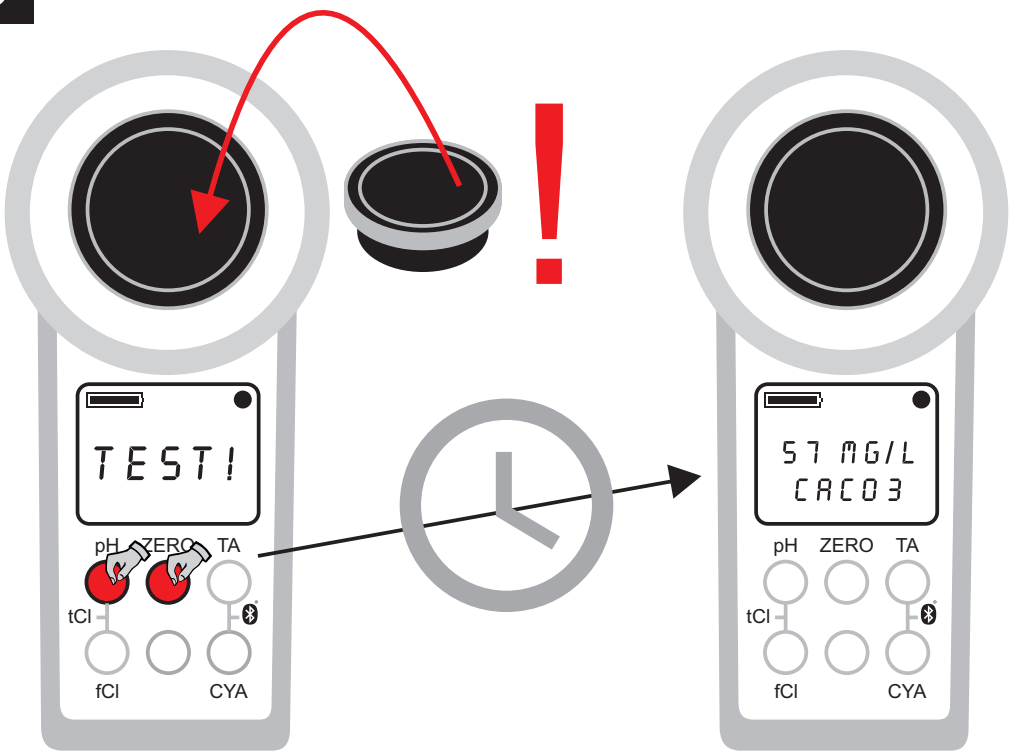
*shake before use!



4



5



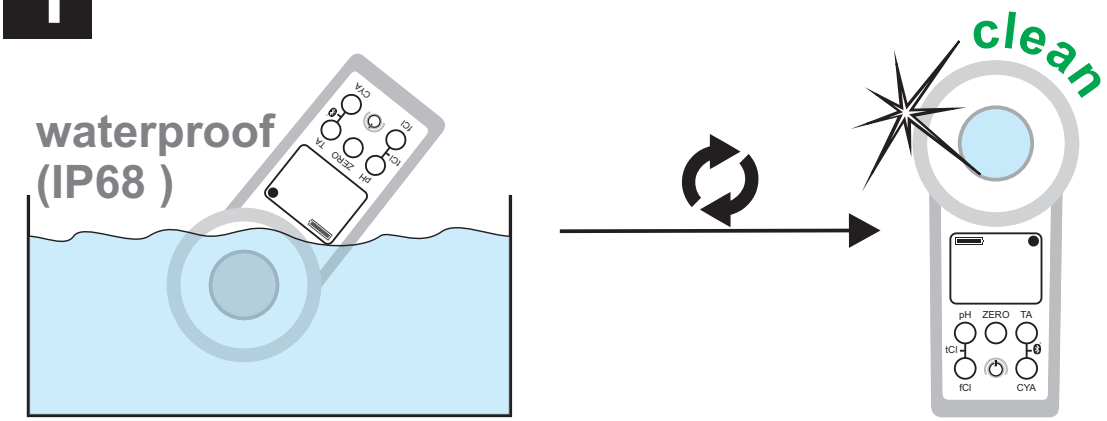
Calcium Hardness
Calciumhardheid
Kalkhårdhed
Kalsiyum Sertliği
Твердость кальция

0 - 500 mg/l (ppm)

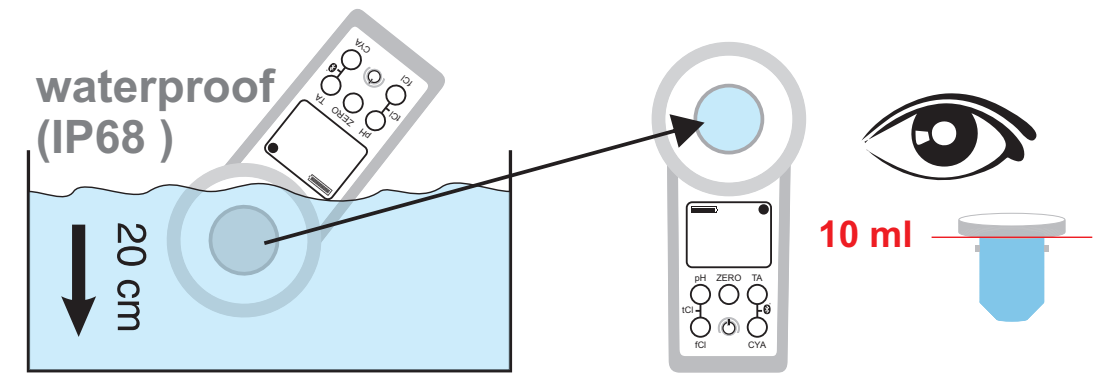
*POL20CaH1**
*POL20CaH2**

1

**2*not part of standard equipment*



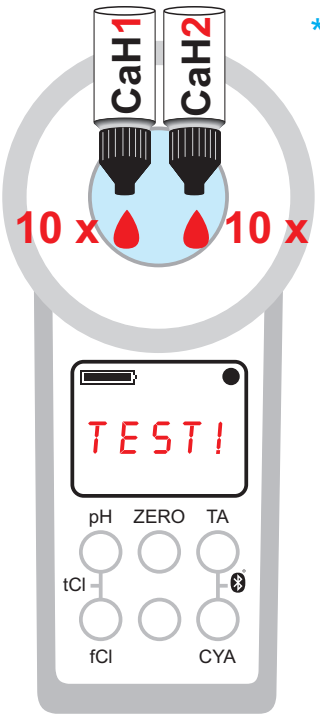
2 *take 10 ml water sample*



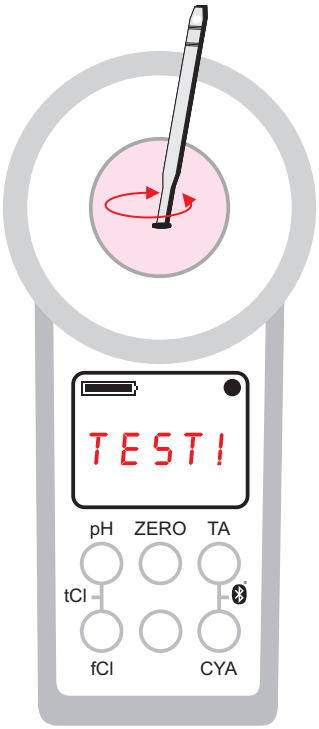
3

POL20CaH1*
POL20CaH2*

*shake before use!



4



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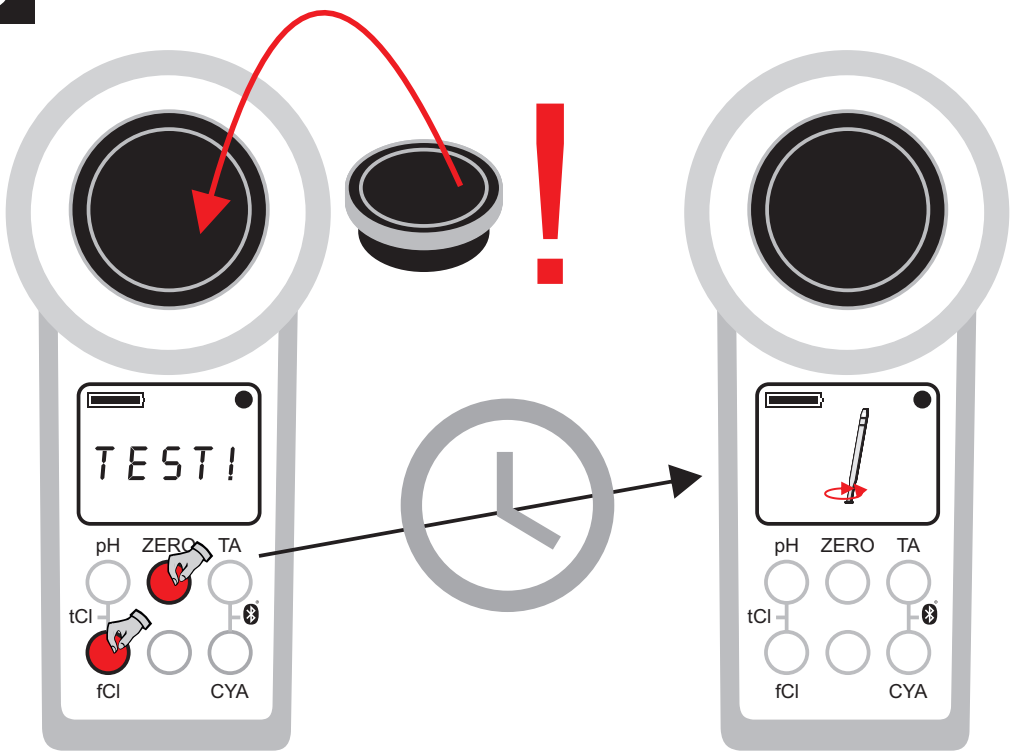
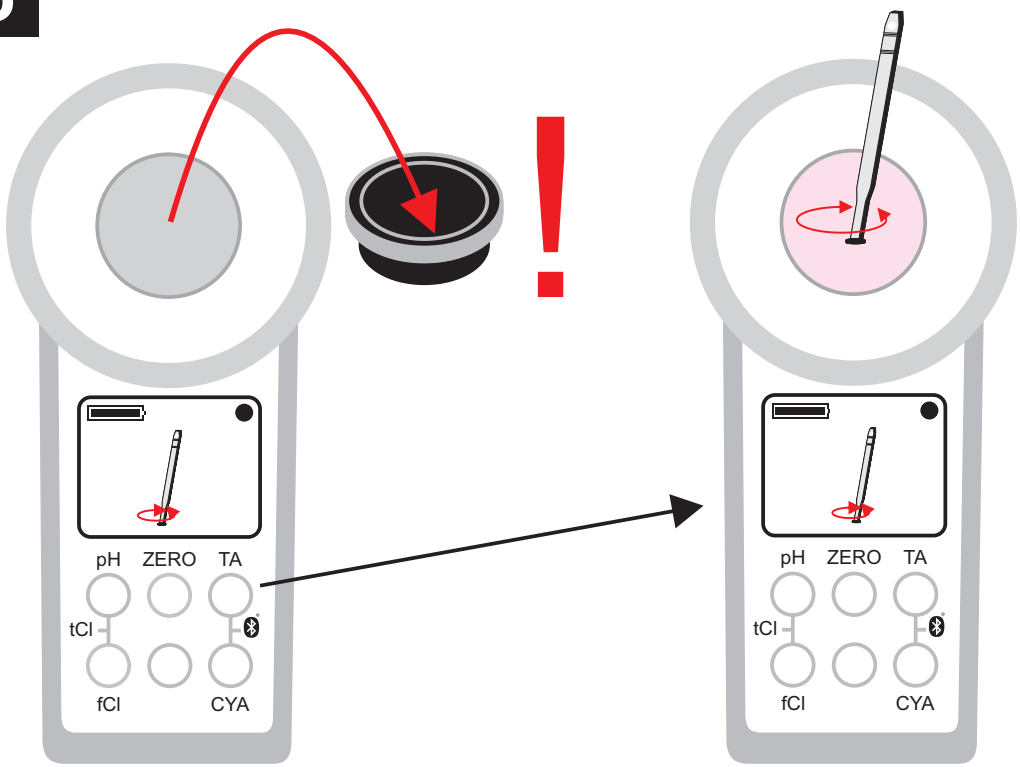
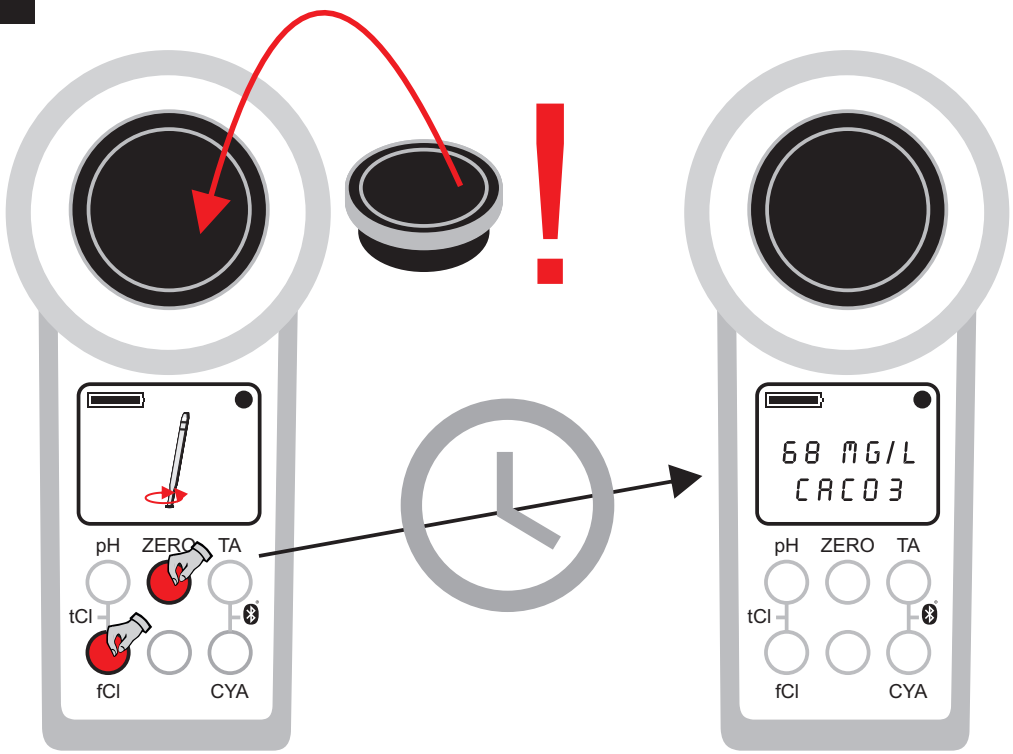


Calcium Hard. • Calciumhard. • Kalkhårdhed
Kalsiyum Sertliği • Твердость кальция

6



7



Hardness Conversion • Hardheidsomzetting • Konvertering af hårdhed Sertlik Dönüşümü • Преобразование твердости

	$CaCO_3$ mg/l	°dH* (KH)	°e* (CH)	°f* (DC)
1 mg/l $CaCO_3$	1	0.056	0.07	0.1
1 mmol/l $K_{S\ 4,3}$	50	2.8	3.5	5.0

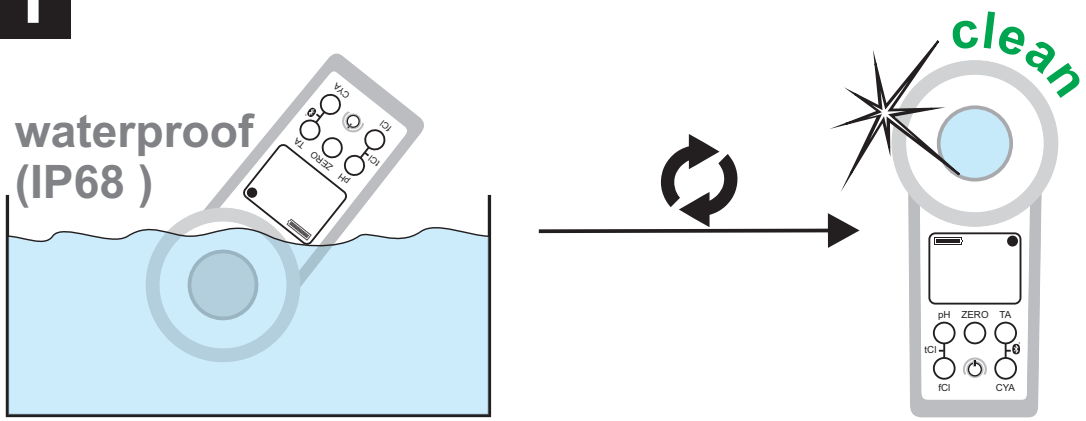
Urea
Ureum
Üre
мочевина

0.1 - 2.5 mg/l (ppm)

*PL Urea 1**
*PL Urea 2**
*Ammonia N°1**
*Ammonia N° 2**

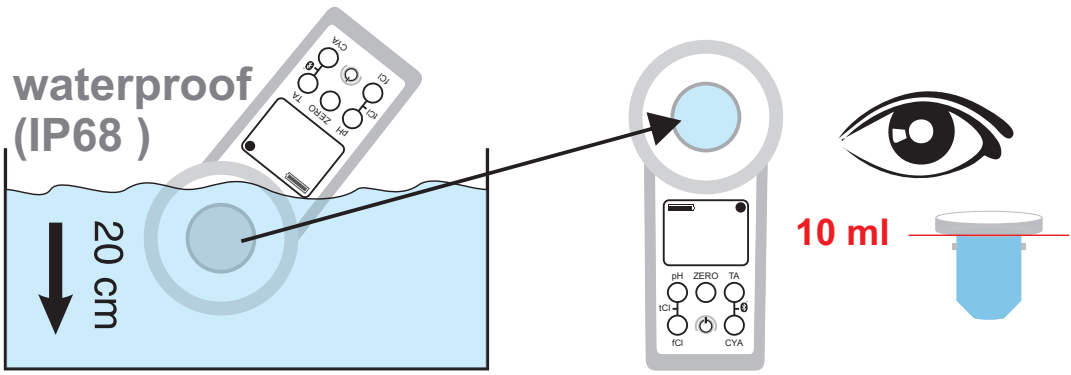
1

**not part of standard equipment*

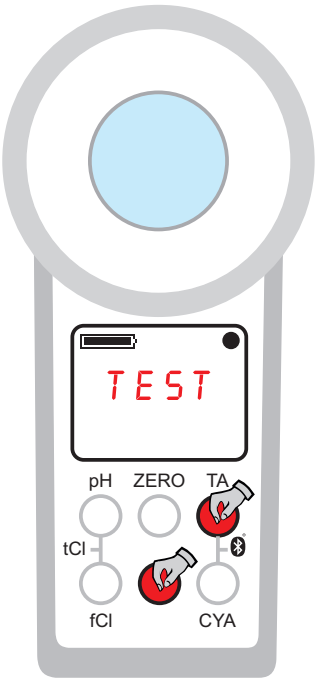


2

take 10 ml water sample



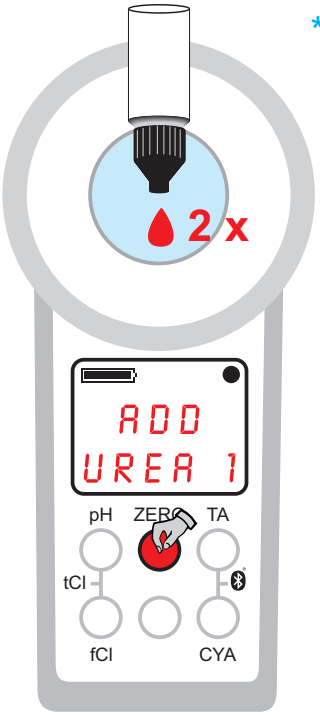
3



4

PL Urea 1*

*shake before use!



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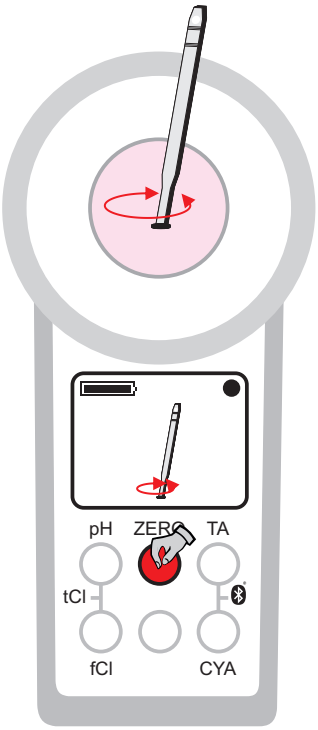
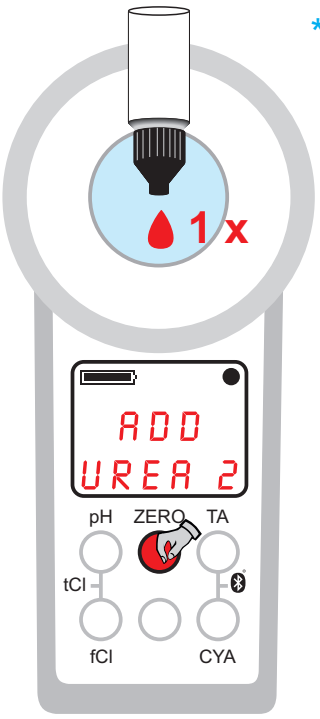


6

PL Urea 2*

*shake before use!



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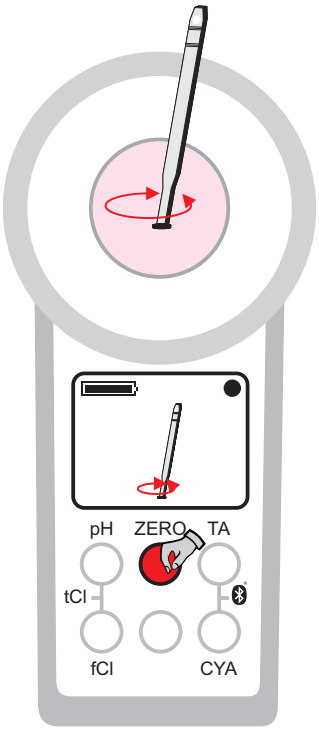

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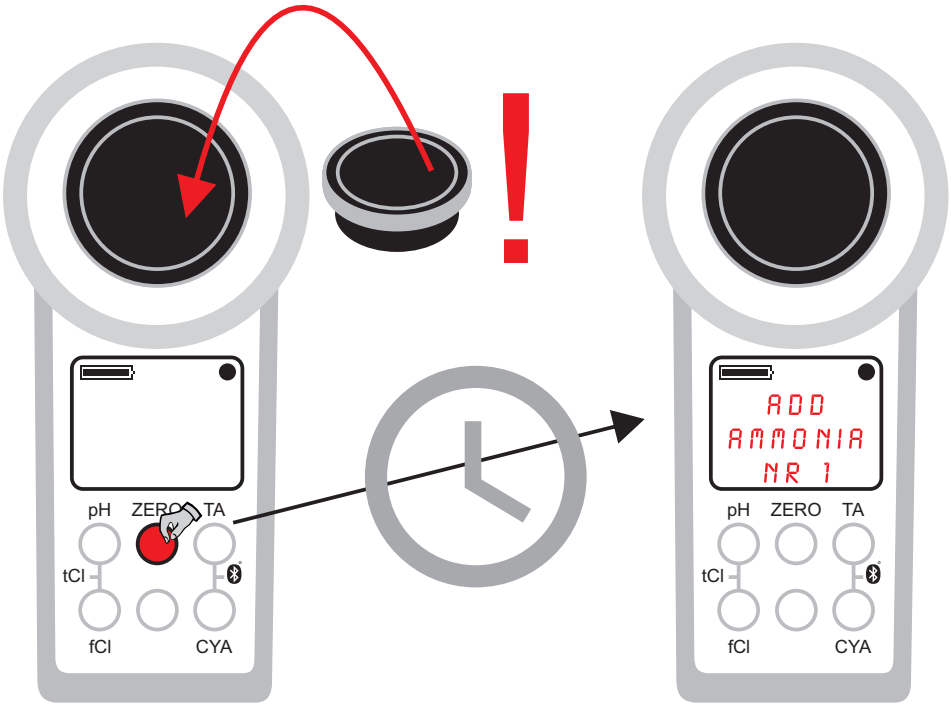
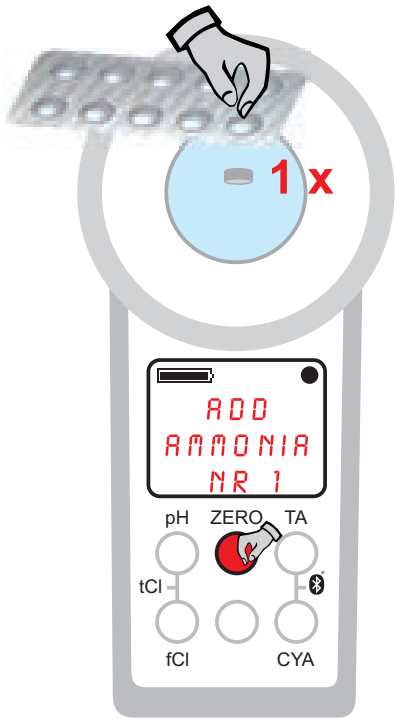
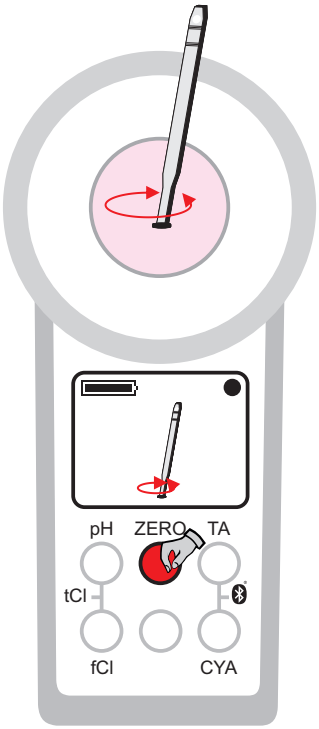


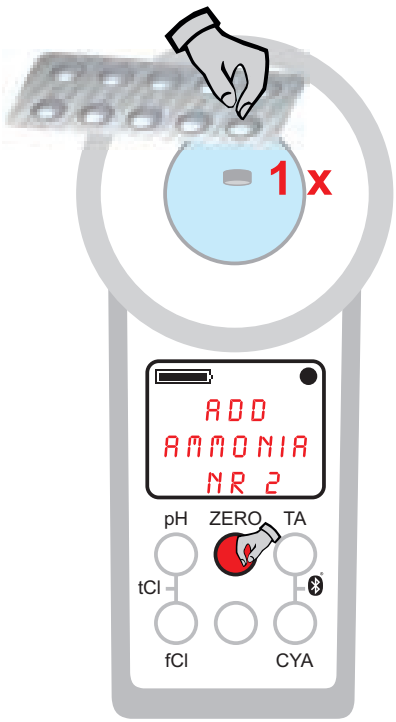
9 Ammonia N° 1



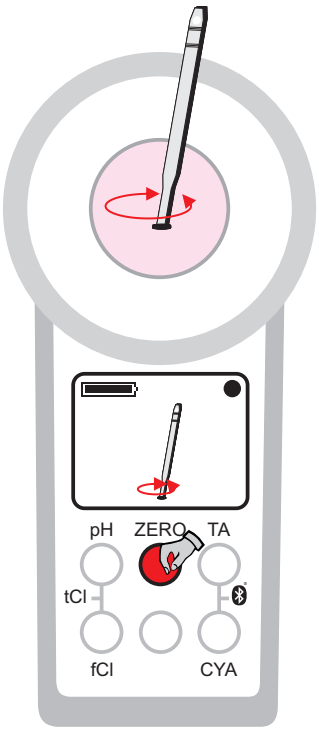
10



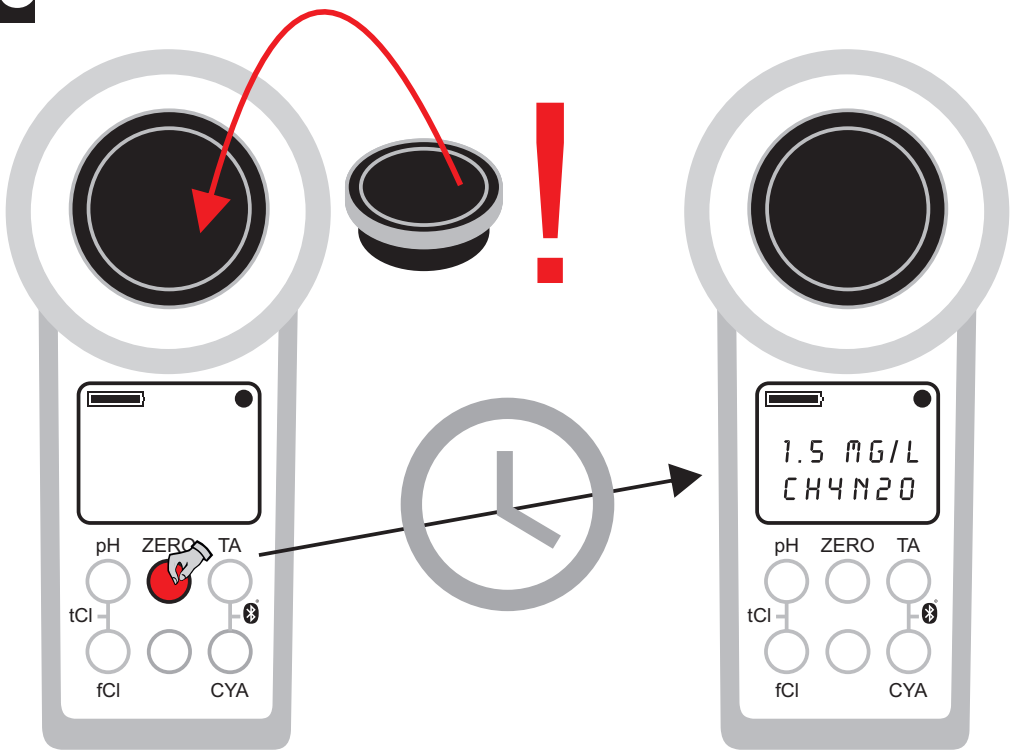
11 Ammonia N° 2



12



13



Ammonia N° 1 tablet only dissolves entirely after Ammonia N° 2 tablet was added. Ammonia and chloramines will be detected together. The result displayed will show the sum of both. Temperature of the sample needs to be between 20°C and 30°C. Test needs to be carried out not later than 1 hour after taking the sample. If sea water is tested, sample needs to be pre-treated with special conditioning powder before Ammonia N° 1 Photometer tablet is added. Do not store PL Urea 1 below 10°C as it might granulate.PL Urea 2 needs to be stored between 4°C and 8°C.

Ammoniaktablet nr. 1 lost pas volledig op nadat ammoniaktablet nr. 2 is toegevoegd. Ammoniak en chlooramines worden samen gedetecteerd. Het weergegeven resultaat toont de som van beide. De temperatuur van het monster moet tussen 20 °C en 30 °C liggen. De test moet uiterlijk 1 uur na het nemen van het monster worden uitgevoerd. Als zeewater wordt getest, moet het monster worden voorbehandeld met speciaal conditioneringspoeder voordat er ammoniakfotometertablet nr. 1 wordt toegevoegd. Bewaar PL Ureum 1 niet onder 10 °C, omdat het kan granuleren. PL Ureum 2 moet tussen 4 °C en 8 °C worden bewaard.

Ammoniak N ° 1 tablet opløses kun fuldstændigt, efter at Ammoniak N ° 2 tablet blev tilsat. Ammoniak og chloraminer detekteres sammen. Resultatet viser summen af begge dele. Prøvenes temperatur skal være mellem 20 ° C og 30 ° C. Test skal udføres senest 1 time efter udtagning af prøven. Hvis havvand testes, skal prøven forbehandles med specielt konditioneringspulver, før Ammonia N ° 1 Photometer-tablet tilsættes. Opbevar ikke PL urea 1 under 10 ° C, da det kan granuleres. Pl urea 2 skal opbevares mellem 4 ° C og 8 ° C.

---

1 numaralı Amonyak tableti, sadece 2 numaralı Ammonia tableti ilave edildikten sonra tamamen çözünür. Amonyak ve kloraminler birlikte tespit edilecek ve bu değerlerin toplamı sonuç olarak ekranda görünecek. Numune sıcaklığı 20 ° C ile 30 ° C arasında olmalıdır. Test, numune alındıktan sonra en fazla 1 saat içinde yapılmalıdır. Eğer deniz suyu test edilecek ise, Amonyak N ° 1 Fotometre tableti eklenmeden önce numunenin özel şartlandırma tozu ile ön işlemden geçirilmesi gerekir.PL Üre 1'i granüle olabileceğinden dolayı 10 ° C'nin altında saklamayın. PL Üre 2'nin 4 ° C ile 8 ° C arasında saklanması gerekir.

Таблетка Ammonia № 1 полностью растворяется только при добавлении таблетки Ammonia № 2. Аммиак и хлорамины будут обнаружены вместе. Отображаемый результат покажет сумму двух показателей. Температура образца должна быть между 20°C и 30°C. Анализ должен быть проведен не позднее, чем через 1 час после отбора образца. При анализе морской воды образец должен быть предварительно обработан специальным кондиционирующим порошком перед добавлением таблеки Ammonia № 1 Photometer. Не храните реагент PL Urea 1 ниже 10°C, так как этоможет привести к гранулированию. PL Urea 2 должна храниться при температуре между 4°C и 8°C.

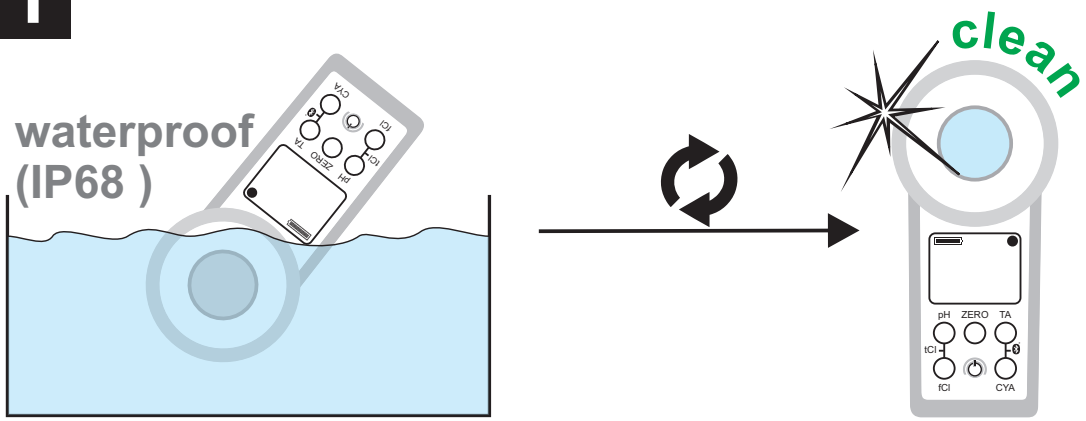
PHMB
ПГМБ

2 - 60 mg/l (ppm)

PHMB Photometer

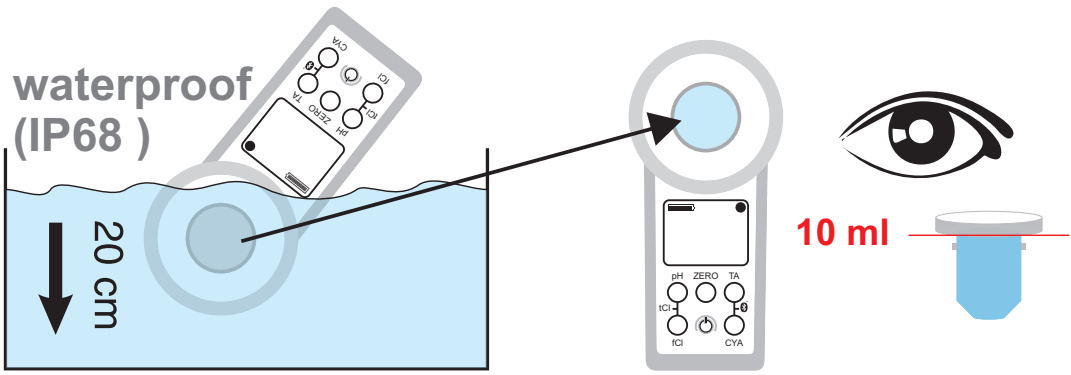
1

*not part of standard equipment



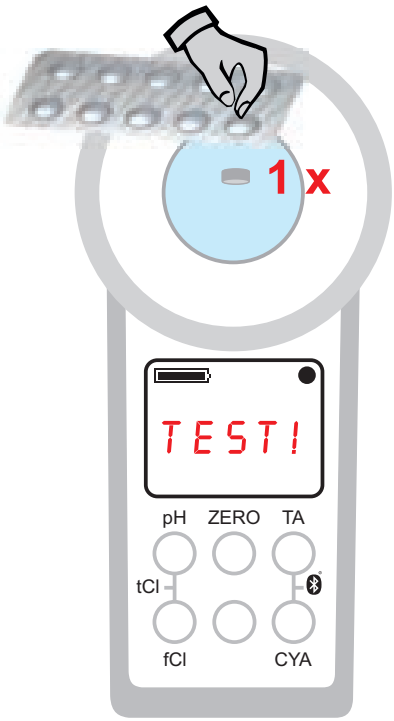
2

take 10 ml water sample

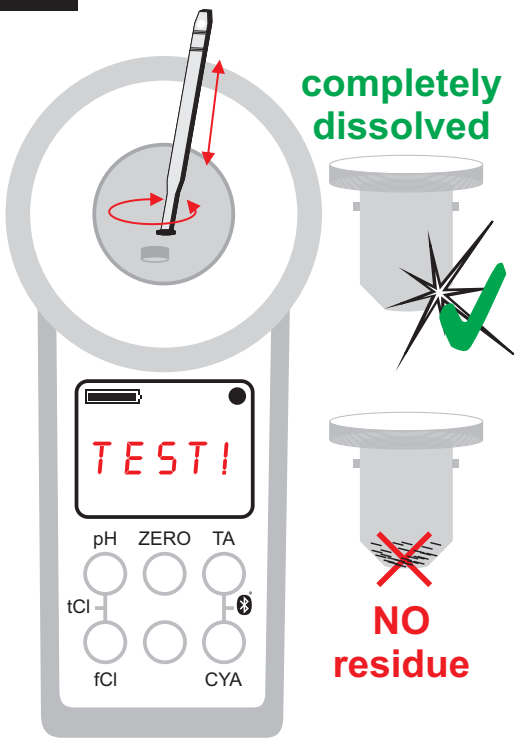


3

PHMB
Photometer



4



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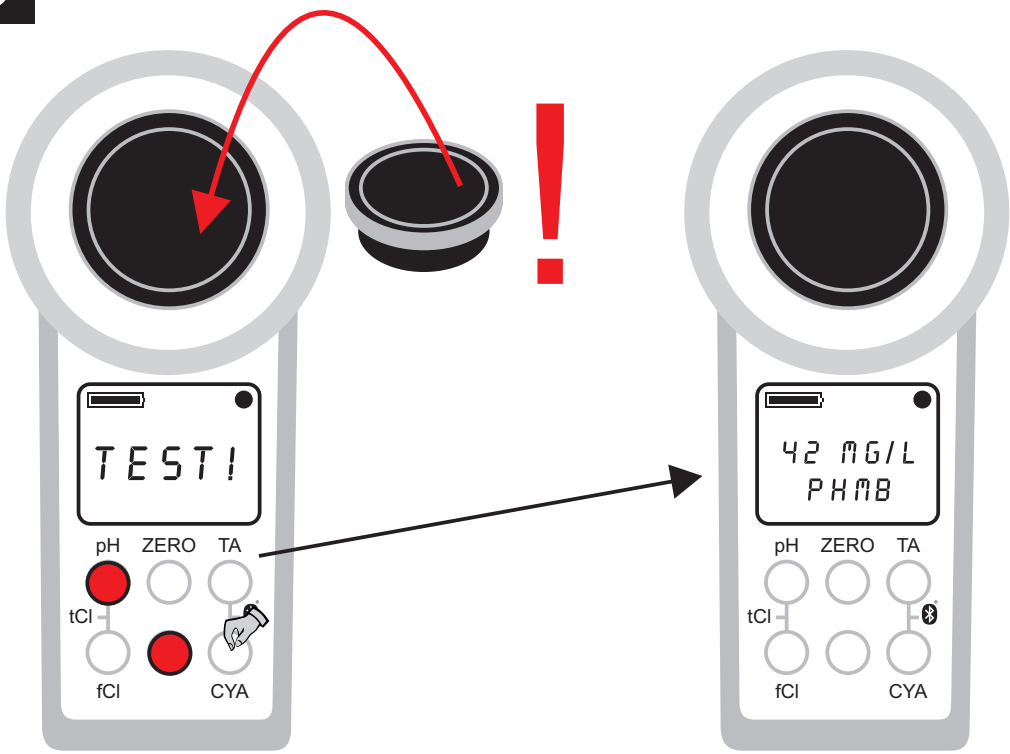


It is imperative that you clean the objects used for the measurement and come into contact with the sample water containing the reagent (cuvette, lid, stirring rod) thoroughly with a brush, water and then with distilled water, otherwise the measuring equipment may turn blue over time. Alkalinity values (M) <> 120 mg / l and calcium hardness values <> 200 mg / l can lead to measured value deviations.

Het is noodzakelijk dat de objecten welke in contact komen met het monsterwater en het reagens en gebruikt worden voor het meten (cuvette, deksel en roerstaaf) met een borstel goed te reinigen met water en daarna met gedestilleerd water, anders kan de cuvette na een tijdje verkleuren waardoor er een foute meting ontstaat. Alkaliteitswaarden (M) <> 120 mg / l en calcium hardheidswaarden <> 200 mg / l kunnen leiden tot afwijkingen in de meetwaardes.

Det er yderst vigtigt, at du renser genstandene, der er brugt til målingen, og kommer i kontakt med prøvevandet, der indeholder reagenset (måleskål/kuvette, låg, omrørestang) grundigt med en børste, vand og derefter med destilleret vand, ellers kan måleudstyret blive blåt over tid. Alkalinitetsværdier (M) <> 120 mg / l og calciumhårdhedsværdier <> 200 mg / l kan føre til målte afvigelser.

Ölçüm için kullanılan nesneleri temizlemeniz ve reaktif (küvet, kapak, karıştırma çubuğu) içeren örnek su ile bir fırça, su ve daha sonra damıtılmış su ile iyice temas etmeniz zorunludur. Aksi takdirde ölçüm ekipmanı zamanla maviye dönüşebilir. Alkalinite değerleri (M) <>120mg/l ve kalsiyum sertlik değerleri <>200mg/l ölçülen değer sapmalarına yol açabilir.

Крайне важно, чтобы вы тщательно очищали щеткой, водой, а затем дистиллированной водой, используемые для измерения предметы, которые находятся в контакте с образцом воды, содержащей реагент (кювета, крышка, мешалка), иначе измерительное оборудование со временем может посинеть. Значения Щелочности (M) <> 120 мг/л и Кальциевой жесткости <> 200 мг/л могут привести к отклонениям измеряемых величин.

OR / Dilution • OR / Verwatering OR / Fortynding • OR / seyreltme OR / Разбавление

OR = Overrange / UR = underrange. Test result is outside the range of the method. OR results can be brought into measurement range by dilution. Use syringe to take only 5ml (or 1ml) sample water plus 5ml (9ml) distilled water. Test again and multiply results times 2 (times 10). Dilution does not work with „pH“ measurement.

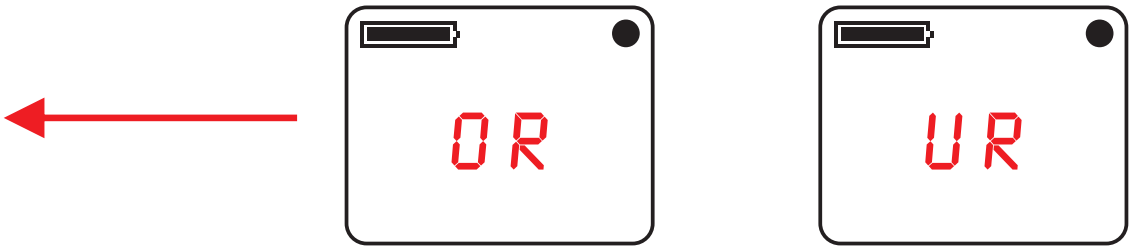
OR = overrange / UR = underrange Het resultaat van de meting valt buiten de meetwaardes van de photometer. Een meting met OR als resultaat kan door het verdunnen van het monsterwater wel binnen het bereik van de meting vallen. Verdun de meting door bijvoorbeeld 5 ml meetwater en 5 ml gedestilleerd water te testen en vermenigvuldig het resultaat met 2. Een verdunning van 1:10 kan natuurlijk ook en dan dient het resultaat met 10 vermenigvuldigd te worden. Verdunnen van het meetwater gaat NIET op voor de pH meting.

OR = Overrange / UR = Underrange. Test resultatet ligger udenfor måleområdet. OR målinger kan benyttes ved anvendelse af fortynding. Anvend en sprøjte til at tage kun 5 ml (eller 1 ml) prøvevand + 5 ml(9ml) destilleret vand. Test en gang til og gang resultatet med 2. (gang med 10). Fortyndingsmetoden virker ikke ved måling af PH.

OR = Aralık üstü / UR = Aralık altı
Test sonucu verilen aralığın dışında olması durumu. OR sonuclara yanlış ölçüm sebebiyle varılabilir. Bu durumda şırınga ile 5ml test suyu alıp 5 ml saf su ile karıştırın. testi yeniden yapın ve sonucu 2 ile çarpın. Bu durum pH ölçümü için gecerli olmaz.

OR = Overrange / UR = Underrange.
Результат теста находится вне диапазона метода. Результаты OR могут быть приведены в диапазон измерения разбавлением. Используйте шприц, чтобы взять только 5 мл (или 1 мл) образца воды и 5 мл (9мл) дистиллированной воды. Повторите тест и умножьте результаты на 2 (на 10). Разбавление не применяется для параметра „pH“.

Error codes • Foutcodes • Fejlkoder Hata kodları • Коды ошибок



BAT!: Change batteries • batterijen vervangen • Skift batterierne • Pilleri değiştir • Замена батареек

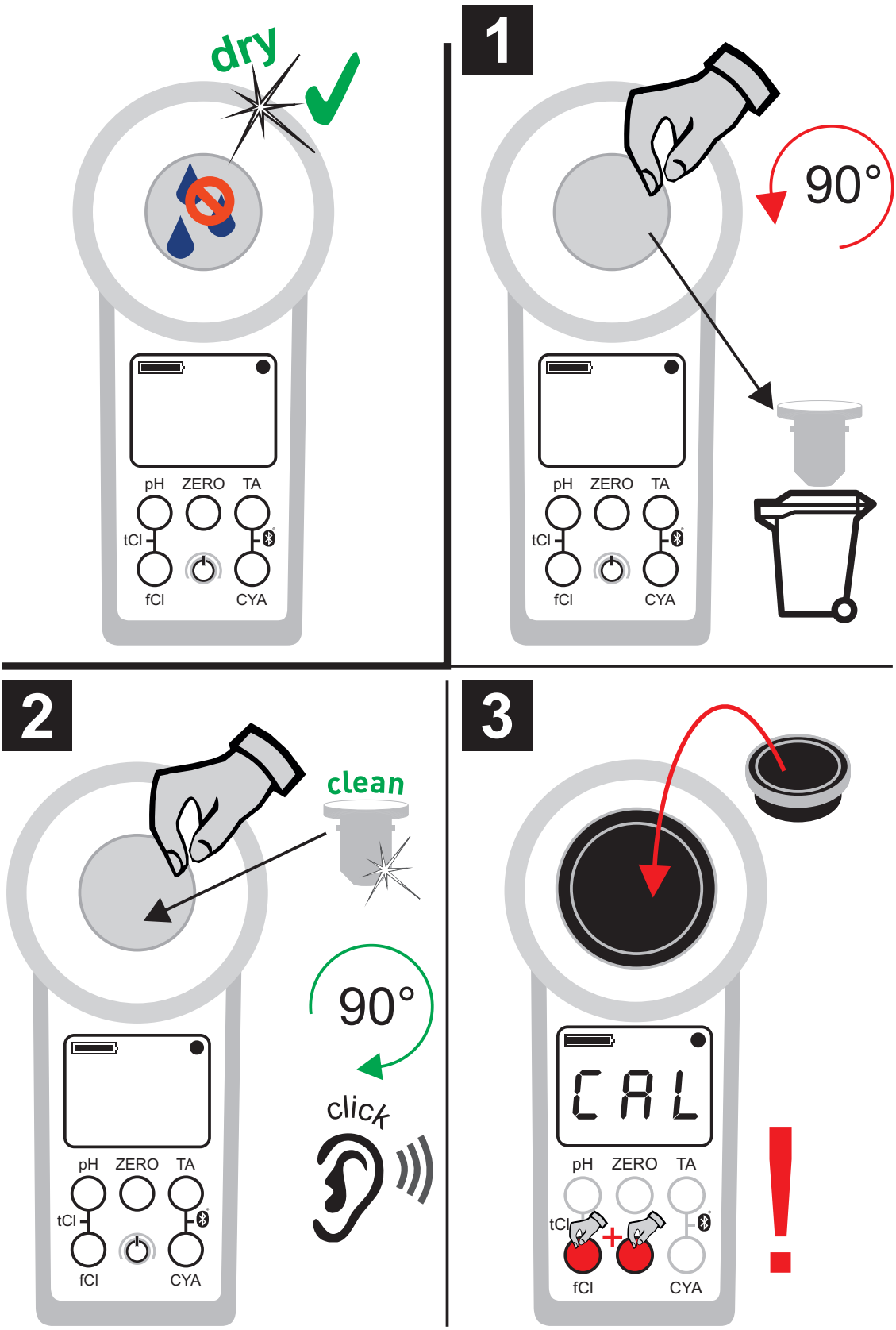
Err02: (too dark) Clean measurement chamber or dilute sample • (Te donker) Clean meetkamer of verdunde monster • (for mørkt) Rengør målekammeret eller fortynd prøven • (Çok karanlık) Ölçüm odasını temizleyin veya numuneyi seyreltin • (Слишком темный) Почистить измерительную камеру или разбавить образец

Err03: (too bright) Don‘t forget light shield during measurement • (Te licht) Vergeet niet lichtscherm tijdens de meting • (for lyst) Glem ikke lysskjold under målingen • (Çok parlak) Ölçüm sırasında ışık kalkanı unutmayın • (Слишком яркий) Используйте светозащитный колпачок во время измерения

Err04: Repeat ZERO and TEST • Herhaal ZERO en TEST • Gentag ZERO og TEST • SIFIR ve TEST'i tekrarlayın • Повторите ZERO и TEST

Err05: Ambient temperature below -5°C or above 60°C • Omgevingstemperatuur onder -5°C of boven 60°C • Omgivende temperatur under -5°C eller over 60°C • -Ortam sıcaklığı -5°C altında ve ya 60°C üzerinde • Температура окружающей среды при -5°C или выше 60°C

Changing the cuvette • Het veranderen vande cuvette • Skift af kuvetten Küveti değiştirme • Замена кюветы



Accessories • Accessoires • Tilbehør Aksesuarlar • Аксессуары

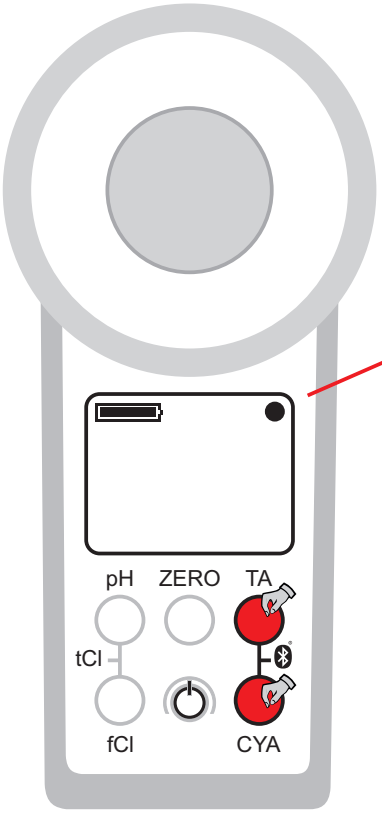
Reagents • Reagentia • Reagenser • Reaktifler • Реагенты

POL01-Nf	20/20/10/10/10 Phenol Red / DPD N° 1 / DPD N° 3 / CYA-Test / Alkalinity-M Photometer
TbsPph50	50 x Phenol Red Photometer
TbsPD150	50 x DPD N° 1 Photometer
TbsPD350	50 x DPD N° 3 Photometer
TbsPD450	50 x DPD N° 4 Photometer
TbsPCAT50	50 x CYA-Test Photometer
TbsPHP50	50 x Hyd. Peroxide LR Phot.
TbsPHPHR50	50 x Hyd. Peroxide HR Phot.
TbsHAPP50	50 x Acidifying PT Photometer
TbsPTA50	50 x Alkalinity-M Photometer
TbsHGC50	50 x Glycine
TbsHAM150	50 x Ammonia N° 1 Photometer
TbsPAM250	50 x Ammonia N° 2 Photometer
POL20TH1	20ml POLTH1 (50 tests)
POL10TH2	10ml POLTH2 (50 tests)
POL20CaH1	20ml POLCaH1 (50 tests)
POL20CaH2	20ml POLCaH2 (50 tests)
POL4Urea1	4ml PL Urea 1
POL2Urea2	2ml PL Urea 2

Spare parts • Reserveonderdelen • Reservedele • Yedek parçalar • Запасные части

POLsp-kv	Replacement cuvette
POLsp-str	Plastic stirring/crushing rod
POLsp-ls	Rubber light shield
POLsp-box	PoolLab carrying box
POLsp-RSK-f	Reference standard-kit

Software / App • Yazılım / Uygulama • Программное обеспечение / Приложение



● Bluetooth ON
○ Bluetooth OFF

Windows/ MacOS: **www.poollab.org**

GET IT ON Google Play

Download on the App Store

Software / App • Yazılım / Uygulama • Программное обеспечение

Connect the PoolLab with the LabCom app or software before the first use, after each battery change and after every update to set the date and time automatically.

Sluit het PoolLab aan op de LabCom-app of -software vóór het eerste gebruik, na elke batterijwissel en na elke update om de datum en tijd automatisch in te stellen.

Forbind PoolLab med LabCom-appen eller softwaren inden første brug, efter hver batteribytte og efter hver opdatering for automatisk at indstille dato og klokkeslæt.

İlk kullanımdan önce, her pil değişiminden sonra ve her güncellemeden sonra, tarihi ve saati otomatik olarak ayarlamak için PoolLab'ı LabCom uygulaması veya yazılımı ile bağlayın/eşleştirin.

Подключите PoolLab к приложению LabCom или программному обеспечению перед первым использованием, после каждой замены батареи и после каждого обновления, чтобы автоматически установить дату и время.

Technical data • Technische data
Tekniske oplysninger • Teknik veri
Технические данные

FAQ ▶ www.poollab.org

MSDS ▶ msds.water-id.com

Cloud ▶ labcom.cloud

LED:	530 nm / 570 nm / 620 nm
	3 x AAA (1.5 V, LR03)
	300 sec.
	5 - 45°C
	IP 68 (1 h / 1.2 m)

Developed in Germany
Produced in PRC

Tolerances

Active Oxygen • Actieve zuurstof
Aktiv ilt • Aktif Oksijen
Активный кислород

Range	±
0.0 - 5.0	0.5 mg/l
5.0 - 15.0	1.3 mg/l
15.0 - 25.0	3.8 mg/l
25.0 - 30.0	5.0 mg/l

Alkalinity • Alkaliniteit • Alkalitet
Alkalinite • Щелочность

Range	±
0 - 30	3 mg/l
30 - 60	7 mg/l
60 - 100	12 mg/l
100 - 200	18 mg/l

Bromine • Broom • Brom • Бром

Range	±
0.0 - 2.5	0.2 mg/l
2.5 - 6.5	0.6 mg/l
6.5 - 11.0	1.7 mg/l
11.0 - 13.5	2.3 mg/l

Tolerances

Calcium Hardness • Calciumhardheid Kalkhårdhed • Kalsiyum Sertliği Твердость кальция

Range	±
0 - 25	8 mg/l
25 - 100	22 mg/l
100 - 300	34 mg/l
300 - 500	45 mg/l

Chlorine • Chloor • Klor • Хлор

Range	±
0.00 - 2.00	0.10 mg/l
2.00 - 3.00	0.23 mg/l
3.00 - 4.00	0.75 mg/l
4.00 - 8.00	1.00 mg/l

Cyanuric Acid • Cyanuurzuur Cyanursyre • Siyanürik Asit Циануровая кислота

Range	±
0 - 15	1 mg/l
15 - 50	5 mg/l
50 - 120	13 mg/l
120 - 160	19 mg/l

Tolerances

Chlorine Dioxide • Chloordioxide Klordioxid • Klor dioksit Диоксид хлора

Range	±
0.00 - 2.00	0.19 mg/l
2.00 - 6.00	0.48 mg/l
6.00 - 10.00	1.43 mg/l
10.00 - 11.40	1.90 mg/l

Hydrogen Peroxide • Waterstof peroxide Brintoverilte • Hidrojen peroksit Пероксид водорода - (LR)

Range	±
0.00 - 0.50	0.05 mg/l
0.50 - 1.50	0.12 mg/l
1.50 - 2.00	0.36 mg/l
2.00 - 2.90	0.48 mg/l

Hydrogen Peroxide • Waterstof peroxide Brintoverilte • Hidrojen peroksit Пероксид водорода - (HR)

Range	±
0 - 50	5 mg/l
50 - 110	6 mg/l
110 - 170	11 mg/l
170 - 200	13 mg/l

Tolerances

Ozone • Ozon • Озон

Range	±
0.00 - 1.00	0.07 mg/l
1.00 - 2.00	0.17 mg/l
2.00 - 3.00	0.51 mg/l
3.00 - 4.00	0.68 mg/l

pH

Range	±
6.50 - 8.40	0.11 mg/l

PHMB • ПГМБ

Range	±
5 - 60	5 mg/l

Total Hardness • Totale Hardheid • Total hårdhed • Toplam sertlik • Общая твердость

Range	±
0 - 30	3 mg/l
30 - 60	5 mg/l
60 - 100	10 mg/l
100 - 200	17 mg/l
200 - 300	22 mg/l
300 - 500	58 mg/l

Tolerances

Urea • Ureum • Üre • мочевина

Range	±
0.00 - 0.30	0.05 mg/l
0.30 - 0.60	0.06 mg/l
0.60 - 1.00	0.09 mg/l
1.00 - 1.50	0.12 mg/l
1.50 - 2.50	0.19 mg/l

Disposal

Device
According to EC Directive 2002/96/EC, electronic devices must not be disposed of in normal domestic waste. The manufacturer of this device, Water-i.d. GmbH, Daimlerstr. 20, D-76344 Eggenstein will dispose of your PoolLab Photometer free of charge (not including costs of sending the device to us). Send your PoolLab for disposal -freight prepaid- to the address shown above.

Batteries
According to EC Guideline 2006/66/EC, user is obliged to dispose in a proper manner by returning worn out batteries to dedicated collection places such as any shop selling batteries. Batteries must not be disposed of in normal domestic waste.

CE compliance statement

We, the manufacturer of the PoolLab 1.0 Photometer hereby declare compliance of PoolLab 1.0 Photometer with the essential requirements in accordance to the Directive 2014/53/EU of the European Parliament and of the Council of April 16th, 2014:

ETSI EN 300 328 (V2.1.1)
EN 62479 (2010)
ETSI EN 301 489-1 (V2.1.1)
ETSI EN 301 489-17 (3.1.1)
EN 61326 (2013)
EN 61010-1 (2010)

FCC Part 15 compliance statement
IC licence-exempt RSS compliance statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Industry Canada Licence-Exempt Radio Apparatus
This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radio Frequency (RF) Exposure Compliance of Radiocommunication Apparatus
This device complies with FCC and Industry Canada RF radiation exposure limits set forth for general population (uncontrolled exposure). This device must not be collocated or operating in conjunction with any other antenna or transmitter.
Cet appareil est conforme aux limites FCC et Industry Canada concernant l'exposition aux rayonnements RF établies pour le grand public. (Environnement non-contrôlé)
Cet émetteur ne doit pas être co-situé ou fonctionner conjointement avec une autre antenne ou un autre émetteur.

Changes or modifications not expressly approved by Water-i.d. GmbH could void the user‘s authority to operate the equipment.

FCC ID:	2ALRR-POOLLAB10
IC:	22610- POOLLAB10
Model:	POOL LAB 1.0

CERTIFICATE OF COMPLIANCE

We hereby certify that the device

PoolLab 1.0

With it‘s serial number as stated below,
has passed intensive visual and technical
checks as part of our QM documentation.
We confirm the device got factory-calibrated.

Water-i.d. GmbH (Germany)

Andreas Hock, Managing Director
Water-i.d. GmbH • Daimlerstr. 20 • D-76344 Eggenstein • Germany

Water-i.d. is certified according to ISO 9001:2015

S/N
Manufacturing date