



## PQS performance specification

WHO/PQS/E006/TR07.3

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Distribution: General

### TITLE: Electronic shipping indicators:

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## 1. Scope:

This specification describes the performance requirements for *electronic shipping indicators* to be used to monitor time-temperature exposure inside vaccine **shipping containers** during transport from the vaccine manufacturer's warehouse to the receiving country's primary vaccine store.

## 2. Normative references:

For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.  
**EMAS: European Union Eco-Management and Audit Scheme.**

**EN 12830: Temperature recorders for the transport, storage and distribution of chilled, frozen, deep-frozen/quick-frozen food and ice cream. Tests, performance and suitability.**

**European Union Directive 2002/96/EC: Waste Electrical and Electronic Equipment.**

**IEC 60529: Consolidated Edition 2.1 (incl. am1): Degrees of protection provided by enclosures (IP Code).**

**ISO 14001: Environmental management systems - Requirements with guidance for use.**

**ISO 9001: Quality Management Systems – Requirements.**

**ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories.**

**WHO/IVB/05.23. Guidelines on the international packaging and shipping of vaccines<sup>1</sup>.**

## 3. Terms and definitions:

**Data retention period:** The period following the de-activation of the device using the 'stop' function during which it must be possible to recover the data recorded during the **recording period**.

**EPROM:** Electrically erasable, programmable, read-only memory.

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<sup>1</sup> This document will be updated in 2013.

In writing: means communication by letter, fax or email.

LCD: Liquid Crystal Display.

LED: Light-Emitting Diode.

Legal Manufacturer: The natural or legal person with responsibility for the design, manufacture, packaging and labeling of a product or device before it is placed on the market under his own name, regardless of whether these operations are carried out by that person himself or on his behalf by a third party.

Montreal Protocol: Montreal Protocol on Substances that Deplete the Ozone Layer.

NIST: United States National Institute of Standards and Technology.

Primary vaccine store: Store which receives vaccine directly from the vaccine manufacturer.

Receiver: The person or organization responsible for receiving the vaccine shipment.

Recording period: The period between the activation of the device using the ‘start’ button or switch and the de-activation of the device using the ‘stop’ button or switch.

Reseller: A commercial entity, licensed to act on behalf of a Legal Manufacturer, and which carries product liability and warranty responsibilities no less onerous than those carried by the Legal Manufacturer.

Sender: The manufacturer responsible for packing and shipping the vaccine.

Shipping container: Insulated packaging used for shipping vaccines, as described in the WHO document: *Guidelines on the international packaging and shipping of vaccines*. WHO/IVB/05.23.

Storage life: In relation to non-replaceable batteries is the period measured from the date of delivery of the device to the Sender to the time at which the ‘start’ function is activated.

#### 4. Requirements:

##### 4.1 General:

Single use pre-programmed electronic time-temperature data logger with non-replaceable battery to accompany vaccine shipments from the vaccine manufacturer’s warehouse to the receiving country’s primary vaccine store. The logger must be able to display the shipment’s time-temperature exposure without need for downloading to a PC and without need for a separate reading device. **Devices that have an additional download function will be acceptable, but a download function is unnecessary, will not routinely be used, and does not form part of this specification.**

The device must be supplied in four versions:

- **Type 1:** Programmed with alarm settings suitable for the international shipment of DTP, DT, TT, Td, HepB, IPV, liquid Hib and combination vaccines, MenAfriVac, HPV, Pneumo (other than Prevenar).
- **Type 2:** Programmed with alarm settings suitable for the international shipment of BCG, lyophilized Hib, measles, MR, MMR, meningitis (polysaccharide), OPV, rabies, rotavirus (other than rotateq) and yellow fever vaccines shipped with frozen water-ice packs.
- **Type Rotateq:** rotateq only

- **Type Prevenar:** only for Prevenar 7 and 13 -valent conjugated vaccine

Each version may be offered with either a 10-day minimum [recording period](#) or with a minimum 20-day [recording period](#).

It must be possible to photocopy the logger display as a permanent record of the shipment's arrival status. A legible copy must be produced using a photocopier, scanner or all-in-one printer.

#### 4.2 *Performance:*

##### 4.2.1 *Operating temperature range:*

Upper limit: +55°C.

Lower limit: -30°C.

##### 4.2.2 *Accuracy:*

- **Temperature:**  $\pm 0.5^\circ\text{C}$  or better within the range  $-5^\circ\text{C}$  to  $+25^\circ\text{C}$ ;  $\pm 1^\circ\text{C}$  within the ranges  $-20^\circ\text{C}$  to  $-5^\circ\text{C}$  and  $+25^\circ\text{C}$  to  $+55^\circ\text{C}$ .

- **Time:**  $\pm 10$  seconds per day or better.

##### 4.2.3 *Resolution:*

$\pm 0.2^\circ\text{C}$  or better within the range  $-20^\circ\text{C}$  to  $+55^\circ\text{C}$

##### 4.2.4 *Power source:*

Non-replaceable battery.

##### 4.2.5 *Sensor:*

Electronic.

##### 4.2.6 *Memory:*

[EPROM](#) or equivalent non-volatile solid-state memory device.

##### 4.2.7 *Product response time:*

T90 10 minutes maximum in accordance with [EN12830](#).

##### 4.2.8 *Unit of measurement:*

Temperatures must be recorded and displayed in degrees Centigrade.

##### 4.2.9 *Calibration:*

Each product is to be covered by a Certificate of Traceability and Calibration.

The traceability declaration is to confirm that the measurement standards and instruments used during calibration of the product are traceable to an [ISO/IEC 17025](#) accredited testing laboratory, to [NIST](#), or to another internationally recognized standards agency.

##### 4.2.10 *Logging interval:*

The device must measure the storage temperature at intervals not exceeding 10 minutes. As a minimum the device must log the first instance of a time-temperature-violation for each alarm type equaling or exceeding the threshold parameters set out in clause 4.2.12. Devices that can log more than one instance of each type of time-temperature violation will not be excluded.

##### 4.2.11 *Logging start delay:*

60 minute start delay function after user activation to allow the device to equilibrate with the temperature inside the [shipping container](#) before it starts to record temperatures.

##### 4.2.12 *Alarm settings:*

The device must be pre-programmed with the following alarm settings:

- **Type 1:**

<i>Alarm type</i>	<i>Time-temperature alarm threshold</i>	<i>Period of exposure</i>
High threshold	>= 45°C single event	1 hour
Medium threshold	>= 30°C cumulative exposure	10 hours
Low threshold	<= -0.5°C single event	1 hour

- **Type 2:**

<i>Alarm type</i>	<i>Time-temperature alarm threshold</i>	<i>Period of exposure</i>
High threshold	>= 45°C single event	1 hour
Medium threshold	>= 30°C cumulative exposure	10 hours
Low threshold	>= 10°C cumulative exposure	20 hours

- **Type rotateq:**

<i>Alarm type</i>	<i>Time-temperature alarm threshold</i>	<i>Period of exposure</i>
High threshold	>= 27°C single event	1 minute
Medium threshold	>= 17°C cumulative exposure	2 hours
Low threshold	<= -25°C 1 single event	1 minute

- **Type prevenar:**

<i>Alarm type</i>	<i>Time-temperature alarm threshold</i>	<i>Period of exposure</i>
High threshold	>= 40°C single event	1 hour
Medium threshold	>= 30°C cumulative exposure	10 hours
Low threshold	<= -0.5°C single event	1 hour

**4.2.13 Casing:**

Non-corrodible plastics or metal case.

**4.2.14 IP rating:**

Protection of the product not less than IEC 60529: IP64.

**4.2.15 Battery:**

Non-replaceable battery capable of powering the device in accordance with the following criteria:

- Minimum **storage life** of 18 months before ‘start’.
- Minimum **recording period**: 10 days or 20 days.
- Minimum **data retention period** after ‘stop’: 6 months.

**4.2.16 Electromagnetic compatibility:**

Operation of the device must be unaffected in the normal electromagnetic compatibility environment in which it is intended to work, taking into account disturbance generated by adjacent apparatus which is compliant with relevant ISO, EN, or other internationally recognized standards. Information required to ensure uninterrupted use of the device must be contained in the user instructions. The device and its power source must conform to all relevant requirements issued by the International Air Transport Authority (IATA) and must not interfere with aircraft electrical or electronic systems<sup>2</sup>

**4.3 Environmental requirements:**

**4.3.1 Ambient temperature range during transport and storage:**

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<sup>2</sup> [http://www.iata.org/whatwedo/cargo/dangerous\\_goods/Documents/Guidance-Document-on-the-Transport-of-Li-Batt-2012-V1.1.pdf](http://www.iata.org/whatwedo/cargo/dangerous_goods/Documents/Guidance-Document-on-the-Transport-of-Li-Batt-2012-V1.1.pdf)

-30°C to +55°C with device inactivated.

4.3.2 *Ambient humidity range during transport, storage and use:*

0% to 95% RH.

4.3.3 *Resistance to electrical storms:*

The functionality of the device must not be affected by intense electrical storm activity.

4.3.4 *Impact resistance:*

Product to withstand 5 drops from 1 metre onto a concrete floor, with battery in place, without physical damage or loss of calibration.

4.3.5 *Vibration:*

Product to withstand 30 minutes on a programmable vibrating table without physical damage or loss of calibration.

4.4 *Physical characteristics:*

4.4.1 *Overall dimensions:*

Not critical provided volume of the device does not exceed 150 cubic centimeters when detached from shipment information card.

4.4.2 *Weight:*

Not critical.

4.5 *Interface requirements:*

4.5.1 *Software compatibility* (for devices with additional download function):

- If the software requires an interface with a proprietary spreadsheet program, the list of compatible programs must include all releases of Microsoft Excel currently supported by Microsoft.
- The software must be compatible with all Microsoft PC operating systems currently supported by Microsoft.

4.6 *Human factors:*

4.6.1 *Activation:*

The device is to be activated by the **sender** at the beginning of the **recording period** by means of a 'start' button or switch mounted on the unit.

4.6.2 *De-activation:*

The device is to be de-activated by the **receiver** at the end of the **recording period** by means of a 'stop' button or switch mounted on the unit. If the 'stop' button or switch is not de-activated, the device should automatically default to the de-activated state at the end of the 10 day or 20 day **recording period**, as applicable. The 'stop' button or switch should be designed to prevent inadvertent de-activation - for example by contact with a shifting load.

4.6.3 *User interface:*

The device is to have an **LCD** display screen, with or without **LEDs**, capable of showing the following information:

- Activation status.
- Post activation battery status, or clearly marked expiry date in the format mm/yyyy.
- Overall alarm status: whether or not an alarm condition of any kind has occurred since the device was activated.

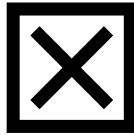
- Time-temperature alarm status: the status of each of the three time-temperature alarm thresholds specified in clause 4.2.12 at the time when the ‘stop’ button is activated.
- Total elapsed transport time in days and hours or in hours measured from device activation to device de-activation.
- Shipment history: A history of the shipment capable of showing details of at least one time-temperature limit violation for each alarm type including the first time-temperature-violation of each alarm type.
- The LCD must either show all this information together on a single display screen or the user must be able to access the information on sequential screens by means of a button mounted on the product. In the latter case, the overall status of the indicator ('OK', or 'Alarm') must be permanently displayed on every screen. Flashing displays are not acceptable because they cannot be photocopied.
- The display must be capable of being photocopied in order to provide a hardcopy record of the status of the device upon arrival. For this reason the display must not incorporate any flashing or blinking symbols or lights.
- Alarm symbols must not be language-dependent and must be easily understood by untrained users. Acceptable symbols include, but are not confined to, the following:  
‘Tick’ or ‘OK’ symbol for shipments where no temperature violation has occurred, as graphic below:



Or



‘Cross’ or ‘Crossed OK’ symbol for shipments where any type of temperature violation has occurred, as graphic below:



Or



- As a battery saving measure, the display may switch off automatically when not required, provided it can be activated by the user by means of a push button.

**4.6.4 *Type identification:***

Type 1 and Type 2 devices are to be clearly identified in a manner which avoids the risk that the wrong type of device will be packed by the sender. Acceptable identification includes, but is not confined to, the following information:

- Printed identification, including indication of minimum [recording period](#) (10 day or 20 day).
- Different colored casings.

**4.6.5 *Shipment information card:***

Mount the device on a moisture resistant backing card, using moisture resistant adhesive. The card material must accept indelible markings in ball point pen.

The width of the card must be at least the same as the length of the device, subject to a minimum width of 7.5cm. The length of the card must not exceed 14cm. The card design must follow the generic format and colours set out in **Annex 1** (yellow for Type 1 and Prevenar®, blue for Type 2 and Rotateq®).

User instructions are to be available either in English, French or Spanish language, as requested by the customer. Text is to be in a high legibility font – minimum 8 point, colour black.

**4.7 *Materials:***

**4.7.1 *Ozone depleting chemicals:***

During manufacture and assembly of the printed circuit boards and final assembly of the product do not use any substance included in Annex A, B or C of the [Montreal Protocol](#).

**4.7.2 *Other restricted materials:***

The product and its constituent components, including batteries, must not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated biphenyl ethers (PBDE).

**4.8 *Warranty:***

The product is to be covered by a warranty covering the designed lifetime of the device in the event of any component failure not caused by mechanical damage.

**4.9 *Servicing provision:***

The product is to be maintenance-free.

**4.10 *Disposal and recycling:***

The manufacturer is to provide information to the buyer on the hazardous materials contained within the system and suggestions for resource recovery/recycling and/or environmentally safe disposal. For the European Union [WEEE](#) compliance in accordance with European Union Directive 2002/96/EC is mandatory.

**4.11 *Instructions:***

User instructions in Arabic, English, French, Mandarin Chinese, Russian and Spanish. Where relevant the software manual may be in hard copy format or supplied with the software on CD.

4.12 **Training:**  
No requirement.

4.13 **Verification:**  
In accordance with PQS Verification Protocol **E006/TR06-VP.2**

**5. Packaging:**  
Materials used for packaging the finished product are to be free of ozone-depleting compounds as defined in the [Montreal Protocol](#).

**6. On-site installation:**  
Not applicable.

**7. Product dossier:**  
The [legal manufacturer](#) or [reseller](#) is to provide WHO with a pre-qualification dossier containing the following:

- Dossier examination fee in US dollars.
- General information about the [legal manufacturer](#), including name and address.
- Unique identification reference for the product.
- Full specifications of the product being offered, covering all the requirements set out in this document, including details of product marking and traceability and documentary evidence of claimed battery life.
- Certified photocopy of Certificate of Traceability and Calibration traceable to an [ISO/IEC 17025](#) accredited testing laboratory, to [NIST](#), or to another internationally recognized standards agency.
- Certified photocopies of all type-approvals obtained for the product, including CE marking and the like.
- Certified photocopies of the legal manufacturer's ISO 9001 2000 quality system certification.
- Where relevant, certified photocopies of the legal manufacturer's ISO 14001 certification, EMAS registration or registration with an equivalent environmental audit scheme. Conformity with an environmental audit scheme is not mandatory; however preference will be given to manufacturers who are able to demonstrate compliance with good environmental practice.
- Where available, laboratory test report(s) proving conformity with the product specifications.
- One sample of the product, complete with data connection lead and software, where offered.
- Indicative cost of the product per unit, per 10 units and per 100 units EXW (Incoterms 2000).

**8. On-site maintenance:**  
Not applicable.

**9. Change notification:** The [legal manufacturer](#) or [reseller](#) is required to advise WHO [in writing](#) of any changes which adversely affect the performance of the product after PQS pre-qualification has taken place.

**10. Defect reporting:**

The **legal manufacturer** or **reseller** is required to advise WHO and the UN purchasing agencies **in writing** in the event of safety-related product recalls, component defects and other similar events.

## Annex 1 – Shipment information card

### Notes:

1. Card colour is to match the colours shown here: Pantone 100 ‘light yellow’ for Type 1 and Pantone 279 ‘UN blue’ for Type 2.
2. English, French and Spanish language versions are shown. With the exception of text in <arrow brackets>, manufacturers must use the exact wording shown in this annex.
3. The text enclosed in <arrow brackets> must be replaced with the appropriate product-specific name or description. Manufacturers are responsible for the correct translation of these passages.

### FRONT FACE (English)

#### Type 1 – on light yellow card

Front face

<p>Mount device here and this way up</p>
<p><b>Use only for DTP, DT, TT, Td, Hep B, IPV, liquid Hib, MenAfrivac, HPV, PCV (Not for Prevenar), JE inactivated.</b></p>
<p><b>SENDER</b></p> <p>1. Prepare the shipping container. 2. Break off the twin label with bar code and stick it onto the shipping documents. 3. Activate &lt;DEVICE NAME&gt; by &lt;describe activation procedure for device&gt; with a start delay of 1 hour. 4. Complete the card below in ball point pen. 5. Insert this card, with the activated device attached, into the shipping container. 6. Seal the shipping container.</p> <p>Supplier name: _____</p> <p>Date: _____ Time: _____ dd.mm.yyyy hh:mm</p> <p>Vaccine PO number: _____</p> <p>Vaccine: _____</p> <p><b>RECEIVER: please turn the card!</b> ➡➡</p>

#### Type 2 – on pale blue card

Front face

<p>Mount device here and this way up</p>
<p><b>Use only for OPV, freeze-dried BCG, measles, MR, MMR, lyophilized Hib, yellow fever, Meningitis (Polysaccharide), Rabies, Rotavirus (Not for RotaTeq®), JE live.</b></p>
<p><b>SENDER</b></p> <p>1. Prepare the shipping container. 2. Break off the twin label with bar code and stick it onto the shipping documents. 3. Activate &lt;DEVICE NAME&gt; by &lt;describe activation procedure for device&gt; with a start delay of 1 hour. 4. Complete the card below in ball point pen. 5. Insert this card, with the activated device attached, into the shipping container. 6. Seal the shipping container.</p> <p>Supplier name: _____</p> <p>Date: _____ Time: _____ dd.mm.yyyy hh:mm</p> <p>Vaccine PO number: _____</p> <p>Vaccine: _____</p> <p><b>RECEIVER: please turn the card!</b> ➡➡</p>

**Type – Prevenar**

Front face

Mount device here and this way up
<b>Use only for Prevenar 7 &amp; 13</b>
<b>SENDER</b>
1. Prepare the shipping container. 2. Break off the twin label with bar code and stick it onto the shipping documents. 3. Activate <DEVICE NAME> by <describe activation procedure for device> with a start delay of 1 hour. 4. Complete the card below in ball point pen. 5. Insert this card, with the activated device attached, into the shipping container. 6. Seal the shipping container.
Supplier name: _____
Date: _____ Time: _____ dd.mm.yyyy hh:mm
Vaccine PO number: _____
Vaccine: _____
<b>RECEIVER: please turn the card!</b> ⇡ ⇢

**Type – Rotateq**

Front face

Mount device here and this way up
<b>Use only for RotaTeq®</b>
<b>SENDER</b>
1. Prepare the shipping container. 2. Break off the twin label with bar code and stick it onto the shipping documents. 3. Activate <DEVICE NAME> by <describe activation procedure for device> with a start delay of 1 hour. 4. Complete the card below in ball point pen. 5. Insert this card, with the activated device attached, into the shipping container. 6. Seal the shipping container.
Supplier name: _____
Date: _____ Time: _____ dd.mm.yyyy hh:mm
Vaccine PO number: _____
Vaccine: _____
<b>RECEIVER: please turn the card!</b> ⇡ ⇢

## BACK FACE (English)

### Type 1 Back face

RECEIVER							
1. On arrival, remove <DEVICE NAME> from the shipping container immediately. 2. <Describe stop procedure for device>. 3. Read the LCD display and follow the instructions as described below.							
OK DISPLAY							
<clearly illustrate OK screen display>  If OK, use vaccines normally.							
ALARM DISPLAY							
<clearly illustrate alarm screen display>							
If <DEVICE NAME> displays an alarm please proceed according to the decision table below:							
Alarm temperature	<b>What to do with vaccines:</b> <table border="1" data-bbox="425 931 763 1227"> <tr> <td>&gt;= 45° C</td><td>Contact procurement agency</td></tr> <tr> <td>&gt;= 30° C</td><td>Contact procurement agency</td></tr> <tr> <td>&lt;= -0.5° C</td><td>           Conduct Shake Test.            Use vaccines if passes.            Inform procurement agency of test result.         </td></tr> </table>	>= 45° C	Contact procurement agency	>= 30° C	Contact procurement agency	<= -0.5° C	Conduct Shake Test. Use vaccines if passes. Inform procurement agency of test result.
>= 45° C	Contact procurement agency						
>= 30° C	Contact procurement agency						
<= -0.5° C	Conduct Shake Test. Use vaccines if passes. Inform procurement agency of test result.						
Assembled and distributed by <company name and web address>							

### Type 2 Back face

RECEIVER									
1. On arrival, remove <DEVICE NAME> from the shipping container immediately. 2. <Describe stop procedure for device>. 3. Read the LCD display and follow the instructions as described below.									
OK DISPLAY									
<clearly illustrate OK screen display>  If OK, use vaccines normally.									
ALARM DISPLAY									
<clearly illustrate alarm screen display>									
If <DEVICE NAME> displays an alarm please proceed according to the decision table below:									
Alarm temperature	<b>What to do with vaccines:</b> <table border="1" data-bbox="969 931 1328 1227"> <tr> <td data-bbox="969 931 1099 998">OPV only</td><td data-bbox="1099 931 1328 998">Other vaccines</td></tr> <tr> <td data-bbox="969 998 1099 1087">&gt;= 45° C</td><td data-bbox="1099 998 1328 1087">Contact procurement agency</td></tr> <tr> <td data-bbox="969 1087 1099 1176">&gt;= 30° C</td><td data-bbox="1099 1087 1328 1176">Contact procurement agency</td></tr> <tr> <td data-bbox="969 1176 1099 1227">&lt;= -0.5° C</td><td data-bbox="1099 1176 1328 1227">Accept</td></tr> </table>	OPV only	Other vaccines	>= 45° C	Contact procurement agency	>= 30° C	Contact procurement agency	<= -0.5° C	Accept
OPV only	Other vaccines								
>= 45° C	Contact procurement agency								
>= 30° C	Contact procurement agency								
<= -0.5° C	Accept								
Assembled and distributed by <company name and web address>									

## BACK FACE (English)

**Type – Prevenar**  
back face

RECEIVER								
1. On arrival, remove <DEVICE NAME> from the shipping container immediately. 2. <Describe stop procedure for device>. 3. Read the LCD display and follow the instructions as described below.								
OK DISPLAY								
<clearly illustrate OK screen display>  If OK, use vaccines normally.								
ALARM DISPLAY								
<clearly illustrate alarm screen display>								
If <DEVICE NAME> displays an alarm please proceed according to the decision table below:								
<table border="1"> <thead> <tr> <th>Alarm temperature</th> <th>What to do with vaccines: Prevenar 7 &amp; 13 only</th> </tr> </thead> <tbody> <tr> <td>=&gt; 40 °C</td> <td>Contact procurement agency</td> </tr> <tr> <td>=&gt; 30 °C</td> <td>Contact procurement agency</td> </tr> <tr> <td>=&lt; -0.5 °C</td> <td>Conduct Shake Test. Use vaccines if passes. Inform procurement agency of test result.</td> </tr> </tbody> </table> Assembled and distributed by <company name and web address>	Alarm temperature	What to do with vaccines: Prevenar 7 & 13 only	=> 40 °C	Contact procurement agency	=> 30 °C	Contact procurement agency	=< -0.5 °C	Conduct Shake Test. Use vaccines if passes. Inform procurement agency of test result.
Alarm temperature	What to do with vaccines: Prevenar 7 & 13 only							
=> 40 °C	Contact procurement agency							
=> 30 °C	Contact procurement agency							
=< -0.5 °C	Conduct Shake Test. Use vaccines if passes. Inform procurement agency of test result.							

**Type – RotaTeq®**  
back face

RECEIVER								
1. On arrival, remove <DEVICE NAME> from the shipping container immediately. 2. <Describe stop procedure for device>. 3. Read the LCD display and follow the instructions as described below.								
OK DISPLAY								
<clearly illustrate OK screen display>  If OK, use vaccines normally.								
ALARM DISPLAY								
<clearly illustrate alarm screen display>								
If <DEVICE NAME> displays an alarm please proceed according to the decision table below:								
<table border="1"> <thead> <tr> <th>Alarm temperature</th> <th>What to do with vaccines: RotaTeq® only</th> </tr> </thead> <tbody> <tr> <td>=&gt; 27 °C</td> <td>Contact procurement agency</td> </tr> <tr> <td>=&gt; 17 °C</td> <td>Contact procurement agency</td> </tr> <tr> <td>=&lt; -25 °C</td> <td>Contact procurement agency</td> </tr> </tbody> </table> Assembled and distributed by <company name and web address>	Alarm temperature	What to do with vaccines: RotaTeq® only	=> 27 °C	Contact procurement agency	=> 17 °C	Contact procurement agency	=< -25 °C	Contact procurement agency
Alarm temperature	What to do with vaccines: RotaTeq® only							
=> 27 °C	Contact procurement agency							
=> 17 °C	Contact procurement agency							
=< -25 °C	Contact procurement agency							

## FRENCH VERSION

### Type 1 – sur carte jaune clair

Face Avant

<p>Mettre le haut de l'appareil ici</p>
<b>A utiliser seulement pour DTP, TT, DT, Td, HepB, IPV, Hib liquide, MenaAfrivac, HPV, Pneumo (autres que Prevenar), JE inactivé.</b>
<p><b>L'EXPEDITEUR</b></p> <ol style="list-style-type: none"> <li>1. Préparer le container d'expédition.</li> <li>2. Rompre l'étiquette jumelle avec le code barre et la coller sur les documents d'expédition.</li> <li>3. Activer &lt;Nom de l'appareil&gt; par &lt;décrire la procédure d'activation de l'appareil&gt; avec un début différé de 1 heure.</li> <li>4. Remplir la carte ci-dessous avec un stylo bille.</li> <li>5. Insérer cette carte, avec l'appareil activé attaché, dans le récipient d'expédition.</li> <li>6. Sceller le récipient d'expédition.</li> </ol> <p>Nom du fournisseur : _____</p> <p>Date : _____ Heure : _____ jj.mm.aaaa hh:mm</p> <p>Numéro de commande du vaccin : _____</p> <p>Vaccin : _____</p> <p><b>LE RECEVEUR : tournez la carte svp !</b>      ➡➡</p>

### Type 2 – sur carte bleue pale

Face Avant

<p>Mettre le haut de l'appareil ici</p>
<b>A utiliser seulement pour les vaccins OPV, BCG lyophilisé, rougeole, MR, MMR, Hib lyophilisé , fièvre jaune, méningite (polysaccharide), antirabique, rotavirus (autre que RotaTeq®), JE vivant.</b>
<p><b>L'EXPEDITEUR</b></p> <ol style="list-style-type: none"> <li>1. Préparer le container d'expédition.</li> <li>2. Rompre l'étiquette jumelle avec le code barre et la coller sur les documents d'expédition.</li> <li>3. Activer &lt;Nom de l'appareil&gt; par &lt;décrire la procédure d'activation de l'appareil&gt; avec un début différé de 1 heure.</li> <li>4. Remplir la carte ci-dessous avec un stylo bille.</li> <li>5. Insérer cette carte, avec l'appareil activé attaché, dans le récipient d'expédition.</li> <li>6. Sceller le récipient d'expédition.</li> </ol> <p>Nom du fournisseur : _____</p> <p>Date: _____ Heure : _____ jj.mm.aaaa hh:mm</p> <p>Numéro de commande du vaccin : _____</p> <p>Vaccin : _____</p> <p><b>LE RECEVEUR : tournez la carte svp !</b>      ➡➡</p>

**Type – Prevenar**  
Face Avant

Mettre le haut de l'appareil ici

**Utilisé pour Prevenar 7 & 13 seulement**

**L'EXPEDITEUR**

1. Préparer le contenant d'expédition.
2. Rompre l'étiquette jumelle avec le code barre et la coller sur les documents d'expédition.
3. Activer <Nom de l'appareil> par <décrire la procédure d'activation de l'appareil> avec un début différé de 1 heure.
4. Remplir la carte ci-dessous avec un stylo bille.
5. Insérer cette carte, avec l'appareil activé attaché, dans le récipient d'expédition.
6. Sceller le récipient d'expédition.

Nom du fournisseur : \_\_\_\_\_

Date : \_\_\_\_\_ Heure : \_\_\_\_\_  
jj.mm.aaaa hh:mm

Numéro de commande du vaccin : \_\_\_\_\_

Vaccin : \_\_\_\_\_

**LE RECEVEUR : tournez la carte svp !** ➡➡

**Type – RotaTeq®**  
Face Avant

Mettre le haut de l'appareil ici

**Utilisé pour RotaTeq® seulement**

**L'EXPEDITEUR**

1. Préparer le contenant d'expédition.
2. Rompre l'étiquette jumelle avec le code barre et la coller sur les documents d'expédition.
3. Activer <Nom de l'appareil> par <décrire la procédure d'activation de l'appareil> avec un début différé de 1 heure.
4. Remplir la carte ci-dessous avec un stylo bille.
5. Insérer cette carte, avec l'appareil activé attaché, dans le récipient d'expédition.
6. Sceller le récipient d'expédition.

Nom du fournisseur : \_\_\_\_\_

Date: \_\_\_\_\_ Heure : \_\_\_\_\_  
jj.mm.aaaa hh:mm

Numéro de commande du vaccin : \_\_\_\_\_

Vaccin : \_\_\_\_\_

**LE RECEVEUR : tournez la carte svp !** ➡➡

## Back face (French)

### Type 1 – sur carte jaune clair Face Arrière

RECEVEUR	
1. A l'arrivée, enlever immédiatement <NOM de l'appareil> du récipient d'expédition. 2. <Décrire la procédure d'arrêt de l'appareil>. 3. Lire l'affichage du LCD et suivre les instructions comme décrites ci-dessous.	
<b>SIGNAL OK</b>	
<montrer clairement le OK indiqué sur l'écran>  Si OK, utiliser les vaccins normalement.	
<b>SIGNAL D'ALARME</b>	
<montrer clairement l'alarme indiquée sur l'écran>	
Si <Nom de l'appareil> affiche une alarme s'il vous plaît procéder selon la table de décision ci-dessous	
Température d'alarme	Que faire avec les vaccins :
>= 45 °C	Contacter l'agence d'approvisionnement
>= 30 °C	Contacter l'agence d'approvisionnement
<= -0.5 °C	Faire un Test d'Agitation. Utiliser les vaccins si le test est conforme. Informer l'agence d'approvisionnement du résultat du test.
Assemblé et distribué par <nom de la compagnie and adresse web >	

### Type 2 – sur carte bleue pale Face Arrière

RECEVEUR	
1. A l'arrivée, enlever immédiatement < NOM de l'appareil > du récipient d'expédition. 2. < Décrire la procédure d'arrêt de l'appareil >. 3. Lire l'affichage du LCD et suivre les instructions comme décrites ci-dessous.	
<b>SIGNAL OK</b>	
<montrer clairement le OK indiqué sur l'écran>  Si OK, utiliser les vaccins normalement.	
<b>SIGNAL D'ALARME</b>	
<montrer clairement l'alarme indiquée sur l'écran>	
Si < Nom de l'appareil > affiche une alarme s'il vous plaît procéder selon la table de décision ci-dessous	
Température d'alarme	Que faire avec les vaccins :
>= 45 °C	Contacter l'agence d'approvisionnement
>= 30 °C	Contacter l'agence d'approvisionnement
>= 10 °C	Contacter l'agence d'approvisionnement
	Accepter
Assemblé et distribué par < nom de la compagnie and adresse web >	

**Type – Prevenar**  
Face Arrière

RECEVEUR	
1. A l'arrivée, enlever immédiatement <NOM de l'appareil> du récipient d'expédition. 2. <Décrire la procédure d'arrêt de l'appareil>. 3. Lire l'affichage du LCD et suivre les instructions comme décrites ci-dessous.	
<b>SIGNAL OK</b>	
<montrer clairement le OK indiqué sur l'écran>	
<b>Si OK, utiliser les vaccins normalement.</b>	
<b>SIGNAL D'ALARME</b>	
<montrer clairement l'alarme indiquée sur l'écran>	
Si <Nom de l'appareil> affiche une alarme s'il vous plaît procéder selon la table de décision ci-dessous :	
Température d'alarme	<b>Que faire avec les vaccins : Prevenar 7 &amp; 13 seulement</b>
>= 40 °C	Contacter l'agence d' approvisionnement
>= 30 °C	Contacter l'agence d' approvisionnement
<= -0.5 °C	Faire un Test d'Agitation. Utiliser les vaccins si le test est conforme. Informer l'agence d'approvisionnement du résultat du test.
Assemblé et distribué par <nom de la compagnie and adresse web >	

**Type – RotaTeq®**  
Face Arrière

RECEVEUR	
1. A l'arrivée, enlever immédiatement <NOM de l'appareil> du récipient d'expédition. 2. <Décrire la procédure d'arrêt de l'appareil>. 3. Lire l'affichage du LCD et suivre les instructions comme décrites ci-dessous.	
<b>SIGNAL OK</b>	
<montrer clairement le OK indiqué sur l'écran>	
<b>Si OK, utiliser les vaccins normalement.</b>	
<b>SIGNAL D'ALARME</b>	
<montrer clairement l'alarme indiquée sur l'écran>	
Si <Nom de l'appareil> affiche une alarme s'il vous plaît procéder selon la table de décision ci-dessous:	
Température d'alarme	<b>Que faire avec les vaccins : RotaTeq® seulement</b>
>= 27 °C	Contacter l'agence d' approvisionnement
>= 17 °C	Contacter l'agence d' approvisionnement
<= -25 °C	Contacter l'agence d' approvisionnement
Assemblé et distribué par <nom de la compagnie and adresse web >	

## FRONT FACE (Spanish)

### Tipo 1 – en tarjeta amarillo claro Cara frontal

<p>Coloque el dispositivo aquí, en la posición correcta</p> <p>Para ser solo utilizado en vacunas de DTP, TT, DT, Td, Hep B, IPV, Hib líquida, MenaAfriVac, HPV, Pneumo (con la excepción de Prevenar), JE inactivada.</p> <p><b>REMITENTE</b></p> <ol style="list-style-type: none"><li>1. Prepare el contenedor de embarque.</li><li>2. Rompa la etiqueta con el código de barras por la marca identificada y colóquela en los documentos de embarque.</li><li>3. Activar &lt;nombre del dispositivo&gt; de acuerdo a &lt;describa procedimiento de activación del dispositivo &gt; con comienzo demorado de 1 hora.</li><li>4. Complete la tarjeta amarilla que aparece debajo utilizando un bolígrafo.</li><li>5. Inserte esta tarjeta, con el dispositivo activado, dentro del contenedor de embarque.</li><li>6. Selle el contenedor de embarque.</li></ol> <p>Nombre del suministrador: _____</p> <p>Fecha: _____ Tiempo: _____ dd.mm.yyyy hh:mm</p> <p>Numero OP de la vacuna: _____</p> <p>Vacuna: _____</p> <p><b>RECEPTOR:</b> Por favor voltee la tarjeta!      ➡➡</p>
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### Tipo 2 – en tarjeta azul pálido Cara frontal

<p>Coloque el dispositivo aquí, en la posición correcta</p> <p>Para ser solo utilizado en vacunas de OPV, BCG, sarampión, MR, MMR, Hib liofilizada, fiebre amarilla y vacunas antimeningococcicas (para vacunas de polisacáridos), rabies, rotavirus (con la excepción de RotaTeq®), JE viva.</p> <p><b>REMITENTE</b></p> <ol style="list-style-type: none"><li>1. Prepare el contenedor de embarque.</li><li>2. Rompa la etiqueta con el código de barras por la marca identificada y colóquela en los documentos de embarque.</li><li>3. Active &lt; nombre del dispositivo &gt; por &lt; describa procedimiento de activación del dispositivo &gt; con comienzo demorado de 1 hora.</li><li>4. Complete la tarjeta amarilla que aparece debajo utilizando un bolígrafo.</li><li>5. Inserte esta tarjeta, con el dispositivo activado, dentro del contenedor de embarque.</li><li>6. Selle el contenedor de embarque.</li></ol> <p>Nombre del suministrador: _____</p> <p>Fecha: _____ Tiempo: _____ dd.mm.yyyy hh:mm</p> <p>Numero OP de la vacuna _____</p> <p>Vacuna: _____</p> <p><b>RECEPTOR:</b> Por favor voltee la tarjeta!      ➡➡</p>
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## FRONT FACE (Spanish)

Type – Prevenir  
Cara frontal

<p>Coloque el dispositivo aquí, en la posición correcta</p>
<b>Para uso exclusivo de Prevenir 7 &amp; 13</b>
<p><b>REMITENTE</b></p> <ol style="list-style-type: none"> <li>1. Prepare el contenedor de embarque.</li> <li>2. Rompa la etiqueta con el código de barras por la marca identificada y colóquela en los documentos de embarque.</li> <li>3. Active &lt; nombre del dispositivo &gt; por &lt; describa procedimiento de activación del dispositivo &gt; con comienzo demorado de 1 hora.</li> <li>4. Complete la tarjeta amarilla que aparece debajo utilizando un bolígrafo.</li> <li>5. Inserte esta tarjeta, con el dispositivo activado, dentro del contenedor de embarque.</li> <li>6. Selle el contenedor de embarque.</li> </ol> <p>Nombre del suministrador:</p> <hr/> <p>Fecha: _____ Tiempo: _____ dd.mm.yyyy hh:mm</p> <p>Numero OP de la vacuna: _____</p> <p>Vacuna: _____</p> <p><b>RECEPTOR: Por favor voltee la tarjeta!</b>      ➡➡</p>

Type – RotaTeq®  
Cara frontal

<p>Coloque el dispositivo aquí, en la posición correcta</p>
<b>Para uso exclusivo de RotaTeq®</b>
<p><b>REMITENTE</b></p> <ol style="list-style-type: none"> <li>1. Prepare el contenedor de embarque.</li> <li>2. Rompa la etiqueta con el código de barras por la marca identificada y colóquela en los documentos de embarque.</li> <li>3. Active &lt; nombre del dispositivo &gt; por &lt; describa procedimiento de activación del dispositivo &gt; con comienzo demorado de 1 hora.</li> <li>4. Complete la tarjeta amarilla que aparece debajo utilizando un bolígrafo.</li> <li>5. Inserte esta tarjeta, con el dispositivo activado, dentro del contenedor de embarque.</li> <li>6. Selle el contenedor de embarque.</li> </ol> <p>Nombre del suministrador:</p> <hr/> <p>Fecha: _____ Tiempo: _____ dd.mm.yyyy hh:mm</p> <p>Numero OP de la vacuna: _____</p> <p>Vacuna: _____</p> <p><b>RECEPTOR: Por favor voltee la tarjeta!</b>      ➡➡</p>

## BACK FACE (Spanish)

### Type 1 - Cara posterior

RECEPTOR	
1. A la llegada, remueva inmediatamente < nombre del dispositivo > del contenedor de embarque. 2. <describa procedimiento para detener el dispositivo>. 3. Lea la pantalla de cristal líquido del dispositivo y siga las instrucciones que se detallan a continuación.	
<b>PANTALLA</b>	
<muestre claramente la señal de OK, como se muestra en la pantalla del dispositivo >  Si OK, use la vacuna normalmente.	
<b>PANTALLA DE ALARMA</b>	
< muestre claramente la señal de alarma, como se muestra en la pantalla del dispositivo >	
Si < nombre del dispositivo > ilustra alarma, por favor proceda de acuerdo con lo indicado en la tabla de decisión que aparece a continuación:	
Temperatura alarma >= 45 °C >= 30 °C <= -0.5 °C	<b>Qué hacer con la vacuna:</b> Contactar con el proveedor Contactar con el proveedor Realizar el ensayo de agitación o Shake Test. Use la vacuna si esta pasa el ensayo. Informe al proveedor de los resultados del ensayo.
Ensamblado y distribuido por <nombre de la compañía y pagina web >	

### Type 2 - Cara posterior

RECEPTOR	
1. A la llegada, remueva inmediatamente < nombre del dispositivo > del contenedor de embarque. 2. <describa procedimiento para detener el dispositivo>. 3. Lea la pantalla de cristal líquido del dispositivo y siga las instrucciones que se detallan a continuación.	
<b>PANTALLA</b>	
< muestre claramente la señal de OK, como se muestra en la pantalla del dispositivo >  Si OK, use la vacuna normalmente.	
<b>PANTALLA DE ALARMA</b>	
< muestre claramente la señal de alarma, como se muestra en la pantalla del dispositivo >	
Si < nombre del dispositivo > ilustra alarma, por favor proceda de acuerdo con lo indicado en la tabla de decisión que aparece a continuación:	
Temperatura alarma >= 45 °C >= 30 °C >= 10 °C	<b>Qué hacer con la vacuna:</b> Solo OPV Otras vacunas Contactar con el proveedor Contactar con el proveedor Contactar con el proveedor Aceptado
Ensamblado y distribuido por <nombre de la compañía y pagina web >	

## Type – Prevenir cara posterior

RECEPTOR	
1. A la llegada, remueva inmediatamente < nombre del dispositivo > del contenedor de embarque. 2. < describa procedimiento para detener el dispositivo>. 3. Lea la pantalla de cristal líquido del dispositivo y siga las instrucciones que se detallan a continuación.	
<b>PANTALLA</b>	
< muestre claramente la señal de OK, como se muestra en la pantalla del dispositivo >  Si OK, use la vacuna normalmente.	
<b>PANTALLA DE ALARMA</b>	
< muestre claramente la señal de alarma, como se muestra en la pantalla del dispositivo >	
Si < nombre del dispositivo > ilustra alarma, por favor proceda de acuerdo con lo indicado en la tabla de decisión que aparece a continuación:	
<b>Alarm temperature</b> <b>Qué hacer con la vacuna: Prevenir 7 &amp; 13</b>	
>= 40 °C	Contactar con el proveedor
>= 30 °C	Contactar con el proveedor
<= -0.5 °C	Realizar el ensayo de agitación o Shake Test. Use la vacuna si esta pasa el ensayo. Informe al proveedor de los resultados del ensayo.
Ensamblado y distribuido por < nombre de la compañía y pagina web >	

## Type – RotaTeq® cara posterior

RECEPTOR	
1. A la llegada, remueva inmediatamente < nombre del dispositivo > del contenedor de embarque. 2. < describa procedimiento para detener el dispositivo>. 3. Lea la pantalla de cristal líquido del dispositivo y siga las instrucciones que se detallan a continuación.	
<b>PANTALLA</b>	
< muestre claramente la señal de OK, como se muestra en la pantalla del dispositivo >  Si OK, use la vacuna normalmente.	
<b>PANTALLA DE ALARMA</b>	
< muestre claramente la señal de alarma, como se muestra en la pantalla del dispositivo >	
Si < nombre del dispositivo > ilustra alarma, por favor proceda de acuerdo con lo indicado en la tabla de decisión que aparece a continuación:	
<b>Alarm temperature</b> <b>Qué hacer con la vacuna: RotaTeq®</b>	
>= 27 °C	Contactar con el proveedor
>= 17 °C	Contactar con el proveedor
<= -25 °C	Contactar con el proveedor
Ensamblado y distribuido por < nombre de la compañía y pagina web >	

<b>Revision history:</b>			
Date	Change summary	Reason for change	Approved
12 Jul 2006	4.1: type descriptions. 4.2.2: temperature. 4.2.8: minor change. 4.2.12: type descriptions. 4.2.16 added. 4.6.3: minor changes and addition. 4.6.4: minor change. 4.6.5: re-drafted with card illustration in Annex 1. New clause 4.7.2, 4.7.3 and 4.7.4 deleted. 5: 'CFC' changed to 'ozone-depleting'.	In response to final review comments. EU RoHS Directive material restrictions incorporated.	Yes (UK)
29 Nov 2006	Annex 1: Notes added. French and Spanish versions added. "What to do" section on the back face of the shipment information card changed to "contact procurement agency"	Initial information was to contact only UNICEF, whereas other procurement agencies may also be using the same device.	Yes (30 November 2006, UK - PQS secretariat)
01 Dec 2006	Annex 1 French and Spanish versions added	French and Spanish language versions added	Yes (01 December 2006 - UK PQS secretariat)
05 Dec 2006	"Assembled and distributed by [company name and web address]" information is added to backing cards.	Add missing information on assembly and distribution to backing cards.	Yes (05 December 2006 - UK PQS secretariat)
17.09.2012	2: Dated references note added. 4.1: List of vaccines extended for Type 1 and Type 2. 20 day recording period option added. 4.2.15: 20 day recording period option added. 4.2.16: IATA requirements statement added. 4.6.2: 20 day recording period option added. 4.6.4: Product identification amended to include recording period. Annex 1: Pantone colour codes added. List of vaccines extended for Type 1 and Type 2	General update. New vaccines introduced since original issue.	
16/11/2012	<i>5.4.5 Test 5: Threshold accuracy test Shipment information cards</i>	Correction accuracy Update of the cards	DM
16/10/2014	<i>Shipment information cards</i>	Updated with JE vaccines	DM