Parts of this document are controlled in a schedule drawing. See 90000076-LTDS.

HY-OPTIMA™

HYDROGEN SPECIFIC MEASUREMENT SOLUTIONS

HY-OPTIMA Intrinsically Safe Remote Control Module Operating Manual

H2scan

Hydrogen is the future, we can sense it! ™

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MISSION STATEMENT

Our Mission

Deliver unsurpassed value and optimize green initiatives with our one of a kind continuous hydrogen-specific sensing technology worldwide.

Our Value Propositions

Enable end-user customers to efficiently and effectively optimize:

- Electric utility power transformer fleet and other oil-filled assets (Grid)
- Petroleum refinery and other industrial process control
- Facility and equipment safety to minimize downtime

…at much lower total costs of ownership than the competition.

Our Strategic Objectives

H2scan's technology accepted as the new gold standard in hydrogen sensors.

H2scan's business recognized for innovation and ingenuity, high quality products and systems, application-specific solutions, and exceptional customer service and satisfaction.

H2scan's success result from teamwork, strategic partnerships and market leadership leading to sales growth and improved profitability.

IMPORTANT NOTICES

Read and understand this operating manual before installing or using the unit.
If this equipment is used in a manner not specified by H2scan, the protection provided by this equipment may be impaired.

LIMITATION OF LIABILITY
In the event of a defect in a product, h2scan shall not be responsible for any direct, indirect, incidental or consequential damages resulting therefrom, including, but not limited to, loss of revenue and/or profit.

LIMITED WARRANTY

H2scan Limited Warranty: Each hydrogen instrument ("Product") will conform, as to all substantial operational features, to the Product specifications set forth in this Manual and will be free of defects which substantially affect such Product's performance for twelve (12) months from the ship date for such Product.

Must Provide Notice of Defect: If you believe a Product that you believe is defective, you must notify H2scan in writing, within ten (10) days of receipt of such Product, of your claim regarding any such defect.

Return Product to H2scan for Repair, Replacement or Credit: If the Product is found defective by H2scan, H2scan's sole obligation under this warranty is to either (i) repair the Product, (ii) replace the Product, or (iii) issue a credit for the purchase price for such Product, the particular remedy to be determined by H2scan on a case-by-case basis.

Voided Warranty: H2scan's 12 Month Limited Warranty is void for any of the following:

The unit is opened and the manufacturing seal is broken

Unauthorized repair work performed at the customer's location or carried out by anyone other than H2scan's factory trained technicians

Equipment or parts that have been tampered with, misused, neglected, mishandled, improperly adjusted, or modified in any way without the written consent of H2scan.

Equipment or parts that have been damaged due to shipping, misuse, accidents, mishandling, neglect, or problems with electrical power sources.

Repair work performed during the warranty period does not prolong the warranty period past the original period.

System operation in incorrect or inappropriate environments.

Usage that is not in accordance with system guidelines or an operator's failure to follow manual instructions.

Limitation of Warranty: THE ABOVE IS A LIMITED WARRANTY AS IT IS THE ONLY WARRANTY MADE BY H2SCAN. H2SCAN MAKES NO OTHER WARRANTY EXPRESS OR IMPLIED AND EXPRESSLY EXCLUDES ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. YOUR SOLE REMEDY HEREUNDER IS REPAIR OR REPLACEMENT OF THE PRODUCT OR A CREDIT FOR THE PURCHASE PRICE FOR SUCH PRODUCT, THE PARTICULAR REMEDY TO BE DETERMINED BY H2SCAN ON A CASE-BY-CASE BASIS. H2SCAN SHALL HAVE NO LIABILITY WITH RESPECT TO ITS OBLIGATIONS UNDER THIS AGREEMENT FOR CONSEQUENTIAL, EXEMPLARY, OR INCIDENTAL DAMAGES EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE STATED EXPRESS WARRANTY IS IN LIEU OF ALL LIABILITIES OR OBLIGATIONS OF H2SCAN FOR DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE DELIVERY, USE OR PERFORMANCE OF THE PRODUCTS.

1 DESCRIPTION

The HY-OPTIMA Intrinsically Safe Remote Control Module is used to control the Explosion Proof In-line Hydrogen Process Analyzer.

The remote control is used to access the Configuration Menu, change settings and initiate Calibration. If lost or damaged, spare remote controls can be purchased directly from H2scan.

1.1 INTRINSICALLY SAFE REQUIREMENTS

Only replace the battery in a safe (non-hazardous) location.

WARNING - Only the following batteries have been tested and approved for maintaining the intrinsic safety of the remote control:

Panasonic CR1632

Energizer CR1632

Renata CR1632

Using any other battery may impair the safety of the remote.

A lanyard or anything else attached to the remote while in hazardous locations must not have metallic parts.

1.2 OPERATION

To control the 2700, hold the remote control so the LED points towards the 2700's display panel.

Pressing ▲ (up arrow button) moves the cursor up.

Pressing ▼ (down arrow button) moves the cursor down.

Pressing ► (right arrow button) selects the next menu.

Pressing ◄ (left arrow button) selects the previous menu.

Pressing ↵ (enter button) selects the function.

See the 2700 Operator's Manual for menu structure.

1.3 BATTERY REPLACEMENT

See the photos below.

Pry open the case with a flat-tip screwdriver.

Remove the board from the case, battery end out first.

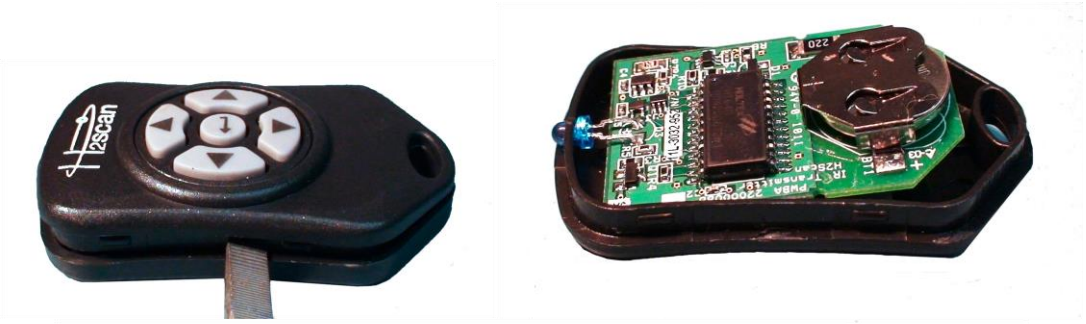
Replace the battery. Be sure the negative (-) side touches the board and the positive side (+) touches the battery holder.

Place the case half with the buttons face down on a surface.

Slide the board in LED end first, battery side up.

There are small tabs in the case that fit into the notches on either side of the board. The sides of the case may need to be bent out slightly so the board can snap in.

Snap the case together.




LED
Panasonic
CR 1632
3V
JAPAN

2 CERTIFICATIONS

DEMKO 11 ATEX 8175718
UL22UKEX2271
II 1G Ex ia IIC T4
IECEx UL 16.0077
Ex ia IIC T4 Ga
-20ºC ≤ Ta ≤ 55ºC

CE 2575 UKCA 0359

UL 913 - Standard for Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, III, Division 1, Hazardous (Classified) Locations, Eighth Edition, December 6, 2013

CSA C22.2 No. 157 Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations Edition 3 Revision Date 06/2013

IEC 60079-0:2017, 7th Edition (2017-12) + Corr. 1 (2020-01) + I-SH 01 (2019-04) + I-SH 02 (2019-06), Standard | Explosive atmospheres - Part 0: Equipment - General requirements

CENELEC - EN 60079-0 Standard | Explosive atmospheres - Part 0: Equipment - General requirements, Issue Date 07/2018

IEC 60079-11:2014, 6th Edition (2011-06) + Corr. 1 (2012-01) + I-SH 01 (2014-10) + I-SH 02 (2016-07) + I-SH 03 (2016-07) + I-SH 04 (2019-04) + I-SH 05 (2019-08) + I-SH 06 (2019-12), Standard | Explosive atmospheres - Part 1: Equipment protection by intrinsic safety "i"

CENELEC - EN 60079-11: Standard | Explosive atmospheres - Part 1: Equipment protection by intrinsic safety "i" Issue date Jan. 1, 2012

For Use In Class I, Division 1, Groups A, B, C, and D, T4, Hazardous (Classified) Locations Only as to Intrinsic Safety

- Standard No. UL 913, 7th Ed., Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations
- Standard No. CAN/CSA C22.2 No. 157-92, Rev. 2003-06 (Reaffirmed 2012), Intrinsically Safe and Non-incendive Equipment for Use in Hazardous Locations

QUESTIONS? PLEASE CONTACT US AT: sales@h2scan.com