

**EFFECTIVE JANUARY 1, 2022** — All products made in U.S.A., except where † indicated. Supersedes all previous price lists. All product labeling and instructions printed in English except where indicated.

This catalog reflects standard models of instruments held in stock for expedited order fulfillment. Other models are available by special order.

# IRROMETER° SOIL MOISTURE SENSORS

**IRROMETER®** measures soil water tension which indicates plant water availability. The white tipped STANDARD (SR) is for general use with row, tree, and field crops, with ranges from 0-100 cb (kPa). The blue tipped LOW TENSION (LT) is designed for use in very coarse soils and non-soil container media with ranges from 0-40 cb (kPa).

Both **SR and LT IRROMETER** gauges have a vent for better temperature and elevation related compensation, a large 2 ½ inch face for ease of reading, and a stainless steel rustproof body.

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#### MINIATURE LOW TENSION IRROMETER® The compact

size, quick-flo tip, and membrane vented gauge make it the best choice for small container applications. See product specification sheet for details.

CURRENT OUTPUT

**CATALOG #** 

206-RSU-C

212-RSU-C

218-RSU-C

224-RSU-C

236-RSU-C

CATALOG # 506-RSU-C

512-RSU-C

518-RSU-C

524-RSU-C

CATALOG #

MLT-RSU-C

**RSU-C REMOTE SENSING UNITS are** 

designed to show soil moisture levels by

converting the reading to a current signal.

See product specification sheet for details.

**SR DEPTH** 

6" (15 cm)

12" (30 cm)

18" (45 cm)

24" (60 cm)

36" (90 cm)

LT DEPTH

6" (15 cm) 12" (30 cm)

18" (45 cm)

24" (60 cm)

MLT

MINI

48" (120 cm) 248-RSU-C

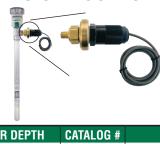
SR DEPTH	CAT #	
6" (15 cm)	206	
12" (30 cm)	212	
18" (45 cm)	218	
24" (60 cm)	224	
36" (90 cm)	236	
48" (120 cm)	248	
LT DEPTH	CAT #	
6" (15 cm)	506	
12" (30 cm)	512	
18" (45 cm)	518	
24" (60 cm)	524	
MLT	CAT #	
MINI	MLT	

MANUAL GAUGE

## **IMPORTANT NOTICE**

Service Unit should be purchased with initial order (see page 2). Only one Service Unit is necessary to service all of your IRROMETERS.

## **AUTOMATIC SWITCH**



SK DEPTH	CATALOG #	
6" (15 cm)	206-AVS	
12" (30 cm)	212-AVS	
18" (45 cm)	218-AVS	
24" (60 cm)	224-AVS	
36" (90 cm)	236-AVS	
48" (120 cm)	248-AVS	
LT DEPTH	CATALOG #	
	CATALOG # 506-AVS	
6" (15 cm)		
6" (15 cm) 12" (30 cm)	506-AVS	
6" (15 cm) 12" (30 cm) 18" (45 cm)	506-AVS 512-AVS	
LT DEPTH 6" (15 cm) 12" (30 cm) 18" (45 cm) 24" (60 cm) MLT	506-AVS 512-AVS 518-AVS	

**SWITCH OUTPUT** provides adjustable automatic vacuum switching capabilities. See product specification sheet for details.

# VOLTAGE OUTPUT

SR DEPTH	CATALOG #	
6" (15 cm)	206-RSU-V	
12" (30 cm)	212-RSU-V	
18" (45 cm)	218-RSU-V	
24" (60 cm)	224-RSU-V	
36" (90 cm)	236-RSU-V	
48" (120 cm)	248-RSU-V	
LT DEPTH	CATALOG #	
LT DEPTH 6" (15 cm)	CATALOG # 506-RSU-V	
6" (15 cm)	506-RSU-V	
6" (15 cm) 12" (30 cm)	506-RSU-V 512-RSU-V	
6" (15 cm) 12" (30 cm) 18" (45 cm)	506-RSU-V 512-RSU-V 518-RSU-V	

**RSU-V REMOTE SENSING UNITS** are designed to show soil moisture levels by converting the reading to a voltage signal. See product specification sheet for details.

A Test Pump Service Unit (#1002) is recommended for AVS and RSU models.

Please contact us for longer lengths on any IRROMETER. Spanish labels available, add -SP to Catalog #. Options and Accessories on Page 2.

## IRROMETER' SERVICE UNITS

A Service Unit is necessary for proper operation of the IRROMETER® instrument and should be included on initial order. One unit will service ALL of your IRROMETERS.



#### STANDARD SERVICE UNIT Catalog #1001

#### Includes:

- 1 Hand Vacuum Pump
  1 Bottle IRROMETER<sup>®</sup> Fluid
- 25 Monthly Chart Forms
- 1 Reference Book

The **Standard Service Unit** is used during initial installation and then periodically for removal of air from instrument to ensure maximum sensitivity and accuracy. The **Test Pump Service Unit** serves the dual purpose of removing air and testing the gauge in one operation.

For Spanish instructions, add -SP to Catalog #

MLT SERVICE UNIT (not shown) Catalog #1007

**Includes:** Same items as #1001, except Vacuum Pump is syringe style.



**TEST PUMP SERVICE UNIT** Catalog #1002

Includes: Same items as #1001, except Hand Vacuum Pump is equipped with test gauge.

## IRROMETER® ACCESSORY ITEMS

CAT #	ITEM
1003	Test Pump Adapter
1004	IRROMETER Fluid (0.7 oz. concentrate)
1004-L	IRROMETER Fluid (6 oz. concentrate)
1005	Chart Forms (Monthly/100 Sheets)
IRROME	TER® Vacuum Gauges
1008†	SR Gauge only (0-100 cb[kPa])
1008-LT <sub>†</sub>	LT Gauge only (0-40 cb[kPa])

1008-MLT+ MLT Gauge only (0-40 cb[kPa]) .....

CAT #	ITEM
OUTPUT C	PTIONS
AVS	Auto Vacuum Switch Adjustable centibar value
RSU-C†	Remote Sensing Unit 4-20 mA Current Output - (1/4 NPT)
RSU-V	Remote Sensing Unit Voltage Output - (1/4 NPT)

CAT #	ITEM
REPLACI	EMENT TIPS & COMPONENTS
SRT	SR Replacement Tip
QFSRT	LT Replacement Tip
MLT-TIP	MLT Replacement Tip
CAP	IRROMETER Cap and Stopper Assembly
STOP	Stoppers
SR-0	O-Ring (SR/LT)

# **IRROMETER® SOIL SOLUTION ACCESS TUBES**

#### Contact us for Soil Solution Access Tubes without suction lines or tubes longer than 48" (120 cm). **SSAT** – For easy extraction of soil solution samples when testing salinity levels or plant nutrients in soil water. Includes vinyl suction line with rubber stopper seal and stopcock closure. Requires a vacuum source. (accessories below) NEW **DESIGN!** STANDARD TENSION LOW TENSION Single Line Double Line Single Line **Double Line** LENGTH CAT # CAT # LENGTH CAT # CAT # 6" (15 cm) A6C ..... A6C-DBL ...... 6" (15 cm) A6C-LT ..... A6C-LT-DBL .... 12" (30 cm) A12C-LT-DBL .. A12C ..... A12C-DBL ..... 12" (30 cm) A12C-LT ..... A18C ..... A18C-LT-DBL .. 18" (45 cm) 18" (45 cm) A18C-LT..... A18C-DBL..... 24" (60 cm) 24" (60 cm) A24C-LT..... A24C-LT-DBL .. A24C ..... A24C-DBL ..... 36" (90 cm) A36C ..... A36C-LT-DBL .. 36" (90 cm) A36C-LT ..... A36C-DBL .... 48" (120 cm) A48C-LT-DBL .. A48C-DBL ..... 48" (120 cm)

## **ACCESSORIES FOR SOIL SOLUTION ACCESS TUBES**

CAT #	ITEM
SLA	Suction Line Assembly (to 24")
SLT	Bulk Vinyl Suction Line Tubing
SGL-STOP	Single Hole Stopper per doz.
DBL-STOP	Double Hole Stopper per doz.

**1002-SSAT Vacuum Pump**– New stopcock connection. Pump is required to create a sufficient vacuum. For Spanish add -SP. *(Contact us for previous version adapter)* SSAT Vacuum Pump......



**DS-50CC Extraction Syringe** is used primarily to extract soil solution from SSAT Tube and can also be used to create a partial vacuum on shorter tubes [12 in. (30 cm) or less]. For SSAT Tubes longer than 12 in. (30cm), use SSAT Vacuum Pump (1002-SSAT). Extraction Syringe......

DC-50CC+

## WATERMARK SOIL MOISTURE SENSOR

#### CAT # CABLE LENGTH 200SS-5 5' (1.5 m) ..... 200SS-5-S 5' (1.5 m) ..... 200SS-15 15' (4.5 m) ..... 200SS-15-S 15' (4.5 m) ..... 200SS-X 6" (15 cm)..... For lengths longer than 5'— Add per foot. (minimum applies) VTC Vinyl Caps for pipe assembly (bag of 100)..... 200SS-VA Voltage Adapter\* ..... 200SS-V-6 6 Channel Voltage Adapter\* ..... \*Converts WATERMARK to voltage signal



## WATERMARK METER

Solid state, digital hand-held, alternating current resistance bridge meter for reading standard WATERMARK Sensors. Adjustable for soil temperature variations. Touch pad operating panel with LCD display. Includes durable case, 9 volt battery and field replaceable cable assembly.



CAT #	DESCRIPTION
30-KTCD-NL	WATERMARK Meter
30-KTCD-NL-SP	WATERMARK Meter with Spanish label and instructions
30-KTCD-Cable†	Replacement Cable

WATERMARK Soil Moisture Sensor for

used with WATERMARK Meter, Monitor,

Comes standard with half inch stripped and

(-S) allows for installation on pipe, both top

use with all crops in most soils. To be

## WATERMARK MONITOR WaterGraph software for downloading and graphing data is available free from our website.



The 900M Monitor is a battery operated data-logger, that automatically reads up to eight sensors. Users can view readings on the screen or download data to a laptop. The 900M Monitor accepts WATERMARK soil moisture sensors, soil and air temperature sensors, switch closure sensors, rain gauge, and IRROMETER RSU-V.

See Monitor Packages for sensor combination options.

A Cellular Gateway option can be added to the 900 Monitor to improve productivity by sending data to the IRROcloud data platform and allowing access through any internet connected device. (See page 4) Cellular Gateway systems include a battery pack and solar panel.

#### 900M ACCESSORIES

CAT #	DESCRIPTION
900M-CG/BP LTE ATT	AT&T® Cellular Gateway w/ battery pack & solar panel
900M-CG/BP LTE VRZ	Verizon® Cellular Gateway w/ battery pack & solar panel
900M-RSU-V	RSU Voltage Wiring Board (One per 8 RSUs)
200TS	Soil Temperature Sensor with 15' (4.5 m) wire lead
ATS	Air Temperature Station with 36 in. (91 cm) wire lead
APS	Adjustable Pressure Switch
900RG	Rain Gauge
CDS	Annual Cellular Data Service (Most Countries - Call factory for details)

CAT #	DESCRIPTION
<b>COMPONENTS</b> 900M-0	Monitor Only (without sensors)
POPULAR 900	IM MONITOR PACKAGES:
900M	WATERMARK Monitor with seven WATERMARK Sensors, one Soli Temperature Sensor, each with 15' (4.5 m) wire leads.
900M-8	WATERMARK Monitor with eight WATERMARK Sensors, each with 15' (4.5 m) wire leads.
900M-1-6-APS	WATERMARK Monitor with six WATERMARK Sensors, one Soil Temperature Sensor, each with 15' (4.5 m) wire leads and one Adjustable Pressure Switch (for recording irrigation events).

ATS -Air Temperature Station includes sensor, radiation shield, and mounting bracket





Rain Gauge -AeroCone<sup>®</sup> design with mounting base and bird spikes.

## **IRROcloud SYSTEM**

## **IC-10 SENSOR MONITOR**

2+Years Battery Life: Standard "C" Batteries **Simple Set Up:** No configuration or calibration Install Anywhere: No height or solar requirement LTE-M Cellular Direct to Cloud: No other device needed



The IRROcloud Data Platform enables viewing of IRROMETER or WATERMARK sensor data in real-time from any mobile device or computer. The intuitive dashboard provides device status, location maps, a quick reference gauge panel with adjustable thresholds. The full-featured graph and reporting suite supports detailed analysis of soil moisture, rainfall, irrigation events, and text based frost alerting.



#### IC-10 MONITOR — FC IC certified

CAT #	ITEM
IC-10	IRROcloud Sensor Monitor (without sensors) reads WATERMARKS. Includes 1 free year of IRROcloud service
IC-10-IR	IRROcloud Sensor Monitor (without sensors) reads RSU-V IRROMETERS. Includes 1 free year of IRROcloud service
IC-10-PRO	IRROcloud Sensor Monitor Includes 6 Watermarks, 1 Soil Temp, 1 Pressure Switch and 1 free year of

IRROcloud service

**IC-10 SENSOR OPTIONS** 

CAT #	ITEM
200TS	Soil Temperate Sensor
APS	Adjustable Pressure Switch
ATS	Air Temperature Station
900RG	Rain Gauge - AeroCone <sup>®</sup> Design with mounting base and bird spikes
ISR	IRROcloud Service Annual Online Renewal

## **IRRO**mesh SYSTEM

	<b>CAT #</b> 975B
	NODES 975NR
IRROMESH IRROMESH IRROMESH	975NE
C.	

97	75	CC	)MF	PON	IEN	TS

#### ITEM

Base Mesh System Base Node, allows multiple 'hops' for greater system range, uses combination of Relay and End Nodes.

## S –

Relay Node ..... Capacity for 3 WATERMARK Sensors, 1 Temperature Sensor, 1 Adjustable Pressure Switch and 1 Rain Gauge. Node has 25' (7.6 m) Cable.

End Node.... Capacity for 3 WATERMARK Sensors, 1 Temperature Sensor, 1 Adjustable Pressure Switch and 1 Rain Gauge. Node has 25' (7.6 m) Cable.

The IRROmesh node accepts WATERMARK sensors, soil and air temperature sensors, switch closure sensors, rain gauge, and **IRROMETER RSU-Vs.** 

#### DATA COLLECTION DEVICE

CAT # ITEM

975G-BP Gateway w/Battery Pack & Solar Panel\*..... Data transfer to Internet via Cellular Modem. (Includes Solar Panel)

#### **ACCESSORIES**

GAI #	IIEM
-BC	Bird Cover Factory mounted if added to catalog
	number with "BC" Example: 975NR-BC.

#### 975-RSU-V RSU-V Voltage Transducer Adapter .....



\*WEB Based Data Service -Required for PC Link and Cell Gateway. Displays data online in real time. Per unit charges apply from per month.

## IRROMETER<sup>®</sup> PRESSURE GAUGES



**Membrane Vented Pressure Gauge** – (7MV series) Membrane vented pressure gauge allows for superior temperature and elevation related compensation while maintaining a dust proof and waterproof environment. Features a stainless steel case, with a durable 2½ in. (63mm) polycarbonate face. Connected with a ¼ in. brass standard pipe thread stem (NPT) and integral snubber. Dual scale P.S.I. and kPa faceplate.

#### Membrane Vented Pressure Gauge

This item has a 1.6% accuracy rating across the full scale of the gauge, a large 2½ inch face for ease of reading, a stainless steel rustproof body, and a membrane vent for temperature and elevation related compensation.



**Liquid Filled Pressure Gauge** – (7LF series) Glycerin filled for severe service conditions with pulsation and vibration. Features stainless steel case with a durable 2½ in. (63mm) polycarbonate face. Connected with a ¼ in. brass standard pipe thread stem (NPT) and integral snubber. Dual scale P.S.I. and kPa faceplate.

GAUGE RANGE	MEMBRANE VENT		LIQUID FILLED	
psi/kPa	CAT#		CAT#	
15 psi / 100 kPa	7MV-15†		N/A	
30 psi / 200 kPa	7MV-30†		N/A	
60 psi / 400 kPa	7MV-60†		7LF-60†	
100 psi / 700 kPa	7MV-100†		7LF-100†	
200 psi / 1400 kPa	7MV-200†		7LF-200†	
400 psi / 2800 kPa	7MV-400†		7LF-400†	

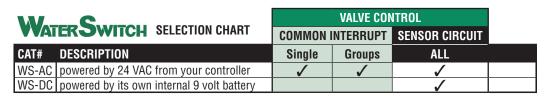
IRRØMETER

**VATERSWITCH** 

## LANDSCAPE AUTOMATION PRODUCTS

The WATERSWITCH manages irrigation based on soil moisture status by overriding the irrigation controller operation when the soil becomes wetter than the moisture setting. The WATERSWITCH includes a weather resistant control module and one Watermark #200SS-5 sensor. Both AC and DC options available. Packaged for display.

- Nine selectable moisture level settings
- Reads sensor and changes switch accordingly
- Uses a single Watermark sensor
- Status indicator light
- Timed bypass
- CE and LK marked





#### **Multiple Hydrozone**

System – the MHS provides soil moisture automation for any conventional 24 VAC irrigation controller. Optional Time Delay Relay needed for pump start systems.

MULTP	LE HYDROZONE	SYSTEM PACKAGI	ES
SYSTEM	HYDROZONES	VALVE CAPACITY	
MHS-4-16	4	16	
MHS-6-32	6	32	
MHS-8-48	8	48	
MHS-TD	Required for pu	imp start relays	

**NOTE:** Please contact us to verify compatibility.

# IRROMETER, SSAT OR WATERMARK INSTALLATION TOOLS

Slide Hammer – Steel slide hammer with 7/8" (22 mm) diameter x 48" (120 cm) long insertion tip, calibrated every 12" (30 cm). Top of tool is sliding hammer that drives tip into and back out of the ground, leaving a smooth borehole for sensor insertion.

Cat #1012 .....





Specialty accessories available for deep installations, contact us for pricing and availability. **Coring Tool Kit** – Nickel plated 7/8" (22 mm) soil coring tool. Comes as a kit in fabric storage pouch with two 12" (30 cm) extensions and handle for making up to a 36" (90 cm) access hole. Can also be used for soil sampling.

Cat #1013 .....

**Auger Tool Kit** – Nickel plated 1" (25 mm) soil auger. Makes oversize hole for grout style sensor installation in hard or rocky soils. Comes as a kit in fabric storage pouch with two 12" (30 cm) extensions and handle for making up to a 36" (90 cm) access hole.

Cat #1014 .....

**Extension Rod** – 12" (30 cm) extension rod for #1013 or #1014 to make deeper access holes.



#### WATERMARK Sensor

Insertion Tool – Tee handle style tool for inserting a WATERMARK Sensor up to 30" (76 cm) into a borehole created by one of the other tools shown in this section. It has an internal ejection rod inside the tube to push the sensor off of the tool once it's fully inserted into borehole.

Cat #1017 .....

## IRROMETER® REPAIR PRICES . IN NORTH AMERICA ONLY.

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CAT #	DESCRIPTION
R1	Recondition IRROMETER – R, SR or TG (includes new tip, stopper, complete cleaning and gauge check)
R1-LT	Recondition <b>IRROMETER</b> – <b>LT</b> or <b>MLT</b> (includes new tip, stopper, complete cleaning and gauge check)

#### CAT # DESCRIPTION

Cat #1015 .....

EXTEND	Extend IRROMETER
RHVP	Recondition Hand Vacuum Pump (plus parts)
TRADE-IN	Trade-In Plan (exchange old for new)
CONVERT	Convert R to SR (replaceable tip) (add to recondition cost)

Call IRROMETER for a Returned Goods Authorization Number (RGA) Ship prepaid to: 1425 Palmyrita Avenue, Riverside, CA 92507

## WEIGHT AND MEASUREMENT INFORMATION

#### IRROMETER NET WEIGHTS

LENGTHS	6 INCH (15 CM)	12 INCH (30 CM)	18 INCH (45 CM)	24 INCH (60 CM)	36 INCH (90 CM)	48 INCH (120 CM)	60 INCH (150 CM)
IRROMETER	.844 lb. /.383 kg	.968 lb. / .439 kg	1.09 lb. / .496 kg	1.22 lb. / .553 kg	1.47 lb. / .666 kg	1.72 lb. / .780 kg	1.97 lb. / .893 kg
SSAT	.176 lb / .080 kg	.254 lb. / .115 kg	.331 lb. / .150 kg	.408 lb. / .185 kg	.562 lb. / .255 kg	.717 lb. / .325 kg	.871 lb. / .395 kg

CAT #	DESCRIPTION	WEIGHT CAT #	DESCRIPTION	WEIGHT
200SS	WATERMARK Sensor 5' (1.5 m)	157 lb. / .071 kg 1001	Service Unit	1.07 lb. / .484 kg
30-KTCD-NL	WATERMARK Meter	752 lb. / .341 kg 1002	Test Pump Service Unit	1.44 lb. / .654 kg
WS-AC and WS-DC	WATERSWITCH	7 lb. / .31 kg 1004	IRROMETER Fluid	187 lb. / .085 kg
900M	WATERMARK Monitor5	° 1005	Monthly Chart (100)	
975NR or 975NE 975B	IRROmesh Node (Relay or End) IRROmesh Base	° 1012	Slide Hammer	
975G-BP	IRROmesh Cellular Gateway/Battery Pack	× 1012	Coring Tool Kit	3.00 lb. / 1.36 kg
7 Series	Gauge	ŭ 1014	Auger Tool Kit	3.00 lb. / 1.36 kg
IC-10	IRROcloud Sensor Monitor	• •	WATERMARK Insertion Tool	3.00 lb. / 1.36 kg

All prices F.O.B. Riverside, California, and apply to North America. (U.S. Dollars)

Terms: Cash, VISA, MasterCard with order or C.O.D. Net 30 days with previously established credit. Minimum \$7.50 order charge

Prices and specifications subject to change without notice.

**EXPORT PACKING CHARGE: \$0.50 per IRROMETER - \$5.00 minimum per package.** (Applies only to shipments outside North America.)

Shipping and Mailing Address:	Shipp
1425 Palmyrita Avenue	14
verside, California 92507-1600	Riverside, C
682-9505 Fax: (951) 682-9501	(951) 682-9505
Email: sales@IRROMETER.com	Email: sale
U.S.A. (10/21) #9	



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