EAP INDUSTRIES, INC.

E-Coder®)R900*i*™

NEPTUNE TECHNOLOGY GROUP

Sharon DelSignore, Business Development Manager
EAP Industries, Inc.
sharon@eapindustries.com
814-574-3864

1

EAP INDUSTRIES, INC.

Bring your own device!
Technology Prevails!

NEPTUNE TECHNOLOGY GROUP

2

EAP INDUSTRIES, INC.

Alex Paris Contracting affiliated company

Since 2003, EAP Industries, Inc. specializes in the sales and service of Neptune Technology Group water meters, Radio Read Systems, software and related supplies

- Exclusive Neptune TG Assigned Territory in Central and Western PA
- Sole Neptune TG Level 1 Distributor in 34 counties
- Dedicated, assigned municipal sales team
- System Software Installer & troubleshooter on call
- Customer Service
- Stocking warehouse

3

EAP INDUSTRIES, INC.

NEPTUNE TECHNOLOGY GROUP

www.NeptuneTG.com

Neptune Technology Group Inc. is a pioneer in the development of automatic meter reading (AMR) and advanced metering infrastructure (AMI) technologies for more than 50 years. Since 1892 Neptune has continually focused on the evolving needs of utilities – revenue optimization, operational efficiencies, and improved customer service.

- Pioneering industry leader
- Installed base of more than 25 million water meters and a loyal base of over 2,500 utilities
- **Only US-based water meter foundry**, located in Tallassee, Alabama
- Neptune's quality system is registered to the **ISO 9001:2008** management system standard.
- All products forward and backward compatible
- Proven solutions for all types of metering demands

MADE IN THE USA WITH PRIDE

4

EAP INDUSTRIES, INC.

TouchPads on the side of houses for reading is costly in Labor, and stages safety issues.

State of the Art Technology has taken us to Radio Reading and gathering data like never before.

5

EAP INDUSTRIES, INC.

System Architecture

6

And now ***EVEN MORE***

Technology Prevails

The MACH 10® solid state ultrasonic meter features **no moving parts**, ensuring continued accuracy and performance over the life of the meter and maximum revenue generation from your metering program. Its high-resolution measurement allows you to accurately capture extremely low flow rates, while a rugged, lead free bronze maincase adds to its long-term performance.

7

Leak Spy

- By combining the Leak Spy acoustic leak sensor with Neptune's R900® or MIUs, **utilities can save on labor while detecting leaks faster, helping to reduce Non-Revenue Water.**

Lift & shift

OR

Permanent

Works with Neptune's system!

Narrow down your town!

Be proactive!

8

MACH 10™ "Raises the Bar"

- No moving parts
  - No wear, no maintenance, no accuracy loss
- No temperature probe required
  - Elimination of a potential failure point in the meter.
- Lead free bronze maincase NSF 61
  - Regulatory compliance
  - No stranded assets due to stripped threads or broken spuds
  - Bronze scrap value at end of life (~$4.00)
- No ground straps required (~$8.00 savings per meter installation)
- Continuous Measurement
  - 4x per second "continuously"
  - Captures all of the flows
  - Not Mag meter technology like iPERL
    - No special technology needed for battery management like "Remanent Magnetic Field".
  - Test on a test bench just like a T-10" with E-Coder"
    - No special test mode required like Badger E-Series

9

EAP INDUSTRIES, INC.

MIU R900™

Meter Interface Unit

R900 Wall MIU

R900 PIT MIU

- MIU power: Lithium battery with capacitor (20 yr. warranty)
- Available in two versions – Inside and Pit (fully submersible)
- Optional external antennas connect hard-to-reach areas (deep pits)
- Completely streamlines your entire reading & customer service processes

The R900R MIU provides water utilities with a reliable and economical RF reading solution.

Please review product sheet

10

EAP INDUSTRIES, INC.

1. Internal Antenna
2. Optional Antenna Port
3. Solar Panel
4. Date of Manufacture
5. LCD Display
6. T-10® Meter

FLOW INDICATOR

Shows the direction of flow through the meter:

ON	Water in use.
OFF	Water not in use.
Flashing	Water is running slowly.
(-)	Reverse flow.
(+)	Forward flow.

LEAK INDICATOR

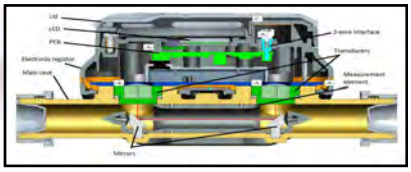
Displays a possible leak:

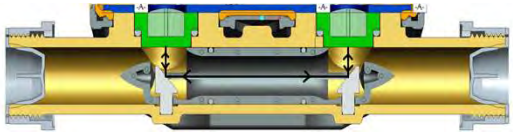
OFF	No leak indicated.
Flashing	Intermittent leak indicates that water has been used for at least 50 of the 96 15-minute intervals during a 24-hour period.
On Continuously	Indicates water use for all 96 15-minute intervals during a 24-hour period.

11

EAP INDUSTRIES, INC.

MACH 10™ Ultrasonic Meter





12

EAP INDUSTRIES, INC.

E-Coder® Solid State Absolute Encoder

The E-Coder® solid state absolute encoder generates its remote and visual reading from the same source, without the need for a battery. It also provides leak, tamper, and reverse flow detection. With 8-digit resolution, it detects leaks in 15-minute intervals with leak state indication over the previous 24 hours and 35 days.

E-Coder®)R900*i*™

The E-Coder®)R900*i*™ combines the field-proven technologies of the E-Coder solid state absolute encoder and the R900® RF MIU *into one easy-to-install*, wireless automated meter reading solution. It also enables data logging with a rolling 96 days of hourly data from the meter.

13

EAP INDUSTRIES, INC.

Internal Antenna 1
Optional Antenna Port 2
Solar Panel 3
Date of Manufacture 4
LCD Display 5
T-10® Meter 6

RATE	**RATE OF FLOW** Average flow rate is displayed every twelve seconds on LCD display.
	LCD DISPLAY Nine-digit LCD displays the meter reading in billing units of measure: U.S. gallons, cubic feet, Imperial gallons, or cubic metres. 1 E-Coder basic reading/customary 6-digit remote reading 2 Customary sweep hand digits 3 E-CoderPLUS reading (8-digit remote reading) 4 Testing units used for diagnostics 5 Extended reading units 6 Customary billing units

14

E-Coder® Protocol

- Same E-CoderPLUS functionality.
- Same faucet icon.

- Forward and reverse flow arrows.
- Triangle around forward flow arrow if excessive flow occurred.

- Empty pipe icon.
- Primarily an international requirement

- Low battery icon.
- Illuminates solid when battery has < 1 year remaining life.
- Icon flashes when battery reaches 20 years.

- When battery voltage reaches a critically low point the last and final read will toggle with an error code to indicated LFR.
- If blank screen, unit must be returned for LFR to be extracted via NFC.

15

EAP INDUSTRIES, INC.

Reading Options

DRIVE-BY

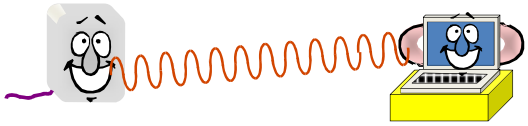
WALK-BY

16

EAP INDUSTRIES, INC.

RF Communication - How It Works . . .

MINI explanation!



Transmitter

Receiver

- Transmitter (MIU) converts information into a signal.
- The antenna in the MIU projects the signal into the air in the form of radio frequency (RF) waves.
- The receiver's antenna captures the RF signal.
- The receiver converts the RF signal into information.
- The receiver processes and stores the information in its memory.

17

EAP INDUSTRIES, INC.

WALK-BY

Trimble Nomad

- Meter reader uses a Trimble Nomad 900 & R900 Belt Clip Transceiver (BCT) *units connect via Bluetooth*
- BCT reads up to 8 meters simultaneously, transmits data instantly to Trimble Nomad
- Able to retrieve 96 days of meter usage data standing right outside the home

Please review product sheets

18

EAP INDUSTRIES, INC.

DRIVE-BY

+

Your *Windows Laptop*

- MRX920™ Mobile Data Collector is a rugged, portable, easy-to-use automatic meter reading device you put in your vehicle
- Weighing only five pounds, it's small enough to fit in any vehicle and comes with a carrying case
- Reads up to 8 meters simultaneously and can process 70 unique meter readings per second
- Connects in vehicle via USB to laptop PC (separate)
- Operates from standard 12V DC vehicle power source (e.g. cigarette lighter)

Bring Your Own DEVICE

19

EAP INDUSTRIES, INC.

Customer complaint?
You're covered.

NGO

Neptune's NGO™ app

Pair Neptune's NGO™ app to your Belt Clip Transceiver to collect 96 days of consumption data ***instantly*** in the field for proactive customer service.

This on-the-spot, on-site presentment of how much water they used and when, helps head off customer complaints regarding high water bills, reduce delinquencies, and avoid write-offs.

Please review product sheet

Bring Your Own DEVICE

EAP INDUSTRIES, INC.

Do not leave your Vehicle!

V4 Allows you to acquire
96 days of HOURLY Reads!

BRING YOUR OWN DEVICE!

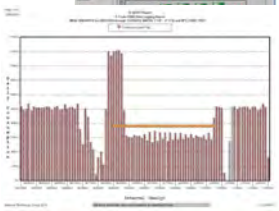
Android Phone OR/and iPhone!

Send an Email on the spot!

Customer Complaints handled like *never before!*

21

N_SIGHT Software



N_SIGHT supports Neptune's handheld, mobile, and fixed network collection hardware devices.

Highly reviewed as

"USER FRIENDLY"

It also integrates with AMI technology for customers running a hybrid system.

Please review product sheet

22

Cellular Meter Interface Unit (CMIU™)

- Cellular MIU
- Neptune's CMIU™ enables water utilities to eliminate the costs and frustrations associated with the installation, maintenance, and troubleshooting of AMI infrastructure
- **NO SOFTWARE PURCHASE NECESSARY!**
- **One price- TEN YEARS! *Value* Prevails!**
- Product sheets available

23

EAP Industries is there for you! Bob Pflueger is our Factory certified IT installer and troubleshooter. 888-294-5227 x33

Contacting Customer Support

Within North America, Neptune Customer Support is available Monday through Friday, 7:00 am to 6:00 PM Central Standard Time by telephone, email, or fax.

Phone To contact Neptune Customer Support by phone, complete the following steps.

1. **Call (800) 647-4832**
2. Select one of the following options
   - Press 1 if you have a Technical Support Personal Identification Number (PIN)
   - Enter the six digit PIN number and press # (Pin assigned after purchase)
   - Continue as directed

Please review product sheet

24

EAP INDUSTRIES, INC.

Thank you!

Questions?

25