ULTRA VX PULSE

INSTALLATION
SETUP PROCESS

STEP 1:

Please open the box to ensure that you have received all of the parts and accessories required for your installation.

Please refer to the diagram on the next page for further reference.

1) For Pulse Integration

- 1 x Ultra VX Terminal
- 1 x WH010007 Cable
- 1 x WH010005 Cable
- 1 X Modem ** (Optional)

OR

2) For Stand-Alone Setup

- 1 x Ultra VX Terminal
- 1 x WH010007 Cable
- 1 x WH210008 Cable
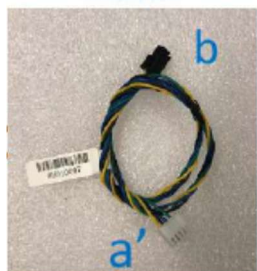- 1 x PS000011 Power Supply
- 1 x Modem ** (Optional)

**The modem is required for WIFI connections when the Ultra VX is unable to connect to an available ethernet connection.

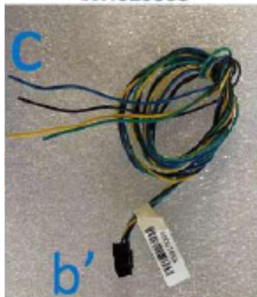**For more information and specification for the modem, please refer to Appendix A.**
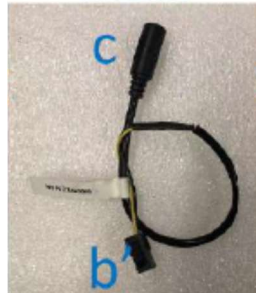
Pulse Integration Setup

Terminal (VXT)
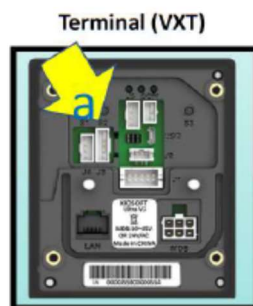
WH010007

WH010005

Stand-Alone Setup

Terminal (VXT)

a

WH010007

b

a'

WH210008

c

b'

PS000011

c'

Wire Connection for Pulse Integration

The Ultra VX has four different wires:

- Black (24VAC-) - Ground – Power supply
- Yellow (24VAC+) – Hot – Power supply
- Blue (RLY 1) – Generates pulse for timer
- Green (Coin Switch) – Generates pulse for timer

Car Wash Wiring

Car Washes can have a variety of different timers. Below are the most common timers and how to set them up.

ICoin CP 900:

- Connect the yellow wire from the coin mech to the yellow wire of the Ultra VX
- Connect the black wire from the coin mech to the black wire of the Ultra VX
- Connect the black wire from the coin mech to the green wire of the Ultra VX
- Connect the blue wire from the coin mech to the blue wire of the Ultra VX

Dixmor LED 7 Timer:

- Connect P7 from the Timer to the yellow wire of the Ultra VX
- Connect P6 from the Timer to the black wire of the Ultra VX
- Connect P6 from the Timer to the green wire of the Ultra VX
- Connect P2 from the Timer to the blue wire of the Ultra VX

Dixmor LED 6 Timer:

- Connect P9 from the Timer to the yellow wire of the Ultra VX
- Connect P10 from the Timer to the black wire of the Ultra VX
- Connect P10 from the Timer to the green wire of the Ultra VX
- Connect P2 from the Timer to the blue wire of the Ultra VX

**Please note to set Ultra VX DIP switch 1 to ON

Vacuum Wiring

Vacuum can have a variety of different timers. Below are the most common timers and how to set them up.

ICoin CP 900:

- Connect the yellow wire from the coin mech to the yellow wire of the Ultra VX
- Connect the black wire from the coin mech to the black wire of the Ultra VX
- Connect the black wire from the coin mech to the blue wire of the Ultra VX
- Connect the blue wire from the coin mech to the green wire of the Ultra VX

Magik Vtimer MTV 600 Timer:

- Connect P3 from the Timer to the yellow wire of the Ultra VX
- Connect P8 from the Timer to the black wire of the Ultra VX
- Connect P7 from the Timer to the green wire of the Ultra VX
- Connect P8 from the Timer to the blue wire of the Ultra VX

**Please note to set Ultra VX DIP 1 switch to OFF

Vending Wiring

Vending can have a variety of different timers. Below are the most common timers and how to set them up.
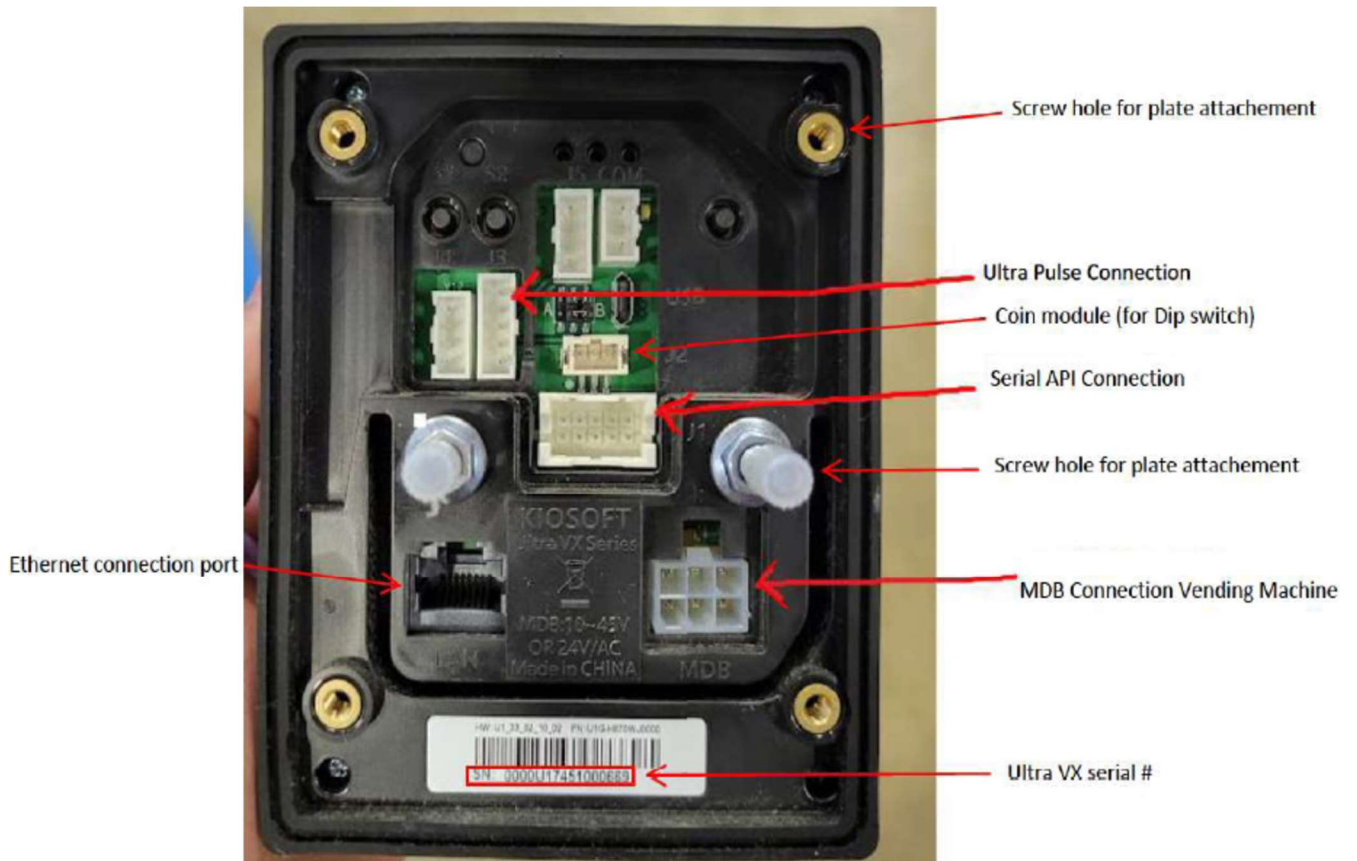
IDX MA850 Multi Xeptor:

- Connect the yellow wire from the coin mech to the yellow wire of the Ultra VX
- Connect the black wire from the coin mech to the black wire of the Ultra VX
- Connect the red/green stripe wire coin mech the timer to the blue wire of the Ultra VX
- Connect the red/green stripe wire from the coin mech to the green wire of the Ultra VX

Digi-Max Timer:

- Connect the yellow wire from the timer to the yellow wire of the Ultra VX
- Connect the black wire from the timer to the black wire of the Ultra VX
- Connect the red/green stripe wire from the timer to the blue wire of the Ultra VX
- Connect the red/green stripe wire from the timer to the green wire of the Ultra VX

**Please note to set Ultra VX DIP 1 switch to OFF

Appendix A

Ultra VX terminal Back View

86 [3.4"]

17.5 [0.7"] 43 [1.7"]

23.5 [0.9"]

2xØ6 [Ø0.2"]

107 [4.2"]

6.1 [0.6"]

51 [2.0"]

46.4 [1.8"]

27.25 [1.1"]
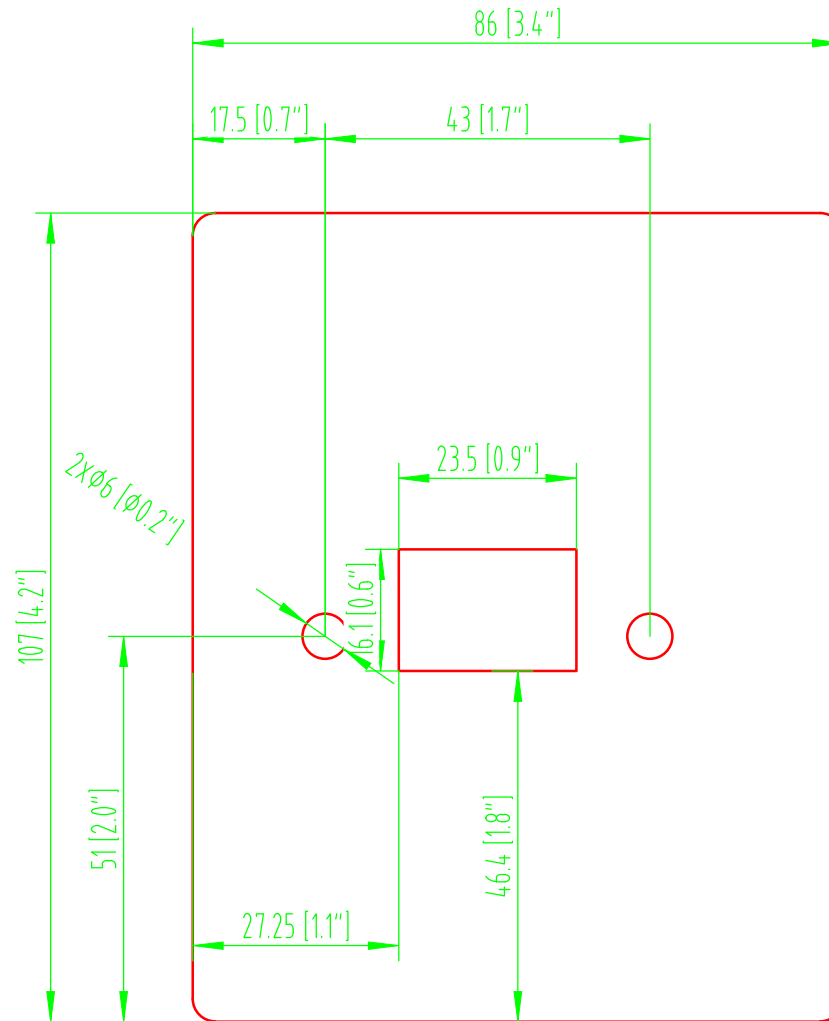
Dimension and Quality requirements:
1.Generally all dimensions' tolerance is 0.2mm , angle tolerance is 1°.
2.No scratches and burrs are allowed , parts shall be free and clean of sharp edge and all other foreign material.
3.The threads of both tapped holes and screw heads MUST be vertical enough.
4.All screw heads MUST be welded from the opposite side of metal plate and welding remainings MUST be polishes well.
5.Brush surface treatment on "A" class surface has to be complete and consistent.
6.Parts are to be packaged well so as to prevent damages in shipment.

MOUNTING PLATE

KIOSOFT

Part Number	Material	Thickness	Surface Treatment	Color	Dimension Unit	Date	Author	Version No.
			/	/	mm	2022/06/14	Naul	V1.0

Modem Specification

Connecting things
Hongdian

www.hongdian.com

H8951
Industrial Cellular Wi-Fi Router

Overview

Based on 4G wireless networking, H8951 industrial cellular Wi-Fi router supports wired/wireless network backup. It has high reliability and convenient networking, so it is suitable for large-scale distributed industrial applications, such as smart express cabinets, charging piles, bank ATM machines, Tower monitoring, electricity, water conservancy, environmental protection, etc.

OS HongdianOS   **4G** 4G-LTE   **VPN** VPN

Features
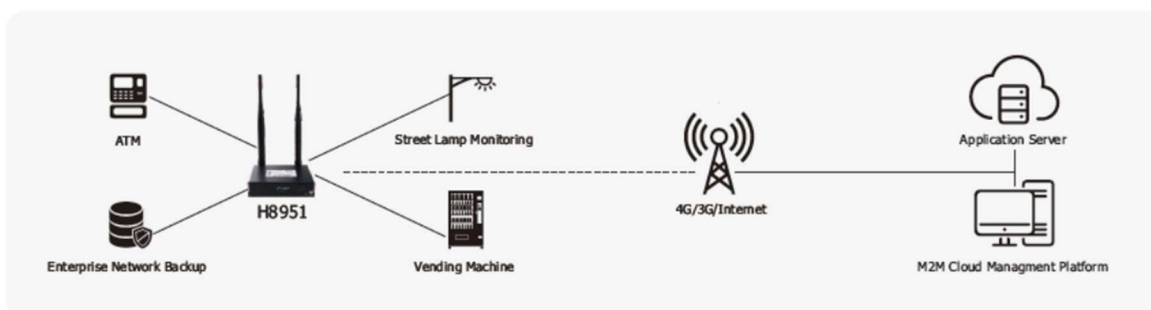
- 3G/4G/5G-ready
- 1×LAN, 1×LAN/WAN
- 802.11 b/g/n
- Cellular/wired failover
- HongdianOS+SDK
- Supports cold backup,warm backup
- PPTP/L2TP/GRE/IPSec/OpenVPN/DMVPN/EzVPN
- Management and maintenance via Web/CLI/SNMP/Wedora

Diagram Scheme

ATM

Street Lamp Monitoring

H8951

Enterprise Network Backup

Vending Machine

4G/3G/Internet

Application Server

M2M Cloud Managment Platform

Specification (* Indicates special edition supported)

Connecting things
Hongdian

Network

Cellular	LTE/WCDMA(HSPA+)/EDGE/GPRS	**Band**	Worldwide complied
LAN	ARP, Ethernet	**WAN**	Static IP, DHCP, PPPoE
Internet Access	APN, VPDN	**Authentication**	CHAP/PAP/MS-CHAP/MS-CHAPV2
WLAN	IEEE 802.11b/g/n, AP/Client/Repeater		

Network Protocols

IP	DHCP server/Client/Relay, DNS relay, IPv6		
Routing	Static routing, Policy routing, optional RIP, OSPF and BGP	**Others**	ICMP, DDNS, VLAN

Security

Two Level Authority	Full authority/read-only user	**Firewall**	NAT, PAT, DMZ, port forword IP/Domain/MAC Filter Access control list (ACL)
Digest Authentication	Anti CSRF		
AAA	Radius, TACACS+		
Password Security	All password/key settings can be encrypted	**VPN**	PPTP, L2TP, GRE, IPIP, OpenVPN IPSec IKEv2, SHA2, AES256, CA DMVPN, EzVPN
VPN Server	L2TP server		

Reliability

Link Backup	WAN/modem link Backup VRRP	**Auto-Recovery**	LCP, heartbeat package link maintenance ICMP detection, self-diagnostic, auto-recover
QOS	Control of bandwidth	**Watchdog**	Hardware watchdog

Device Managemant

Configuration	HTTP, Telnet, SSH, SMS SNMP V1/V2/V3, SNMP TRAP Hongdian Wedora Cloud Platform	**Upgrade**	Local Upgrade WEB/FTP Hongdian Wedora cloud upgrade
Reboot	Local, remote reboot, scheduled reboot	**Diagnostic**	Ping, traceroute
Syslog	Local/Remote Log User login, operation log record in Wedora cloud platform *	**Wedora Cloud Platform**	Centralized M2M platform Traffic statistics Report statistics Location management Group management IPFix package capture for analyze * Alarm by email Device/platform log record Batch config/upgrade Bandwidth ultilization monitor * Data usage statistic Secure remote access to application device
Data Flow Monitoring	Bandwidth ultilization monitor on device GUI		
Activation Mode	Activate by data Activate by SMS Scheduled online/offline		
SMS management	Send/receive SMS from GUI to change data plan Authorized cellular number to configure or control router		

Interface

Ethernet Ports	1×LAN 10/100Mbps Ethernet Ports, 1×WAN/LAN 10/100Mbps Ethernet Ports		
SIM Card Slot	1.8V/3.0V	**Antenna**	SMA-K 4G×1, WiFi×1, Reserved antenna interface×1
Reset	Pinhole reset button		

Mechanical

Installation	Wall mounted	**Dimension (mm)**	99.7×98.8×23.4
Housing	Metal	**IP Level**	IP30
Cooling	Fanless	**Weight**	About 300g

Power / Environment

Input	+5~+36V DC	**Relative Humidity**	<95% (Non-condensing)
Idle	About 100mA@12V DC	**Storage**	-40 ~ +85℃
Working	About 350mA@12V DC	**Working**	-30 ~ +75℃

Indicators / Certificated and Approved by

LED Indicators x 4	WiFi, RF, NET, SYS	CE, FCC, RoHS, IC, UL, EMC, VCCI, MIC, EAC+FSB, ANATEL, RCM, NBTC, PTCRB

Device Reliability

Impact	IEC60068-2-27	**Free Fall**	IEC68-2-32
Crash	IEC68-2-29	**Vibration**	IEC68-2-6, JT/794

Specification (* Indicates special edition supported)

EMC			
EDI	EN61000-4-2, level4	PFEMS	EN61000-4-3, level3
EFTBI	EN61000-4-4, level4	RF Induced Conductivity	EN61000-4-6, level3
EMF	EN61000-4-8, >level4		

Appearance Dimension

FRONT

BACK