58Khz
Premier Guard™
Installation Manual

Version: Jan 2006

Manual Part Number: WG-PGTR58-IM

(011306A)

WG SECURITY PRODUCTS INC.

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FCC ID: P9I-WGPPTR58

"This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation."

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CRITICAL NOTE

As specified by FCC Regulations 15.21, any changes or modifications not expressly approved by the party responsible for compliance of this equipment, will void the user's permission and authority to operate this equipment.

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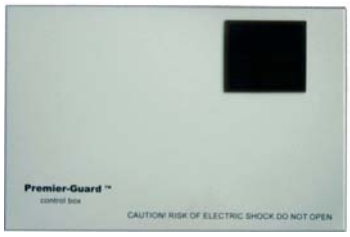
OVERVIEW

System Overview

Premier Guard systems consist of one a transceiver pedestal, a 58Khz Premier Line Control Unit (WGPLCU58), and a stepdown power transformer box. The PLCU provides all the control functions for the transceiver, including tag detection and alarm notification.

Transceiver Antenna
(Pedestal)



Premier Line Control Unit
WGPLCU58

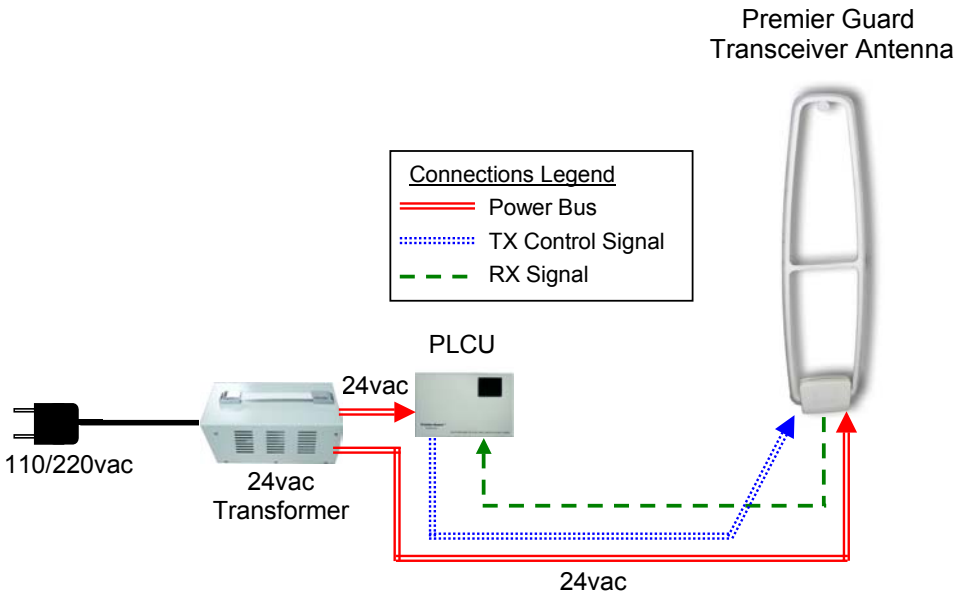
24vac Stepdown Transformer
WGPS2490-1

Detection Range (either side of pedestal)

	Europe	USA
Micro Pencil Tag	0.9 m	3 ft

System Configuration

The PLCU controls the transceiver through the TX control cable. All detection information is received through the RX cable. The Transformer power box powers the PLCU and transceiver through two separate cables. The following diagram illustrates the connections.



Premier Guard Features & Benefits

- Digital Signal Processing
  The Premier Guard applies the latest and most advanced DSP technology for anti-theft solutions, virtually eliminating false alarms while maintaining considerable detection range.

- Self Tuning Electronics
  Benefiting from its fully digital electronics, the Premier Guard constantly evaluates the environment, automatically adapting to changes in the environment to enhance its performance.

- Integrated Audible and Visual Notification
  Alarm notification is built into the Premier Guard on both the pedestal and controller.

Specifications

Electrical

Primary Input (Stepdown Transformer)	230/115 ±10% @50/60Hz (Input) 24vac @ 4A (Output)
Pedestal Input	24vac @50/60Hz
PLCU Input	24vac @50/60Hz
Primary Rated Current	0.55Amax@220vac 1.1A max@110vac
Pedestal Rated Current	1.8A @ 24vac
PLCU Rated Current	0.5A @ 24vac
Transmitter Output	1.6ms Burst
Operating Frequency	58Khz

Mechanical

Premier Guard Pedestal Transceiver

Height	1523.6mm (60”)
Width	374.5mm (14.8”)
Thickness	24mm (1.0”)
Weight	17Kg (37.5 lbs)

WGPLCU58 Control Unit

Length	314mm (11.6”) (Including Mounting Bar)
Width	193mm (7.5”)
Depth	82mm (3.2”) (Including Mounting Bar)
Weight	3.5Kg (7.7 lbs)

WGPS2490-1 Stepdown Transformer

Length	225mm (8.9”)
Width	143mm (5.6”)
Depth	103mm (4.1”)
Weight	3Kg (6.6 lbs)

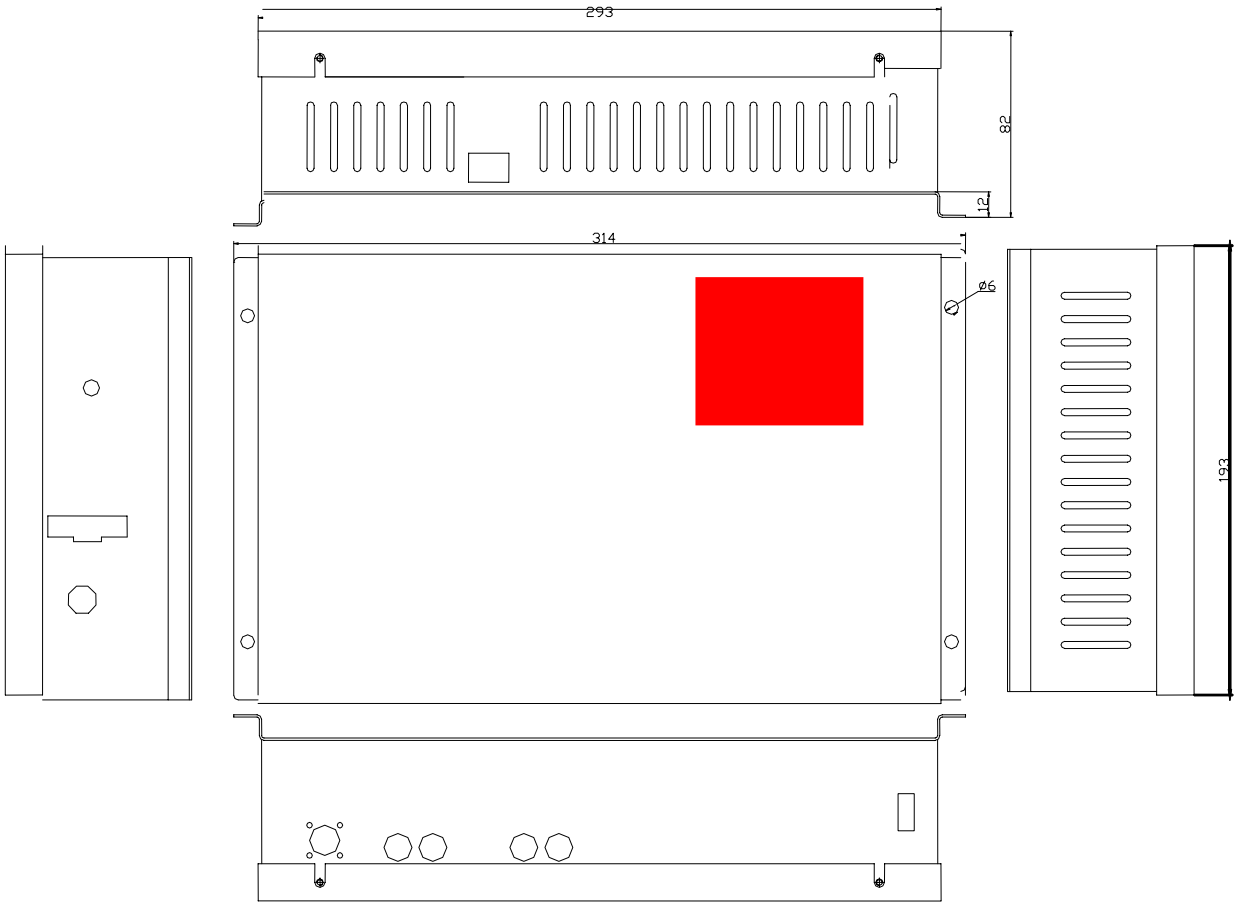
Environmental

Operating Temperature	0 to 49°C (32° to 120°F)
Relative Humidity	0 to 85% non-condensing
Operating Altitude	2,000m (6,500 ft)

PRE-INSTALLATION INFORMATION

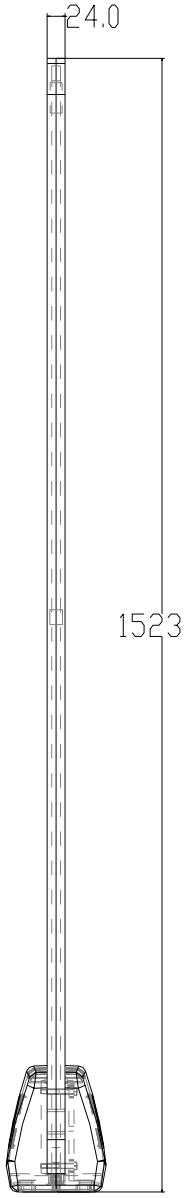
Premier Line Control Unit (PLCU) Dimensions

(All dimensions are in millimeters)

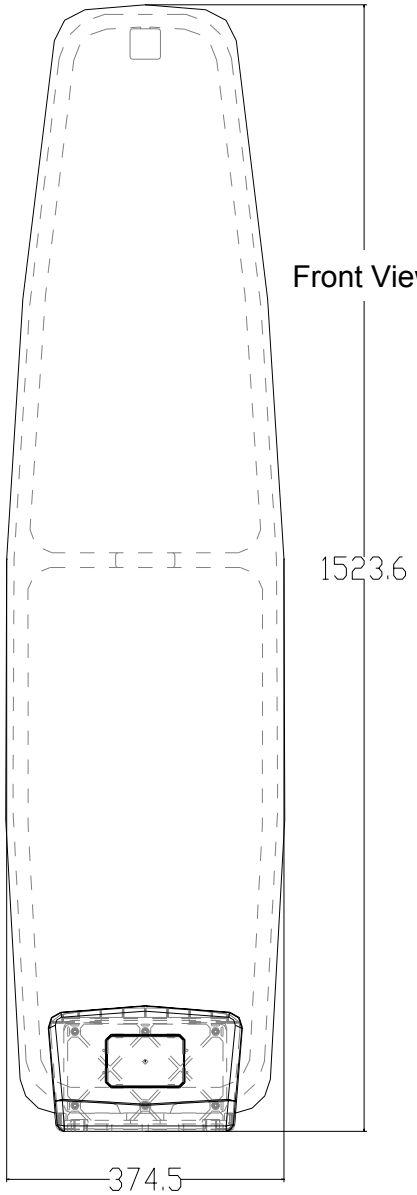


Premier Guard Pedestal Dimensions
(All dimensions are in millimeters)

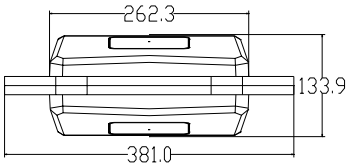
Side View



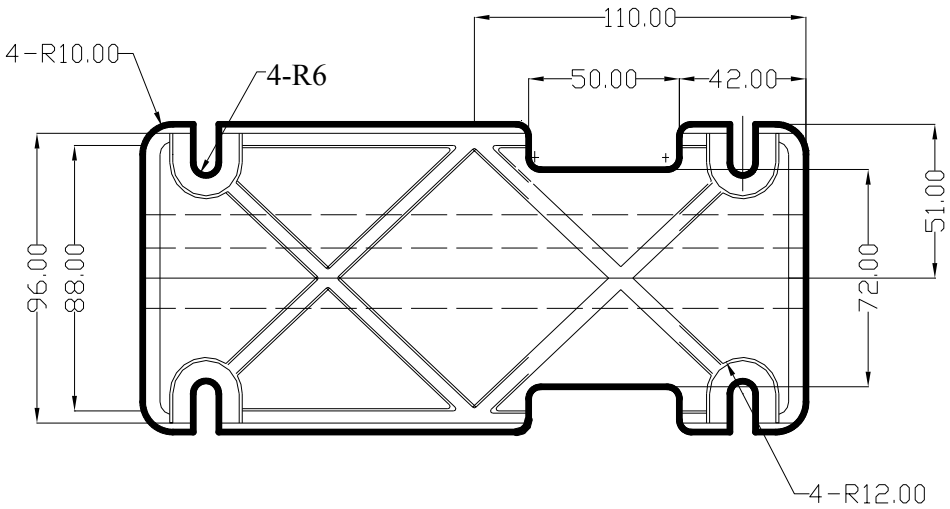
Front View



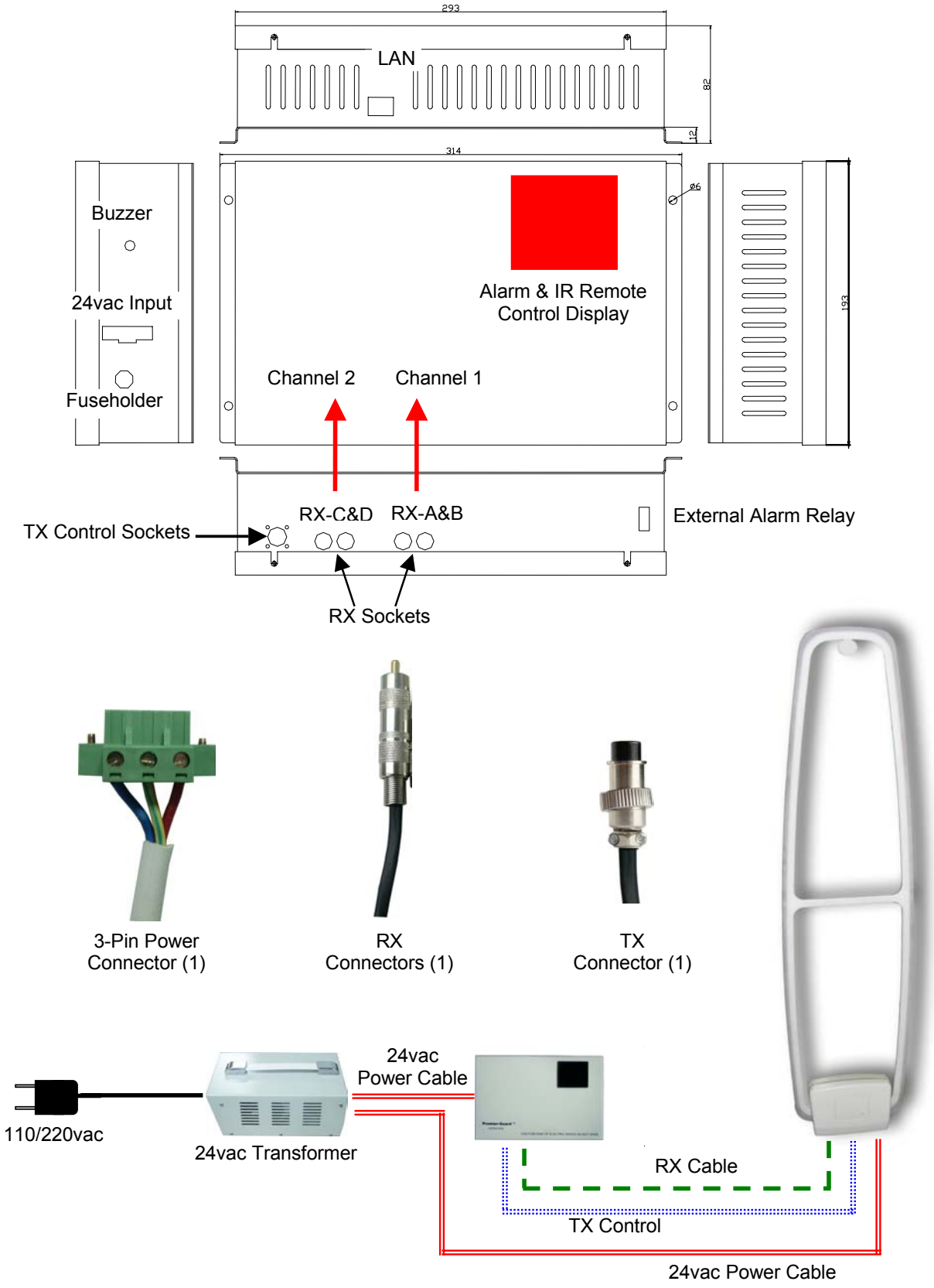
Pedestal Base



Premier Guard Base Footprint Dimensions
(All dimensions are in millimeters)



Connection Diagram



INSTALLATION

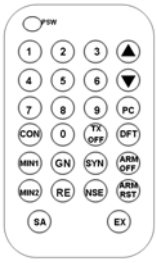
Installation Site Power Supply Verification

It is ***STRONGLY RECOMMENDED THAT SOLID GROUNDING BE MAINTAINED FOR THE POWER TRANSFORMER***. Sometimes poor grounding and high noise from the power source will adversely affect system sensitivity or detection range.

Parts List –Premier Guard System

Transceiver
WGPGTR58

Control Box
WGPLCU58



Remote Control
WG-(TBD)

24vac Transformer
WGPS2490-1

Part Name	Order Number
1. Premier Guard Transceiver	WGPGTR58
2. Premier Line Control Unit	WGPLCU58
3. Control Box Alarm Cover	(TBD)
4. Remote Control	(TBD)
5. Instruction Manual	WG-PGTR58-IM
6. 24vac Transformer	WGPS2490-1

Quick Start for System Connections

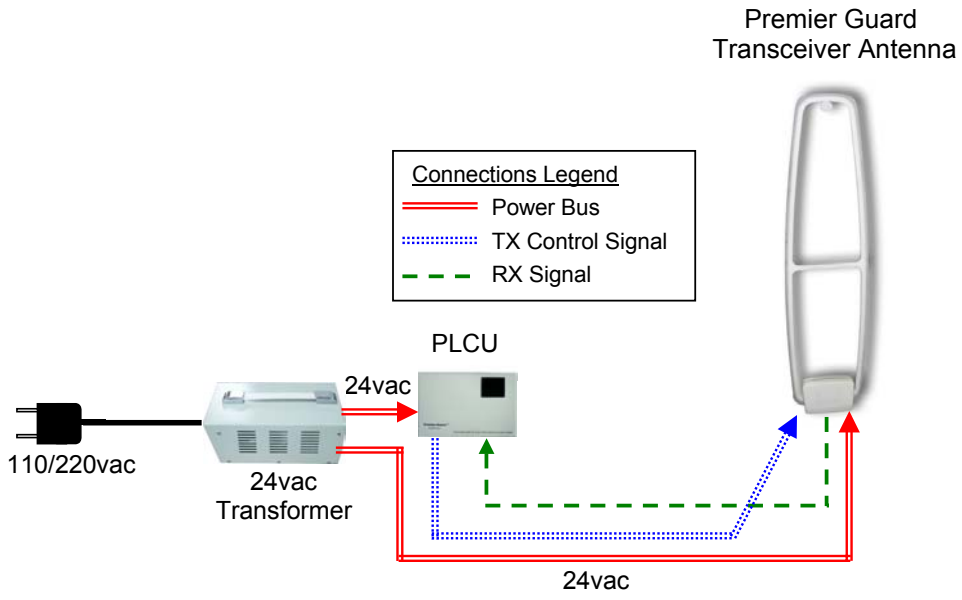
A Premier Guard system consists of a stepdown transformer, a Premier Line Control Unit (PLCU) and a transceiver (antenna).

The transformer box has two 24vac outputs that can power both the PLCU and transceiver. A single transformer box supports one PLCU and transceiver.

The PLCU is powered by the stepdown transformer via a single 24vac power input. The PLCU has two types of connections for the transceiver. One is a transmit control signal connector and the other s a receive signal connector. Both the TX and RX cables will connect from the PLCU to the transceiver. The PLCU case is constructed to facilitate wall mounting.

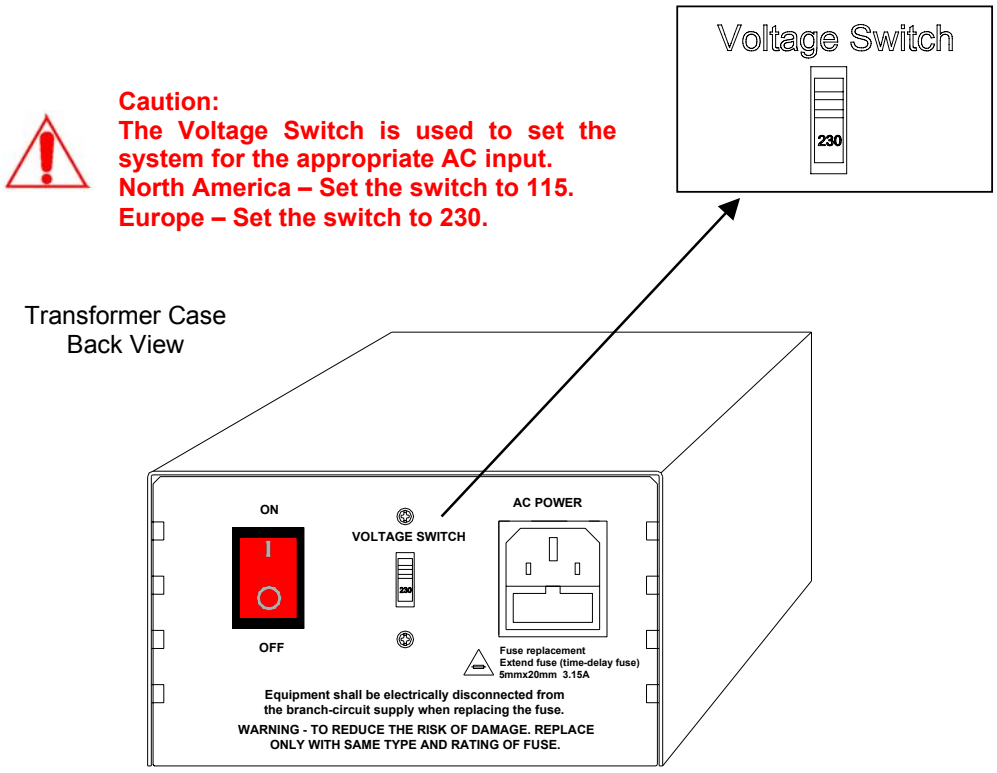
Before permanently connecting the pedestal, place it at the location you intend to install it, and then arrange the cables from the PLCU directly to the pedestal. You will have to remove the pedestal base cover to connect the cables.

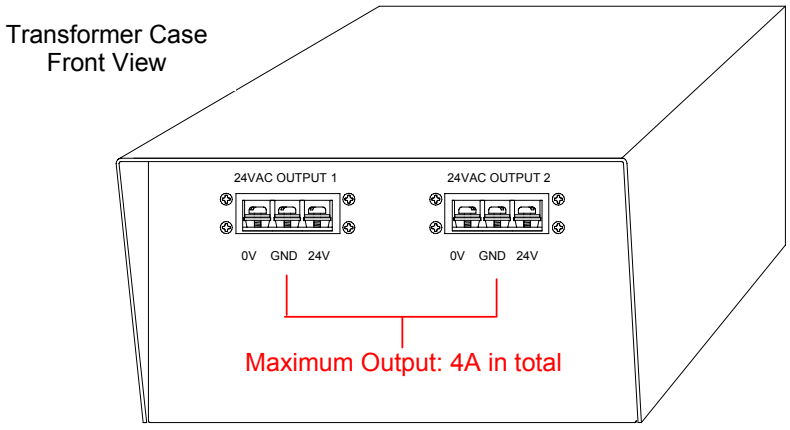
Additional installation procedures are shown in greater detail in the following sections.



Transformer Box

The transformer box accepts two input voltages: 110vac in North America, 220vac in Europe. Place the Voltage Switch in the proper position based on the incoming voltage (see picture below). There are two 24vac outputs that can power both the PLCU and transceiver.





As above picture shows, the transformer box has two power sockets for the PLCU and pedestal connectors. Each output has a 3-pin terminal block. Pin outputs are described on the table at the right.

Transformer Cable Connection	
Blue Wire	0V
Yellow Wire with Green Stripe	Gnd
Red Wire	24vac

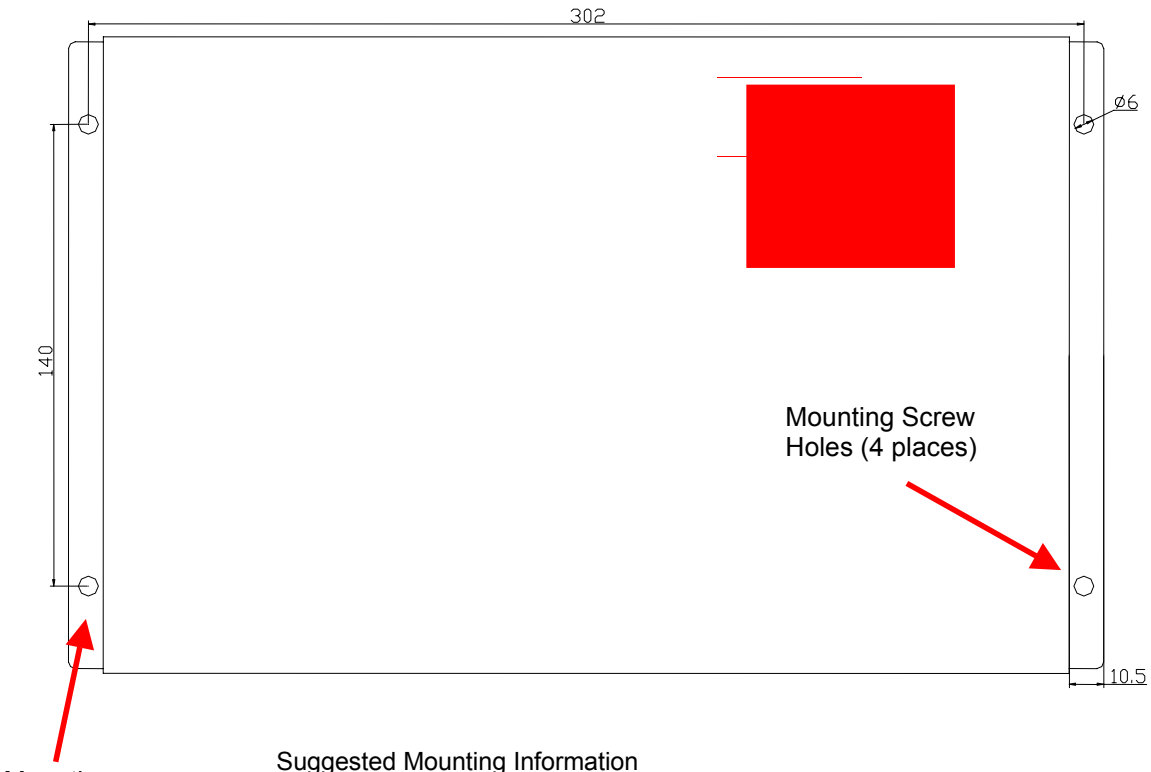
Installing the PLCU

The PLCU has one TX Control Signal connector and four RX Signal connectors. Connection to the transceiver is described in the following sections. The PLCU can be installed on the wall via the integrated mounting bracket.

To mount the PLCU to the wall:

1. Using the mounting bracket as a template, mark four holes on the wall at the location you intend to install it.
2. Drill holes into the wall and insert anchors or screws. Note: the mounting method must be able to support 3.5kg (7.7 lbs).
3. Attach the mounting bracket to the wall. Screw it firmly to the wall with the proper screws.

All dimensions are in millimeters.



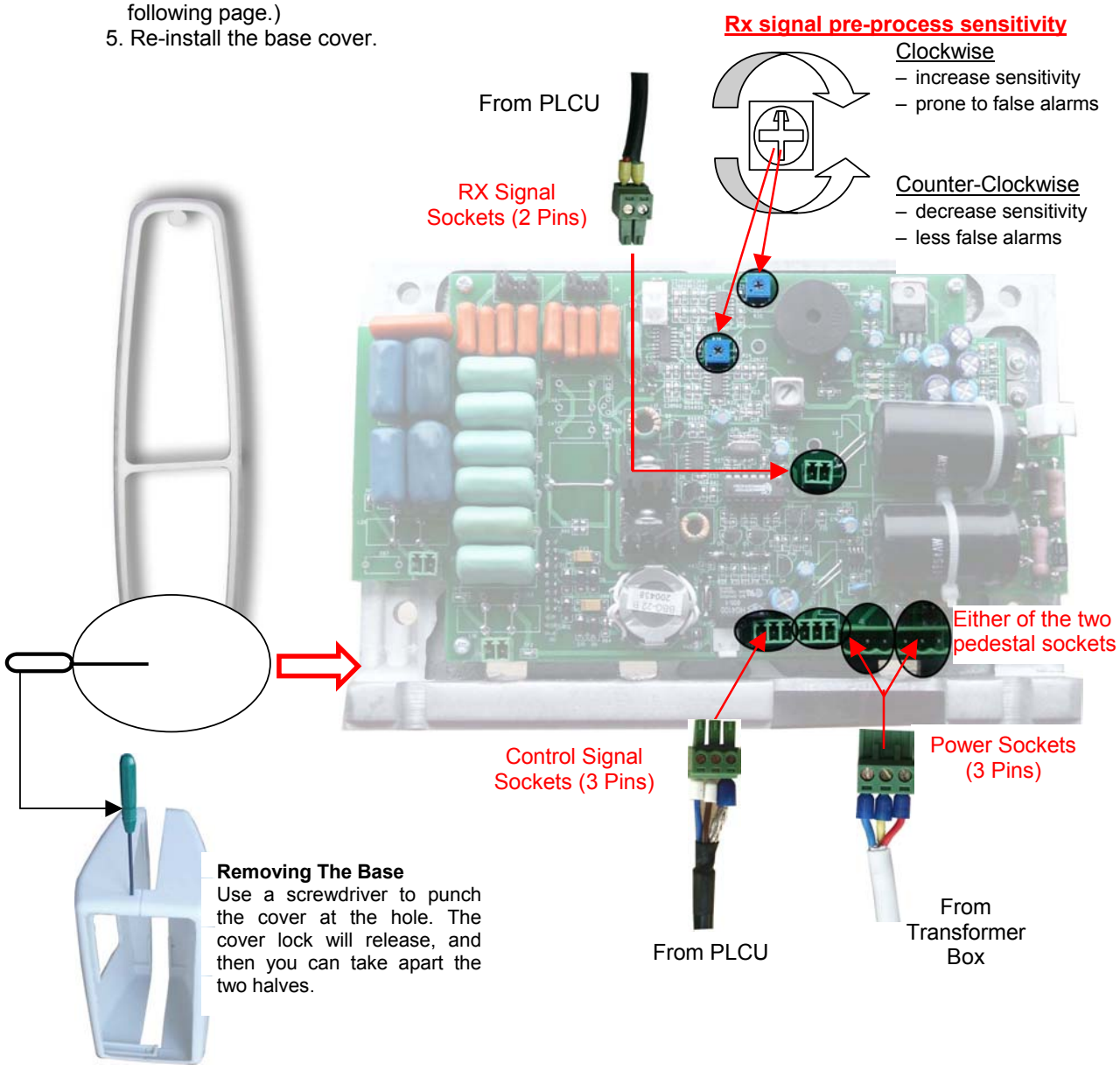
Suggested Mounting Information

1. Wallmount Holes – 4mm diameter
2. Wallmount Screws – 5x30mm self-tapping screws with 8.2mm head.

Connecting the Pedestal

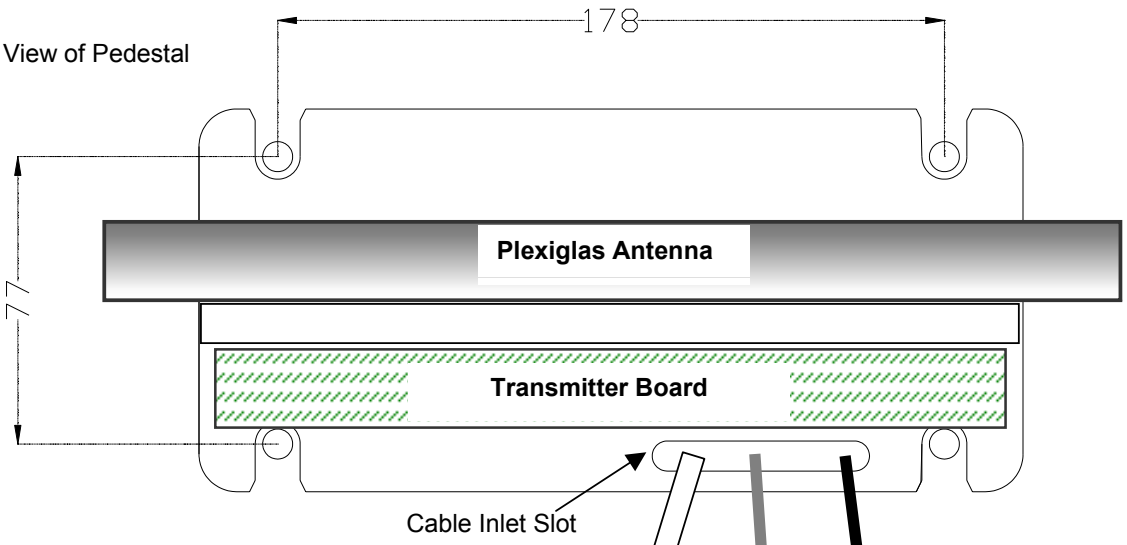
Before the connecting the transceiver, place it at the location where you intend to install it, and arrange the cables directly from the PLCU to the transceiver.

1. Remove the base cover of the pedestal to expose the transmitter board (picture below).
   Note: Press down the top of base cover towards pedestal and LIFT the half case upward to release the cover from the pedestal's locking mechanism.
2. Loosen the screws to remove the cable wires from the connector. Feed the cable through the slot of the aluminum base mounting plate, and then reconnect the cable wires to the connector according to wire connection table.
3. Plug the three connectors (Power, Tx Signal and Rx Signal) onto the appropriate sockets on the transmitter board (see picture below).
4. After completing all connections, firmly mount the pedestal base to the ground. (See following page.)
5. Re-install the base cover.

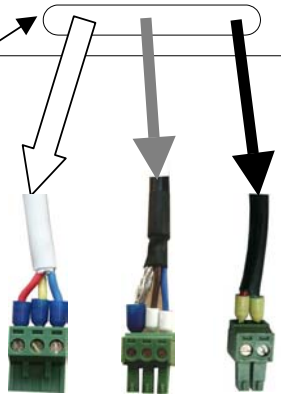


(All dimensions are in millimeters.)

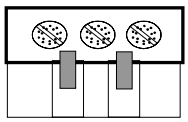
Top View of Pedestal



Note: To direct cables through the inlet slot, first unscrew the cable wires from the connectors and lead the cables through the slot. Then re-attach the wires onto the connector, following the correct pin mappings noted on the connection tables in the next few pages.

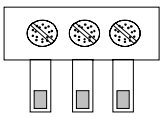


Connector for Power



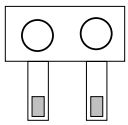
Left	Middle	Right
Red (Brown) 24vac	Yellow (Green Stripe) GND	Blue 0v

Connector for Control Signal



Left	Middle	Right
GND	Brown	Blue

Connector for RX Signal



Left	Right
Red	Black

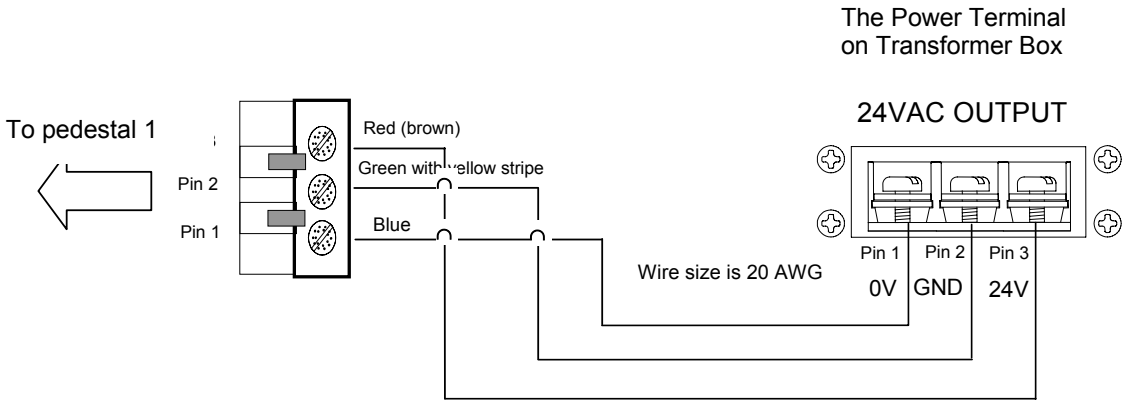
Cable and Connector Connections

1. Pedestal and Transformer Box Power Connection

The three pins from the transformer power connecter are connected to the corresponding pedestal connector sockets. Pin color to each power connecters must be consistent.

Pedestal Connector Layout (3 pins)		
White Cable (3 wires)		
Pin	Function	Color
Pin 1		Blue
Pin 2		Green w/Yellow Stripe
Pin 3		Red(Brown)

Transformer Box Power Terminal Layout (3 pins)		
White Cable (3 wires)		
Pin	Function	Color
Pin 1	0V	Blue
Pin 2	Ground	Green w/Yellow Stripe
Pin 3	24V	Red(Brown)

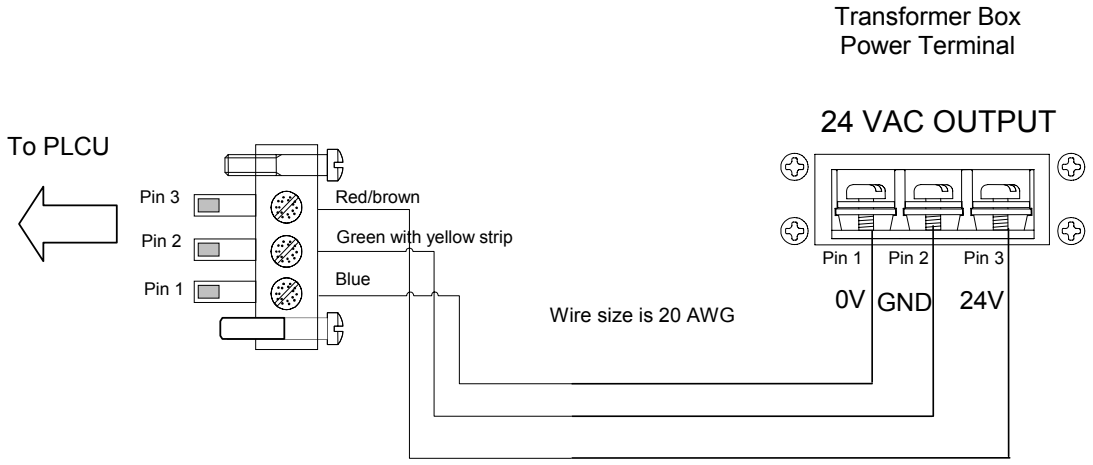


When connecting the above pedestal power connectors, make sure the pin order/color of the four power connectors is consistent. Do not transpose the color order when connecting wires to connectors. Incorrect pin connection will damage the system!

2. PLCU and Transformer Box Power Connection

PLCU Power Connector Layout (3 pins)		
White Cable (3 wires)		
Pin	Function	Color
Pin 1	0V/24V	Blue/Red(brown)
Pin 2	Ground	Green w/Yellow Stripe
Pin 3	24V/0V	Red(brown)/Blue

Transformer Box Power Terminal Layout (3 pins)		
White Cable (3 wires)		
Pin	Function	Color
Pin 1	0V/24V	Blue/Red(brown)
Pin 2	Ground	Green w/Yellow Stripe
Pin 3	24V/0V	Red(brown)/Blue



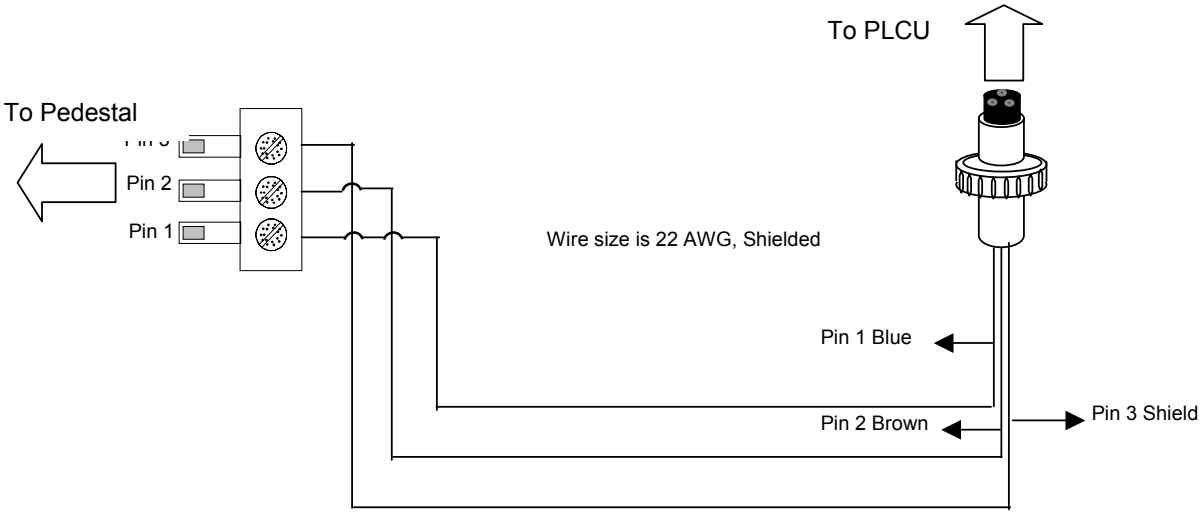
(Power synchronization 180 degrees phase switch)

**** Note: Pin 1 and Pin 3 of the transformer box terminal are equivalent to former N and L terminals for 110/220vac systems. Switching them will switch the system's phase 180 degrees; same as former 110/220vac systems.***

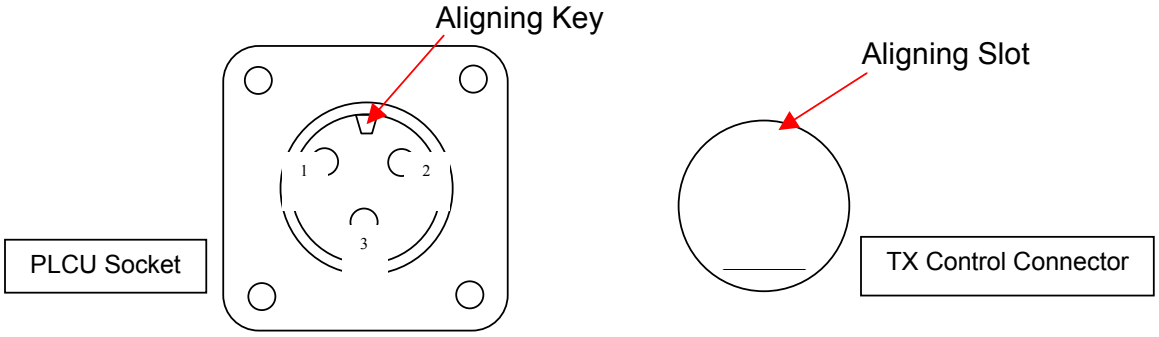
3. Pedestal and PLCU TX Control Signal Connection

Pedestal TX Control Signal Connector Layout (3 pins)		
Black Cable (3 wires)		
Pin	Function	Color
Pin 1	Signal+	Blue
Pin 2	Signal-	Brown
Pin 3	Shielding	GND

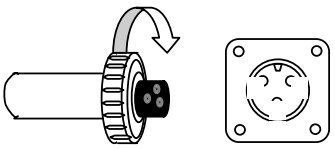
PLCU TX Control Signal Connector Layout (3 pins)		
Black Cable (3 wires)		
Pin	Function	Color
Pin 1	Signal+	Blue
Pin 2	Signal-	Brown
Pin 3	Shielding	GND



Sockets connection note:
To ensure good contact and proper connection from the pedestal to the PLCU, make sure the cable sockets are firmly connected and the pins are correctly aligned.



Incorrect pin mapping and loose contact connections will result in system malfunction!



Insert connector into socket, turn the screw cap, lock and set.

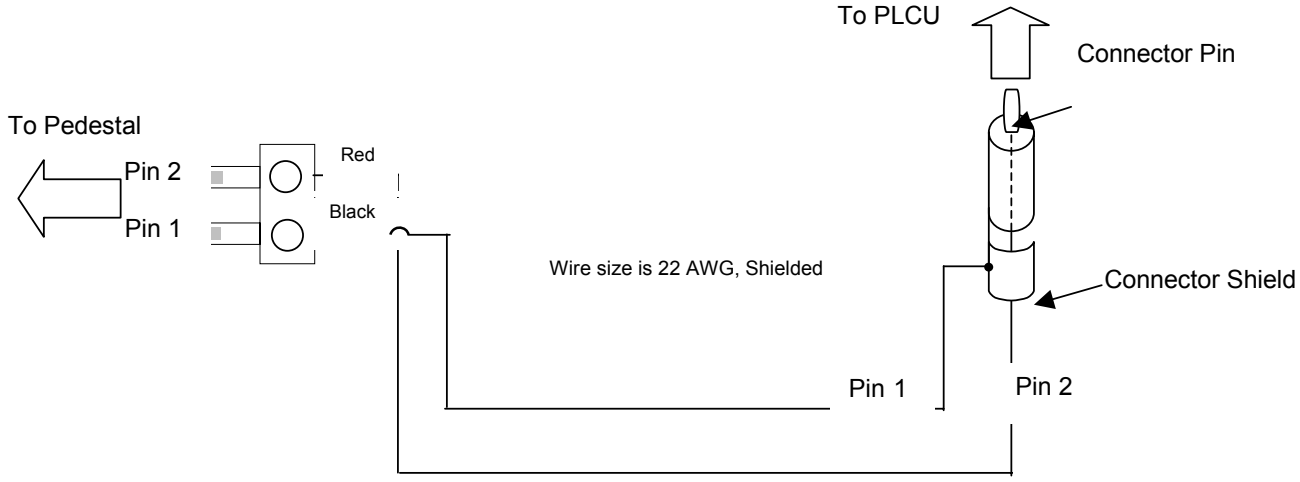
Procedure

1. Ensure the **aligning key** mates to the **aligning slot**,
2. Insert the TX control connector into the socket of the PLCU.
3. Turn the screw cap according to the figure on the left, then lock and set.

4. Pedestal and PLCU RX Signal Connection

Pedestal RX Signal Connector Layout (2 pins)		
Black Cable (2 wires)		
Pin	Function	Color
Pin 1	Signal+	Black
Pin 2	Signal-	Red

Control Pack RX Signal Connector Layout (2 pins)		
Black Cable (2 wires)		
Pin	Function	Color
Pin 1	Signal+	Black
Pin 2	Signal-	Red

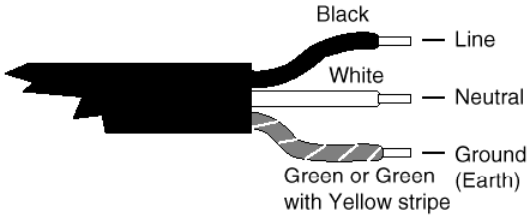


Power Cord Notices

North American Power Supply Cords

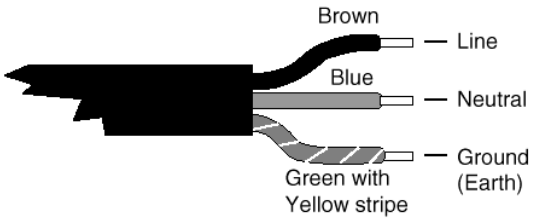
This equipment is supplied with an external power line at one end and a molded receptacle terminal block at the other end. Conductors are color coded white (neutral), black (line) and green or green/yellow (ground).

Operation of this equipment at voltages exceeding 130vac will require power supply cords that comply with NEMA configurations.



International Power Supply Cord

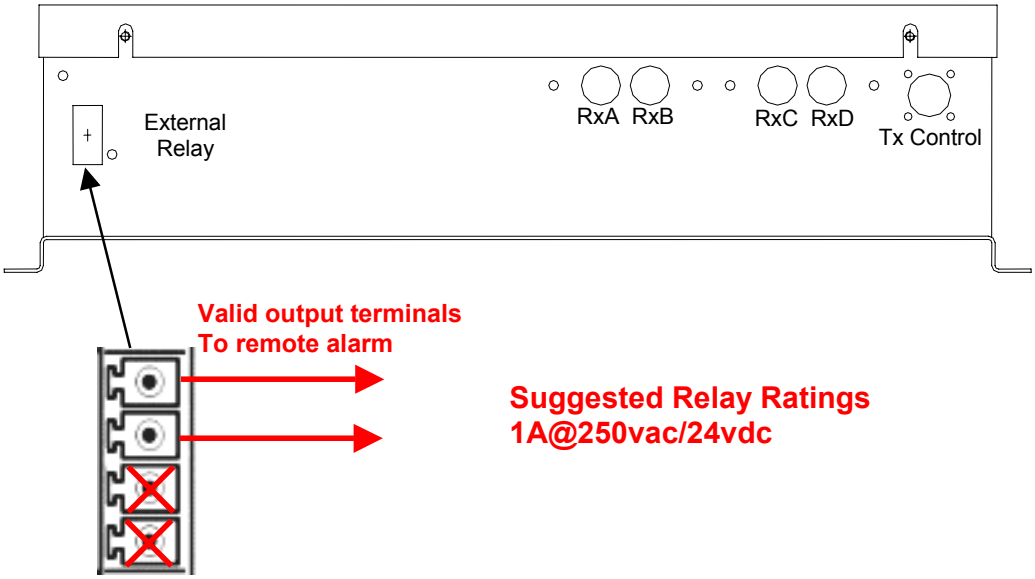
This equipment is supplied with an external power line at one end and a molded receptacle terminal block at the other end. Conductors are CEE color-coded—light blue (neutral), brown (line) and green/yellow (ground). Other IEC 320 C-13 type power supply cords can be used if they comply with the safety regulations of the country in which they are installed.



We recommend that you use a CE approved power cord H05 VV-F or H05 VVH2-F2 (Refer to the electrical code which governs your country for installation of an Anti-Theft Unit to the main power supply)

External Relay interface

The external relay interface is located at the side of the control unit case.



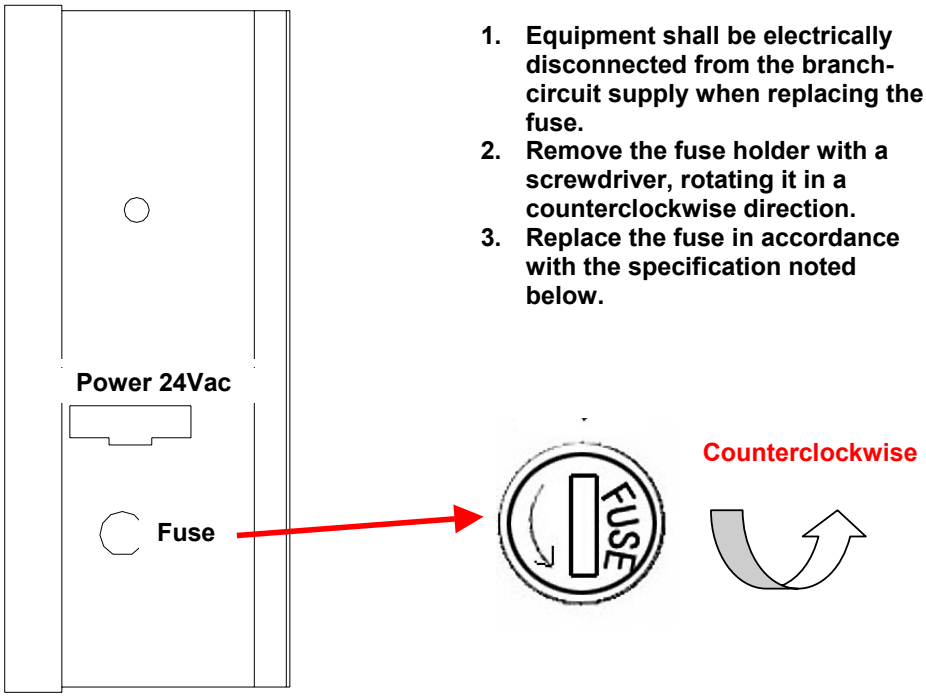
There is one external alarm relay located on the PLCU case. The relay switch is closed when an alarm is triggered by the system. To connect the system to an external alarm, build a cable with a matching 4-pin connector, and then insert the connector into the External Relay socket on the PLCU. Ensure the cable firmly secured in place by the connector's screws. The External Relay switch has a rating of 1A@250vac/24vdc.

Notes:

1. **Wire length to the dry contact circuit is limited to 20 feet.**
2. **To prevent high voltage noise from being introduced into the transceiver and degrading the system's performance, it is highly recommended that you use a 24vdc output relay.**

Fuse Replacement Information

The fuse holder is located on the control box side panel.



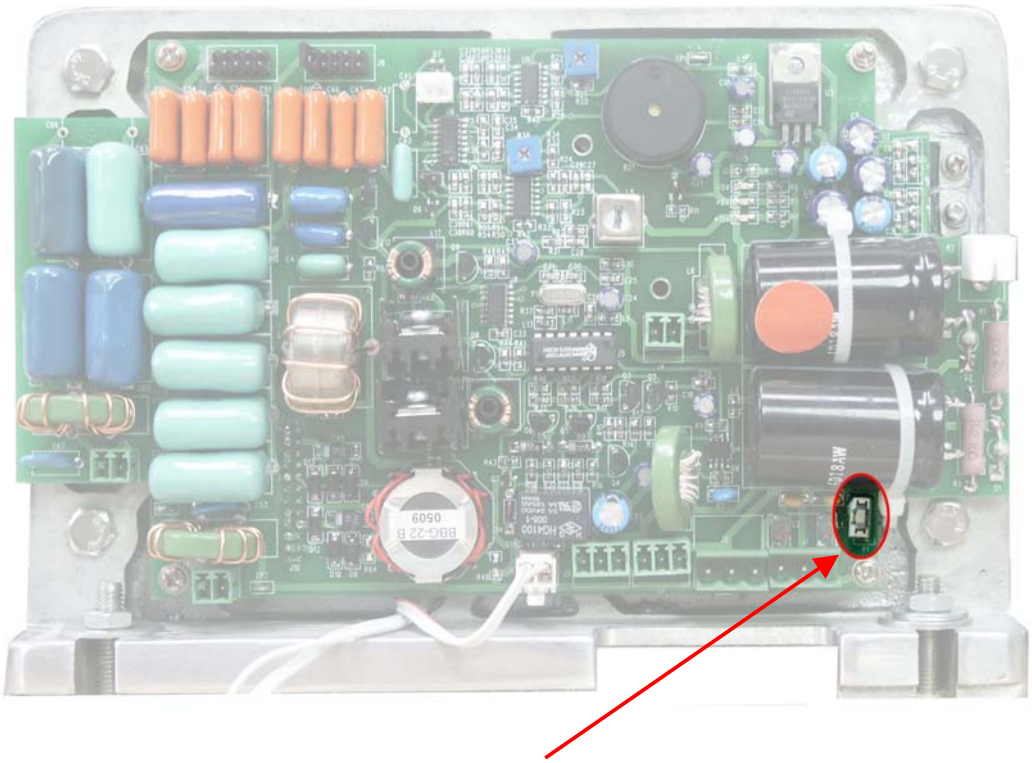
1. **Equipment shall be electrically disconnected from the branch-circuit supply when replacing the fuse.**
2. **Remove the fuse holder with a screwdriver, rotating it in a counterclockwise direction.**
3. **Replace the fuse in accordance with the specification noted below.**

Fuse Replacement:
Extended Fuse (Time-Delay Fuse)
5mm x 20mm 24vac @ T3.15A/250V

WARNING – TO REDUCE THE RISK OF DAMAGE, REPLACE ONLY WITH THE SAME FUSE TYPE AND RATING.

Control Unit Fuse Replacement

Transmitter Board – Top View



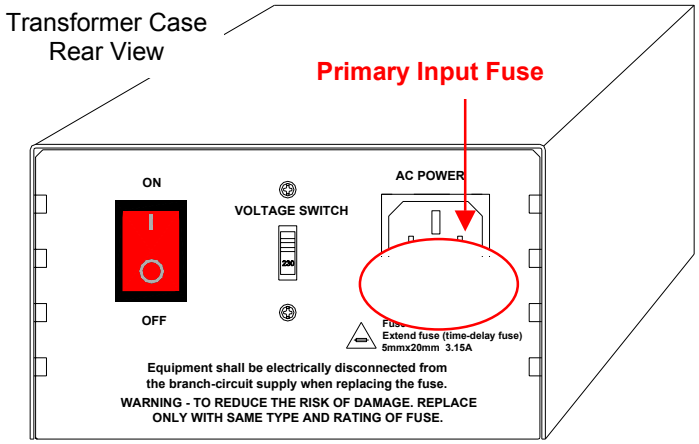
Primary Input Fuse

Fuse Replacement:
Slow Blow Fuse
SMT Type

24vac @ T3A/250V Fuse

WARNING – TO REDUCE THE RISK OF DAMAGE, REPLACE ONLY WITH THE SAME FUSE TYPE AND RATING.

Power Supply Fuse Replacement



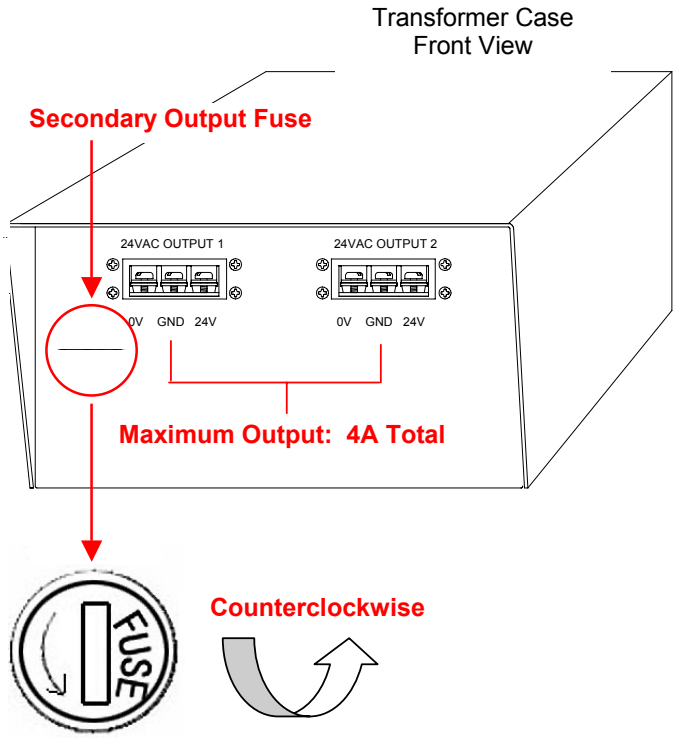
1. Equipment shall be electrically disconnected from the branch circuit supply when replacing the fuse.
2. Remove the fuseholder from the main AC input socket with pliers, then remove the fuse out of the fuseholder.
3. Replace the fuse in accordance with the specifications noted below, then insert the fuseholder back into the AC input socket.

Fuse Replacement:
Slow Blow Fuse
5mm x 20mm

Primary Input
110vac @ T3.15A/250V (USA)
220vac @ T1.6A/250V (Europe)

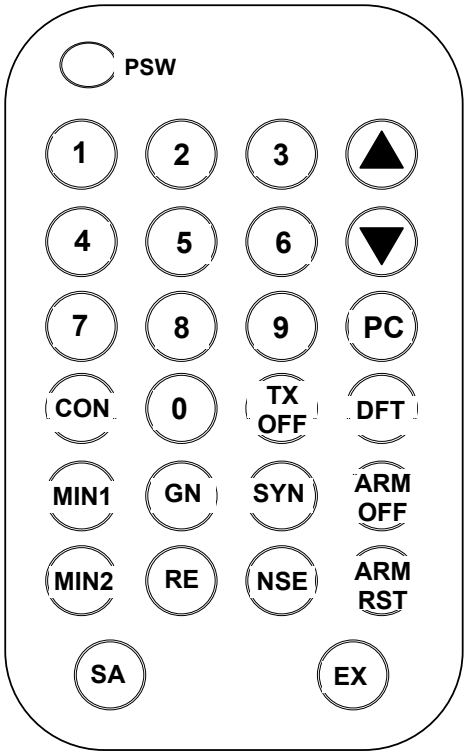
Secondary Output
24vac @ T4A/250V

4. Equipment shall be electrically disconnected from the branch circuit supply when replacing the fuse.
5. Remove the fuseholder with a screwdriver, rotating it in a counterclockwise direction.
6. Replace the fuse in accordance with the noted specifications.



WARNING – TO REDUCE THE RISK OF DAMAGE, REPLACE ONLY WITH THE SAME FUSE TYPE AND RATING.

IR Remote Control Keypad Description



Key ID	Button	Parameters Description	Default Value	Valid Range
A	GN	Gain Adjustment	1	0, 1
B	SYN	Sync Adjustment	1	0 to 250
C	RE	Receiving Window Delay	8	0 to 14
H1	MIN	Minimum signal adjustment for antenna Channel 1	40	0 to 999 (Practical range 0-200)
H2		Minimum signal adjustment for antenna Channel 2		
D	NSE	Noise Display (4 channels)	0	0 to 2
F	TX OFF	Turn off transmitter	1	0 to 1
E	DFT	Return to default settings	0	0 to 1
P	PC	Password change	689 (see note)	0 to 999
G	ARM OFF	Turn off alarm sound	1	0 to 1
L	ARM RST	Alarm count reset	0	0 to 1
S	SA	Save the parameters to Flash ROM	NA	NA
	CON	Confirm the parameters input	NA	NA
	EX	Exit	NA	NA

Note: Default password is 689. After changing, the system will use the new password as default. The new password will remain saved at power off. THIS IS A NON-RECOVERABLE ACTION. KEEP THE NEW PASSWORD IN A SAFE LOCATION IN CASE YOU FORGET IT.

Tuning Procedures & Tips

There are mainly two problems that affect system's functioning and performance. One is that system picks up tags and labels poorly. The other is that system false alarms (or causes other system to do so) without tags or labels in detection zone.

PROBLEMS

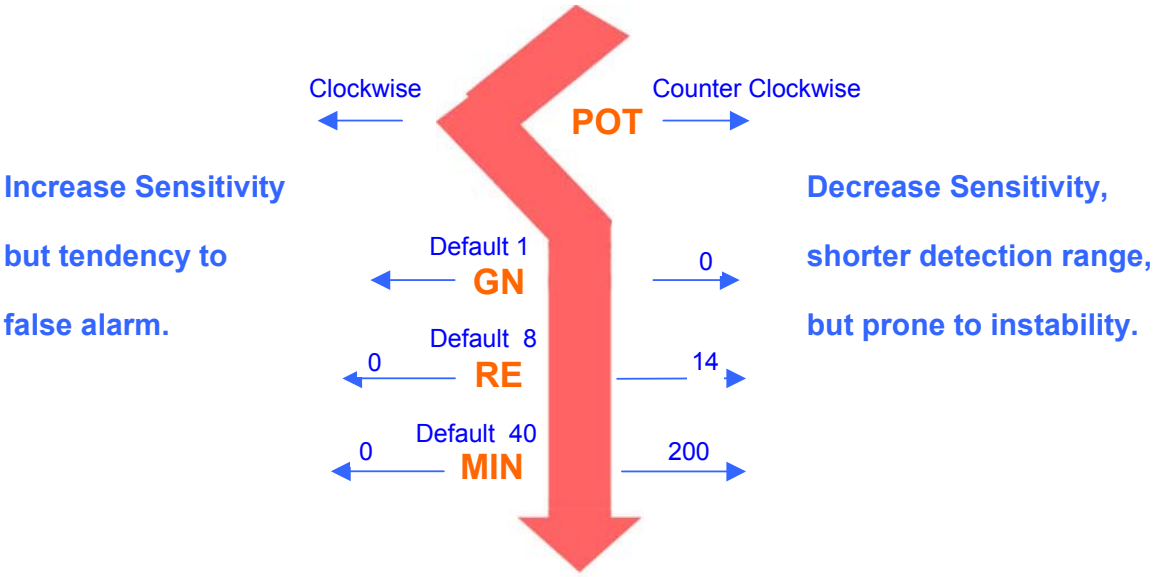
- Low Pick up Rate
- Interference with or by other systems

SOLUTIONS

1. Check noise "D" (ranging from 0-999, >100 or so is big noise & >400 is heavy noise).
2. Adjust MIN, GN & RE to increase sensitivity (see diagram below).
3. Adjust POT for Rx signal pre-process sensitivity on TX board (see page 18).
4. Shorten pedestal separation or use stronger tags (e.g. Super Pencil).

1. Swap L & N terminals on power plug of control pack.
2. Adjust SYN "B" step by step to align up with other systems.

The diagram below explains how the major three tuning parameters influence system performance.



Please open and tune the systems one by one if there are multiple systems installed. It will help determine which system is causing the problem.

Remote Control Programming

Without receiving remote control signals, the panel displays the alarm count, indicating the number of times the system has alarmed. See Figure 1.

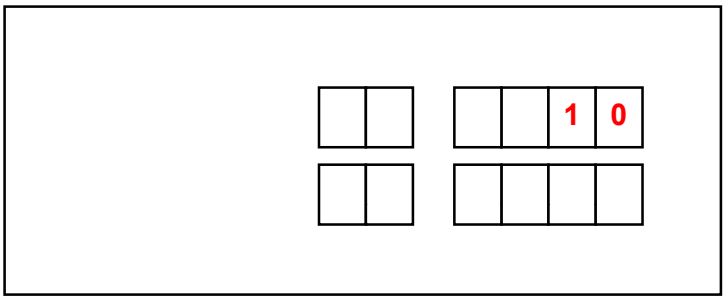


Figure 1. Alarm Count

Press [PSW] button to open the remote control, then enter the password. The default password, if not previously changed, is 689.

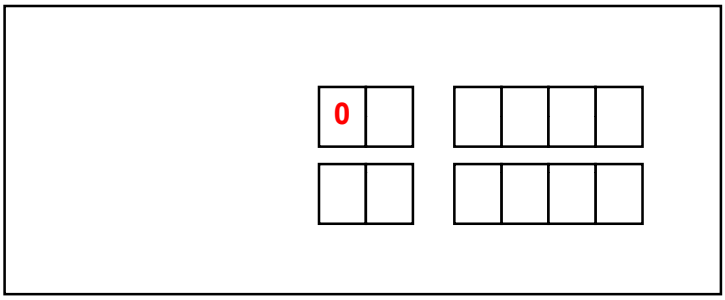
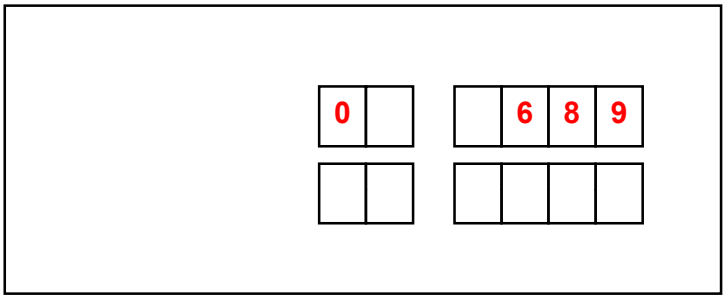
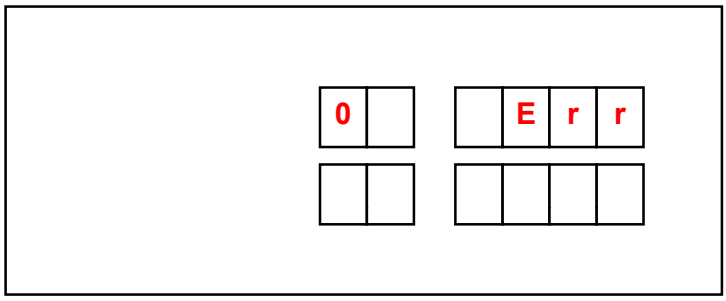


Figure 2. Display after [PSW] is Pressed

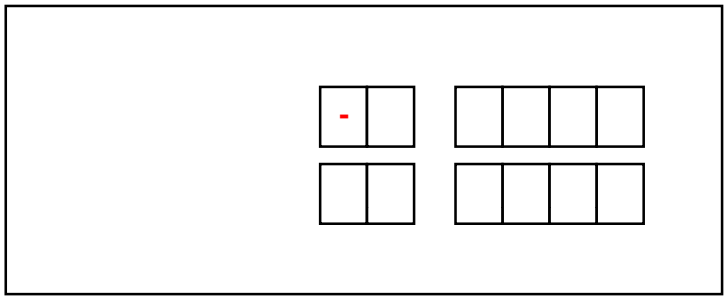
Input Password 689 and press [CON] to confirm/accept the password.



Note: Inputting the wrong password will cause an error message to be displayed as per the following picture. After three successive times of inputting an incorrect password, the remote will be disabled. You will need to turn system power off/on and input the password again.



When the correct password is verified, the panel will display the following and is now ready for receiving configuration inputs.

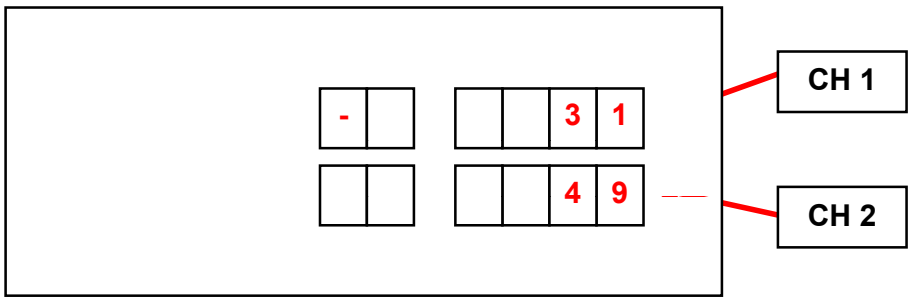


There are three basic steps to inputting a programming parameter:

- Press function button.
- Input parameter number.
- Press [CON] to accept the parameter.

After parameter confirmation, the panel will display the tag window signal. If there is no tag in the detection zone, the value reflects the noise level in the receiving window without a tag.

The upper value reflects the signal level in the tag window from antenna channel 1. The lower value reflects the signal level in the tag window from antenna channel 2. (See NSE noise display entry; it's the same value with D1)



Key ID A: Gain Adjustment (Range: 0-1)

- Press [GN] – panel displays as per Figure 3.
- Input parameter number.
- Press [CON] to accept the parameter.

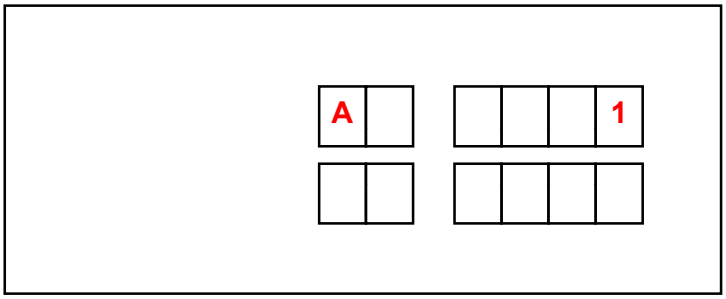


Figure 3.

Key ID B: Sync Adjustment (Range: 0-250; increment: 1)
This sets the time from zero crossing point to the start point of transmitting burst. It is important to eliminate crosstalk between different systems. Setting the default value to b-1 will in most cases not interfere with other AM products.

- Press [SYN] – panel displays as per Figure 4.1.
- Input parameter number.
- Press [CON] to view the nose conditions. Display will be as per Figure 4.2.

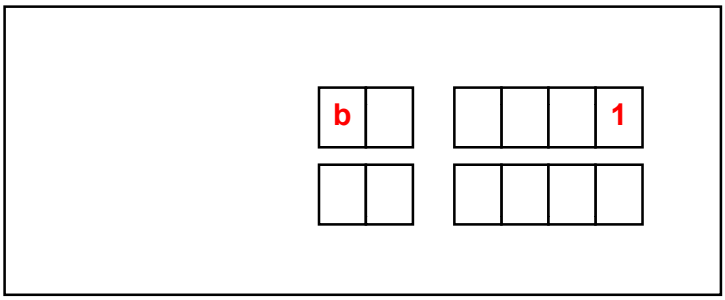


Figure 4.1

Under this entry, you can also see the different noise condition (from the light segment display and number indicator) at a different phase when the adjustment is applied. It will help you select a relatively “clean” phase environment for the system.

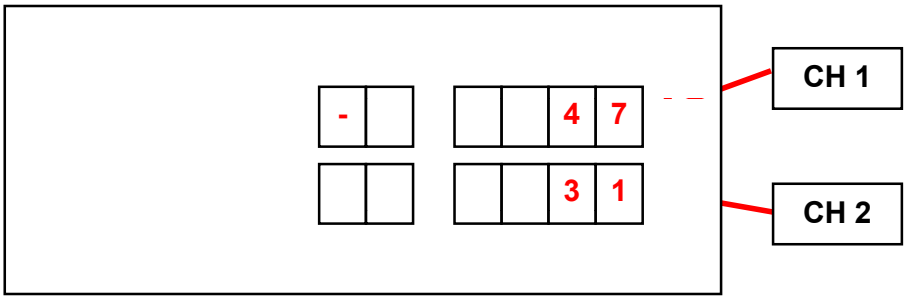


Figure 4.2

Key ID C: Receiving Window Delay (Range: 0-14; increment: 1)
You can input a number from 1-14. The larger the number, the later the receiving window will be opened.

- Press [RE] – panel displays as per Figure 5.
- Input the parameter number.
- Press [CON] to accept the parameter.

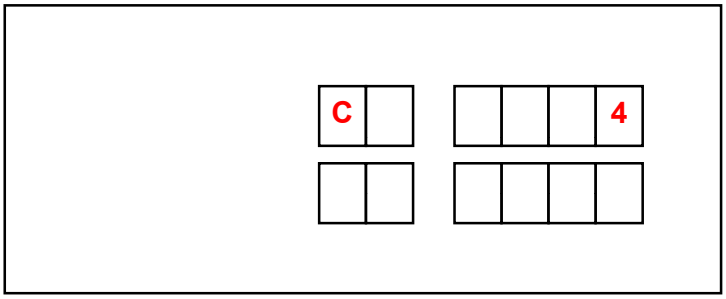


Figure 5.

Key ID D: Noise Condition Display (Range: 0-4)
There are 6 noise level channels displaying different noise types from the two antenna channels. The noise value range is 0 to 999. Usually any noise larger than 100 will be considered as heavy noise. See details in the next table.

Note: If the noise condition display is open, the alarm will be deactivated unless you input 0 to shut down the display.

- Press [NSE] – panel displays as per Figure 6.1.
- Input the parameter number.
- Press [CON] to accept the parameter – panel displays as per Figure 6.2.

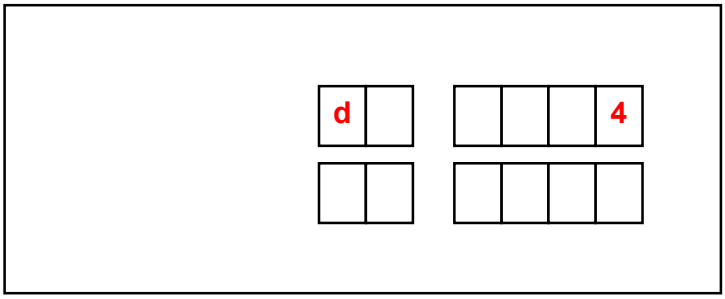


Figure 6.1

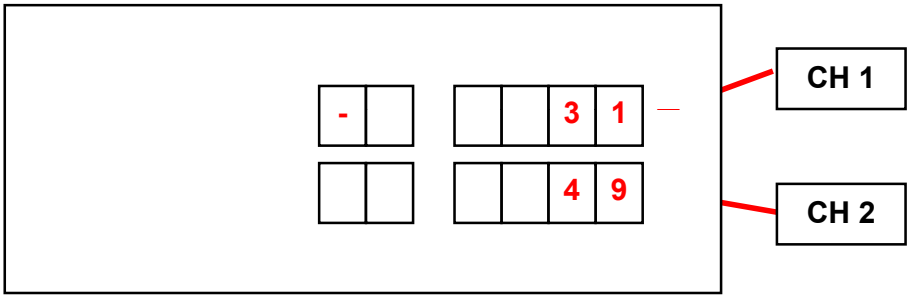


Figure 6.2

Noise Condition Display Configuration Table		
Value	Function Description	Detection Purpose
0	Shut down tag or noise window display.	
D1	Tag window display for channel one.	Detect tag entering vertically.
D2	Tag window display for channel two.	Detect tag entering horizontally.
D3	Average noise window display for channel one.	Monitor average noise.
D4	Average noise window display for channel two.	

Note: The average noise level (D3 & D4) is also weighted by the Minimum Signal Adjustment value. Therefore, if MIN (H value) is increased to be larger than the average noise level, D3 or D4 will only show the H value instead of the average noise value.

Key ID H: Minimum signal Adjustment (Suggested increment: 20; practical range: 0-200) Decreasing this number will increase system sensitivity but also at the risk of false alarming. Vice versa, increasing the value will lower system sensitivity to avoid false alarms caused by uncontrollable environment noise. **There is also an auxiliary POT for RX signal pre-process sensitivity adjustment (see page 18 and Addendum 1).**

There are two antenna channels. Channel 1 is related to vertical orientation and Channel 2 is related to horizontal orientation. H1 (MIN1) sets the minimum signal of Channel 1, and H2 (MIN2) sets the minimum signal of Channel 2.

- Press [MIN] – panel displays as per Figure 7.
- Input the parameter number.
- Press [CON] to accept the parameter.

Note: See Addendum 1 for additional tuning instructions.

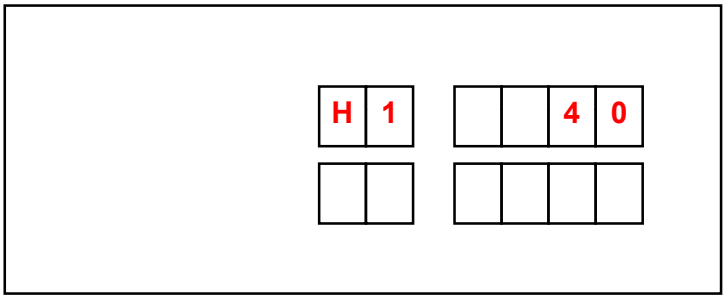


Figure 7.1. Antenna Channel 1

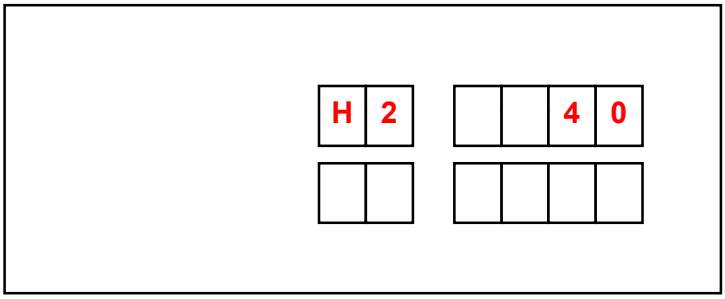
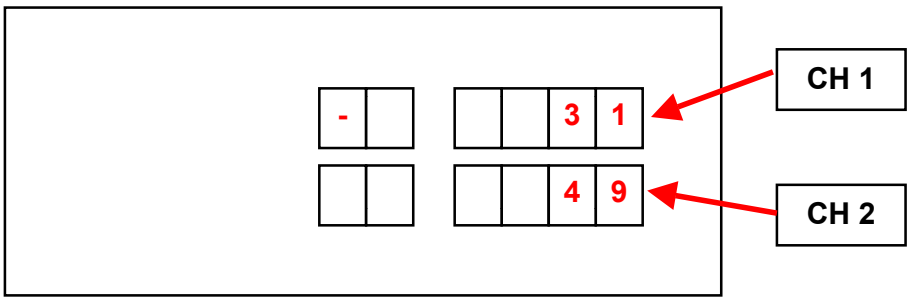


Figure 7.2. Antenna Channel 2

After confirmation of H1 or H2 values, the panel will display the average noise level weighted by the minimum signal adjustment for both antenna channels as follows. **(See NSE noise display entry. It's the same value with D3, D4)**

D3 reflects the average noise level weighted by H1 (MIN1) in antenna channel 1.
D4 reflects the average noise value weighted by H2 (MIN2) in antenna channel 2.



Key ID F: TX Off (Default value: 1; valid range: 0-1)

Value	Action
0	Turn off Tx
1	Turn on Tx

- Press [TX OFF]
- Input the parameter number.
- Press [CON] to accept the parameter.

Input 0 will turn down the transmitting burst via software control. If system power is reapplied, the system will return to default state of 1.

Key ID G: Alarm Sound Off (Default value: 1; valid range: 0-1)

Value	Action
0	Turn off alarm sound.
1	Turn on alarm sound.

- Press [ARM OFF]
- Input the parameter number.
- Press [CON] to accept the parameter.

Input 0 will turn down the alarm sound via software control. If system power is reapplied, the system will return to default state of 1.

Key ID L: Alarm Count Reset (Default value: 0; valid range: 0-1)

Value	Action
0	Initial state.
1	Reset alarm count.

- Press [ARM OFF]
- Input the parameter number.
- Press [CON] to accept the parameter.

Input 1 will reset the alarm count to 0.

Key ID E: Load Default Settings (Default value: 0; valid range: 0-1)

Value	Action
0	Initial state.
1	Load default settings.

Input 1 will load default settings. See Default Parameters Table.

Key ID P: Password Change (Default value: 689; valid range: 0-999)
You can input customer-defined passwords with this entry. Press [CON] button after inputting to activate the new password.

Note: Please SAFEGUARD the new password if you have changed from the default. Once the new password is activated, the system will no longer recognize the 689 default password.

Key ID EX: Exit
Press [EX] to return to the alarm counter display status.

Key ID SA: Save
This button will save all current parameters to flash ROM and are saved, even after power shutdown. When the system is rebooted, it will load all previously saved parameters from flash ROM.

- Press [SA] – panel displays as per Figure 8.
- Input 1
- Press [CON] to accept the current parameters.

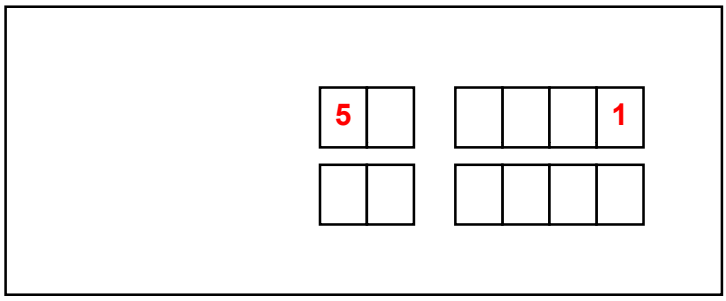


Figure 8.

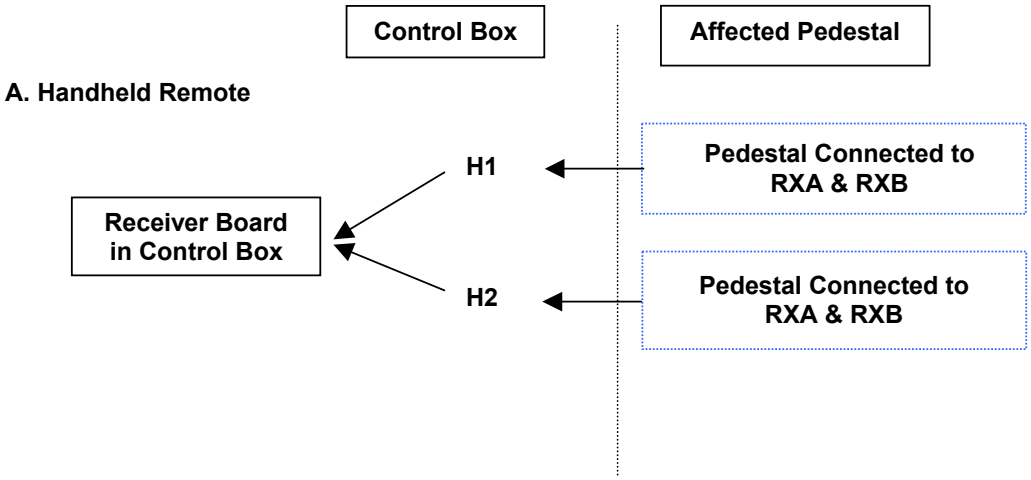
Addendum 1
Pedestal Sensitivity Adjustment Guide

1. Two Methods to Adjust Sensitivity

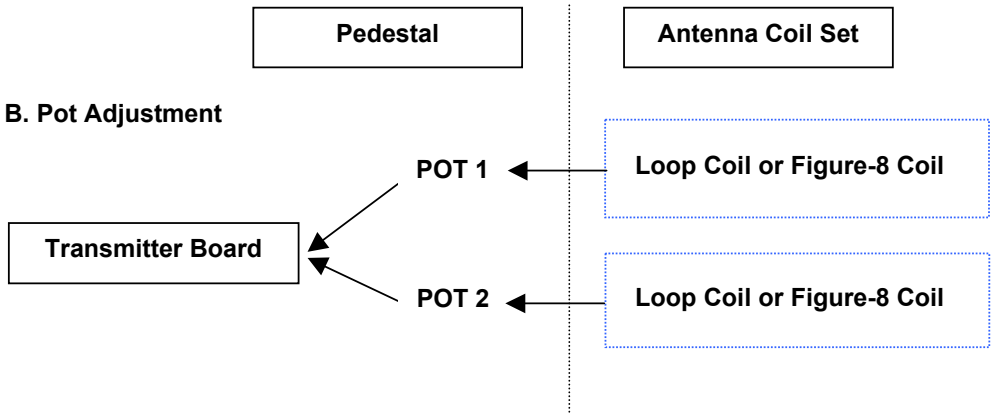
There are two ways to adjust system sensitivity, and each method has a different effect on the system.

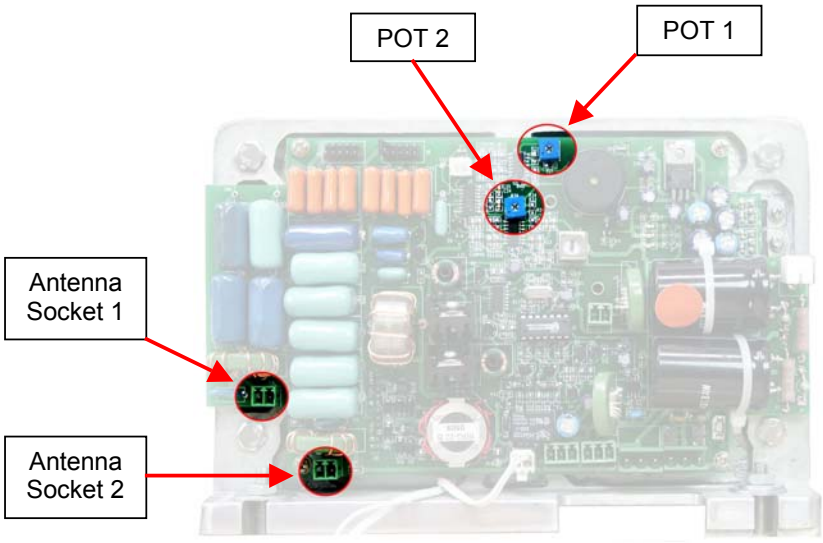
A. **Handheld Remote** – Change the value of H (Minimum Signal Adjustment) at the PLCU using the handheld remote (Ref pages 27).

B. **POT Adjustment** – Tune the antenna coils by adjusting the potentiometers on the transmitter board located inside the pedestal base (Ref page 12).



Note: Because sub-ports RXA/RXB are mapped into Channel 1 (H1 controlled) and RXC/RXD are mapped into Channel 2 (H2 controlled), adjustment of either H1 or H2 will affect both of the mapped sub-ports (RXA/RXB or RXC/RXD), thus affecting the pedestal(s) connected to the mapped sub-ports.





The tuning POTs only affect a single pedestal. Depending on the specific model of Premier or Plus Line product, the specific POT (1 or 2) will affect a different antenna coil set:

a. POT 1 corresponds to the Figure-8 Coil (vertical orientation) and POT 2 corresponds to the Loop Coil (horizontal orientation);

-- or --

b. POT 1 corresponds to the Loop Coil and POT 2 corresponds to the Figure-8 Coil.
c. POT 1 corresponds to the Loop Coil and POT 2 corresponds to ferrite rod antennas.

Note: "Figure-8" and "Loop" are names that identify the two antenna coils inside the pedestal. The Figure-8 Antenna Coil detects vertical orientation signals and the Loop Antenna Coil detects horizontal orientation signals.

***