Remote Controlled Pan Tilt Base
Rotates and Tilts with Mounting Plate - White Housing
Instruction Manual

Thank you for your purchase of the Larson Electronics PTB-1-WHT.

WARNING:

READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE. CRITICAL SAFETY INSTRUCTIONS:

- INSTALLATION SHOULD ONLY BE CONDUCTED BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH NEC AND ANY RELEVANT LOCAL BUILDING CODES.
- RISK OF FIRE OR ELECTRIC SHOCK. FIXTURE INSTALLATION REQUIRES KNOWLEDGE OF FIXTURE'S ELECTRICAL SYSTEMS. IF NOT QUALIFIED, CONTACT A QUALIFIED ELECTRICIAN.
- BE CERTAIN ELECTRICAL POWER IS OFF BEFORE AND DURING INSTALLATION AND MAINTENANCE.
- MAKE SURE THE SUPPLY VOLTAGE IS THE SAME AS THE FIXTURE'S RATED VOLTAGE.
- TO PREVENT WIRING DAMAGE OR ABRASION, DO NOT EXPOSE WIRING TO EDGES OF SHEET METAL OR SHARP OBJECTS. SUITABLE FOR DAMP LOCATIONS.

IMPORTANT

READ CAREFULLY BEFORE INSTALLING THIS FIXTURE. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE. THE PTB-1-WHT MUST BE WIRED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES. PROPER GROUNDING IS REQUIRED FOR SAFETY.

WE STRONGLY ENCOURAGE ONLY A LICENSED ELECTRICIAN INSTALL, OPERATE AND MAINTAIN THIS PRODUCT. IF YOU ARE NOT QUALIFIED OR UNFAMILIAR WITH ANY ASPECT OF THIS INSTRUCTION SHEET, CONSULT AN ELECTRICIAN. THERE ARE NO SERVICEABLE PARTS INSIDE.

WARNING: MAKE SURE POWER IS TURNED **OFF** BEFORE STARTING THE INSTALLATION OR PERFORMING ANY MAINTENANCE.

RISK OF FIRE/ELECTRIC SHOCK – DISCONNECT POWER AT BREAKER BEFORE INSTALLING OR SERVICING. **RISK OF PERSONAL INJURY –** FIXTURE MAY BECOME UNSTABLE OR DAMAGED IF NOT INSTALLED PROPERLY. **RISK OF BURN –** ALLOW FIXTURE TO COOL BEFORE SERVICING.

WARNING:

USER SHOULD BE TRAINED IN THE PROPER USE AND MAINTENANCE OF THIS DEVICE. THIS LINE CORD IS INTENDED TO ALLOW OPERATORS TO EXTEND POWER TO EQUIPMENT WHEN STATIONARY OUTLETS ARE NOT READILY AVAILABLE.

IMPROPER USE OF THIS CORD, PLUG, AND RECEPTACLE CAN LEAD TO SERIOUS INJURIES OR DEATH TO PERSONNEL.

PERIODIC INSPECTION OF THE CORD IS NECESSARY.

THE CORD MUST BE ROUTINELY CHECKED FOR CUTS, BREAKS, OR ANY SEVERE ABRASIONS, AND IF ANY ARE FOUND, THE CORD MUST BE REPLACED BEFORE RESUMING USE.

The PTB-1-WHT from Larson Electronics is an Industrial Grade Pan Tilt Base that is designed to provide wireless and hard wired remote control of lights and equipment. This remote control unit allows operators to rotate through from 0° to 355°, tilt from -60° to +30°, and mount equipment weighing up to 100lbs. The PTB-1-WHT features an attractive white housing.

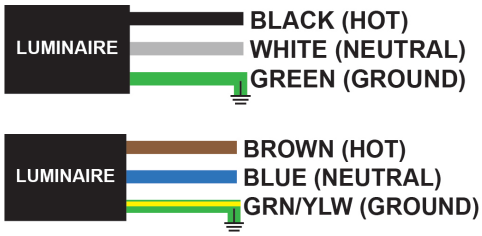
WIRING

Standard pigtail(flying leads) wiring

We strongly encourage a licensed electrician install this product, in all locations especially in outdoor areas where weatherproofing may be required. Universal voltage driver permits operation at 12V or 24V DC.

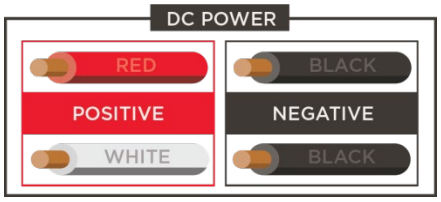
Warning: *Check product label for correct input voltage!*

Attach supply line wires to the appropriate light fixture wires as shown in the diagram ➔



Secure each pair of wires according to the diagram. Utilize a junction box or similar device and take precautionary steps for weatherproofing all connections if installed in a location where water may come in contact with the unit. Ensure the unit is properly grounded and that wiring is done according to all local and national electrical/building codes.

Low Voltage DC



Connect power to power supply outputting low voltage between 9-42 Volts DC. This variable voltage allows greater versatility without affecting light output. Ensure deutsch connectors are properly connected (If applicable)

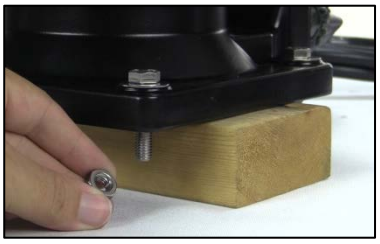
DETACHABLE CORDS

- Cord is attached via a weatherproof 2-pin Deutsch connector.
- The cord is detachable by depressing the tab on the top of the connectors. This enables the operator to remove and store the light while leaving the cord connected to the power source.
- Additional or replacement cords can be ordered from our website. Contact us or visit LarsonElectronics.com for more information.

INSTALLATION NOTES

- Read this user's manual thoroughly and retain it for future reference.
- Use a damp cloth to clean the unit.
- Never attach anything to this unit that could lead to danger.
- Do not install this unit to a surface that could become unstable such as a stand, tripod, shelf or table.
- Install the unit in an open area away from heat sources.
- Always use the voltage listed on the unit.
- Keep objects and cables away while the unit is in operation.
- Do not electrically overload this unit to prevent a risk of fire.
- Contact an electrician for installation if you are not familiar with electrical wiring.

How to Mount the Pan/Tilt Base



1. Determine the location you want to mount the base to.
2. Attach the pan/tilt base to your surface using the four corner thru-holes at the base of the unit. Use the provided bolts to mount the base. Be sure the unit will move freely and won't contact the wall, ceiling or pole during operation.



3. Bolt your device to the mounting plate on top of the unit and secure it tightly. If necessary, use the included 8x10" mounting plate.

   Optional: Connect your device to one of the individual +/-leads on the base. Seal off the additional wire if not used.

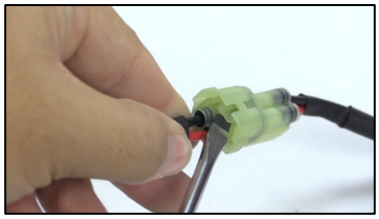
4. Attach and run the power cables. Take the 25’ cable w/inline remote and securely attach the female connection to the base.



5. Attach the hardwired remote to the other end of the cable by screwing the female end of the remote assembly to the male end of the wire harness.



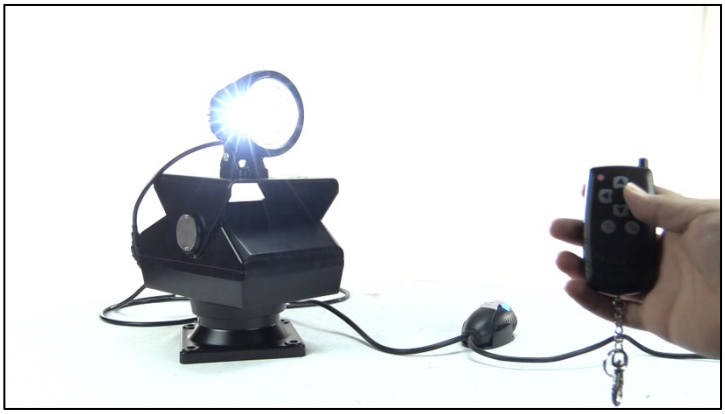
6. If your unit will be hardwired, keep the flying leads attached to the remote and hardwire the unit. Use the pin tab to remove the flying leads and attach the cigarette plug adapter if needed.



7. Find a location to mount the base for the hardwired remote. Use the two screws provided.



8. Apply power to the unit to ensure proper function.



Remote Control



- **ON/OFF** – Power's the unit on or off.
- **▲UP ▼DOWN ◀ LEFT ▶ RIGHT** - Moves the pan/tilt base in the corresponding direction.

LOCK Remote Functionality

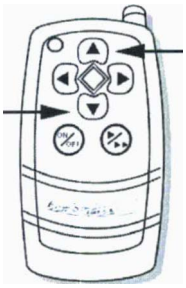
Press the **◀ LEFT + ▶ RIGHT** buttons on the hardwired remote simultaneously or press the ▶/⏩ button on the wireless remote.

A **BLUE** backlight on the hardwired remote indicates the remote functionality is **LOCKED**. A **RED** backlight indicates the remote functionality is **UNLOCKED** and both the wired and hardwired remotes will function.



HANDHELD WIRELESS REMOTE PROGRAMMING PROCESS:

1. Switch off DC power.
2. Make sure there is NO other transmitter operating at the same time.
3. Switch on DC power, within 5 seconds press the remote's up and down button once at the same time.
4. Searchlight will flash to acknowledge the remote, connection has been made.
5. To program the second remote (up to 4 remotes may be used with the searchlight, programming a fifth will replace the first), within five seconds, pres the second remote's up and down button after the first remote is acknowledged or repeat step 1.



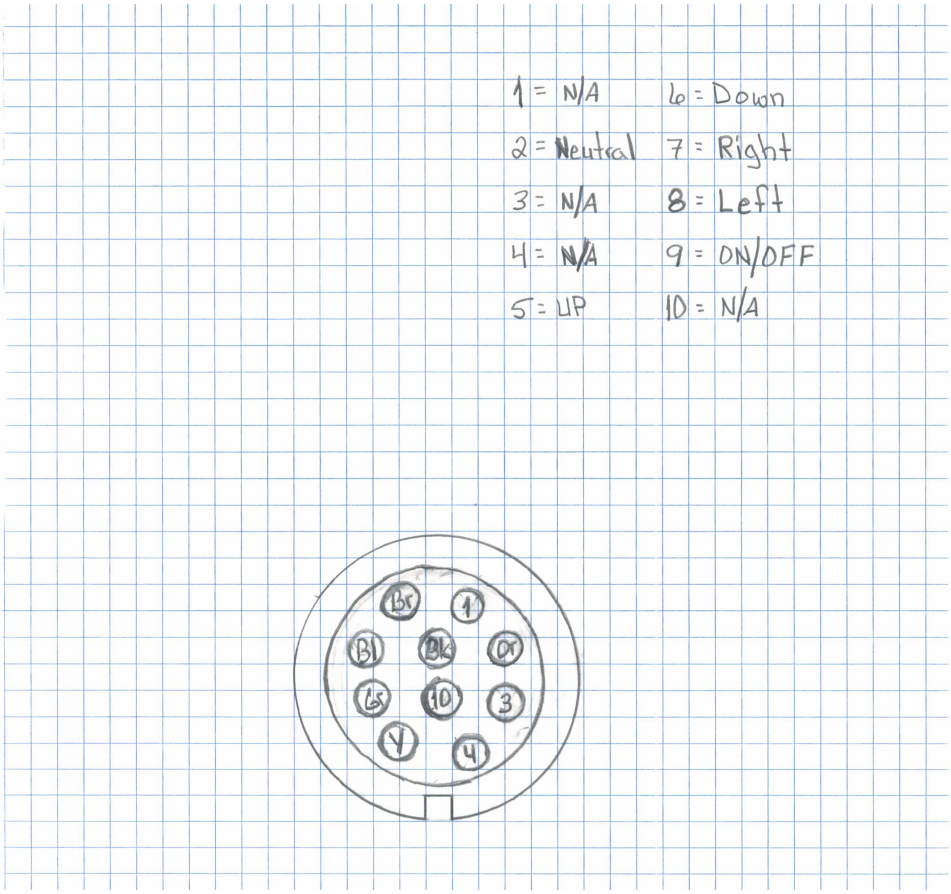
Specifications

Materials	Aluminum die-casting/Aluminum Plate
Color	White
Rotating angle	Pan 0˚ to 355˚ ±5˚, Tilt -60˚ to +30˚ ±5˚
Rotating speed	Pan 6.2˚/sec ± 0.6˚, Tilt 3.1˚/sec ± 0.6˚
Loading weight	66 lbs. at 70mm from Tilt table surface to center gravity
Power Consumption	Pan: 6W, Tilt: 15W
Operating Temperature	-25°C to + 50˚C
Weight	24 lbs.
Dimensions	12" L x 10" H x 8" W
Rating	IP54

Command Protocols

No	Command		Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
1	PAN LEFT	Command	FFh	Receiver ID	00h	04h	DATA1	DATA2	CHECKSUM
		Description	DATA1:PAN SPEED(00~3Fh),DATA2:TILT SPEED(00~3Fh)						
2	PAN RIGHT	Command	FFh	Receiver ID	00h	02h	DATA1	DATA2	CHECKSUM
		Description	DATA1:PAN SPEED(00~3Fh),DATA2:TILT SPEED(00~3Fh)						
3	TILT UP	Command	FFh	Receiver ID	00h	08h	DATA1	DATA2	CHECKSUM
		Description	DATA1:PAN SPEED(00~3Fh),DATA2:TILT SPEED(00~3Fh)						
4	TILT DOWN	Command	FFh	Receiver ID	00h	10h	DATA1	DATA2	CHECKSUM
		Description	DATA1:PAN SPEED(00~3Fh),DATA2:TILT SPEED(00~3Fh)						
5	ZOOM TELE	Command	FFh	Receiver ID	00h	20h	00h	00h	CHECKSUM
		Description							
6	ZOOM WIDE	Command	FFh	Receiver ID	00h	40h	00h	00h	CHECKSUM
		Description							
7	FOCUS NEAR	Command	FFh	Receiver ID	01h	00h	00h	00h	CHECKSUM
		Description							
8	FOCUS FAR	Command	FFh	Receiver ID	00h	80h	00h	00h	CHECKSUM
		Description							
9	P/T/Z/F STOP	Command	FFh	Receiver ID	00h	00h	00h	00h	CHECKSUM
		Description							
10	SET PRESET	Command	FFh	Receiver ID	00h	03h	00h	PRESET ID	CHECKSUM
		Description	PRESET ID=00~7Fh						
11	CLEAR PRESET	Command	FFh	Receiver ID	00h	05h	00h	PRESET ID	CHECKSUM
		Description	PRESET ID=00~7Fh						
12	GOTO PRESET	Command	FFh	Receiver ID	00h	07h	00h	PRESET ID	CHECKSUM
		Description	PRESET ID=00~7Fh						
13	REMOTE RESET	Command	FFh	Receiver ID	00h	0Fh	00h	00h	CHECKSUM
		Description							
14	AUX ON	Command	FFh	Receiver ID	00h	09h	00h	01~02h	CHECKSUM
		Description							
15	AUX OFF	Command	FFh	Receiver ID	00h	0Bh	00h	01~02h	CHECKSUM
		Description							

Pinout



MAINTENANCE

There are no serviceable parts inside the fixture. However, it is good practice to routinely clean and check the fixture for proper function.

- Disconnect power running to the lamp and be sure the fixture is cool to the touch.
- Use a non-abrasive glass cleaning solution to clean the lens.

Note: *It is not necessary to open the fixture and clean or touch the LED's.*

USE AND CARE

Unauthorized modification may impair the function and/or safety of this device and could affect the life of the equipment. Always check for damaged or worn out parts before using the device. Store it in a secure place out of the reach of children when not in use. Inspect for good working condition prior to storage and before re-use.

REPLACEMENT PARTS

The PTB-1-WHT is designed to provide years of reliable performance. Should the need for replacement parts arise, please contact Larson Electronics.

THESE INSTRUCTIONS MAY NOT COVER ALL DETAILS OR VARIATIONS OF THIS PRODUCT FOR YOUR EQUIPMENT OR INSTALLATION REQUIREMENTS. SHOULD FURTHER INFORMATION NOT COVERED BY THESE INSTRUCTIONS BE REQUIRED, PLEASE CONTACT LARSON ELECTRONICS BY EMAIL AT SALES@LARSONELECTRONICS.COM OR BY PHONE AT 1-800-369-6671 FOR FURTHER ASSISTANCE.

PLEASE VISIT LARSONELECTRONICS.COM FOR **WARRANTY** AND **RETURN** INFORMATION.