



Drive One Wireless Follow Focus

(FF-WRLS-DR-ONE)

INSTRUCTION MANUAL



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INTRODUCTION

PROAIM presents its new Drive One wireless remote follows focus system. It assists the camera operators in adjusting the focus or focal distance (zoom) of the camera shooting remotely. The Wireless Follow Focus can be used along with matching camera control gear like DSLR rigs, sliders, Steadicam kits, cranes/ jibs / dolly, Easy Rigs etc. It allows the user to precisely operate the focus ring on a 35mm lens from up to 200 metres away. The system provides a choice of 7 bands on which to transmit the encoded data stream, and two user definable limits to calibrate motor movement or serve as focus stops. The transmitter requires only a single 9V battery and the receiver utilises a standard 4-pin XLR for 12v power input, allowing the user to connect a standard V-lock power, or use the provided AA battery pack.

IN THE BOX

Please inspect the contents of your shipped package to ensure you have received all that is pictured and listed below.



Proaim Transmitter Unit



Proaim Receiver Unit



Proaim Motor Unit



Proaim Marking Rings (1 Included)



2x Antena



Interchangeable Gear(s)



Lemo Cable (60cm)

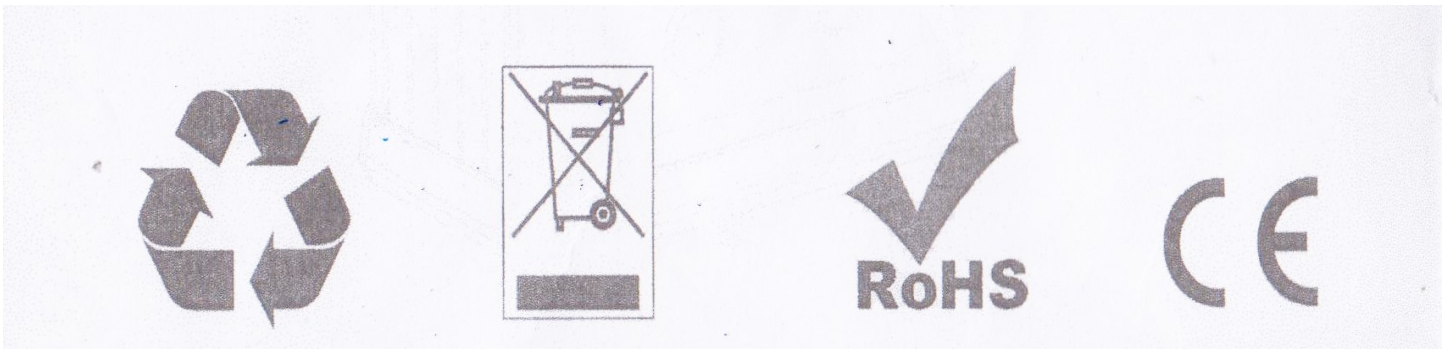
WARNING

- Do not over tighten any rod clamps or tighten with no rod inserted.
- Do not press on the membrane panel lights (frequency and limit).
- Do not operate in wet environments.
- When not in use for long periods of time, remove batteries.
- For best performance, do not use rechargeable batteries.
- Do not attempt to use with high gain antennas.
- Do not attempt to open any of the units unless instructed to do so by focus Products, doing so could void your warranty.
- To clean the units, wipe with a damp cloth.
- Always transport in a rigid bodied case.
- Do not pierce or dispose of batteries in fire.
- Do not dispose of units in household waste.

Cinema Lenses

Please note that the Proaim is intended for SLR and broadcast lenses only. The motor does not have the power or the rotation necessary to control heavy and stiff cinema lenses.

Using the Proaim motor with cinema lenses could cause noisy operation, and could damage the gearing inside the motor.



This product conforms with Restriction of Hazardous Substances Directive
This product meets U consumer safety, health and environmental requirements.

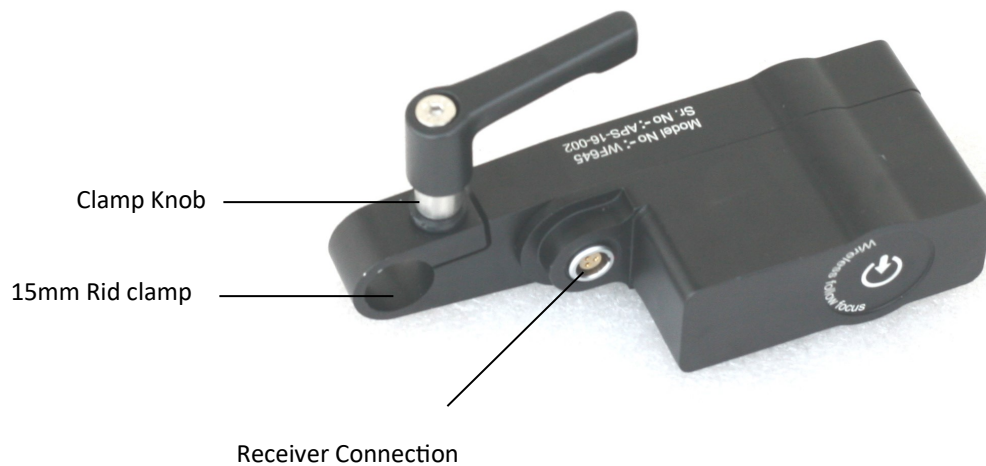
TRANSMITTER (Weight: 530g)



RECEIVER (Weight: 340g)



INTERCHANGEABLE LENS GEARS



This is a guide to get you started with the Proaim Drive one follow focus as quickly as possible. We recommend that you read through the rest of this guide for more detailed instructions on operating the Drive One Wireless Follow focus.

- Power the transmitter with one 9v battery.
- Power the receiver with 3 pin XLR input or Sony NP mount camcorder battery.
- To set frequency, press and hold **FREQ** button until the light starts to cycle through colours. Stop or preferred colour. Repeat for each unit, matching the colours. Verify **DATA** light is solid green.
- Set up the system off the camera to verify operation
- Install the correct gear to the motor and slide motor onto the camera rod.
- Position the motor (but do not engage gear teeth yet)
- Route cable to the receiver, and plug in, aligning the red dots. The angled end is for the receiver.

- Turn on the transmitter and set the limits:
- If either of the two limits are already set (green lights) erase by pressing and holding the appropriate button until the light shows red
- Set the lens and the motor to their centre positions
- Engage the drive gear to the lens and tighten the clamps. Do not mesh the teeth too tightly, a bit of place is necessary for smooth operation.
- Turn the wheel all the way to one side and stop slowly on the lens mark
- Press and hold the appropriate limit button until it lights green.
- Turn the wheel the opposite way and repeat this process for the other stop
- Turn the wheel from end to end to check that the limits are setup correctly. If the motor vibrates or humbles loudly at either end of the movement range, erase and reset this stop
- If the control wheel rotates the wrong way, reverse it using the direction switch on the transmitter

Please read the rest of this manual for more in depth instructions in the set up and operation of the Proaim system.

Gearing SLR lenses

SLR lenses do not have gears built into them so a gear ring must be fitted before can be used. Gear rings are available from many manufactures such as Redrock Micro, Shoot35. The gears are ideal as the design is compact and allows for the fewest number of teeth possible which helps maximize available lens throw, however they are not easily changed between lenses. The Redrock Micro gear rings are suitable for changing rapidly between different lenses.

Care must be taken to ensure that the lens ring is centered with the lens, or the rotation can push the motor away from the lens and cause the teeth to skip. You should also make sure that the ring is secured and cannot slip round on the lens which will cause inaccuracies with your focus pulling.

If the lens ring has a clamping section like rings, make sure this is positioned so it does not run into the drive gear whilst it is turning.

All lens rings for 35mm SLR lenses are 0.8mod Cinepitch.

Marking rings

The Proaim features interchangeable acrylic marking rings. These use three small magnets to stick to the transmitter. These rings are not double sided and will only stick to the knob when the magnets are facing the black disk.

The notch in the ring must be aligned with the peg on the knob disk for the ring to snap to the front of the disk.

The receiver has a standard ¼-20 thread in the bottom for mounting to the camera. There are many third party mounting products available, but for versatility and durability, we recommend.

The motor is designed to mount directly onto 15mm support rods, or 19mm rods via the optional 19mm adapter.

If you have a manual follow focus on the rails, it is recommended that you remove this before mounting the Proaim motor.

First install the correct drive gear on the motor unit for your lens. These will be 0.8mod for cine lenses, 0.6mod for Fujinon lenses and 0.5mod for Canon lenses. Unscrew the red hub nut, and seat the gear down on the hub, aligning the two holes with the pins on the hub. Secure by replacing the hub nut.

Slide the motor onto the rod, orientating the tightening knob so it is accessible. Align the gear with the teeth on the lens ring, but do not engage the gears yet. Tighten the clamp knob to hold the motor in position.

Connect the motor to the receiver using the supplied Lemo cable. Care should be taken to align the red dots on the connector with the corresponding dot on the socket. The angled end of the cable is for the receiver and will not plug into the motor.

Route the cable so it is secure and will not upset normal operation or balance of the camera. Ensure that no cables or loose parts can be pulled between the drive gear and the lens.

Do not turn the system on with the drive gear engaged to the lens.



Setting the frequency

The Proaim drive one follow focus uses a colour coded frequency selection system. Ensure both antennas are connected before you start. To set the frequency, the colour shown on top of the transmitter and receiver units must match. To change, press and hold **FREQ** button. After a few seconds, the colours will start to cycle. When the light shows the desired colour, release the button and the unit will hold that frequency. Repeat this process for both transmitter and receiver units.

The **DATA** light on the receiver illuminating green verifies a good connection. The light flickering between red and green indicates 'dirt' or interference on the channel. When this happens, move to a new channel using the instructions above.

Whilst there are 10 frequencies available, these do cross over. This is to ensure there is maximum space available to avoid any interference. More than one Proaim can be operated together, we recommend no more than four sets. Some experimentation with different frequencies may be required to find four clean frequencies.

Powering the receiver

The Proaim receiver runs on 12v DC. For maximum torque and speed, the 3pin XLR power input should always be used. Power from a V-Lock or Anton Bauer battery is ideal. If this is not possible a Sony NP battery (for Z1 and other cameras) can also be used on the included plate. Do not use both the XLR and the battery plate at the same time. When the battery is running low, the frequency light will flash slowly.

The Proaim has two limits which can be set to prevent the motor over turning and damaging the lens or motor. They are also useful to deal with the infinitely rotating focus ring on some of the newer SLR lenses.

To set the limits, first ensure that the motor and lens are disengaged before switching the receiver on. The motor should be lined up and the correct drive gear installed before doing this. Switch on the receiver and transmitter and verify a connection by turning the motor with the control wheel.

If either of the two limits are already set (green light) then erase by pressing and holding the corresponding button which will flash and then go red.

Turn both the lens and the control wheel to their centre position. On the Proaim transmitter, this is when the marking disk keying stud is in the bottom position.

Engage the lens and drive gear. It is important to leave a small amount between the two gears to ensure smooth operation. Tighten up the knob on the motor to securely hold the motor to the lens.

Now carefully rotate the wheel in either direction. It is not important which limit you set first. Constantly observe the lens as you rotate the wheel. Carefully approach the last mark on the lens and stop on the mark. If the motor is humming or chattering, wind back a little bit until it stops.

Set the limit by pressing the appropriate limit button. The button to use is the one you have turned the wheel towards.

Wind the wheel back towards the other end of the lens and repeat this process.

Test the range of motion by carefully moving the lens through its range of motion, checking there is no humming or chattering at either end.

If the control wheel operates in the wrong direction, reverse this by flicking the direction switch on top of the transmitter unit.



Some long focal length lenses have a longer lens throw (turn of the lens barrel from infinity to close focus. In some cases, this can be too much travel for the Proaim motor to turn all the way.

In these situations, there are several things you can do to help achieve full lens barrel movement. If using an SLR lens, the lens gears you are using will have a big impact on the rotation you can achieve. The fewer the teeth on the lens, the better. The gears are ideal as they hug the lens barrel tightly so the number of teeth is minimal.

If you decide that full turn on the lens is not necessary, it is possible to pull focus using just part of the focus movement. Based on the individual shot you are working on, decide which end of the focus scale is more important, infinity or close. In most cases, this will be infinity.

To set up the limits with maximum travel available, first erase both limits. With the gears disengaged, turn the lens to your preferred end and rotate the motor using the transmitter to the same end. Engage the lens to the drive gear. Wind the lens back the other way to check that the motor does not outrun the lens. If it does, set the limit using the appropriate button in the normal way. It is not necessary to have both limits set when setting up the motor limits in this way.

For more advice on dealing with long throw lenses, please contact us.

Most common problems are easily solved. If the troubleshooting information does not resolve the issue please contact us immediately. Do not attempt to find the fault or repair the unit yourself as this will void your warranty.

Transmitter will not turn on

- Check battery charge and polarity

Receiver will not turn on

- Check power source, power and polarity. Do not use both XLP power and battery plate at the same time

Motor does not move when the wheel is turned

- Check transmitter and receiver frequencies match (page 11)
- Verify data light is green
- Check motor cable
- Both limits could be set at the same position (this will stop the motor operating) erase by pressing and hold both limit set buttons until they light red.

Frequency colour light is not visible

- In bright light; the frequency light can be hard to see. Shading the light with your hand will help you see the colour

Limited or no radio range

- Ensure antennas are connected
- Check data light is green

Data light is flickering or showing red

- Check transmitter and receiver frequencies match (see page 11)
- Ensure antennas are connected
- Move to a different frequency colour

Motor hums or jerks at the end of its motor movement

- Reset appropriate limit stop

No repeatability on infinitely turning focus rings

- Infinitely turning focus rings found on modern DSLR lenses can lose their repeatability. Make sure that when the motor stops turning at the end of the wheel motion, it does not move the ring past the stop.
- Reset the limits

Technical Specifications

Frequency: 433-434mhz (US 900mhz)

Transmitter power: 10mW

Range: 150 metres aprox, (50 metres in built up area)

Compliant to R&TTE directive; EN300-200-3, 301-489-3

WARRANTY

We offer a one year warranty for our products from the date of purchase.

We will repair or replace your product, free of charge, in the event of a defect in materials or craftsmanship obtained during normal use or handling based on the user manual. Please note that we will not cover any shipping costs for returning the product to us. If any VAT or import duties are applied to the return, we will also charge these costs to the customer.

The warranty does not include, by the way of example, damage caused by products that we donot supply or from mishandling in transit, accident, misuse, neglect, lack of care of the product , or service by anyone other than our company.

We are not liable for incidental or consequential damages resulting from the use of the unit or occurring due to any breach of this warranty.

Replacement parts of the product will be provided at nominal cost (covering the cost price of the replacement parts only) to the customers after the Warranty Period has expired. We will cover the complete cost of sending replacement parts within the warranty period. After that, Nominal cost of the product & Actual shipping cost will be charged.

Donot send the unit to us without first getting a response and getting the approval to send back the item.

In case of any kind of dissatisfaction, we urge you to Contact us immediately and we shall do our best to help you out.

For any other assistance you can reach us via email.