



MOTOTRAK With Triple Control

MOTOTRAK, the only triple control drive corrector made. State-of-the-art. CMOS, QUARTZ DRIVEN. LED tracking indicators. Internal rechargeable battery will operate a C-8 9 hours. 10 watts.

WORKS GREAT WITH:

B & L 4000, 8000, 8001

C-5, C-8, C-11

Meade 2080, 2120

and all telescopes using 110-volt A.C. motors
10 watts or less

and

using 12-volt D.C. declination power.

JIM'S MOBILE IND.

1960 Co. Rd. 23
EVERGREEN, CO 80439
(303) 277-0304

Dear Customer:

Thank you for purchasing the MOTOTRAK DRIVE CORRECTOR. As you will see, it is a quality product. It is the first drive corrector with triple control: dual-axis plus focus.

The MOTOTRAK is not just a variable frequency power inverter. It is a sophisticated digital electronic device. It uses state of the art technology, including CMOS integrated circuits for true digital control. Unlike ordinary drive correctors that give you a quartz crystal reference to aid you in adjusting the frequency, MOTOTRAK "locks in" the desired frequency. No need for flashing LEDs or adjustment knobs. Gone is that bothersome drift. Unlike other quartz controlled drive correctors, MOTOTRAK is soundly designed so it does not run hot or excessively drain your car's battery.

The quality of materials and construction insure years of reliable service. Parts are mounted on a computer grade printed circuit board.

Each MOTOTRAK is well built; great care is put into the assembly and testing of each unit to ensure quality and longevity.

Once again, thanks for your purchase.

Sincerely,

Jim Burr
Jim's Mobile Industries

ONE YEAR LIMITED WARRANTY

MOTOTRAK drive correctors are guaranteed for one year from date of purchase against defects in workmanship and materials. THIS LIMITED WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, OR MERCHANTABILITY, FITNESS FOR PURPOSE OR OTHERWISE.

If a defect appears within one year after the date of purchase, the purchaser may return the item, freight prepaid, together with a purchase receipt or other appropriate proof of date of purchase, to the company at Jim's Mobile Ind., 1960 Co. Rd. 23, Evergreen, CO 80439. Upon receipt of the item, the company will, at its option, either repair or replace the defective item or part without charge to the purchaser.

This limited warranty shall not apply and shall be void and no other warranty, express or implied, shall apply when the unit has been tampered with, the case opened, when repairs or attempted repairs have been made by unauthorized persons or where the item has been subject to misuse, abuse, accident or damage in transit or otherwise. No charges will be accepted for unauthorized parts, repairs or services.

IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow limitations on how long a warranty lasts and some states do not allow the exclusion or limitation of incidental or consequential damages, so part or all of the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

THE INTERNAL RECHARGEABLE BATTERIES CAN BE CHARGED A THOUSAND TIMES OR MORE WITH PROPER CARE AND ARE GUARANTEED FOR 30 DAYS FROM DATE OF PURCHASE.

PACKING CHECK LIST

Make sure your package contains the following:

1. MOTOTRACK drive corrector unit with hand control.
2. D.C. power cord.
3. Plug-in wall transformer.
4. Sales receipt.
5. Any purchased options listed on the sales receipt.
6. This manual.

IMPORTANT SAFETY INFORMATION

1. WARNING

Always remember that the MOTOTRAK produces high voltages equivalent to those from an outlet in your home.

Always use a grounding-type three-prong power cord between MOTOTRAK and your telescope. Never use a cord that is frayed or damaged.

Always plug the wall transformer directly into an outlet in a sheltered area. THIS TRANSFORMER IS INTENDED FOR INDOOR USE ONLY. DO NOT RUN AN EXTENSION CORD TO THE TRANSFORMER INPUT.

Never set the MOTOTRAK directly on wet ground or snow.

Never replace the fuse with one rated greater than 2.0 amps.

Keep out of the reach of children.

2. DO NOT DISASSEMBLE MOTOTRAK. It must be opened only by a qualified service person to ensure that it remains safe for operation. THERE ARE NO FUSES INSIDE OF THE CASE. OPENING THE CASE VOIDS YOUR LIMITED WARRANTY AND PROVIDES YOU WITH NO WARRANTY WHATSOEVER.

3. Do not block ventilation holes in the power unit.

GUIDE TO THE MOTOTRAK DRIVE CORECTOR'S CONTROLS

1. Tracking mode select knob:
This knob adjusts the tracking rate of your telescope for the sun, the moon, or the stars. The L.E.D.s will indicate the setting in the dark.
2. Power switch:
Up is on.
3. Power outlet:
This is where you plug in your telescope's three-prong power cord.
4. Charge jack:
This is where you plug in the wall transformer which is provided. This is also where you plug in the D.C. power cord if operating from your car.
5. Three D.C. auxiliary jacks:
12 V.D.C. accessories may be plugged in here. The top two jacks are adjustable with brightness control.
6. Brightness control:
This is for adjusting the two top auxiliary jacks.
7. Fuse:
This is a 3AG 2 amp fuse.
8. Declination motor jacks (two are provided):
This is where you plug in a 12 V.D.C. declination motor.
WHY TWO DEC. JACKS? If you find the scope is going down when you press the up button, use the other dec. jack.

CONNECTING THE DECLINATION MOTOR

MOTOTRAK provides = - 12 volts D.C. via the two 1/8 inch jacks.

MOTOTRAK provides a short circuit across the declination motor terminals when the motor is not running to provide dynamic braking and prevent the motor from coasting.

Jim's Mobile Industries has just received a utility patent on our "snap-on" Motodecs. We believe this is the finest declination motor you can buy, and in many cases, at much less cost than many manufacturer's declination motors. Ours can be snapped on or off in seconds. Our declination motors have friction drive which allows manual as well as electric control. They run at 3 rpm. 8 rpm are available for video camera work.

U.S. patent No. 4,709,178
for "snap-on" Motodecs

OPERATING THE MOTOTRAK DRIVE CORRECTOR

To operate the MOTOTRAK drive corrector, follow these steps:

- Plug the telescope's three-prong power cord into the power outlet.
- If you are using a declination motor, plug it in before you turn on the unit.
- Turn on the power switch. (Up is on.) One of the three L.E.D.s on the hand control should now be lit up.
- The telescope's motor should now be running.
- Adjust the tracking mode knob to the desired tracking rate. Three L.E.D.s on the hand unit indicate the exact tracking rate. No more guessing in the dark where the pointer is on a knob that you can't see.
- The telescope's speed can now be adjusted with the triple-control hand unit - (dual-axis plus focus). The two lower buttons control the focus with a variable speed control for faster or slower focusing action. The left button slows down the telescope; the right button speeds up the telescope; and the upper and lower buttons allow for corrections in declination.
- The focus cord plugs into the hand unit.

If the internal battery is not charged, you can operate the unit using the wall transformer or the D.C. power cord. Either can be plugged into the charger jack.

If the telescope motor fails to run, check the trouble-shooting section of this manual.

CHARGING THE INTERNAL BATTERY

If properly cared for, the internal battery should last for years. However, the following conditions will severely decrease the life of the battery:

- running the unit until the battery is completely dead;
- storing with the battery discharged;
- leaving the battery on charge for excessive periods of time (more than 12 hours)

When charging the battery follow these guidelines:

- charge after each use - don't wait for it to go dead;
- to charge, plug the wall transformer into an outlet and the charger jack on the unit;
- charge the battery with the power switch in the off position (the battery will charge at a reduced rate when the unit is operated using the wall transformer);
- the battery can also be charged using the D.C. power cord if the car is running. This feature may be convenient on a long trip when an outlet is not available;
- the battery will take about 8 hours to fully charge.

TROUBLE-SHOOTING

If the MOTOTRAK fails to operate using the internal battery...

- Make sure the power switch is up and one of the L.E.D.s on the hand unit is on.
- Make sure the telescope's power cord is securely inserted in both the telescope and the MOTOTRAK's outlet.
- Check the fuse. To remove the fuse, unscrew the fuse holder. The fuse should now come out. Check the fuse element. If it is broken, replace the fuse. Always use a 2 amp fuse.
- To determine if the battery is dead, try running the drive corrector using the wall transformer or the D.C. power cord. If the telescope runs, the battery is dead and needs charging.
- Plug your telescope directly into a commercial power outlet and see if the telescope runs.

If the telescope runs from a house outlet, then there may be a problem with the drive corrector. Call (303) 277-0304 to discuss the problem or to receive return authorization.

TROUBLE-SHOOTING

If the MOTOTRAK fails to operate using the wall transformer...

- Make sure the power switch is up and one of the L.E.D.s on the hand unit is on.
- Make sure the wall transformer is securely inserted into the commercial power outlet and into the MOTOTRAK's charger jack.
- Make sure the telescope's power cord is securely inserted into both the telescope and the MOTOTRAK's outlet.
- Check the fuse as described on the preceding page.
- Plug the telescope directly into the same commercial power outlet and see if the telescope runs.

If the telescope works from the same commercial power outlet, then there may be a problem with the drive corrector.

TROUBLE-SHOOTING

If the MOTOTRAK fails to operate using the D.C. power cord...

- Make sure the power switch is up and one of the L.E.D.s on the hand unit is on.
- Make sure the D.C. power cord is securely inserted into the cigarette lighter jack of your car and into the charge jack on the MOTOTRAK.
- Make sure the telescope's power cord is securely inserted into both the telescope and the MOTOTRAK's outlet.
- Check the fuse as described on the preceding page. Also, check the fuse located in the cigarette lighter plug of the D.C. power cord. To remove the fuse, push and twist the front metal contact of the plug. The metal contact will come out and the fuse will be exposed. Check the fuse element. If it is broken, replace the fuse with another 2 amp fuse.

If the telescope works from a commercial power outlet, then there may be a problem with the drive corrector.

TECHNICAL SPECIFICATIONS

Input power:	12 volts D.C./negative ground
Output power:	120 volts A.C. 60 Hz / 10 VA
Internal battery:	12 volts D.C. 4 ampere hours Immobilized electrolyte
Frequency accuracy:	.005% at 25 degrees C
Frequency control:	quartz crystal
Cabinet size:	9½"L x 6½"W x 2¼"H
Weight:	6½ lbs.
Battery power:	Once the battery is fully charged, it will operate the average 8" telescope for 8 to 10 hours.

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