

## HANDLING PROCEDURES AND PRECAUTIONS

### PROTECTING AND CLEANING THE LENS:

Use a blower, compressed air, or a soft hairbrush to remove dust or other substances. Gently clean the lens with a light circular motion with an optics cleaning cloth, gauze or cleaning paper (available from your specialist dealer).

### ATTENTION:

Commercial lens cleaners can leave a film on the lens surface. Use only the smallest possible amounts.

### CLEANING THE SPOTTING SCOPE

Use a blower to remove dust and dirt and wipe with a clean, soft cloth. Do not use organic solvents, such substances can dis-colour the surface and possibly even deform it. Use a soft brush to gently remove dirt and debris from the focus wheel, the sun-visor, and others moving parts.

### STORING THE SPOTTING SCOPE

Storing a spotting scope without first cleaning it can lead to stains on the surface and the formation of mold. It is particularly important to clean after use in dusty, damp conditions, or after use in or out of the rain near to the coast.

After cleaning the spotting scope, dry it thoroughly indoors at room temperature.  
Remove the lens cap to store the spotting scope in a dry place.

When storing for long periods of time, place the spotting scope in an airtight container with desiccant.

### Warranty and repair

If there is a need to return your spotting scope to the manufacturer for repair or maintenance, please contact your Kowa dealer.



## WARNING



Never look directly at the sun or other strong light sources with your spotting scope. This can lead to serious eye damage or even loss of vision.

Keep small parts such as packaging materials, eyepiece covers, etc. away from small children. If these items are swallowed, serious injury, asphyxiation, or even death can result.

Do not attempt to disassemble, repair, or modify the spotting scope. In this case the guarantee is void and it may also lead to injuries.

Do not place the spotting scope in an unstable place. If it falls or tips, injury or damage could result.

Do not leave the spotting scope in the car or near a heat source. This can cause damage to the spotting scope or even cause a fire.

Regularly check the condition of the accessories such as the bag, shoulder strap or protective cover, as wear can occur after a prolonged time span.

Prolonged contact with rubber parts can cause inflammation or irritation of the skin. Should this occur please consult a doctor.

When using the spotting scope in an urban environment, please make sure that you do not disturb the privacy of others.

Kowa is not responsible for damage caused by improper handling and or natural disasters such as fire, earthquake, Floods etc.

Kowa is not responsible for damage caused by an unauthorized repair shop.



## SPOTTING SCOPES

# TSN-55 Series

### TSN-55A/55S



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Thank you for choosing the KOWA spotting scope series. Please carefully read these operating instructions before using the product to ensure proper use and proper maintenance.

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## NOMENCLATURE

### TSN-55A PROMINAR | ANGLED TYPE



1. Objective lens
2. Focus Knob
3. Tripod mount
4. Eyepiece cap thread holder
5. Twist zoom eyepiece
6. Eye-relief cap

### TSN-55S PROMINAR | STRAIGHT TYPE



1. Objective lens
2. Focus Knob
3. Tripod mount
4. Eyepiece cap thread holder
5. Twist zoom eyepiece
6. Eye-relief cap

## MAIN BODY SPECIFICATIONS

	TSN-55A	TSN-55S
Objective Lens Effective Diameter:	55mm	55mm
Objective Lens Material:	Fluorite crystal	Fluorite crystal
Magnification:	17x40x	17x40x
Minimum Focusing Distance:	2.8m	2.8m
Length:	255mm	275mm
Weight:	965g	960g
Filter thread:	58mm	58mm

- Observation with the hand-held spotting scope is difficult because of image blurring. Use a stable tripod for observation.
- Specifications and appearance of the product are subject to change without prior notice.

## FUNCTIONS & USE

### EYE-RELIEF

The eyepiece includes a 3 stage twist-up eye relief cap. Adjust the cap according to your viewing preference.



### PROTECTION CAP

The eyepiece protection cap includes a strap so that it connects to the scope body on either side. To remove, simply unthread the strap from the scope body.



### ZOOM OPERATION

The eyepiece features a 17-40x optical zoom function. Twist the eyepiece anticlockwise to increase the zoom and clockwise to decrease.



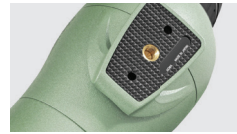
### SLIDING HOOD

Slide the hood away from the body to protect the lens from exposure to rain or to keep direct sunlight from entering the spotting scope.



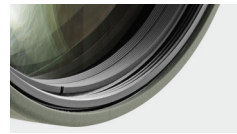
### TRIPOD SCREW

The tripod mount on the base of the scope allows the spotting scope to be attached to standard 1/4 inch tripod head plates for easy attachment to tripods and monopods.



### FILTER THREAD

The filter threads in front of the objective lens allow various types of filters to be attached to the spotting scope. The filter thread is 58mm.



### FOCUS KNOB

The focus knob of the spotting scope has a two-step mechanism; one for fine focusing and one for quick focusing. This system allows a smooth transition from quick focusing to fine adjustment.



**FOCUSING** When the object is substantially out of focus, use the quick focus knob, to bring the object into focus 3.5 times faster than when using the fine focus knob. The quick focus knob can focus from 2.8m to infinity in only two revolutions. The fine focus is convenient for fine focusing and slight adjustments.

\* Do not turn the focus knob beyond its turning range, as it will damage the focusing mechanism.



### ACCESSORY MOUNT

The eye-relief cap can be unscrewed to access a thread mount. This thread allows connection of optional accessories including the TSN-CV88 twist up eye-relief protection cap or the TSN-DA10 Digiscoping adapter. Accessories are sold separately.

