

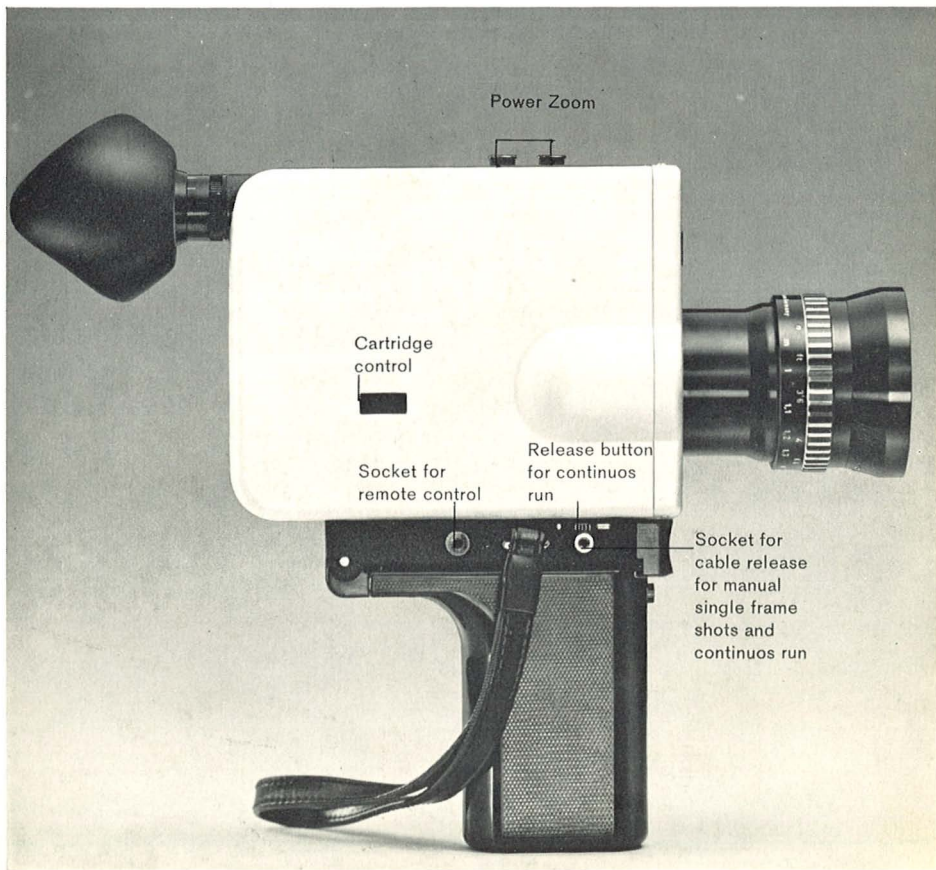
Nizo

S-48

How to use your
Nizo S 40

Contents

Instructions at a glance	5
Motor Drive battery	6
Testing the drive battery	7
Meter battery	7
Testing the meter battery	8
Inserting the film cartridge	9
Filter selector	10
Focusing	10
Fix Focus	11
Exposure control	12
Adjustable diaphragm	13
Power Zoom	13
Motor Speeds	14
Holding camera and release	14
Using a tripod	15
Electric remote release	16
Close-up lenses	17
Single frame shots	18
Titling	19



Power Zoom

Cartridge
control

Socket for
remote control

Release button
for continuous
run

Socket for
cable release
for manual
single frame
shots and
continuous run

Power Zoom

Window for
aperture scale

Test button
for meter battery

Footage counter

autom.
manual

m. 0 3 6 9 12 15
ft. 0 10 20 30 40 50

Manual Aperture
control

Diopter ring
for eye piece
adjustment

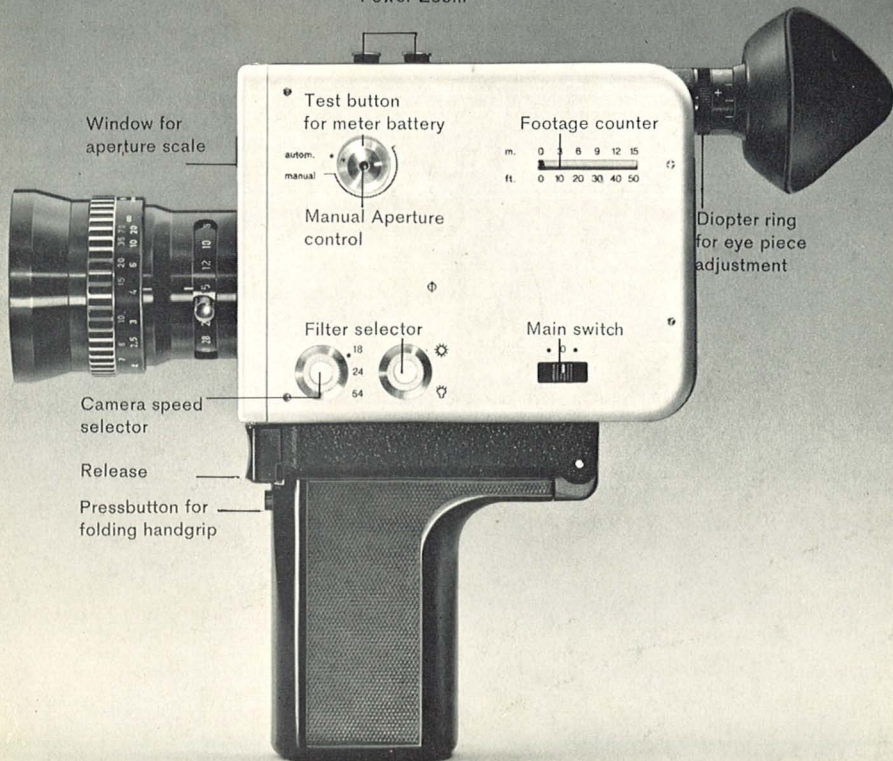
Filter selector

Main switch

Camera speed
selector

Release

Pressbutton for
folding handgrip



Instructions at a glance

For problem free automatic shooting, set all controls to the red marks:

1.
Snap pistol grip into position.
2.
Insert cartridge.
3.
Turn aperture control to «automatic» (red dot).
4.
Set speed to 18 f.p.s. (red dot).
5.
Outdoors: Move the red triangle on the filter selector to the sun symbol, indoors to the lamp symbol.
6.
Set main switch.
7.
Adjust viewfinder to suit your eyes.
(Use diopter ring on eye piece)
8.
Focus camera. No focusing necessary when set to 15 ft. and 15 mm focal length.

Both figures are marked in red. At f/4 this combination gives a depth of field from 5 ft. to infinity.

9.
Select focal length — and shoot.
10.
When finished, turn main switch to «0».

Motor-Drive battery

The film transport and the power zoom are driven by six 1.5 volt batteries located in the grip of the camera.

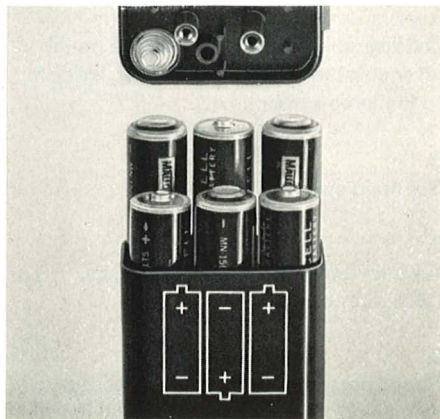
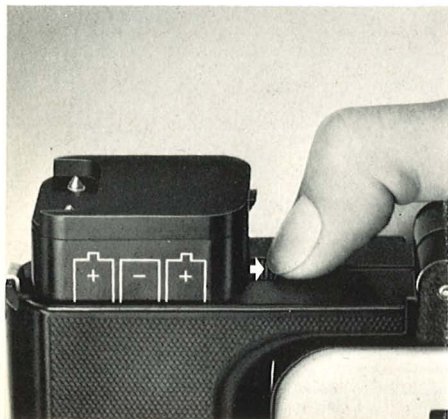
Press the button below the release and lower the pistol grip. Pull the latch in the upper part of the pistol grip and the battery box will slide forward. Tilt camera and the box will drop into your hand.

Loosen screws on the bottom of the box until the lid comes off. Insert six 1.5 volt batteries as marked. Replace the lid and tighten screws. Registration pins of different lengths insure the proper posi-

tion of the lid. Insert box into battery chamber and press lightly until the latch snaps over the edge of the box.

Return pistol grip.

Camera will not run unless batteries are properly inserted. Do not run camera unnecessarily at slow motion speeds, it will waste batteries.



Testing the motor-drive battery

To check the operating voltage, move the main switch to the black dot and hold it in that position.

The aperture pointer in the viewfinder should move to the red 8 and beyond. If it does not, exchange complete set of batteries.

In the 0-position, the main switch disconnects the drive and meter batteries and prevents any accidental start of the camera. When the pistol grip is folded back, only the drive batteries will be disconnected.

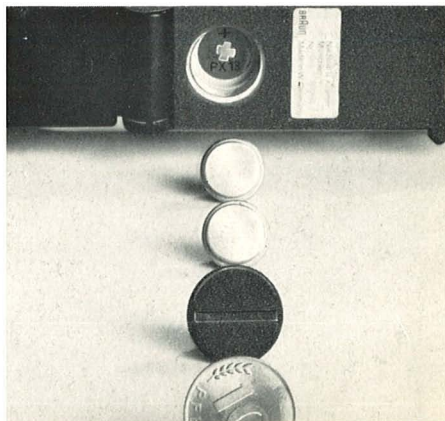
Meter battery

The automatic exposure control works on two Mallory PX 13 1.35 V batteries. It can be stored for two years.

With temperatures below 32° F, Mallory PX 625 batteries should be preferred. Storeable one year.

The battery chamber is in the bottom of the camera and readily accessible when the pistol grip is folded back. The cover can be unscrewed with a coin.

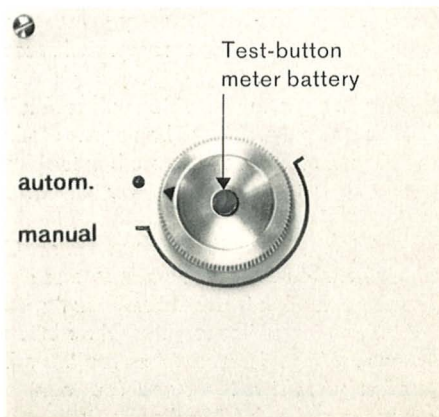
Insert first battery with + mark facing bottom of chamber as indicated. The



Testing the meter battery

second battery is placed on top of the first, + mark down to ensure correct working of battery and the automatic exposure control.

Turn main switch to red dot. Press the button in the center of the exposure control. The aperture pointer in the viewfinder window should turn to the red 8. If it does not, be sure to exchange the meter batteries.

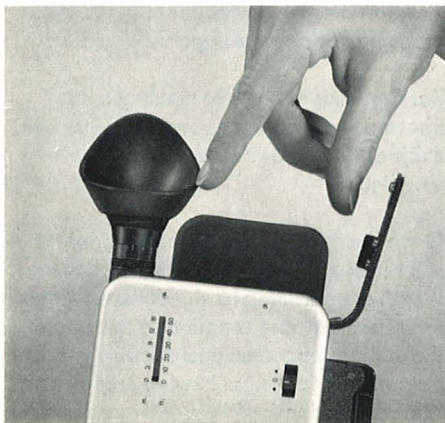


Inserting the film cartridge

Open the cover in the back of the camera and insert the cartridge with the film opening toward the lens. Make sure the label on the cartridge points to the right, otherwise the cover will not close. Do not use force!

Inserting the film cartridge automatically adjusts the electric eye to the film speed.

The footage counter always returns to zero when the camera is opened, and operates even without a cartridge in the camera.



The label on the film cartridge is visible through a window on the smooth side of the camera, showing that the camera is loaded and which type of film is being used.

When the film transport works correctly a red light will flash on and off above the viewfinder image.

At the end of the film the red light will show continuously, but do not open until you can read «Exposed» in the film slot of the cartridge.

Keep the film gate in the cartridge chamber clean by using a long handled brush occasionally to remove dust.

Filter Selector

Currently available Super 8 color films are of the indoor type A responding to the low color temperature of movie lights. Therefore, a conversion filter is built-in (colour red) to adjust the film for outdoor use. Turn the red triangle of the filter selector to the «sun» symbol when shooting outdoors, and to the «lamp» symbol when using movie lights indoors.

Focusing

When shooting above 12 feet and at standard and wide angle lens positions (below 25 mm), distances can be estimated and set accordingly on the focusing scale.

For more exact focusing, particularly in tele positions, for close-ups and under poor light, the reflex viewing system makes it easy to focus and to ensure maximum sharpness.

It is important to adjust the eye piece of your Nizo S 40 to match your eyesight. Set the focusing scale to infinity and point camera against a neutral background. Concentrate on the cross hair in the finder and turn diopter correction ring until the cross hair appears sharp.

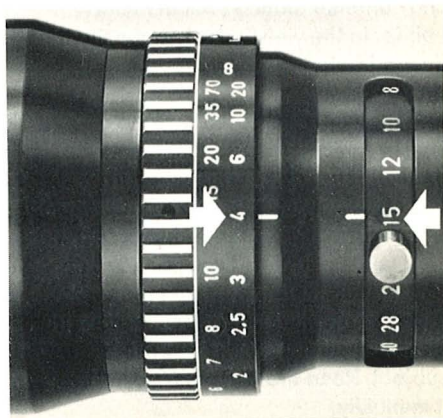
For focusing set lens to maximum telephoto range and turn focusing scale until subject and cross hair appear sharp in viewfinder.

Once the camera is focused the picture will remain sharp regardless of the focal length used as long as the distance does not alter. If during zooming to telephoto the subject becomes unsharp this is proof of incorrect focusing. In wide angle shots the greater depth of field will compensate

Fix Focus

most focusing errors. Therefore, always focus at maximum telephoto.

If there is no time for focusing you can take advantage of the greater depth of field at short or medium focal lengths. You will notice that the 15 ft. mark on the focusing ring and the 15 mm mark on the focal length ring are red. Using this combination will give you a depth of field from 5 ft. to infinity even under relatively poor light conditions at an aperture of $f/4$. The closer the focal length approaches the wide angle position the greater will be the depth of field.



Exposure Control

The exposure control of the Nizo S 40 automatically selects the right aperture. The f-stops are visible and may be checked in the viewfinder. However, the readings will only be accurate if the camera is loaded since the cartridge itself adjusts the system to the film speed.

When there is not enough or too much light the pointer in the viewfinder stops in the red segments on either end of the scale.

The automatic exposure control can be shut off and any f-stop set manually. Turn the knob from «automatic» to «manual» and continue turning until the aperture pointer in the viewfinder is opposite the desired f-stop number.

This manual control — or override — can be used to correct automatic readings, if the electric eye of the exposure meter is too strongly affected by a background which is much brighter or darker than the main subject. In this case point the camera, set on «automatic», towards the subject from a short distance or point it towards a similarly lighted, more accessible subject. Read the correct f-stop and set it manually.

Here is an example: In beach or snow scenes the automatic exposure control will be affected by the reflection of sand or snow, and a person in this kind of surrounding would be underexposed. Obviously the automatic reading needs correction through manual override.

Adjustable Diaphragm

For special effects, the automatic diaphragm can be set to manual to allow for fade-in and fade-outs.

For fade-ins read off the aperture in the viewfinder, e.g. 8. Then set aperture control to manual and start filming at f/22, slowly opening up until you reach f/8. Stop and revert to automatic operation.

For fade-outs start in the manual position at f/8, then slowly move aperture control to f/22 while the camera is operating. Don't forget to return to «automatic».

A tripod is recommended for optimum results.

Power Zoom

The controls for the power zoom are on top of the Nizo S 40 camera. The black button (closer to the lens) moves the lens towards the wide angle, the green button (nearer the viewfinder) towards the telephoto position.

Two zoom speeds are available: if you press the control button lightly the zoom speed will be slow, if you push it down firmly it will be fast.

The zoom effect can be further slowed down by the use of one of the two slow motion speeds.

Any focal length can be set manually, if you want to change quickly before starting the camera.

Motor Speeds

The Nizo S 40 has 3 speeds, 18, 24 and 54 frames per second (f.p.s.). Movies taken at 18 f.p.s. will show normal timing and movements.

24 f.p.s. should be used when panning or shooting from moving vehicles. When projected at the standard speed of 18 f.p.s. all motions will appear to be one-third slower.

54 f.p.s. produces true slow motion. When projecting at the standard speed of 18 f.p.s. everything will appear to be three times slower than normal. Fast action can therefore be closely observed during projection.

Even while filming it is possible to switch from 18 or 24 f.p.s. Press the thumb on to the speed switch and turn it clockwise.

At 18 f.p.s. each frame is exposed $\frac{1}{43}$ rd second, and at 54 f.p.s., $\frac{1}{129}$ th second. The electric eye automatically adjusts for these changes.

How to hold camera and how to start it

Nizo cameras may be used with the left or the right hand. Reach through leather strap and hold camera firmly by the pistol grip. Your index finger will easily reach the release trigger.

Hold viewfinder to your eye. The eye cup keeps it in the right viewing distance.

The free hand is used for focusing and zooming and to provide extra support during filming. If the film transport works correctly, a red light will flash regularly above the viewfinder image. The closer you get to the end of the film the longer



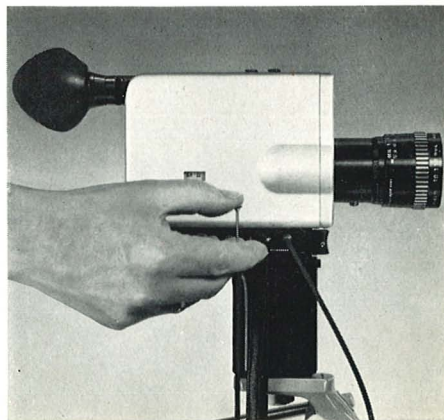
the signal rhythm. If these signals stop at all during shooting the film transport is out of order.

The camera may also be started by a cable release (right socket on camera base), or by electrical remote control (left socket). More details on these features in the respective sections of this manual.

Using a Tripod

For steadier pictures during projection it always pays to use a tripod. This is particularly true when panning or zooming. A tripod becomes indispensable for single frame exposures when using focal lengths above 30 mm.

The camera is attached to the tripod with the pistol grip in position, using the thread at the bottom of the grip. If you want to use a cable release while the camera is on the tripod — or at any other time — screw it into the first socket from the right on the camera base.

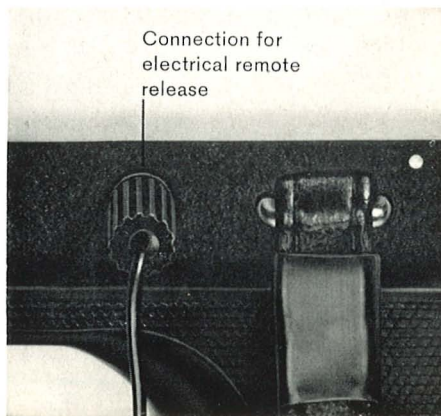
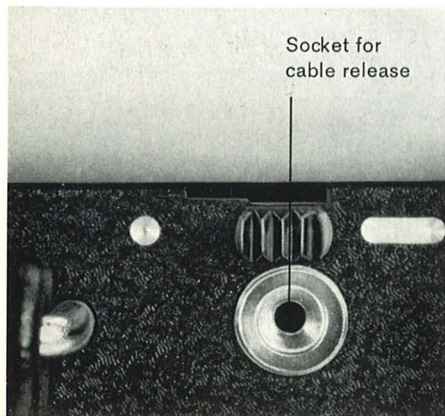


Electrical Remote control

The switch above the cable release socket must be set to (—) for continuous run. For single frame shots, the switch is set to (.).

The Nizo S 40 can also be operated by remote control through a built-in magnet. Cables of 30 ft. length with push button and 30 ft. extensions are available as accessories.

Remote control allows movies with the camera hidden for wildlife pictures etc. It can also be used when the cameraman himself wants to appear in the scene. Place your Nizo S 40 in position — preferably mounted on a tripod — focus and keep the exposure control at the «auto-matic» setting. Insert remote control cable into the middle socket.



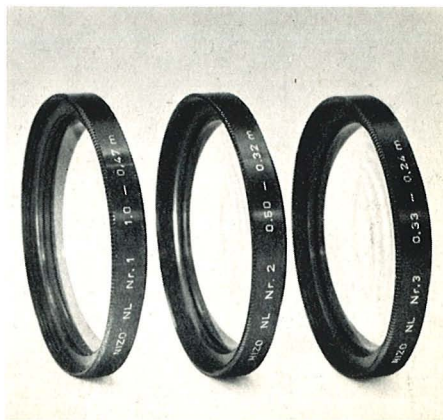
Be careful not to move the camera from its position, or upset the tripod while you are busy laying out the remote control cable. The connection for extension cables is next to the push button on top of the spool.



Close-up Lenses

You have a choice of 3 lenses for extrem close-ups. When using the longer focal lengths, e. g. 40 mm very small areas are filmed and reproduced nearly life-size. This opens up the fascinating world of Macro cinematography. There is no need to go into further optical details here. Much depends on the choice of the focal length in each case and other factors which can only be shown in tables.

Each Nizo close-up lens is furnished with such tables giving exact information on field of view, taking distances, depth of field, etc.



Single Frames

Using Nizo close-up lenses usually requires no f/stop corrections, but exact focusing, and a tripod is recommended.

Close-up lenses for the Nizo S 40

Nizo NL1 = 3" - 17"

Nizo NL2 = 19" - 12"

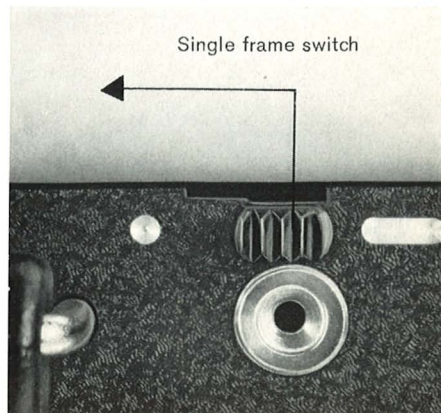
Nizo NL3 = 12" - 9"

The single frame device of the S 40 can be used for

1. Time lapse filming
2. Animation (Trick films)

This is an example of time lapse photography: The movement of slow moving clouds can be made visible through a sequence of pictures taken seconds apart.

An example of a trick film: Dolls wave their arms and legs when they moved slightly between shots.



Titling

The camera is triggered with a cable release screwed into the release socket and the switch set to (·) when making trick films.

The cable release should be inserted into the camera base. Instead of the cable release, electric remote control can be used for single exposures or the camera trigger. In each case it is important that the camera stands absolutely still to avoid spoilt sequences.

The Nizo S 40 with its many special features, makes Titlers superfluous. The main function of Titlers is to eliminate parallax. The Nizo S 40 is a reflex camera and therefore has no parallax. What is more important, it has a zoom lens with many focal lengths. Therefore, the distance between the camera and the copy board need not be changed, yet the titles can be reproduced in any size.

Place the camera on a tripod, or on a table or any other steady support. Zoom in on the copy until it fills the frame. Be sure that the copy board is well and evenly illuminated and that the title sequence is long enough so that there is time enough for the viewer to read the titles on the screen.

For exact focusing a ruler can be used. Measure the subject distance from the mark (ϕ = film plane) above the filter dial.

