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BRONICA ETRSi

TELE-CONVERTER PE 2X & 1.4X

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取扱説明書
INSTRUCTIONS
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The new Bronica Tele-Converters PE have been specifically designed and developed as integral accessories for the Zenza Bronica ETR, ETRS and ETRSi Series 4.5 × 6cm format single lens reflex cameras. Extending the focal length 2 times (with the PE 2X) and 1.4 times (with the PE 1.4X), when used between the camera main body and the Zenzanon PE and E Series lenses, Tele-Converters PE convey all automatic camera functions.

Bronica Tele-Converters PE maintain the high quality performance of Zenzanon PE Series lenses, which have been widely acclaimed by professional photographers throughout the world. They now make it possible to double your Zenzanon PE lens value.

To get the best results from your Tele-Converters PE, please read this instruction manual carefully before using the accessory. This will help increase your enjoyment when using it and avoid unnecessary difficulties.

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Specifications www.ianbfoto.com

Tele-Converter PE 2X

Magnification	: 2X
Lens construction	: 7 elements in 6 groups (multi-coated)
Lens diaphragm action	: Coupled to fully automatic lens diaphragm action
Metering system	: Coupled to TTL full aperture exposure measuring system
Exposure factor	: 4X (2 F/stops)
Overall length	: 52.9mm
Maximum diameter	: 83.2mm
Weight	: 460 grams

Tele-Converter PE 1.4X

Magnification	: 1.4X
Lens construction	: 5 elements in 5 groups (multi-coated)
Lens diaphragm action	: Coupled to fully automatic lens diaphragm action
Metering system	: Coupled to TTL full aperture exposure measuring system
Exposure factor	: 2X (1 F/stop)
Overall length	: 28.0mm
Maximum diameter	: 83.2mm
Weight	: 300 grams

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Performance in Combination with Prime Lens

Tele-Converter PE 2X

Focal length	: 2 times that of prime lens
Aperture coupling range	: F2.8 to F64 (with effective F/values of F5.6 to F128)
Photographic magnification	: 2 times that of prime lens
Depth of field	: 1/2 times that of prime lens
Minimum focusing distance	: Same as prime lens

Tele-Converter PE 1.4X

Focal length	: 1.4 times that of prime lens
Aperture coupling range	: F2.8 to F64 (with effective F/values of F4 to F90)
Photographic magnification	: 1.4 times that of prime lens
Depth of field	: 1/1.4 times that of prime lens
Minimum focusing distance	: Same as prime lens

Recommended Prime Lenses:

Zenanon PE 75, 100, 150, 200, 250 and 500mm lenses.
Zenanon E/EII 75, 100, 105, 150, 200, 250 and 500mm lenses.
(The use of Zenanon, PE 40 and 50mm, Zenanon E 40 and 50mm, and PE Variogon Zoom lenses are not recommended although mechanically possible.)

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各部の名称 Nomenclature

前面

(レンズ側)

Front Surface
(Lens side)



写真は2Xを使用していますが、1.4Xも同じです。
The above is the Tele-Converter PE 2X.
The PE 1.4X is identical.

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後面

(ボディ側)

Rear Surface
(Body side)



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各部の名称 Nomenclature

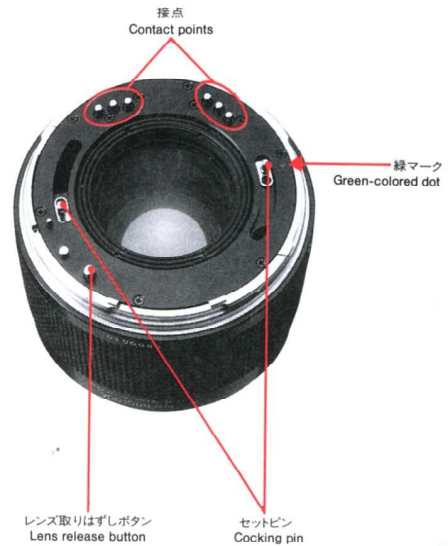
前面
(レンズ側)
Front Surface
(Lens side)



写真は2Xを使用していますが、1.4Xも同じです。
The above is the Tele-Converter PE 2X.
The PE 1.4X is identical.

8

後面
(ボディ側)
Rear Surface
(Body side)



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1 取り付け方法 Attachment



着脱方法は2Xも1.4Xも同じです。写真は2Xを示しています。
(Attachment/detachment of Tele-Converter PE 2X and 1.4X are same, although all photographs only show the PE 2X.)

A. テレコンバーターPEとレンズ後面のセットピンが緑マークの位置にあるかを確認します。セットピンが各指定の位置にないときは、緑マークまで指で回します。
※ 各セットピンが緑マークの位置にないときは、取りつきませんので、ご注意ください。

A. First, check whether the cocking pins on the rear surfaces of the Tele-Converter and prime lens are all aligned to the green dots. If not, move the cocking pins manually to the green dots.
* Attachment will not be possible if the cocking pins are not aligned properly to the green dots.



B. 次に、レンズの赤マークと、テレコンバーターPEの赤マークを合せて差し込み、反時計方向に止まるまで(約34°)回しますと、「カチッ」と音がしてロックされます。この時レンズ取りはずしボタンが定位置まで、飛び出します。これが取付完了の目安です。

B. Next, line up the red dots on the prime lens and accessory, insert the lens fully into the accessory and rotate counter-clockwise until it stops (about 34°) and a click is heard, which will indicate that the lens has been securely locked. The lens release button will also jump out, at this time, which will be another indication that the connection has been made.

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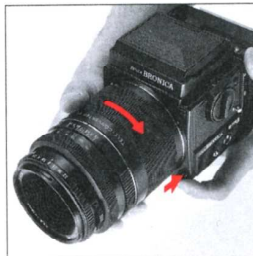
C. レンズを装着したテレコンバーターPEをボディに取り付けるのは、レンズの着脱と同様で、まず巻上げクランクを回し、シャッターを巻き上げた状態にしておきます。つぎに、ボディ側の赤マークとテレコンバーターPE側の赤マークを合わせてさし込み、そのまま左に止まるまで回しますと「カチッ」と音がしてロックされます。

C. The Tele-Converter, with lens attached to it, is attached to the body in the same manner that the lens is attached. First, rotate the film winding crank and cock the lens shutter.

Next, align the red dot on the Tele-Converter to the red dot on the body and insert the Tele-Converter. Rotate fully counter-clockwise until there is an audible click and the Tele-Converter is securely attached.

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2 取りはずし方法 Detachment



A. 巻上げクランクを回し、シャッターを巻き上げた状態にしておきます。

B. レンズ取りはずしボタンを押したまま、レンズを時計方向に止まるまで回すと、レンズがはずれます。

A. Since the cocking pins are not coincided to the green dots, when the Tele-Converter PE is detached from the camera body, they must be moved manually and coincided in order to detach the lens from the accessory.

B. Next, while pressing the lens release button, rotate the lens clockwise until it makes a full stop and can be detached.

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※着脱は ETRSi・ETR・ETRS の使用説明書レンズの着脱の項と同じです。

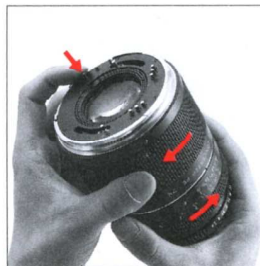
* Attachment/detachment is same as explained in the "Exchanging Lenses" section of the main camera body's instruction manual.



C. カメラより取りはずしたとき、テレコンバーターPEのセットピンは、リリース方向に少し回るため取りつけたときと同様、セットピンを緑マークの位置まで指で回します。

C. Since the cocking pins of the Tele-Converter will move slightly in the release direction, upon detachment from the camera body, move the cocking pin to the green dot manually once more.

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D. テレコンバーターPEのレンズ取りはずしボタンを、押したままレンズを右に止まるまで回しますと、レンズとテレコンバーターPEがはずれます。

D. Next, while pressing the lens release button of the Tele-Converter in the arrow-indicated direction and, at the same time, rotate the lens in the clockwise direction until it stops. It will then be possible to separate the Tele-Converter and the lens.

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※ セットピンが緑マークの位置にないときは、テレコンバーターPEのレンズ取りはずしボタンは押せず、レンズは、はずれませんので、ご注意ください。

* It should be noted that if will not be possible to slide the lens release button of the Tele-Converter if the cocking pin is not aligned to the green dot and, therefore, it will not be possible to detach the lens, in this case.

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3 焦点調節 Focusing



テレコンバーターPEをつけた場合の焦点調節は、マスターレンズの焦点調節リングで行ないます。F値が2絞り分暗くなるため、フォーカシングスクリーンのスプリットイメージや、マイクロプリズムは、ピン트가合せにくい場合があります。その際は、周辺のマット面でピンْتَを確認してください。距離目盛は、そのまま使用できます。

Focus with the focusing ring of the prime lens, when connected to the Tele-Converter. Since the effective F/value is two stops less than the marked F/number, or rather dark, use the matte screen area, as it may be rather difficult to focus with the split-image range finder/micropism ring of the standard screen. The distance scale can be used without adjustment, in this case.

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4 Exposure Compensation for Tele-Converter PE 2X

A. The actual F/value is two stops slower than the F/number marked on the lens, when the Tele-Converter PE 2X is used and, therefore, the exposure must be increased by an exposure factor of 4X. However, when an accessory finder with a built-in metering system is used, such exposure compensations are taken care of automatically and no changes in operation are necessary.

* Ambient light through the eyepiece will influence exposure measurements greatly when shooting in low-light situations. Therefore, place the eye flush against the eyepiece or cut off extraneous light with your hand. B. When finders without built-in meters are used, adjust the exposure setting for an exposure factor of 4X.

* Open up two stops, when adjusting the aperture, or use a setting which is two speeds slower when adjusting the shutter speed.

C. When an auto-flash electronic unit is used, open up the lens opening two stops more than indicated for exposure compensation.

D. When the electronic flash is used on "manual", the correct exposure will be two stops faster than that found by calculation from the guide number. Or, the guide number can be used at one-half its true value.

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5 Exposure Compensation for Tele-Converter PE 1.4X

A. The actual F/value is one stop slower than the F/number marked on the lens, when the Tele-Converter PE 1.4X is used. Therefore, the exposure must be increased by an exposure factor of 2X. However, when an accessory finder with a built-in metering system is used, such exposure compensations are taken care of automatically and no changes in operation are necessary.

* Ambient light through the eyepiece will influence exposure measurements greatly when shooting in low-light situations. Therefore, place the eye flush against the eyepiece or cut off extraneous light with your hand. B. When finders without built-in meters are used, adjust the exposure setting for an exposure factor of 2X.

* Open up one stop, when adjusting the aperture, or use a setting which is one speed slower when adjusting the shutter speed.

C. When an auto-flash electronic unit is used, open up the lens opening one stop more than indicated for exposure compensation.

D. When the electronic flash is used on "manual", the correct exposure will be one stop faster than that found by calculation from the guide number. Or, the guide number can be used at 1/1.4 (approximately 0.70) its true value.

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6 Pointers on Using Tele-Converter PE 2X

A. Using the accessory with the Zenzanon PE 500mm gives the photographer a 1000mm focal length lens. In the same manner, the 150mm and 200mm become the 300mm and 400mm respectively.

B. Although the focal length of the prime lens is doubled, there is no change in the minimum focusing distance. In other words, there is an increase in close-focusing capability.

C. Because of the 4X exposure factor, conditions will be equal to that of using ASA/ISO 100 film when ASA/ISO 400 film is used.

D. Because of the two stop light loss when the Tele-Converter is used, focusing may be difficult with the split-image and micro-prism focusing areas. The use of optional Matte Screen Ei or Grid-line Ei focusing screen is recom-

mended as their matte focusing areas allow for easier focusing.

E. The Tele-Converter can be used with Zenzanon PE lenses from 75mm to 500mm. But, if some minor optical degrading is acceptable, the Zenzanon PE 40mm to 50mm, Zenzanon E 40 and 50mm and Zenzanon PE/E Variogon Zoom lenses can also be used mechanically, although not recommended.

F. The Tele-Converter PE has been designed so that there is no quality loss of the prime lens (75mm — 500mm). Because almost all lenses are designed to perform better stopped down slightly, you may experience noticeably better performance if the prime lens is stopped down about 2 stops from the maximum effective lens opening.

G. When the Tele-Converter is

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7 Pointers on Using Tele-Converter PE 1.4X

A. Using the Tele-Converter with the Zenzanon PE 500mm gives the photographer a 700mm focal length lens. In the same manner, the 150mm and 200mm become the 210mm and 280mm respectively.

B. Although the focal length of the prime lens is extended 1.4 times, there is no change in the minimum focusing distance. In other words, there is an increase in the close-focusing capability.

C. Because of the 2X exposure factor, conditions will be equal to that of using ASA/ISO 100mm when ASA/ISO 200 film is used.

D. Because of the one stop light loss, when the Tele-Converter is used, focusing may be difficult with the split-image and micro-prism focusing areas. The use of optional Matte Screen Ei or Grid-line Ei focusing screen is recom-

mended because of their matte focusing areas allow for easier focusing.

E. The Tele-Converter can be used with Zenzanon PE lenses from 75mm to 500mm. But, if some minor optical degrading is acceptable, the Zenzanon PE 40mm to 50mm, Zenzanon E 40 and 50mm and Zenzanon PE/E Variogon Zoom lenses can also be used mechanically, although not recommended.

F. The Tele-Converter PE has been designed so that there is no quality loss of the prime lens (75mm — 500mm). Because almost all lenses are designed to perform better stopped down slightly, you may experience noticeably better performance if the prime lens is stopped down about 2 stops from the maximum effective lens opening.

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used with the Zenzanon PE 500mm lens, there is some minor optical degrading at the very edges of the frame area. Therefore, always compose the image so that the final photograph does not include the corner areas of the negative.

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G. When the Tele-Converter is used with the Zenzanon PE 500mm lens, there is some minor optical degrading at the very edges of the frame area. Therefore, always compose the image so that the final photograph does not include the corner areas of the negative.

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8 保全と注意 Care of Tele-Converter PE

A. 前面と後面の各接点が汚れますと、接触不良をおこしてシャッター作動、シンクロ、露出計内蔵ファインダーとの運動に支障をきたしますから、常にきれいにしておいてください。

B. 保管および持ち運びのときは、各ピンの保護と、ホコリが入らないように必ずキャップをしておいてください。

C. テレコンバーターPEとオート接写リングE(E-14、E-28、E-42)またはテレコンバーターPE 2個をつぎたして使用することはできません。

A. The electrical contacts on the front and rear surfaces of the Tele-Converters PE must be kept clean at all times. Dirty contacts can cause electrical failure and malfunctioning of the lens shutter, flash synchronization, and meter coupling with finders having a built-in metering system.

B. Always cover the front and rear surfaces of the Tele-Converter, when storing or carrying it, to protect the contacts and/or to prevent dust entry.

C. PE Tele-Converters and Automatic Extension Tube E (E-14, E-28 and E-42) should not be used connected. Furthermore, PE Tele-Converters must not be used with each other.