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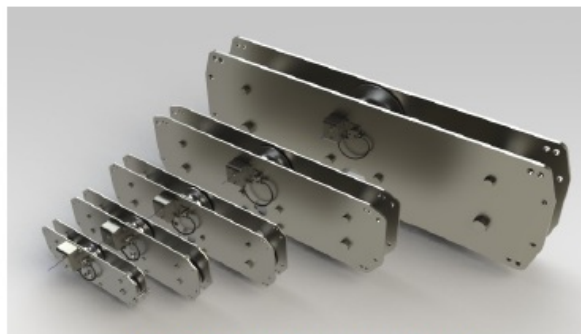
Trimble GD0375-V2 Wireless Line Riding Tensiometer



Wireless Line Riding Tensiometer and Rope Payout Sensor

Features

- All stainless frame and hardware treated 4140 steel sheaves and fully sealed bearings.
- Wire rope dimensions from 3/8" (9.5mm) to 4" (102mm) diameter
- Single line capacity up to 450,000 lb (250 000 kg)
- Load reading precision: +/-2% of rope capacity
- Rope payout resolution: 1" (25.4 mm)
- Optimized for crane or marine vessel applications; load and rope payout are transmitted up to four times per second.
- Swing arm or permanent feet installation options
- Radio range with line of sight: 4000 ft. (1300 m)
- Operates with one 'D' cell battery lithium 3.6V or alkaline 1.5V.
- 1 to 2 years battery life for typical applications
- ISM license free radio: wavelength and modulation optimized for radio communication in industrial environments.
- Temperature range: -40°C to 85°C (-40°F to 185°F)
- Temperature compensated
- Potted electronics for increased water protection



Line Riding Tensiometer Family

Applications

Measurement of wire rope tension (load) and/or rope payout with payout speed in all environments, including off shore.

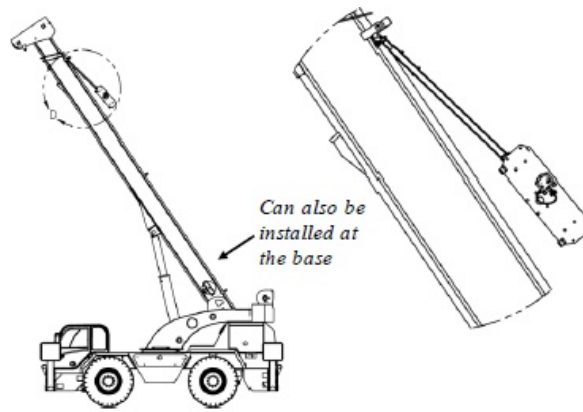


Figure: Installation example on the main boom of a crane for the measurement of load and rope payout

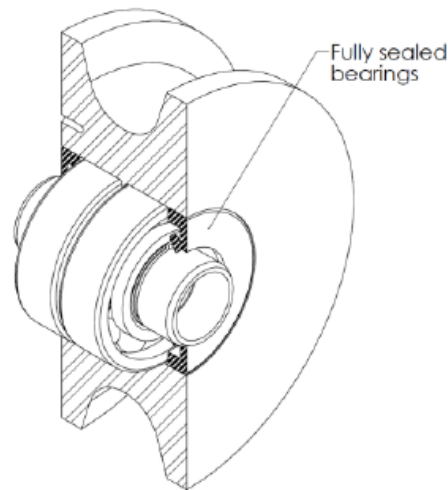


Figure: Integral sheave's bearings sealing for ultimate corrosion protection

General Description

The Line Riding Tensiometer operates by displacing a cable thru 3 sheaves and reading the bending force. In order to have a reliable load reading, the cable must contact all 3 sheaves in all operation positions. The payout sensor reads magnet encoders on the center sheave to compute a payout and speed value. Transmitter box mounted to the line riding tensiometer houses the battery, radio transmitter, load converter, and payout sensor.

Ordering Information

Model	Description
GDXXXX-V2	Line Riding Tensiometer frame with appropriate sheaves for the wire rope. The four 'X' digits are the wire rope diameter in inches. For example, GD2500 – V2 is for a 2.5" diameter cable, GS1417 is for a 36mm cable.
GS007-01	Load only RF transmitter (902-928MHz)
GS007-CE-01GS007-0XM-CSA-V2	Load only RF transmitter (868-870 MHz)Load only RF transmitter (915MHz) frequency band with Class 1, Div 1 Certification
GS007-02	Load and Rope Payout/Speed RF Transmitter (902 -928MHz)
GS007-CE-02	Load and Rope Payout/Speed RF Transmitter (868 -870 MHz)
GD01X-V2	Appropriate swing arm for the frame size (see table page 6)
GD02X-V2	Appropriate feet kit for the frame size (see table page 6)

Specifications

Parameter	Test Condition	Min	Typ	Max	Unit
Rope Tension Measurement					
Resolution	+/-	0.05	0.2	0.5	% of SW L
Accuracy	+/-	1	2	6	% of SW L
Rope Movement Measurement					
Payout Resolution (see page 6 for more precise values)	+/-	0.5(1 2.7)	0.6(15)	1(25 .4)	in.(mm)
Radio Power					

	GDM-1125-FC C-V2		0.00 54		W
			7		dBm
Radio Frequency					
North American version	GS007	903	916	927	MHz
European version	GS007-CE	868	868	870	MHz
Battery life					
	'D' cell battery l ifedepends on usage	12	24	28	Month

Absolute Maximum Ratings

Parameter	Test Condition	Min	Typ	Max	Unit
Temperature range	Operating	-40-40		+85 +185	°C°F

Certifications

- FCC/IC/CE certification : FCC Part 15 Subpart C 15.247,15.205, 15.207 & 15.209
- ETSI EN 300 220 (AA)
- EMI/C – EN 61000-4-3, EN 301 489-1 – Clause 8.2
- CSA Certificate Number – 80130757
- CSA C22.2 No. 60079-0:19, 60079-11:14 (R2018), 61010-1-12, Update 1&2, Amd1:2018
- UL 60079-0-2020, UL 60079-11-2018, UL 61010-1-2018
- Class I, Division 1, Group A, B, C & D T4
- Ex ia IIC T4 Ga
- Class I, Zone 0, AEx ia IIC T4 Ga

- Ambient Temperature: -20°C to 40°C.

WARNING: Only use Tadiran TL-5930 3.6V or Saft LS33600 cell 3.6V text.

Specifications by Model and Options

Line Rider model	Max load (lb)	Max Load (kg)	Payout resolution* (in)	Payout resolution* (m)	Cable diameter (in)	Weight lb [kg]	Load Only R F Transmitter	Load and Rope Payout RFT Transmitter	Swing Arm option	Feet Kit Option
GD0375-V2	4743	2156	0.57	14.46	3/8				GD012-V2	GD030-V2
GD0500-V2	8343	3792	0.53	13.47	1/2	29				
GD0563-V2	10571	4805	0.51	12.97	9/16	[13]				
GD0625-V2	12971	5896	0.49	12.47	5/8					
GD0750-V2	18514	8416	0.75	18.95	3/4					
GD0875-V2	25029	11377	0.71	17.95	7/8					

GD09 45-V 2	325 14	147 79	0.68	17.21	24m m	6 2[2 8]	GS007- 01	GS007 -02	GD01 3-V2	GD0 30-V2
GD10 00-V 2	325 14	147 79	0.67	16.96	1					
GD11 25-V 2	408 57	185 71	0.63	15.96	1 1/ 8					
GD12 50-V 2	502 29	228 31	0.52	13.30	1 ¼					
GD13 75-V 2	605 71	275 32	0.50	12.63	1 3/ 8	10 0				
GD14 17-V 2	714 29	324 68	0.48	12.30	36m m	[45 .5]				
GD15 00-V 2	714 29	324 68	0.47	11.97	1 ½					
GD16 25-V 2	834 29	379 22	0.45	11.30	1 5/ 8					
GD17 50-V 2	965 71	438 96	0.68	17.29	1 ¾					

GD18 90-V 2	124 000	563 64	0.63	16.13	48m m	25 0				GD02 2-V2	GD0 31-V2
GD20 00-V 2	124 000	563 64	0.62	15.79	2	[11 3.5]					
GD22 50-V 2	155 429	706 49	0.56	14.30	2 ¼						
GD25 00-V 2	214 857	976 62	1.05	26.60	2 ½						
GD30 00-V 2	307 429	139 740	0.92	23.27	3	10 10[45 9]				GD02 3-V2	GD0 32-V2
GD40 00-V 2	528 571	240 260	0.72	18.29	4						

Do not use Payout data as a precise measurement.

Materials:

The frame, load sensing pin, and hardware are made of stainless steel (AISI 304 and 17-4PH1025), this includes the optional swing arm and brackets. The sheaves are in nitride 4140 steel and the bearings are integrally sealed from the environment.

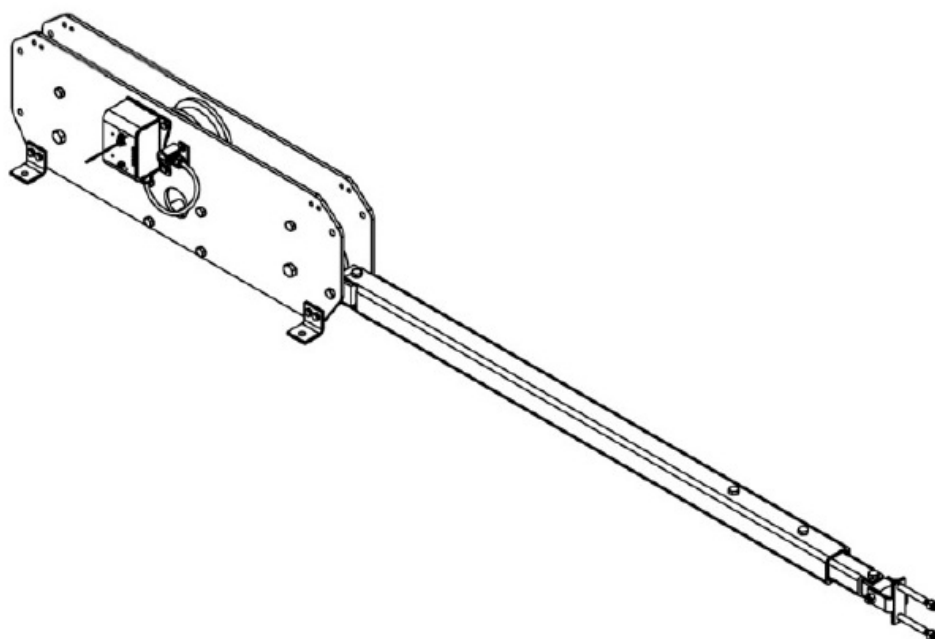
Replacement parts

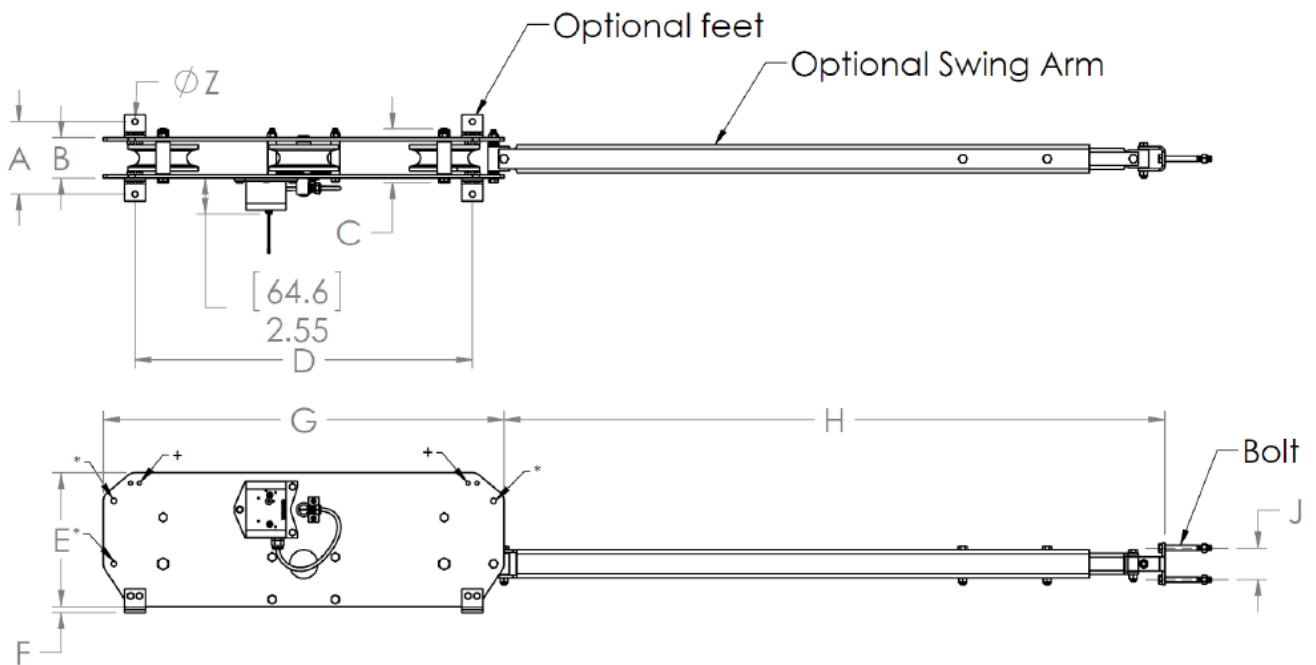
Line Rider model	Cable Roller	Bearing	Seal
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GD0375-V2/GD0500-V2/GD0563-V2/GD0625-V2	PF504	5205**	CR 25x52x7 H MS5 RG
GD0750-V2/GD0875-V2/GD0945-V2/GD1000- V2/GD1125-V2	PF604	6205	CR 25x52x7 H MS5 RG
GD1250-V2/GD1375-V2/GD1417-V2/GD1500- V2/GD1625-V2	PF704	6207	CR 35x72x12 HMS5 RG
GD1750-V2/GD1890-V2/GD2000-V2/GD2250-V2	PF804	6210	CR 50x90x10 HMS5 RG
GD2500-V2/GD3000-V2/GD4000-V2	PF904	33113	CR 70x110x10 HMS5 RG

- All bolting can be replaced with UNC nuts and bolts. Material is AISI 304 stainless steel or better.
- Bearing number 4205 on models sold before 2012.

Dimensions





Line Riding Tensiometer (not to scale)

Units are in inches [millimeters] Alternative mounting holes for the swing arm +
Secondary feet mounting holes

Line Rider model	DIMENSIONS (inches)										
	A	B	C	D	E	F	G	Adjustable in 6" [152mm] increments	J	Z	Bolt
GD0375-V2	4.53	2.25	3.32	18.00	7.38	0.44	21.5	47.00-77.00	2.25	0.41	3/8-16
GD0500-V2	4.53	2.25	3.32	18.00	7.38	0.44	21.5	47.00-77.00	2.25	0.41	3/8-16
GD0563-V2	4.53	2.25	3.32	18.00	7.38	0.44	21.5	47.00-77.00	2.25	0.41	3/8-16
GD0625-V2	4.53	2.25	3.32	18.00	7.38	0.44	21.5	47.00-77.00	2.25	0.41	3/8-16

GD0750-V2	5.1 5	2.8 8	3.8 2	24. 00	9.5 0	0.4 4	28. 50	48.00-78. 00	2.2 5	0.4 1	3/8- 16
GD0875-V2	5.1 5	2.8 8	3.8 2	24. 00	9.5 0	0.4 4	28. 50	48.00-78. 00	2.2 5	0.4 1	3/8- 16
GD0945-V2	5.1 5	2.8 8	3.8 2	24. 00	9.5 0	0.4 4	28. 50	48.00-78. 00	2.2 5	0.4 1	3/8- 16
GD1000-V2	5.1 5	2.8 8	3.8 2	24. 00	9.5 0	0.4 4	28. 50	48.00-78. 00	2.2 5	0.4 1	3/8- 16
GD1125-V2	5.1 5	2.8 8	3.8 2	24. 00	9.5 0	0.4 4	28. 50	48.00-78. 00	2.2 5	0.4 1	3/8- 16
GD1250-V2	5.8 8	3.5 0	5.0 2	32. 00	10. 75	0.8 0	36. 00	46.75-76. 75	2.2 5	0.5 3	3/8- 16
GD1375-V2	5.8 8	3.5 0	5.0 2	32. 00	10. 75	0.8 0	36. 00	46.75-76. 75	2.2 5	0.5 3	3/8- 16
GD1417-V2	5.8 8	3.5 0	5.0 2	32. 00	10. 75	0.8 0	36. 00	46.75-76. 75	2.2 5	0.5 3	3/8- 16
GD1500-V2	5.8 8	3.5 0	5.0 2	32. 00	10. 75	0.8 0	36. 00	46.75-76. 75	2.2 5	0.5 3	3/8- 16
GD1625-V2	5.8 8	3.5 0	5.0 2	32. 00	10. 75	0.8 0	36. 00	46.75-76. 75	2.2 5	0.5 3	3/8- 16
GD1750-V2	6.9 1	4.5 4	6.7 0	42. 00	14. 50	0.2 5	48. 50	64.06-88. 06	3.2 5	0.5 3	1/2- 13
GD1890-V2	6.9 1	4.5 4	6.7 0	42. 00	14. 50	0.2 5	48. 50	64.06-88. 06	3.2 5	0.5 3	1/2- 13
GD2000-V2	6.9 1	4.5 4	6.7 0	42. 00	14. 50	0.2 5	48. 50	64.06-88. 06	3.2 5	0.5 3	1/2- 13

GD2250-V2	6.9 1	4.5 4	6.7 0	42. 00	14. 50	0.2 5	48. 50	64.06-88. 06	3.2 5	0.5 3	1/2- 13
GD2500-V2	11. 90	7.5 0	10. 04	60. 50	21. 00	0.5 0	68. 00	63.81-87. 81	3.2 5	1.0 0	1/2- 13
GD3000-V2	11. 90	7.5 0	10. 04	60. 50	21. 00	0.5 0	68. 00	63.81-87. 81	3.2 5	1.0 0	1/2- 13
GD4000-V2	11. 90	7.5 0	10. 04	60. 50	21. 00	0.5 0	68. 00	63.81-87. 81	3.2 5	1.0 0	1/2- 13

Line Rider model	DIMENSIONS (mm)										
	A	B	C	D	E	F	G	Hadjusta ble in 6" [152mm]i ncrement s	J	Z	Bo lt
GD0375-V2	115 .1	57. 2	84. 3	457. 2	187 .5	11. 2	546. 1	1194-19 56	57. 2	10. 4	3/8- 16
GD0500-V2	115 .1	57. 2	84. 3	457. 2	187 .5	11. 2	546. 1	1194-19 56	57. 2	10. 4	3/8- 16
GD0563-V2	115 .1	57. 2	84. 3	457. 2	187 .5	11. 2	546. 1	1194-19 56	57. 2	10. 4	3/8- 16
GD0625-V2	115 .1	57. 2	84. 3	457. 2	187 .5	11. 2	546. 1	1194-19 56	57. 2	10. 4	3/8- 16
GD0750-V2	130 .8	73. 2	97. 0	609. 6	241 .3	11. 2	723. 9	1219-19 81	57. 2	10. 4	3/8- 16

GD0875-V2	130 .8	73. 2	97. 0	609. 6	241 .3	11. 2	723. 9	1219-19 81	57. 2	10. 4	3/8- 16
GD0945-V2	130 .8	73. 2	97. 0	609. 6	241 .3	11. 2	723. 9	1219-19 81	57. 2	10. 4	3/8- 16
GD1000-V2	130 .8	73. 2	97. 0	609. 6	241 .3	11. 2	723. 9	1219-19 81	57. 2	10. 4	3/8- 16
GD1125-V2	130 .8	73. 2	97. 0	609. 6	241 .3	11. 2	723. 9	1219-19 81	57. 2	10. 4	3/8- 16
GD1250-V2	149 .4	88. 9	127 .5	812. 8	273 .1	20. 3	914. 4	1187-19 49	57. 2	13. 5	3/8- 16
GD1375-V2	149 .4	88. 9	127 .5	812. 8	273 .1	20. 3	914. 4	1187-19 49	57. 2	13. 5	3/8- 16
GD1417-V2	149 .4	88. 9	127 .5	812. 8	273 .1	20. 3	914. 4	1187-19 49	57. 2	13. 5	3/8- 16
GD1500-V2	149 .4	88. 9	127 .5	812. 8	273 .1	20. 3	914. 4	1187-19 49	57. 2	13. 5	3/8- 16
GD1625-V2	149 .4	88. 9	127 .5	812. 8	273 .1	20. 3	914. 4	1187-19 49	57. 2	13. 5	3/8- 16
GD1750-V2	175 .5	115 .3	170 .2	106 6.8	368 .3	6.4	123 1.9	1627-22 37	82. 6	13. 5	1/2- 13
GD1890-V2	175 .5	115 .3	170 .2	106 6.8	368 .3	6.4	123 1.9	1627-22 37	82. 6	13. 5	1/2- 13
GD2000-V2	175 .5	115 .3	170 .2	106 6.8	368 .3	6.4	123 1.9	1627-22 37	82. 6	13. 5	1/2- 13

GD2250-V2	175 .5	115 .3	170 .2	106 6.8	368 .3	6.4	123 1.9	1627-22 37	82. 6	13. 5	1/2- 13
GD2500-V2	302 .3	190 .5	255 .0	153 6.7	533 .4	12. 7	172 7.2	1621-23 30	82. 6	25. 4	1/2- 13
GD3000-V2	302 .3	190 .5	255 .0	153 6.7	533 .4	12. 7	172 7.2	1621-23 30	82. 6	25. 4	1/2- 13
GD4000-V2	302 .3	190 .5	255 .0	153 6.7	533 .4	12. 7	172 7.2	1621-23 30	82. 6	25. 4	1/2- 13

- **PMN:** GDM-1125-FCC-V2
- **HVIN:** MB103-00-SD-A

FCC Compliance Statement (USA)

FCC ID: S9E-GS200G

Compliance Statements: This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including, an interference that may cause undesired operation.

Caution Statements:

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Industry Canada (IC) Compliance Statement

IC: 5817A-GS000G

Compliance Statements: This device complies with Industry Canada license-exempt RSS standard(s).

Caution Statements:

- This equipment complies with radio frequency exposure limits set forth by Industry Canada for an uncontrolled environment.
- This equipment should be installed and operated with a minimum distance of 20 cm between the device and the user or bystanders.

Information to the User

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Frequently Asked Questions

- **Q: What wire rope dimensions are suitable for this product?**

A: Wire rope dimensions ranging from 3/8" to 4" in diameter are suitable for this Line Riding Tensiometer.

- **Q: What is the battery life of the transmitter box?**

A: The battery life of the transmitter box ranges from 12 to 28 months depending on usage.

Documents / Resources

	Trimble GD0375-V2 Wireless Line Riding Tensiometer [pdf] Owner's Manual GS200G, S9E-GS200G, S9EGS200G, GD0375-V2 Wireless Line Riding Tensiometer, GD0375-V2, Wireless Line Riding Tensiometer, Line Riding Tensiometer, Riding Tensiometer, Tensiometer
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References

- [User Manual](#)

Trimble

GD0375-V2, GD0375-V2 Wireless Line Riding Tensiometer, GS200G, Line Riding Tensiometer, Riding Tensiometer, S9E-GS200G, S9EGS200G, Tensiometer, Trimble, Wireless Line Riding Tensiometer

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