

# ***RCBS***<sup>®</sup>

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## **THE GRAND CONVERSION UNIT PROGRESSIVE RELOADING PRESS**



P R O D U C T   I N S T R U C T I O N S

## IMPORTANT

Before using the RCBS Shot Shell Press, read these instructions carefully to fully learn how to safely operate the related reloading equipment. Failure to properly operate certain reloading equipment can result in severe personal injury and/or equipment damage.

**If you have any questions while assembling or operating this tool,  
call us at 1-800-533-5000 or 1-530-533-5191  
Monday - Friday 6:30 a.m. to 4:30 p.m. Pacific Time**

*The instruction manual contains specific safety and operating information. it should be considered a permanent part of your reloading equipment and remain with the equipment at all times for easy reference.*

## SAFETY

Reloading is an enjoyable and rewarding hobby that can be conducted safely. But, as with any hobby, carelessness or negligence can make reloading hazardous. This product has been designed from the beginning with the user's safety in mind. When reloading, safety rules must be followed. By observing these rules, the chance of a hazardous occurrence causing personal injury or property damage is minimized.

## GENERAL

- Use all equipment as the manufacturer recommends. Study the instructions carefully and become thoroughly familiar with the operation of the product. If you do not have written instructions, request a copy from the equipment manufacturer.
- Don't take short cuts. attempting to bypass established procedures is an invitation to an accident.
- Observe "good housekeeping" in the reloading area. Keep tools and components neat, clean and orderly. Promptly and completely clean up primer and powder spills.
- Reload only when you can give your undivided attention. Do not reload when fatigued or ill, or under the influence of medications or alcohol.
- Develop a reloading routine to avoid mistakes which may prove hazardous. Don't rush - load at a leisurely pace.
- Always wear adequate eye protection to protect your eyes from flying particles. You assume unnecessary risk when reloading without wearing safety glasses.

## LOADING DATA

- Use only laboratory tested reloading data. We highly recommend the current SPEER Reloading Manual. Always follow the load data exactly as it is published in any shotshell reloading manual.
- Never substitute components
- OBSERVE ALL WARNINGS ABOUT THE USE OF MAXIMUM LISTED LOADS

## PRIMERS AND POWDER

- Store primers and powder beyond the reach of children and away from heat, dampness, open flames and electrical equipment. Avoid areas where static electricity is evident.
- Do not use primers of unknown identity.
- Dispose of unknown primers in accordance with applicable regulations.
- Keep primers in the original factory container until ready to use. Return unused primers to the same factory packaging for safety and to preserve their identity. primer packaging is designed to provide safe storage.
- DO NOT store primers in bulk. The blast of just a few hundred primers is sufficient to cause serious injury to anyone nearby.
- DO NOT force primers. Use care in handling primers.
- DO NOT have more than one can of powder on the bench at one time. Powder cans should be stored away from the bench to avoid picking up the wrong one.
- DO NOT use any powder unless its identity is positively known. The only positive identification is the manufacturer's label on the original canister. Discard all mixed powder measure and those of uncertain identity.
- Always replace the lids on both the powder hopper and powder and shot hoppers after they have been filled.
- When you finish a reloading session, pour any remaining powder back into its original factory container. This will preserve the identity and shelf life of the powder.
- DO NOT smoke while reloading.

## RECORD KEEPING

- Keep complete records of reloads. Apply a descriptive label to each box showing the date produced, and the primer, powder, wad and shot used.  
Never attempt to guess at the identity of your ammunition.

*Because RCBS has no control over the choice of components, the manner in which they are assembled, the use of this product, or the guns in which the resulting ammunition may be used, we assume no responsibility, expressed or implied, for the use of ammunition reloaded with this product.*

# UNPACKING THE GRAND CONVERSION UNIT

## Bag 1, Parts List

- A. Hex Wrench 5/16
- B. Hex Wrench 7/32
- C. Hex Wrench 3/32

## Bag 2, Parts List – 12 Gauge

- D. Powder Bushing
- E. Shot Bushing 1 1/8 oz #7-1/4
- F. Wad Guide
- G. Crimp Starter, 6 pt., 12 Gauge

## Bag 2, Parts List – 20 Gauge

- H. Powder Bushing
- I. Shot Bushing 7/8 oz #7 ?
- J. Wad Guide
- K. Crimp Starter, 6 pt., 20 Gauge



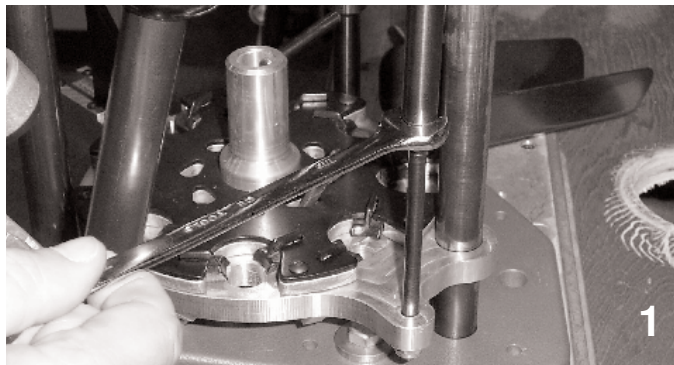
# GRAND CONVERSION

## 12 AND 20 GAUGE

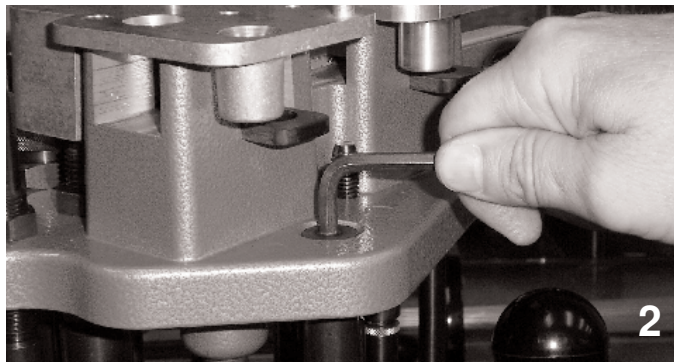
*Congratulations on your purchase of the RCBS Grand conversion unit!*

### CONVERSION INSTRUCTIONS:

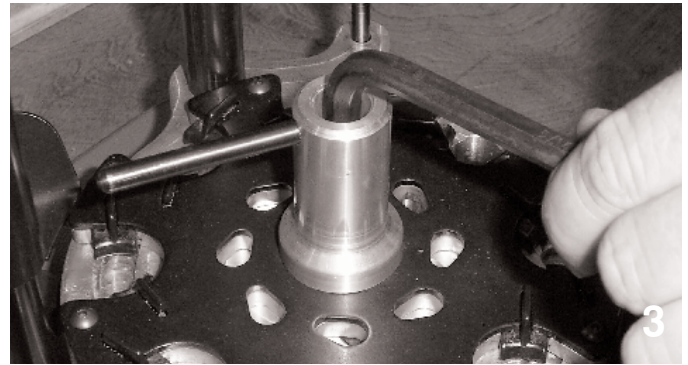
1. Please refer to your THE GRAND product instruction manual.
2. Empty POWDER and SHOT hoppers. Section titled DRAIN SHOT AND POWDER HOPPERS.
3. Empty remaining powder and shot in the charge bar. Section titled SHOT AND POWDER CHARGE BUSHING CHANGE, emptying charge bar for bushing change.
4. Remove SHOT and POWDER hoppers by removing the 10-24 Nyloc nut with a 3/8 wrench (not provided). Be careful not to lose index ball and spring found under each hopper base.
5. Remove charge bar by first pulling out the locking pin in the upper right corner of the CHARGE BAR. Slide charge bar to the right being careful not to allow the SHOT or POWDER bushings to fall from the charge bar. Section titled POWDER AND SHOT SYSTEM.
6. Install primer shut off pin and remove primer tray.
7. Remove index arm from base of press frame.
8. Disconnect lower push rod from upper push rod by loosening 1/4-28 nut with 7/16 wrench (not provided) and unscrewing lower push rod from upper push rod (note: lower push rod remains attached to base plate). (See photo 1)



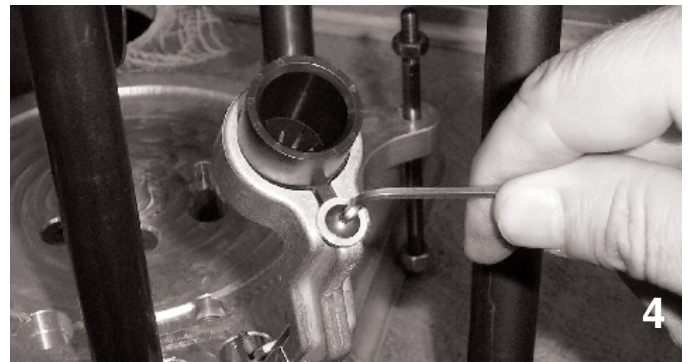
9. Remove the three column support screws on the top of the tool head using the 7/32 hex wrench provided. (See photo 2)



10. Lift off tool head and set aside.
11. Remove case eject assembly with 5/16 hex wrench provided. (See photo 3)

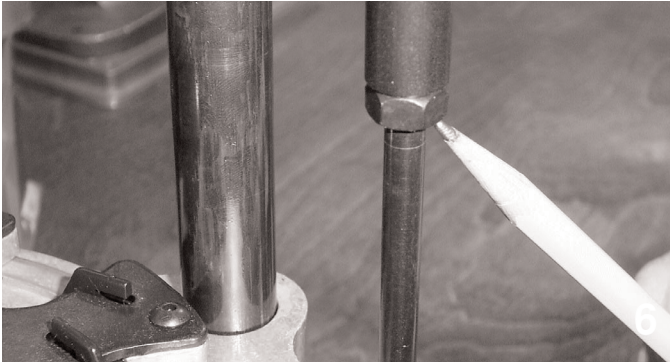


12. Remove case holder plate assembly.
13. Replace wad guide by removing 8/32 cap screw and washer, replace with appropriate wad guide, reinstall washer and cap screw (note: three springs are below the wad guide index tab in the upper wad guide assembly). (See photos 4 & 5)



14. Clean shell plate holder of any debris, lube center shaft and install new case holder plate assembly.
15. Install appropriate case eject assembly. Temporarily tighten until tool head is replaced (CAUTION! Raising the shell holder plate at this time, with the case eject assembly not aligned, may result in damage to the dies in the upper tool head).

16. Insure that the three column supports are secured tightly.
17. Install proper toolhead and reinstall the three column screws.
18. Position and tighten case eject assembly in accordance with section titled COMPONENT ADJUSTMENT SECTION, case eject adjustment.
19. Reattach lower push rod to upper push rod. (Note: The lower push rod will “bottom” out into the upper push rod. The 1/4-28 nut should be at the bottom of the threads on lower push rod during re-assembly.) (See photo 6)



20. Reinstall charge bar with appropriate shot and powder bushing.
21. Reconnect charge bar to linkage with locking pin.
22. Reinstall hoppers. Section titled INSTALL POWDER AND SHOT HOPPERS.
23. Fill POWDER and SHOT hoppers.
24. You're ready to load (note: If using two piece 12 gauge Winchester AA red or gray hulls, install the longer lower shot tube at station #7, this insures proper wad seating pressure and prevents 'crushing' of the hull during the crimp process).

# THE GRAND PARTS LIST • JUNE 2002

#	Description	Part No.	Qty.	#	Description	Part No.	Qty.
1	SS Frame	789000	1	55	1/4-28 Hex Nut	189604	2
2	SS Top Plate	789001	1	56	SS 10/32 X 1/4 Socket Head Set Screw	109099	1
3	SS Support Rod	789023	2	57	SS Spring	189055	1
4	SS Support Rod Turned	789031	1	58	SS Primer Seater Casting	189026	1
5	3/8-16 X 1 Flat Head Cap Screw	188750	3	59	6-32 X 5/8 Socket Head Cap Screw	198964	4
6	Link Pin Left	788258	1	60	1/4-28 X 1/2 Hex Head Bolt	189067	1
7	Link Pin Right	788257	1	61	SS Primer Transfer Bar	189018	1
8	SS Ram	789020	1	62	SS Spring	189054	1
9	Detent Ball	187152	3	63	1/8 X 1 Roll Pin	189079	1
10	Detent Spring	187153	3	64	6-32 X 1/4 Button Head Cap Screw	189066	6
11	1/4-28 X 3/8 Socket Head Set Screw	187219	1	65	SS Primer Sleeve	189025	1
12	SS Lock Out Pin	789022	1	66	SS Primer Plug	789034	1
13	Link	188719	2	67	SS Case Holder Plate 12 GA.	789004	1
14	SS Toggle Block	789002	1	67	SS Case Holder Plate 20 GA.	789110	1
15	7/16-20 Nyloc Nut	188108	2	68	SS Case Holder Top Plate Cap	789005	1
16	Toggle Block Pin	788256	1	69	SS Case Holder 12 GA.	189015	16
48	SS Shot Funnel	789012	1	69	SS Case Holder 20 GA.	789109	16
17	SS Ram Pin	789021	1	70	SS Spring	189052	16
18	Handle	786862	1	71	8-32 X 5/16 Button Head Cap Screw	186147	9
19	Handle Ball	109121	1	72	SS Eject Rod Holder 12 GA.	789054	1
20	5/8-18 Hex Nut	109136	1	72	SS Eject Rod Holder 20 GA.	789119	1
21	SS Charge Bar	789018	1	73	SS Eject Rod	789055	1
22	SS Powder Bushing	SEE CHART		74	3/8-16 X 1-1/2 Socket Head Cap Screw	189074	1
23	SS Shot Bushing	SEE CHART		75	SS Shell Plate Holder	789003	1
24	SS Shut Off Plate Powder	789062	1	32	SS Self Locking Pin	189036	1
25	SS Shut Off Plate Shot	789010	1	76	SS Discharge Chute	789017	1
26	Rubber Washer	189039	1	77	1/4-28 X 1/4 Button Head Cap Screw	189073	2
27	10-24 X 1/2 Flat Head Cap Screw	189077	4	78	SS Green Wad Box	189033	1
28	10-24 X 1-1/4 Socket Head Set Screw	189062	2	<b>Wad Carrier Assembly 12 GA. 789078, 20 GA. 789132</b>			
29	10-24 Nyloc Nut	189063	2	79	SS Wad Carrier Bottom	789008	1
30	SS Shut Off	189019	2	80	SS Wad Carrier Top	789007	1
31	SS Spring	189061	2	81	5-40 X 3/4 Socket Head Cap Screw	189068	1
32	SS Self Locking Pin	189036	1	82	5-40 Hex Nut	189069	1
33	8-32 X 1/4 Button Head Cap Screw	188041	10	83	10-24 Hex Nut	189086	1
34	SS Index Shaft Bracket	789006	1	84	10-24 X 1-1/4 Socket Head Set Screw	189062	1
35	8-32 X 3/4 Button Head Cap Screw	187221	1	85	SS Spring	189054	1
36	8-32 Nyloc Nut	189078	1	86	SS Wad Guide 12 GA.	189016	1
37	SS Charge Bar Index Shaft	789047	1	86	SS Wad Guide 20 GA.	189017	1
38	SS Charge Bar Push Rod Upper	789045	1	87	SS Spring	189057	3
39	1/4-28 Hex Nut	109604	1	88	8-32 Flat Washer	189080	1
40	SS Charge Bar Push Rod Lower	789046	1	71	8-32 X 5/16 Button Head Cap Screw	186147	1
41	1/4-20 Nyloc Nut	189072	1	<b>Primer Dispenser Assembly 789073</b>			
42	3/16 X 1 Clevis Pin	189038	1	89	SS Primer Drop Tube Assembly	789096	1
43	SS Index Arm	789009	1	90	SS 5/8-18 Lock Ring	789059	1
44	SS Powder Funnel	789011	1	91	SS Transfer Bar Actuator	789033	1
45	SS Powder Hopper	189031	1	92	1/4-28 X 1/4 Socket Head Screw	189076	1
46	SS Powder Hopper Cap	189029	1	93	SS Primer Dispenser Collet	189024	1
47	SS Powder Baffle	189037	1	<b>Primer Tray Assembly 789087</b>			
48	SS Shot Funnel	789012	1	94	SS Primer Tray Bottom	189027	1
49	SS Shot Hopper	189030	1	95	SS Primer Tray Frame	789014	1
50	SS Shot Hopper Cap	189028	1	96	10-31 X 1/4 Socket Head Cap Screw	187687	2
51	SS Spent Primer Bottle Cap	789016	1	97	SS Primer Tray Base	789015	1
52	SS Decap Tube	789030	1				
53	SS Spent Primer Bottle	189032	1				
54	1/4-28 X 1 Flat Head Cap Screw	189075	3				

#	Description	Part No.	Qty.
98	10-32 X 5/8 Socket Head Cap Screw	186624	2
99	SS Primer Feed Bar	189034	1
100	SS Spring	189061	1
101	SS Primer Shut Off Pin	789039	1
102	SS Primer Tray Lid	189035	1

**Size Die Assembly 12 GA. 789071, 20 GA. 789128**

103	SS Size Die Bushing	789025	1
104	SS Spring	189053	1
105	SS Hull Extractor 12 GA.	789029	1
105	SS Hull Extractor 20 GA.	789112	1
106	SS Decap Rod Assembly	789072	1
107	SS Size Die Body	789024	1
108	SS 1-3/8-12 Lock Ring	789058	1
109	SS Size Ring 12 GA.	789026	1
109	SS Size Ring 20 GA.	789111	1
55	1/4-28 Hex Nut	189604	1

**Primer Body Assembly 12 GA. 789074, 20 GA. 789129**

110	1/2-13 Hex Nut	189081	2
111	Snap Ring	180052	1
112	SS Primer Body Bushing	789038	1
113	SS Primer Body	789037	1
114	SS Primer Stem Washer	789063	1
115	SS Spring	189056	1
116	SS Primer Stem Assembly 12 GA.	789075	1
116	SS Primer Stem Assembly 20 GA.	789130	1

**Powder Tube Assembly 789076**

117	SS Upper Drop Tube	789101	1
118	SS Drop Tube Lock Ring, Brass	789056	1
119	SS Powder Tube Lower	789042	1

**Shot Drop Tube Assembly 12 GA. 789077, 20 GA. 789131**

117	SS Upper Drop Tube	789101	1
118	SS Drop Tube Lock Ring, Brass	789056	1
122	SS Shot Tube Lower 12 GA.	789044	1
122	SS Shot Tube Lower 20 GA.	789115	1

**Wad Starter**

120	3/8-16 Hex Nut	189082	1
121	SS Wad Starter 12 GA.	789043	1
121	SS Wad Starter 20 GA.	789114	1

**Crimp Starter Assembly 12 GA. 789091, 20 GA. 789133**

120	3/8-16 Hex Nut	189082	1
123	SS Crimp Start Rod	789048	1
124	SS Crimp Starter 12 GA. 8 POINT	189021	1
124	SS Crimp Starter 20 GA. 8 POINT	189023	1
125	SS Crimp Starter 12 GA. 6 POINT	189020	1
125	SS Crimp Starter 20 GA. 6 POINT	189022	1
126	8-32 X 1/2 Socket Head Cap Screw	187227	1
88	8-32 Flat Washer	189080	1

**Crimp Closer Assembly 12 GA. 789082, 20 GA. 789134**

120	3/8-16 Hex Nut	189082	2
127	SS Crimp Closer Washer	789051	1
128	SS Spring	189059	1

#	Description	Part No.	Qty.
129	SS Crimp Closer Sleeve 12 GA.	789049	1
130	SS Crimp Closer Plunger 12 GA.	789050	1
130	SS Crimp Closer Plunger 20 GA.	789117	1

**Final Crimp Assembly 12 GA. 789083, 20 GA. 789135**

120	3/8-16 Hex Nut	189082	2
131	SS Final Crimp Rod	789052	1
132	SS Final Crimp Sleeve 12 GA.	789053	1
132	SS Final Crimp Sleeve 20 GA.	789118	1
133	SS Wad Box Bracket	789013	1
134	#8 X 1/2 Wood Screw	189064	2

**Not Pictured**

	SS Drain Tube	789019	1
122	SS Lower Shot Tube - Long	789100	1

Parts Diagram Here



**POWDER CHARGE WEIGHT IN GRAINS**

GRAINS	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Accurate Arms Nitro 100				420	432	444	456	468																						
DuPont 700-X		402	414	429	441	453	465		486	498																				
DuPont PB	366		390	402	390	426	435	447	456	465	474	486																		
DuPont SR 7625				381	414	402	414	426	438	444	453	462	474	486																
DuPont-800-X		372	390	402		423	429	438	447	459	468	480																		
DuPont SR4756		366				408		426	435	447	459	471	480																	
DuPont MR4227									366			390		408	414	420	426	435	441	447	453	462	468	474	480	486		498		
American Select				423	432	447	456	468																						
Alliant Red Dot		423	438	453	468	480		498																						
Alliant Green Dot	390		420	435	447	456	468	480																						
Alliant Unique	354		381			414	423	435	444	453	465	474																		
Alliant Herco		381			414	426	438	450	462	471			498																	
Alliant Blue Dot					366	372	381	390	396	408	414	423	435	441	447	459	468	474												
Hodgdon Clays			429	441	456	468																								
Hodgdon International		390	402	414	423	435	447	459	471																					
Hodgdon Universal		354	366		390	402		420	429	438	447	456	468	480																
Hodgdon HS-6														381	390	396	402	408		423	429									
Hodgdon HS-7									354							402	408	414	420	429	435	441	447	453	459	465	471			
Scot 1000				447	456	468	480																							
Solo 1250					420	432	444	456	468	480		498																		
Winchester 540												366		381			402	408	414	423	429	435	441	444	450	459	465	471		
Winchester 571															390	396				423	429	438	444	450	456	462	468	474	480	486
Winchester Super Target						429	438	450	459	471	480																			
Winchester Super Lite					354		372	381	390	402																				
Winchester Super Field														420	426	432	441	450	456	462										

**HOW TO SELECT BUSHINGS FOR HALF GRAIN CHARGES:**

Powder bushings are identified by numbers that correspond to the size of their inside diameter. (For instance, the inside diameter of the #456 bushing is .456 inches.) Bushings for powder charges in half-grain increments can be calculated from this chart. Simply "split the difference" between the two even-grain bushings, and select the bushing nearest the result.

**Example:** To find the bushing for 18 1/2 grains of Hercules Red Dot powder, note that bushing #468 gives a charge of 18 grains and that bushing #480 gives 19 grains. Split the difference between 468 and 480, and the result is 474. Thus, the correct bushing for 18 1/2 grains of Red Dot is bushing #474.



All charges listed on this chart are an average of several loads, weighed following the complete reloading cycle. Powders used in establishing these loads were from ballistic samples supplied by the manufacturer or sealed tins of recent manufacture. **Charges may vary slightly due to operator's technique and/or powder variables.**

THE GRAND, Powder Bushings							
Part Number	Bushing#	Part Number	Bushing#	Part Number	Bushing#	Part Number	Bushing#
89111	354	89119	408	89127	438	89135	462
89112	360	89120	414	89128	441	89136	465
89113	366	89121	420	89129	444	89137	468
89114	372	89122	423	89130	447	89138	471
89115	381	89123	426	89131	450	89139	474
89116	390	89124	429	89132	453	89140	480
89117	396	89125	432	89133	456	89141	486
89118	402	89126	435	89134	459	89142	498

THE GRAND, Lead Shot Bushings For Field Loads #6's	
Compensates for tighter packing of smaller shot size.	
Part Number	Bushing Description
89170	7/8 oz.
89171	1 oz.
89172	1-1/8 oz.
89173	1-1/4 oz.
89174	1-3/8 oz.
89175	1-1/2 oz.

**INTERCHANGEABLE CHARGE BUSHINGS**  
 For use with THE GRAND shotgun reloader. Designed so shot and powder bushings cannot be accidentally reversed in the charge bar. The bushings make it easy to change from one load to another.

THE GRAND, Lead Shot Bushings For Target Loads	
Calibrated to measure maximum legal loads for trap and skeet shooting.	
Part Number	Bushing Description
89188	7/8 oz. #9
89189	1 oz. #7-1/2
89190	1 oz. #8
89191	1-1/8 oz. #7-1/2
89192	1-1/8 oz. #8
89193	1-1/8 oz. #8-1/2
89194	1-1/8 oz. #9

# **RCBS**

**PRECISIONEERED® RELOADING EQUIPMENT**

*We think that we make the very best  
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#### **Customer Service**

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