



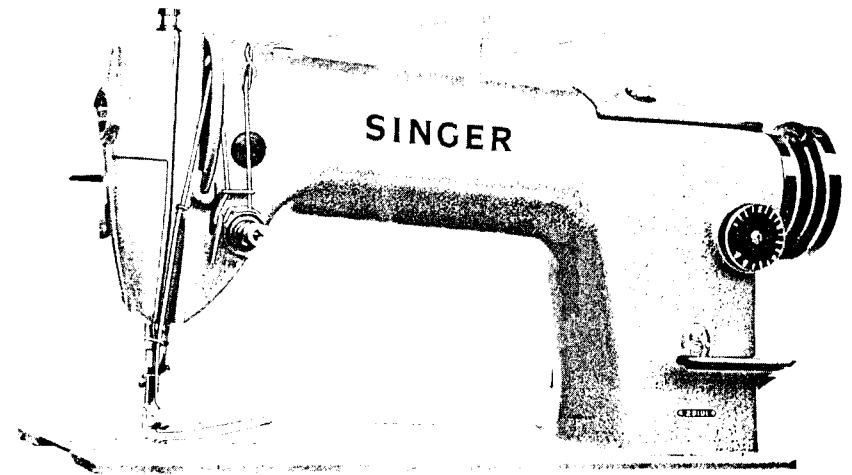
Operator's guidebook

**SINGER**\*

Machine

291U

\* A Trademark of THE SINGER COMPANY



### **Introducing the New Class 291U Sewing Machine!**

The most dependable, lightest running machine of its kind. This machine will produce top quality straight-line single-needle lock stitching in fabrics as fine as ladies' lingerie or as heavy as men's overcoating.

Primarily used in stitching shirts, the 291U has the ease of handling that you like—at speeds you want—starting fast—and reaching speeds up to 5000 revolutions per minute.

With one oil reservoir, a pump and a minimum of wicking . . . all parts requiring oil are kept constantly lubricated. Oil flow can be checked easily through a "window" on arm top cover.

Quiet and smooth in operation, the 291U was designed for your comfort—making sewing pleasanter, quicker and more profitable to you.

## Before you do anything else

Oil your machine! For best results, use SINGER "TYPE A" or "TYPE C" Oil. "TYPE C" Oil is used when an oil is desired which will produce a minimum of stain on fabrics even after a long period of storage.

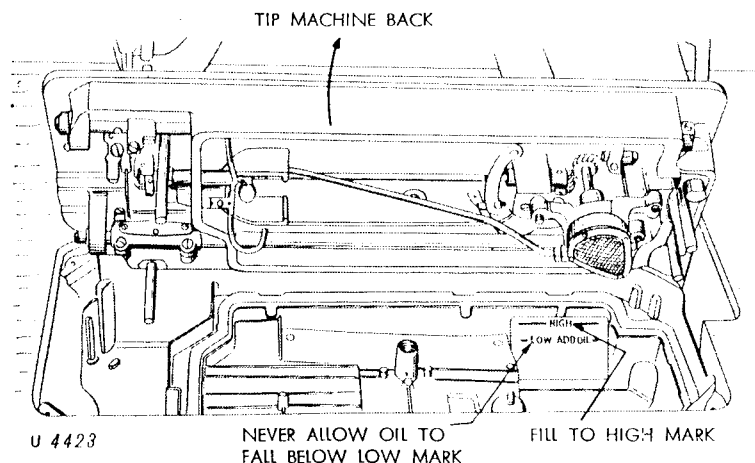


Fig. 2 Oil Reservoir

Tip the machine back on its hinges and fill the oil reservoir as instructed in Fig. 2.

When a machine has been idle for several weeks, it is advisable to remove the face plate and oil the needle bar and take-up bearings.

**CAUTION:** Correct lubrication is indicated by a continuous stream of oil passing the oil flow window while machine is running, as shown in Fig. 3.

Should this oil flow become erratic, STOP the machine and do not run the machine again until the oil flow has been restored.

At least twice each month, check the oil level in the reservoir. Never allow oil level to drop below LOW mark, shown in Fig. 2.

Oil your bobbin winder occasionally. Apply a few drops of oil to the oil well in bobbin winder as shown in Fig. 11 page 7.

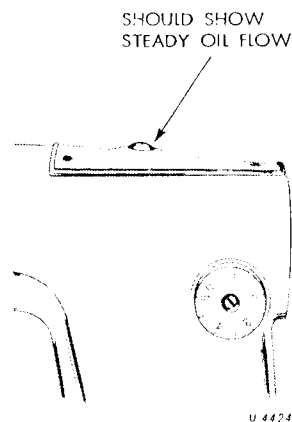


Fig. 3 Oil Flow Window

## What to know about needles—

The needles you use have a very direct effect on the quality, strength and appearance of the stitching produced by your machine. From the standpoint of efficient machine performance, the proper needle is just as necessary as many of the parts inside your machine. That is why it is so important—for best sewing results and for trouble-free operation—to use SINGER needles according to the following chart.

Machine	Catalog No.	Class and Variety	Needles
			Sizes
291U1	1631	88×9	8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, and 22
291U1	1315	88×1	16, 18, 19, 21, 22 and 23
291U3	2254	16×231	8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23 and 24
291U3	2270	16×257	

Whether you use size 8 or any size up to 24, the correct size will permit the thread to pass freely through the eye of the needle and avoid strain and breaking.

A bent needle will cause your machine to skip stitches, you will be unable to keep a perfectly even margin and, in many cases, a run-off will take place.

A hook or burr on the needle point will result in a finish that looks blurred and when short stitches are used some materials may be cut. Check needles often to make sure that these defects are not present.

## —And about thread

In the Class 291U, use only left twist thread in the needle. Either right or left twist thread can be used in the bobbin. To determine the thread twist, hold the thread as shown below. Then roll the thread over toward you—if the strands of the thread wind tighter, the thread is left twist; if the strands unwind or separate, the thread is right twist.

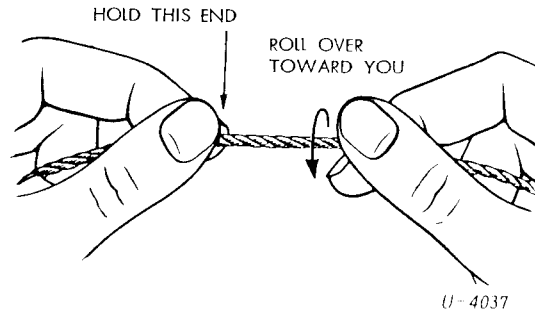


Fig. 4 Determining Thread Twist

## To set the needle

Turn the machine pulley over toward the operator until the needle bar moves to its highest point.

After loosening needle set screw, insert needle UP into needle bar AS FAR AS IT WILL GO, as instructed in Fig. 5.

The single continuous groove of the needle MUST face the left end of the machine, as shown in Fig. 5.

Securely tighten needle set screw.

**NOTE:** The needle is held in place in Machine 291U3 by means of a needle clamp instead of by means of the set screw in the needle bar as in Machine 291U1, illustrated in Fig. 5.

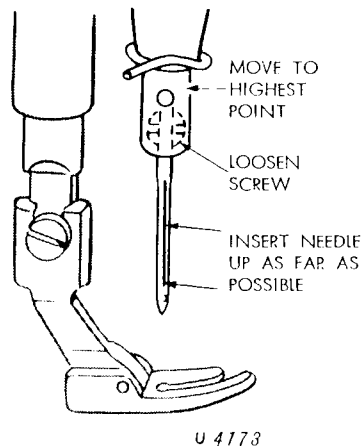


Fig. 5 Setting the Needle

## To thread the machine

First, turn the machine pulley over toward you until needle is at its highest point, then pass the needle thread from the unwinder through the threading points in the order shown in Figs. 6, 7 and 8.

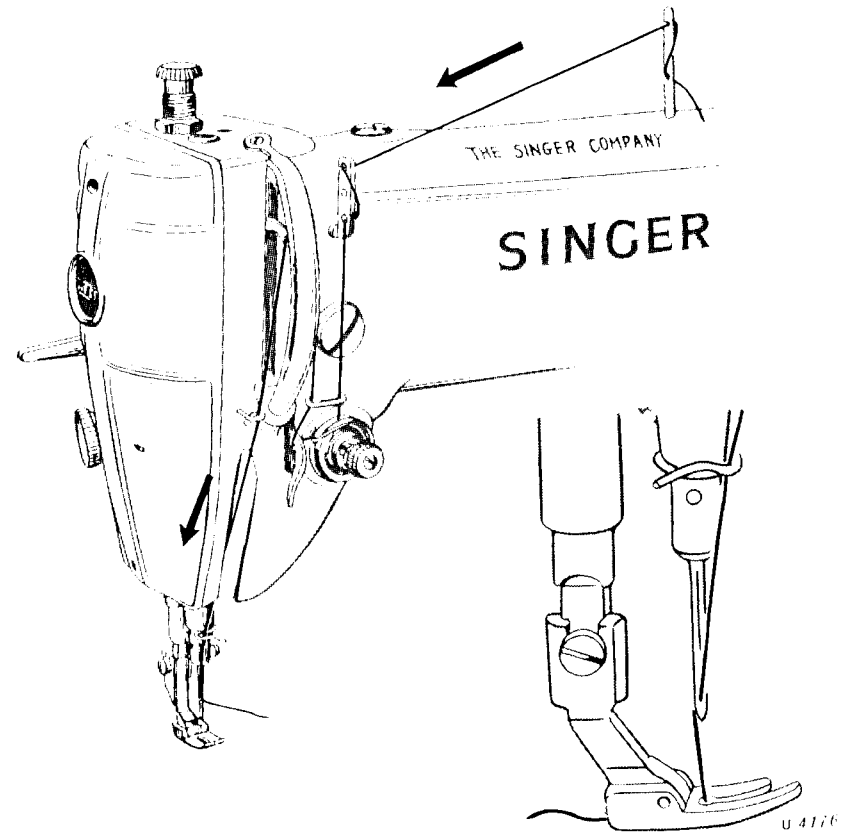
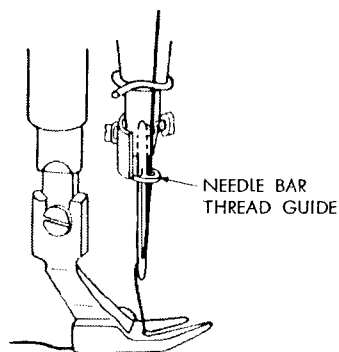


Fig. 6 Upper Threading

Fig. 7 Threading the Needle

Draw about two inches of thread through the eye of the needle with which to commence sewing.



**NOTE:** For better sewing results, use needle bar thread guide when sewing lightweight fabrics with the 291U1 machine. (Fig. 8)

Fig. 8 Threading the Needle

### To take out the bobbin

Turn machine pulley over toward you until the thread take-up lever is at its highest point.

Reach under the bed of the machine with left hand and remove the bobbin case as shown in Fig. 9.

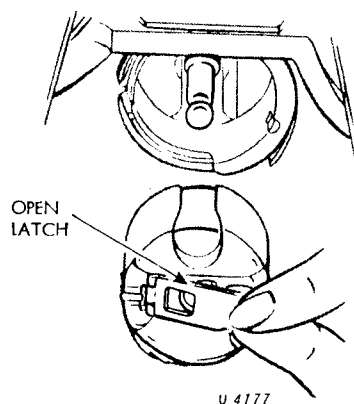


Fig. 9 Removing Bobbin Case from Sewing Hook

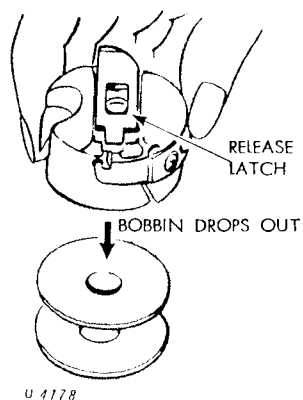


Fig. 10 Removing the Bobbin

### To release the bobbin

**NOTE:** While the latch is kept open, the bobbin will be retained in the bobbin case.

To remove the bobbin from the bobbin case, release the latch, turn the open end of the bobbin case downward and the bobbin will drop out as shown in Fig. 10.

### To wind the bobbin

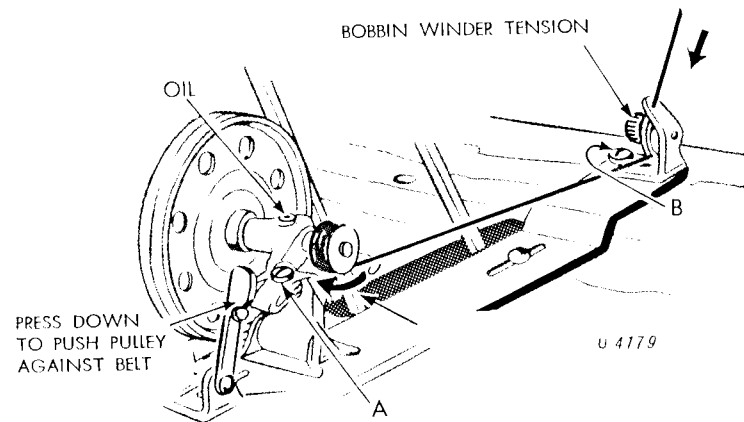


Fig. 11 Winding the Bobbin

Place bobbin on spindle of bobbin winder, pushing it on as far as it will go and pass thread through threading points as shown above.

Wind end of thread around the bobbin a few times. Press down on thumb latch, pushing driving pulley over against belt as shown in Fig. 11. Start machine.

Bobbin winder will stop automatically when the amount of thread for which it is regulated is wound upon the bobbin. For more thread on bobbin, turn screw A inward; for less thread on bobbin, turn screw A outward.

When winding a bobbin with fine thread, a light tension should be used. Adjust the knurled nut (Fig. 11) to regulate the tension.

If thread winds unevenly on bobbin, loosen screw B and move tension bracket to the left or right, as required. Tighten screw B.

Bobbins can be wound while the machine is stitching.

## To thread the bobbin case

Hold the bobbin so that the thread will unwind in the direction shown in Fig. 12.

Hold the bobbin case as shown in Fig. 12 and place the bobbin into it.

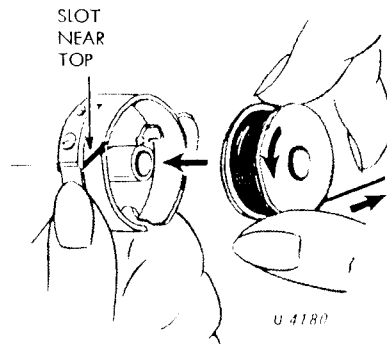
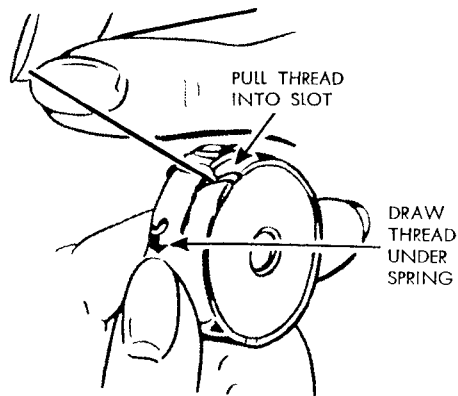


Fig. 12 Placing Bobbin in Bobbin Case



Pull the thread into slot and under tension spring, Fig. 13.

Fig. 13 Pulling the Thread Into the Slot

Draw the thread into the delivery eye at the end of the tension spring as shown in Fig. 14.

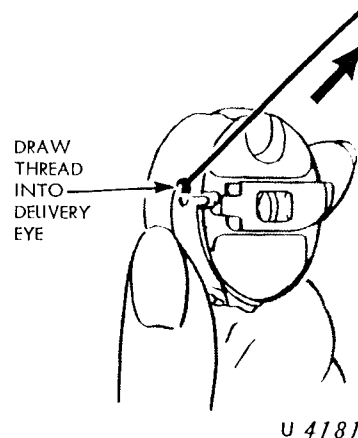


Fig. 14 Drawing the Thread Under the Tension Spring

## To replace the bobbin case

After threading, take bobbin case by latch in the left hand and place bobbin case on center stud of bobbin case holder, as shown in Fig. 15. Release latch. Press bobbin case back until latch catches groove near end of stud. Allow about two inches of thread to hang free.

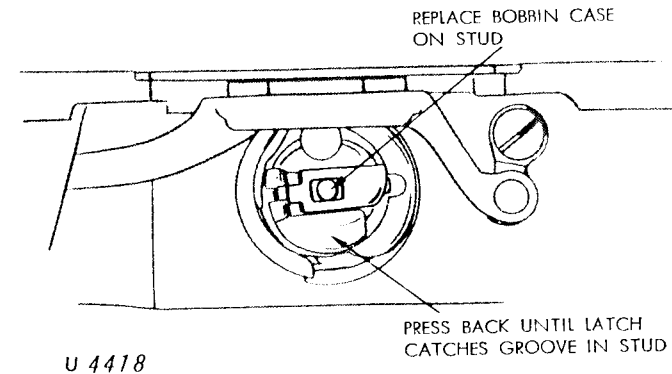


Fig. 15 Bobbin Case Threaded and Replaced

## To prepare for sewing

Hold end of the needle thread with left hand, leaving the thread slack from the hand to the needle. Then turn the machine pulley over toward you slowly until the needle moves down and up again to its highest point. Pull on the needle thread and the bobbin thread will come up through the hole in the throat plate as shown in Fig. 16. Push both threads back away from you and under the presser foot.

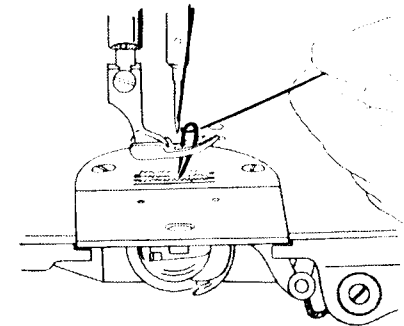


Fig. 16 Drawing Up the Bobbin Thread

### To start sewing

Place the material under the presser foot, penetrate the needle to where sewing starts and lower the presser foot. You are now ready to sew—quickly, smoothly, easily.

### To remove the work

Stop the machine when the needle bar has just started to come down because in this position the upper thread will be free of the sewing hook and the take-up will not pull the thread out of the needle when the machine is started again. Raise the presser foot, draw the work back behind the presser foot and cut the threads close to the work.

### Watch your thread tensions

Normally—and probably for all the sewing you will do—tension on the needle and bobbin threads should be balanced so that if you were to look at a cross section of a line of stitching, the needle and bobbin threads would be locked in the center of the thickness of the material like this:

RIGHT



Fig. 17 Perfect Stitch

If there is too much tension on the needle thread or not enough on the bobbin thread, the needle thread will not be pulled down into the material and poor stitching will result with the needle thread lying on top of the material like this:

WRONG

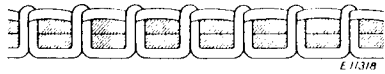


Fig. 18 Needle Thread Tension Too Tight

If there is too much tension on the bobbin thread and not enough on the needle thread, you will get the reverse of the condition shown in Fig. 18, but the stitching is just as poor. The bobbin thread will lie on the bottom of the material like this:

WRONG

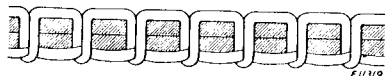


Fig. 19 Needle Thread Tension Too Loose

### Needle thread tension

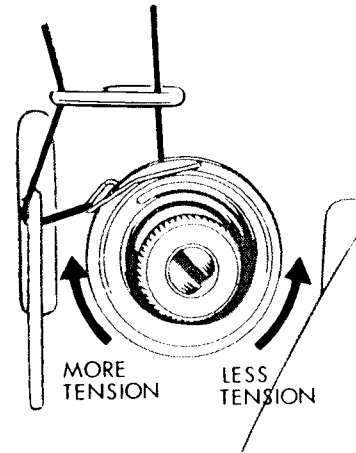


Fig. 20 Regulating Needle Thread Tension

First, regulate the needle thread tension only when the presser foot is down.

Tension on the needle thread should be just enough to set the stitch properly in the material.

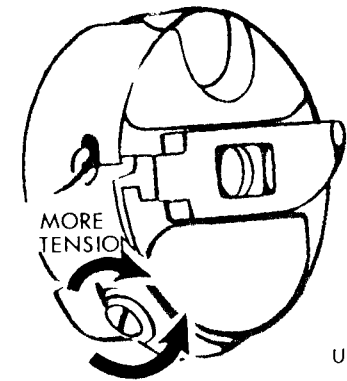
Having lowered the presser foot, turn the thumb nut at the front of the tension discs, to left for less tension; turn thumb nut to right for more tension, as shown in Fig. 20.

### Bobbin thread tension

Once the tension on the bobbin thread has been properly adjusted, a correct stitch can usually be obtained by varying the tension on the needle thread only.

For average sewing, the tension on the bobbin thread should be very light.

To regulate the tension on the bobbin thread, remove the bobbin case and turn the screw in the tension spring to left for less tension; turn the screw to right for more tension, as shown in Fig. 21.



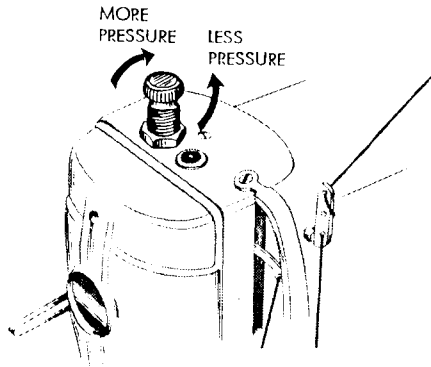
LESS TENSION

Fig. 21 Regulating Bobbin Thread Tension

## To regulate presser foot pressure

Correct presser foot pressure helps feed the work properly. You can regulate the amount of pressure by means of the thumb screw as shown in Fig. 22. After making pressure adjustment, tighten lock nut firmly.

The pressure on the material should be as light as possible, while still sufficient to insure proper feeding.



U 4422

Fig. 22 Regulating the Pressure on the Material

To increase the pressure, turn the thumb screw downward. To reduce the pressure, turn the thumb screw upward. Your pressure is correct when the work moves steadily and smoothly without stalling.

## Hints for perfect operation

- Keep the oil level in the oil reservoir at the HIGH mark.
- When turning the machine pulley, always turn it over toward you.
- Always keep the bed slide closed when the machine is in operation.
- Clean out any lint or other waste around the hook and between the feed rows on the underside of the throat plate.
- Don't try to "help" the machine by pulling the fabric. Machine will feed the work itself. Pulling the fabric may bend or break the needles.
- Don't press the knee lifter while the machine is running.
- Don't run the machine when threaded unless there is material under the presser foot.

## When you want to change the stitch length

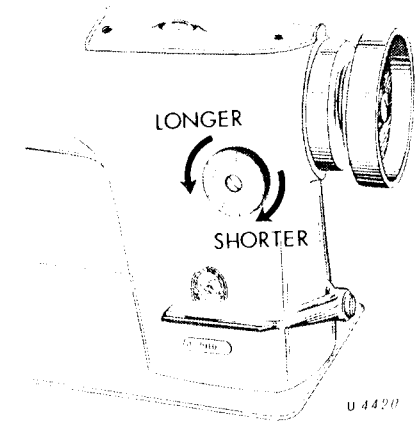
Depress and hold feed reverse lever in center position and—

- Turn feed regulating dial to right to shorten the stitch.
- Turn feed regulating dial to left to lengthen the stitch.

The machine will produce a maximum 6 stitches to the inch.

To change the direction of feed for back tacking, depress feed reverse lever to lowest position until back tack is completed.

**NOTE:** Numerals on feed regulating dial are reference points and do not denote actual number of stitches per inch.



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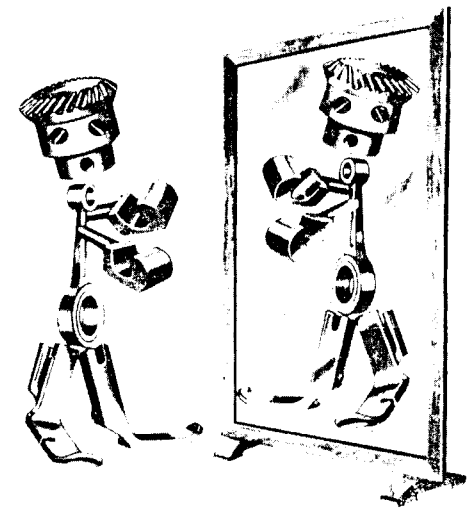
Fig. 23 Regulating Length of Stitch



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