

A Logical Order for Vertical Regulation

Revised June 2014 – Jim Busby

Note that repairs, alignment, cleaning, tightening, etc. has been completed prior to regulation steps at the bottom.

Pre-regulation Jobs

(Some of the most common tasks or areas to check)

First: Determine what major tasks must be done, or that should be done if at all possible

1. Balance rail hole repair
2. New felt, punchings
3. Soundboard repair
4. Reshaping hammers (or new)
5. Trapwork, pedals, casters
6. Touchweight
7. Case refinishing, etc.
8. Pinblock repair
9. Bridge repair
10. Key bushings
11. Keytops
12. Key pins
13. Repinning
14. Bridal tapes
15. Dampers
16. Strings
17. All “misc.” repairs

Second: Check or ensure the following minor tasks are completed prior to regulating

1. Clean and lubricate
2. Ease keys
3. Check dampers, adjust, and fix leaky
4. Adjust pedals
5. Action is properly “located”
6. Tighten screws
7. Travel, burn and align hammers to strings
8. Square, space & (After 2D below) level keys

Regulation steps

1. **Set samples** - Set C4 and C#4 for proper aftertouch. This is indicated by 1/32” space between jack and hammer butt on a normal (mf) blow. Adjust lost motion and checking, then manipulate dip, let off and blow to achieve aftertouch, and then re-adjust lost motion and checking.

2. **Make wholesale changes** – Samples have now revealed what the piano wants. Now make wholesale changes as needed to get everything to “ballpark” specs.

- A. Shim up hammer rest rail to set **blow**
- B. Raise or lower let off button rail to change **let off**
- C. Place or remove a set amount of punchings to change **dip** (or key height)
- D. Shim balance rail or add set amount of balance rail punchings for **key height**

3. **Regulate** (Remember that **blow** has been set in 2A above)

Lost motion

Letoff (Refine, if you did wholesale change in 2B above)

Checking

Dip (Refine, if you did wholesale changes in 2C above)

Bridle straps