Potentiometers with 6 Terminals

Our current stock of P/N 1282 *Potentiometer, FC Controllers* have three terminals on the back while the normal potentiometers have two terminals on the back. This gives them a total of 6 terminals, which could lead to confusion about which terminals on the back to use.

This potentiometer can be used for both FC control boards and XMT control boards.

Identifying the Control Board

Mini lathe and mini mill control boards have a white label that identifies them. What we call "FC boards" have an identifier that starts with the letters *FC*. Similarly, "XMT boards" have an identifier that starts with the letters *XMT*.

FC boards are no longer made. Some common identifiers are:

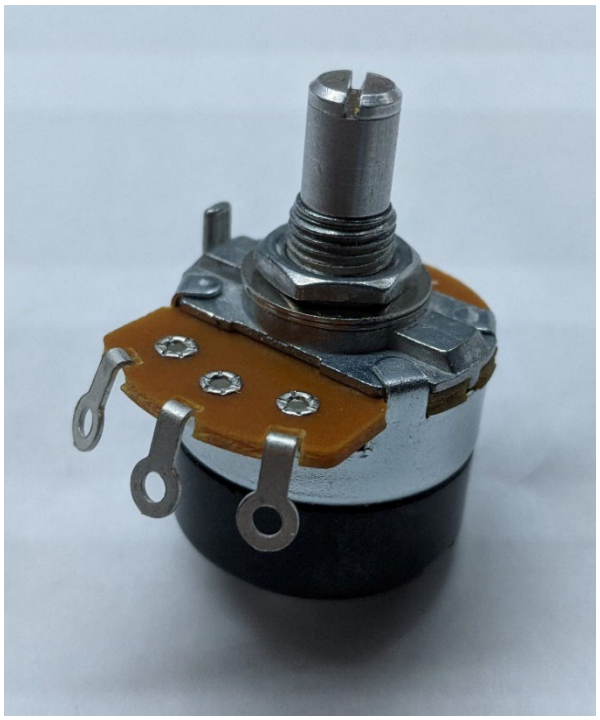
- FC250J/110V
- FC350BJ/110V

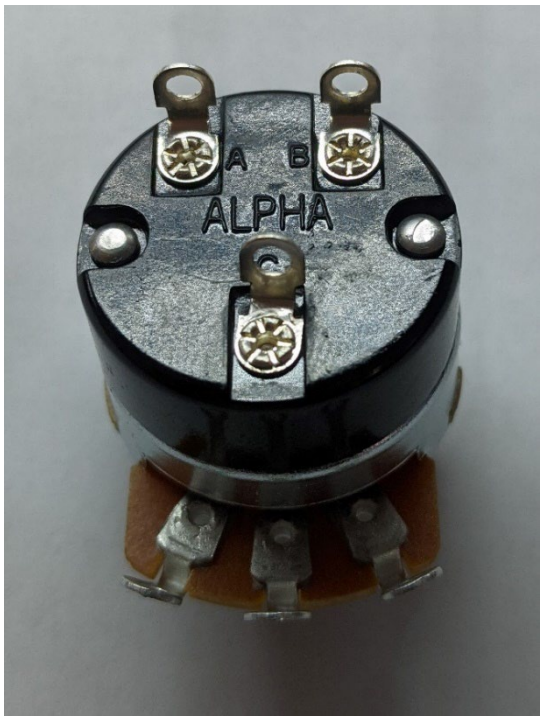
Current production mini lathes and mini mills with conventional DC motors use XMT boards. Some common identifiers are:

- XMT-1115
- XMT-1115J
- XMT-1135
- XMT-1155
- XMT-2335

Making the Proper Connections

For both FC and XMT control boards, connect the three terminals on the side of the potentiometer just as the old potentiometer was connected. They always connect to P1, P2, and P3 on the control board.





XMT Boards

For XMT boards, use the A and C terminals on the back of the potentiometer. These connect to the K1 and K2 terminals on the control board. Polarity is not important; connect either wire to either A or C terminal.

FC Boards

For FC boards, use the B and C terminals on the back of the potentiometer. These connect to the 3 and 5 terminals on the control board. Polarity is not important; connect either wire to either B or C terminal.

Note: Some machines with FC boards don't have any terminals on the back of the potentiometer. If yours is like that, simply ignore all the terminals on the back of the potentiometer.

Still Doesn't Work?

Unless they are physically broken or have repeatable 'dead spots' potentiometers are rarely the problem. For example, one common failure mode is for the machine to run at full speed even when the potentiometer is set to low speed. This is a failure of the control board, not the potentiometer.

If replacing the potentiometer does not fix your problem, then the failure is probably on the control board. Pete Brush will repair the motor controller boards for mini mills and mini lathes. He can fix the older style FC and XMT boards as well as the newer HiTorque BLDC boards. For more information, go to *http://olduhfguy.com/*