

There are a couple of major hints and suggestions which Ben wanted to drive home. . First, the clock is VERY HEAVY. It needs to be hung from or mounted on a very substantial hanger, preferably something like a 5/16 inch lag bolt. Next, and not unrelated to the weight issue, when hanging one of these clocks on the wall, it is imperative that the door be removed. This fulfills at several purposes. First the door with the glass is quite heavy in and of itself. Reducing the overall weight while hanging the clock will just make the task just a little easier. Next, while adjusting the clock, hanging the pendulum, etc., if the door is left on the case, there is a strong tendency for it to cause the clock to swing to the side. Finally, though there may yet be additional reasons, the door is so easy to remove—just lift out the hinge pins. At least the subject maker master clocks work like this, though perhaps for some other makers it might be necessary to remove the screws for the hinges. It will still be worth the effort! Finally while discussing the clock swinging to the side, it is imperative that a screw be driven through the back of the case into the wall, usually behind the beat regulator is a good place.

The second major warning point concerns in particular the IBM weight driven master clock. One must be very careful when disassembling the movements. There is one shaft of this particular clock which has an obvious very large bushing-looking apparatus at each end in the plates. It will be made of steel, so it can easily be identified. This fixture is actually a cup for ball bearings for that specific shaft. The cups (or bushing-looking pieces) fit very well in the holes in the plates, though they can very easily be removed. The point here is that the bearing cups must be removed with the shaft they support and the ball bearings must not be allowed to come out. When you see one you will understand exactly the point of this discussion. The power requirements for driving the automatic winding function of the master clock were discussed in some detail. The clocks of the subject makers will be wound on a variety of direct current power requirements, and this is true for other makers as well. Some wind on voltage as low as three volts, some require a 24 vdc power. Most of the time, somewhere on the movement or the housing one can find printed or stamped the power requirement. If it cannot be determined in that fashion, a simple procedure will provide the appropriate voltage requirements. Using a variable power supply, available from such as Radio Shack, begin with the lowest setting, usually three volts. If that will wind the clock adequately, quit. If the clock will not wind on the low setting, increase the voltage until the clock will wind repeatedly and reliably. Generally it is a good idea to advance the voltage by ten-to-twenty percent above that which will meet minimum requirements. The final voltage will nearly always be a multiple of three volts, though this is not a hard and fast rule.

Ben discussed how to properly wire one the master clocks. Generally, there will be one set of contact points which close once per minute, though often there are more than one such set. Use the topmost set of such points to supply the dc voltage to the winding circuit. The other contact points were initially used to activate the bell-ringer system or to advance slave clocks. Some master clocks wind automatically on some frequency other than once per minute. The same procedure will work with them.

The above mentioned IBM weight driven master clock requires a 110 vac power supply to raise the weights, and properly adjusted, they will wind one time every twenty-four hours.