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*Grace*

**G-707**

**MK II**

**STEREO TONE ARM**

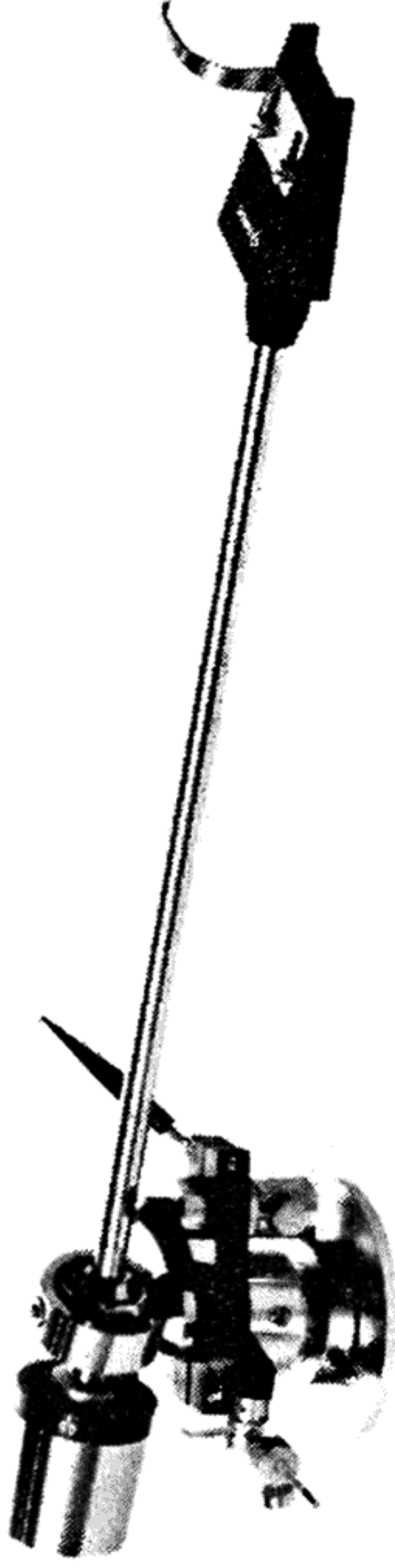
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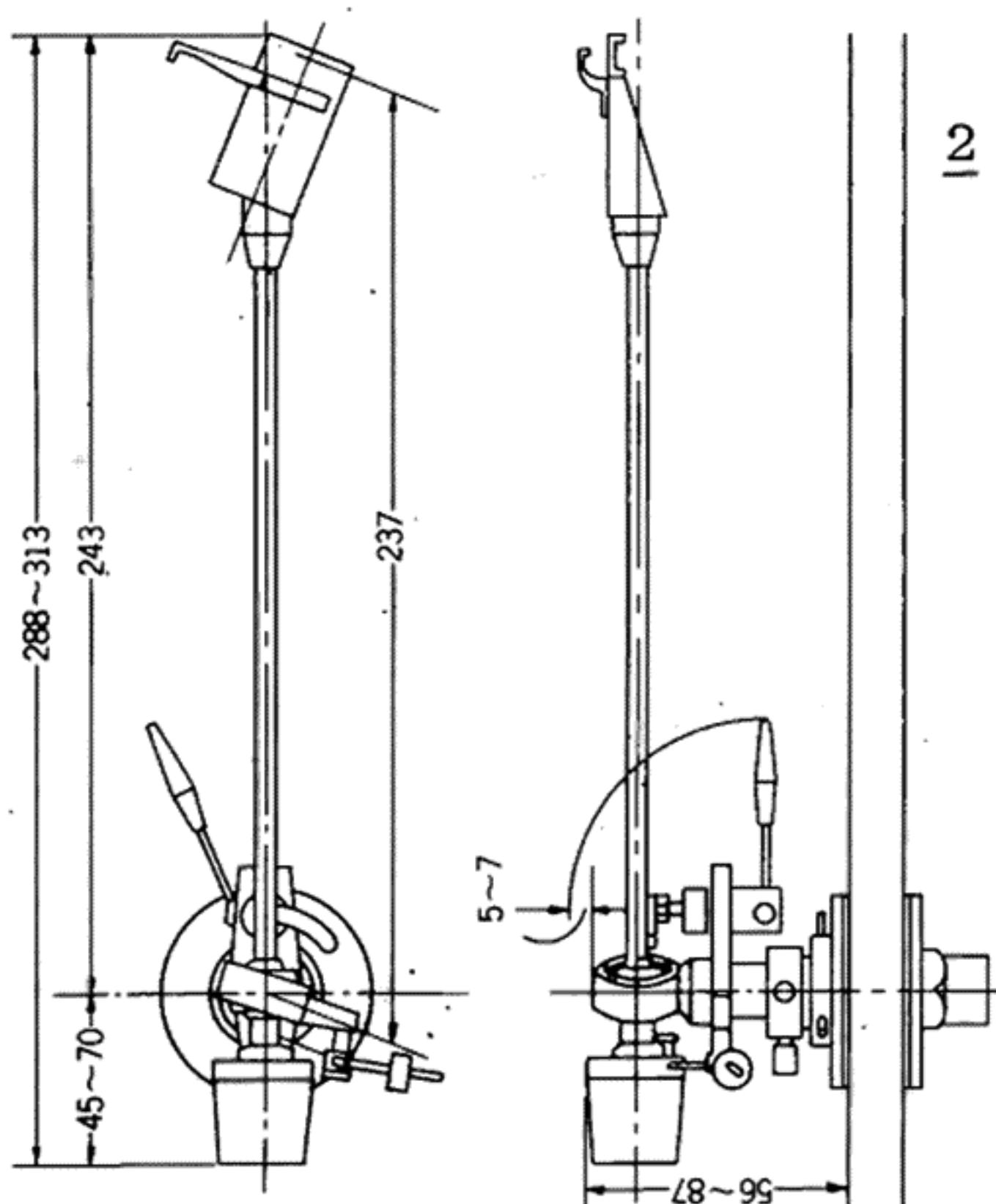


Thank you for selecting the Grace G-707 MkII tone arm. To insure the smooth and correct operation of the G-707 MkII please read through the directions completely before attempting to install the tone arm on your turntable.

The Grace G-707 MkII is pictured in Figure 1. Please be sure that all the parts pictured are present before you begin installation.



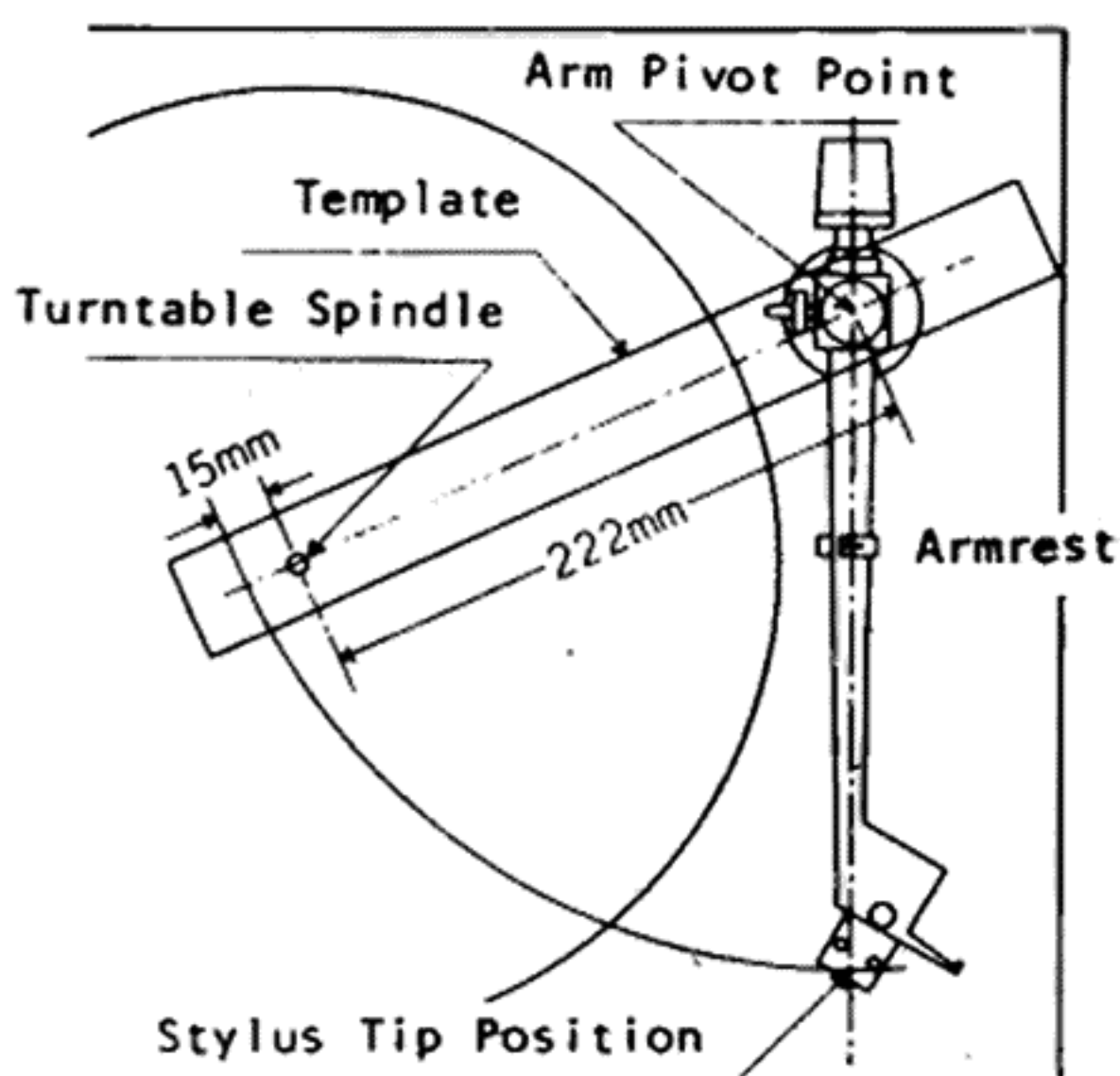
Figure 2 shows the dimensions of an assembled Grace G-707 MkII.



## TONE ARM INSTALLATION

Place the template provided on the turntable center spindle as shown in Figure 3. This will give you the center point for the tone

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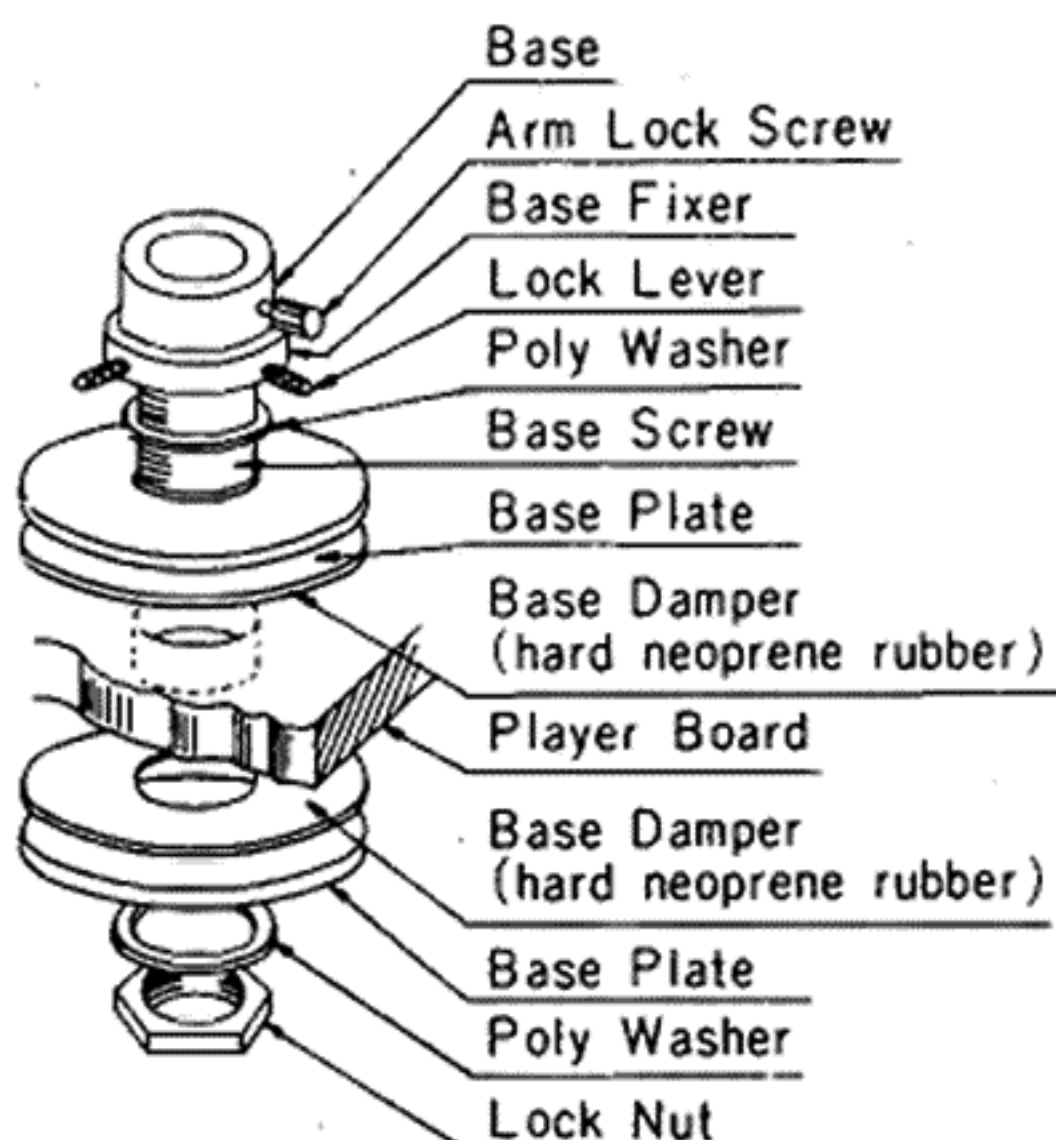


arm mounting hole. Be careful that neither the extended counterweight nor the headshell touch the turntable dust cover (the maximum protrusion from the mounting hole to the fully extended counterweight is 85 mm). Once the mounting hole position has been determined, drill a 25 mm (1 in.) diameter hole at this location. NOTE: If the upper and lower base plates and base dampers are not used then the hole must be 19 mm ( $\frac{3}{4}$  in.) to prevent excessive play when the lock nut is tightened.

At this time a 6 mm ( $\frac{1}{4}$  in.) hole must be drilled 130 mm from the arm pivot point along a line toward the front of the turntable (See Figure 3) and mount the arm rest in this hole.

Remove the lock washer, poly washer, lower base plate and lower base damper from the base screw (See Figure 4) and fit the base screw and remaining parts into the 25 mm hole. Replace the parts previously removed back onto the base screw in the order indicated in Figure 4 and finger tighten the lock nut.

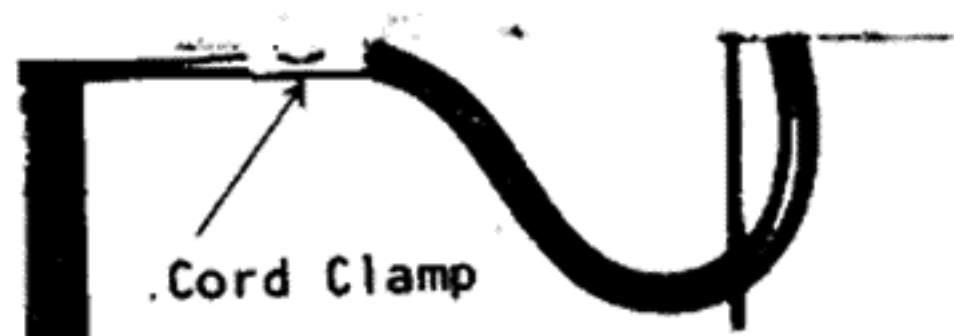
4



Referring to Figure 5, fix the shielded cord to the turntable mounting board using the clamp provided. At this time, the shielded cord should be fixed so that you can pull about 100 mm of it from the mounting board so that removal of the tone arm is made easy (See Figure 6).



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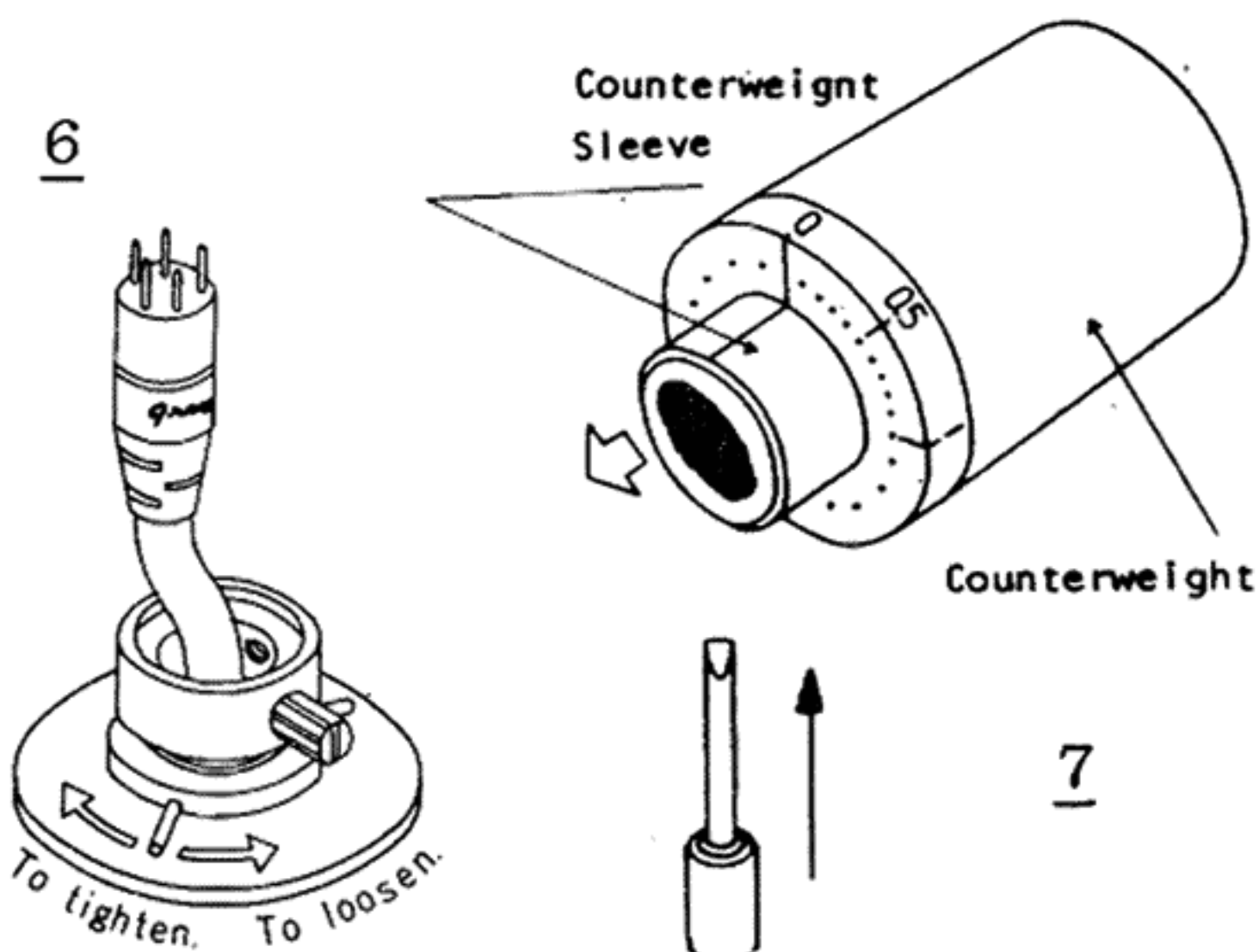


## ARM PREPARATION

Remove the clear plastic protective shipping sleeve from the tone arm pipe and discard.

Remove the 25 mm long bias cord (a loop at each end) and slip one loop over the verticle pin on the underside of the arm tail piece behind the bearing assembly. Be sure that the loop is secured by the groove cut in the pin. Slip the loop at the other end of the bias cord onto the groove on the bias compensator (antiskate) arm.





Remove the black rubber shipping lock ring from the counterweight sleeve and discard.

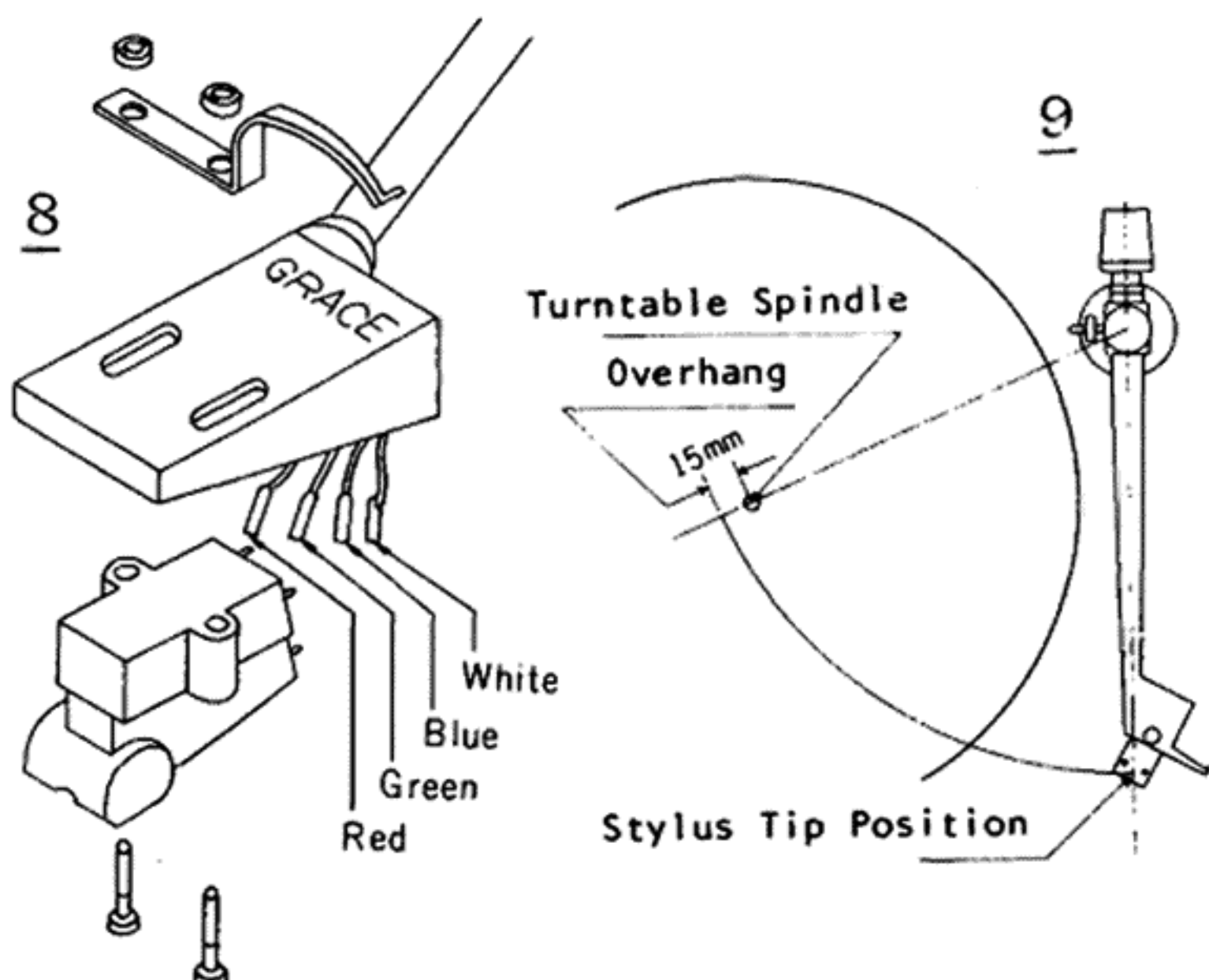
Mount the counterweight assembly on the counterweight decoupler by sliding the counterweight sleeve over the decoupler shim and lightly tightening the set screw on the underside of the counterweight sleeve (See Figure 7). Be careful not to over tighten this screw since this will defeat the decoupling and damping effect of the isolated counterweight system.

Mount the cartridge in the integrated headshell using Figure 8 as a guide. Red=R+, Green=R-, White=L+ and Blue=L-.

## INSTALLING THE ARM

Connect the shielded cord that you installed according to Figure 5 to the arm. Install the arm in the base and orient the bearing housing so that the arm moves in an arc between the arm rest and turntable spindle with equal clearance from the bearing ring on each end of its travel.

Place the stylus on a record that is on the turntable and adjust



the height of the arm pivot until the arm is horizontal and parallel with the record surface. Check that the arm remains parallel to the record surface from one end of its travel to the other.

At this time tighten the arm lock screw.

Replace the arm in the arm rest and loosen the set screw on the back of the bias corrector assembly and rotate this assembly until the arm lifter (cue mech.) has its damping cylinder under the arm. Tighten the set screw. Now loosen the set screw on the front of the bias corrector assembly and adjust the lifter so that when the lift handle is in the up position and the arm is resting on the lifter, the stylus hangs 10 - 15 mm above the record surface. When this is done, tighten the set screw. Try out the lifter to see that the handle does not touch the set screw.

The Grace G-707 MkII tone arm is designed to have a 15 mm overhang. The 15 mm overhang is

obtained by using the arm mounting template provided (See Figures 3 and 9).

Move the counterweight backward or forward until balance is obtained. Set the numbered ring on the counterweight so that the red zero is even with the black line on the counterweight sleeve. Now turn the counterweight in a counterclockwise direction (when looking from the front of the arm) until the tracking force desired is opposite the black line on the sleeve. The stylus tracking force increases at the rate of 0.1 grams per division and one complete turn represents a tracking force of 3.0 grams.

NOTE: If you are using a heavy cartridge and the counterweight must be set near the end of its range away from the bearing assembly it is better to obtain the optional add-on "J" ring weight so that the total counterweight mass can be brought closer to the bearing assembly. When the "J" ring weight is used the gram force numbers on the counterweight have no meaning and an independent force gauge must be used.

The bias compensation (antiskate) force required is determined by gently lowering and raising the arm with the arm lifter so that the stylus is alternately lowered and raised into the record groove. At the moment the stylus contacts the record groove the stylus will be pulled in toward the turntable spindle. Increase the bias compensation by moving the bias weight up along the graduated shaft until there is no inward side deflection when the stylus



contacts the record groove. Without changing this setting, position the bias weight set screw toward the back of the turntable and tighten.

When the bias weight is all the way down the graduated shaft there is present a bias compensation force of 0.75 gram and the force increases by 0.25 gram for each division the weight is moved up the shaft.

NOTE: Do not use test records with excessive modulation bands to set the bias compensation. This will result in over compensation and a resultant loss of fine detail in depth and imaging information.

The mounting and set-up of your Grace G-707 MkII is now done. To be on the safe side make sure all set screws, mounting screws and lock nuts are tight. Any loose mounting parts will degrade the reproduced sound.

At this time you are ready to enjoy a level of performance unknown before the advent of the Grace G-707 MkII.

## SPECIFICATIONS

Overall length:	288 mm. (Min.) 313 mm. (Max.)
Distance between axis and stylus:	237 mm.
Arc of Movement:	approx. 80°
Stylus overhang:	15 mm.
Bearing friction:	less than 10 mg.
Stylus pressure adjustment:	0.1 gram calibrations.
Suitable cartridge weight:	4.5 to 12 grams.