

The Fisher 401B Turntable

Operating Instructions Manual

NOTE: This operating instructions manual was included with the original documentation from a 1970 Fisher S-695-IP Statesman console fitted with The Fisher 401 turntable. The turntable itself is badged as simply “The Fisher 401”, omitting any reference to a “B” designation. It is uncertain as of the publishing of this manual (August 2020) if there is a distinction in operating instructions or other functionality for a “non-B” and “B” version of The Fisher 401 turntable, or even if a “non-B” version existed. The Fisher 401B turntable appears to be a re-badged Perpetuum Ebner 2038 turntable. Therefore any user instructions or service manuals for the PE 2038 should also likely be applicable.

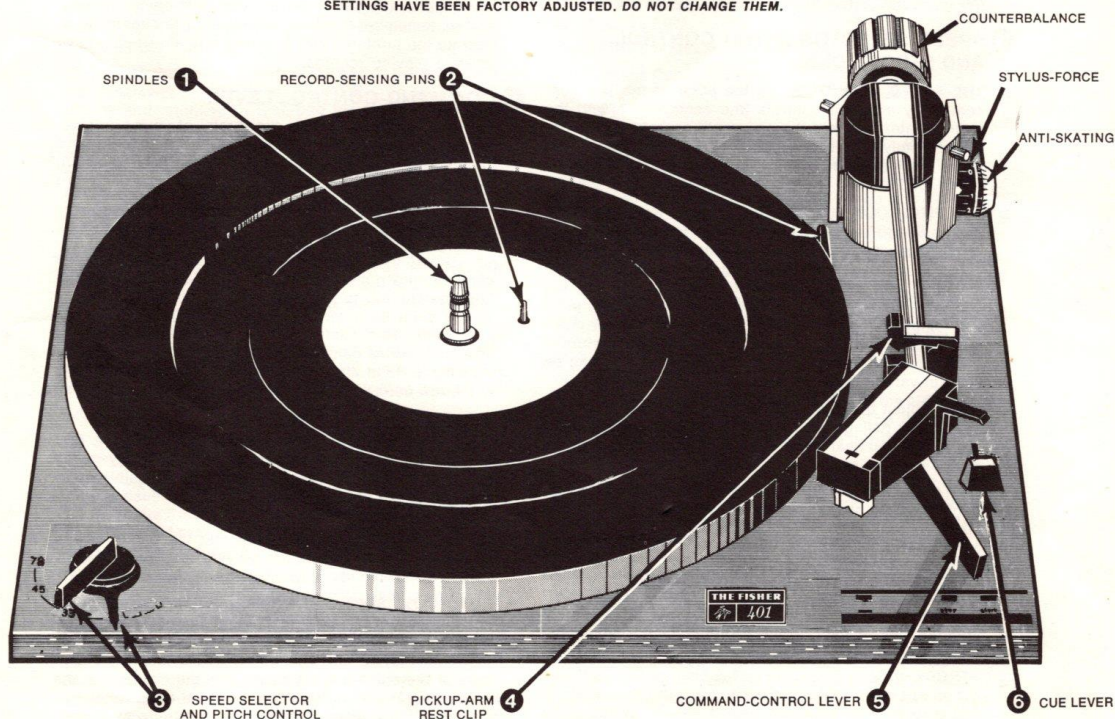
THE FISHER[®] 401B[™] Automatic/Manual Turntable

Operating Instructions

*Perpetuum
Ebner*

Items 1 through 6—keyed to the illustration on this page—describe in detail the many unique and advanced operating features to be found on your highly versatile FISHER turntable. For the fullest possible understanding of the unit, we urge you to spend just a few extra minutes reading their contents *before* proceeding to item 7, which contains the actual operating instructions.

CAUTION: IF YOUR TURNTABLE IS PART OF A FISHER RADIO-PHONOGRAPH, ANTI-SKATING, COUNTERBALANCE, AND STYLUS-FORCE SETTINGS HAVE BEEN FACTORY ADJUSTED. DO NOT CHANGE THEM.



1 SPINDLES

To insert either the short single-play or tall multiple-play spindle supplied, first line up the small protruding pilot pins on the spindle with the keyway notch at the front of the platter's center hole. Then push the spindle *all the way* into the hole and turn it 90 degrees *clockwise* to lock it in place. To unlock and remove either spindle, turn it 90 degrees *counterclockwise* and lift it out of the center hole.

A wide, flat single-play adapter (which fits over the regular single-play spindle) is also included for use with 45-RPM records having large center holes. (Should you want to play a *stack* of 45-RPM records, you'll require the

SP-4 automatic multiple-play spindle; this optional accessory is available at your dealer.)

CAUTION: Insert and remove the spindles *only* when the turntable is completely stopped and has no record on its platter. As described in detail in items 7D and 7E, you may continuously repeat a particular record, if desired, by unlocking the center spindle while that record is turning on the platter, *but make sure that the pickup arm is on or slightly above its rest when you do so. Never attempt any of the foregoing procedures while the arm is going through the setdown, liftoff, or record-change cycle. FAILURE TO OBSERVE THESE PRECAUTIONS MAY DAMAGE THE TURNTABLE OR RECORD, OR BOTH.*

2 RECORD-SENSING PINS

These two feeler pins work together to 'measure' the diameter of any standard 7", 10", or 12" record placed on the turntable platter. During the *Automatic Single-Play* mode of operation, the pickup arm will therefore always set down correctly on the record's lead-in groove without your having to make any manual adjustments. (During *Multiple-Play*, this will hold true only if all records in the stack have the same diameter.)

These pins also serve a secondary—but highly important—function in the automatic modes: **Should you inadvertently start the unit without a record on the platter, the pins will sense this, and will not permit the pickup arm to set down on the empty platter.** If you've ever accidentally damaged an expensive stylus or cartridge this way in the past, we're certain that you'll fully appreciate the value of this feature.

3 SPEED SELECTOR, PITCH CONTROL, AND STROBE DISC

A THE SPEED SELECTOR—is the *inner* of the two concentrically mounted controls (the center knob with the *large* pointer bar) and the one you'll probably use more often. Simply set it to the marked position corresponding to the nominal speed of the record you are about to play: 33, 45, or 78 RPM.

B THE PITCH CONTROL—is the ring with lever surrounding the Speed selector. It can be used to vary each of the three nominal speeds up to plus or minus 3% (a total variation of 6%), thus permitting critical adjustment of the pitch (and tempo) of recorded music. Turning the control towards + will *speed up* the record, *raising* pitch and tempo; turning the control towards — will *slow down* the record, *lowering* pitch and tempo. This feature—prized both by musicians and critical listeners—can be used in various ways:

(1) To adjust the turntable *precisely* to standard recording speeds (using the strobe disc supplied), thereby ensuring that you hear music exactly at the pitch and tempo at which it was recorded.

(2) To intentionally raise or lower the pitch of the recorded music slightly to match that of a live musical instrument for rehearsal, accompaniment, or tape-recording purposes.

(3) To compensate for the non-standard speeds of older recordings. (Some early, so-called 78-RPM discs were not recorded at the 78.26-RPM standard speed instituted later on, thus causing serious errors in pitch when played on modern turntables with non-adjustable speeds.)

C STROBE DISC—Once you've become familiar with the actual operation of the turntable, you can check and adjust it exactly for standard record speeds by using the FISHER multispeed strobe disc supplied with your unit. The only other item required is a fluorescent or neon light source for viewing the disc. (An electrician's neon tester, wired to a power cord with plug, is ideal.) Do *not* use a conventional incandescent light bulb; it won't produce the desired strobe effect.

Note that the disc is printed on *both* sides: one side for use if your turntable is operating on 60-Hz power lines (predominant in the U.S.A.); the other side for 50-Hz power lines. Three of the four circular bar patterns on each side are precisely calibrated for the most frequently used exact-standard record speeds: 33.33, 45.00, and 78.26 RPM. (You won't require the 16.66-RPM pattern with this turntable.)

Simply place a record on the turntable platter, place the strobe disc (correct side *up*) on top of the record, and operate the turntable in any one of the single-play modes described in item 7. (For maximum accuracy, always check speed with the pickup arm *on* the record.) Place the light source as close as possible to the disc and view the appropriate bar pattern: If turntable speed is *correct*, the bars will appear to *stand still*. If speed is too *fast*, the bars will appear to move *forward* in the direction of disc rotation while if it's too *slow*, the bars will appear to move *backwards*. In such cases, carefully adjust the Pitch control towards + or — until the bars stand still.

4 PICKUP-ARM REST CLIP

This clip is provided as a safety measure to prevent the pickup arm from accidentally swinging free (and consequently damaging itself, the cartridge, or the stylus) when the unit is not in use or when it is being shipped. Always remember to unlock the clip before attempting to operate the turntable and to relock it again when you've finished playing records.

5 COMMAND-CONTROL LEVER

This multi-position lever is the 'brain' of your turntable. By using it in various combinations with the single- and multiple-play spindles, and with the Cue lever (item 6), you can operate the turntable in any of the five different modes described in item 7.

6 CUE LEVER

This lever automatically controls the pickup arm's damped cueing mechanism. The PLAY and PAUSE positions permit you to set down and lift off the arm gently at any point on a record without actually touching the arm itself. This useful feature minimizes the risk of stylus or record damage. **In the Semi-Automatic Single Play mode (item 7B), always make sure that the lever is at PAUSE before you move the pickup arm from its rest.**

7 OPERATING MODES

Use the following instructions for the actual day-to-day operation of the turntable. Each of the five possible operating modes is covered independently for ease of reference.

IMPORTANT: Always make sure that the pickup stylus is free of dust or dirt before playing records. If necessary, blow on the stylus or clean it with a *soft* brush.

A AUTOMATIC SINGLE PLAY (Fully automatic positioning and setdown of pickup arm at beginning of record; automatic liftoff at end of record)—We recommend this mode for playing a record through from the very beginning of the side. In such cases, it is the simplest of the single-play modes to use and, because of its automatic setdown/liftoff feature, extremely gentle to your records. (If desired, this automatic feature can also be used at any *intermediate* point on the record, permitting you to pause, skip, or repeat without ever having to lift or set down the pickup arm by hand.)

(1) **Insert and lock the short single-play spindle as described in SPINDLES.** (To play a 45-RPM record, slip the single-play 45-RPM adapter over the regular spindle.)

(2) **Place the record on the turntable platter.**

(3) **Set the Speed selector to the appropriate position: 33, 45, or 78 RPM.**

(4) **Unlock the pickup-arm rest clip.**

(5) **Move the Command Control lever to REJECT/AUTO**

START. The record will start turning while the pickup arm will lift from its rest, automatically position itself over the record's lead-in groove (regardless of diameter), and gently set down on the record. Unless you purposely interrupt or stop the playing cycle (steps 6 and 7), the arm will play through to the end of the side, automatically lift from the record, and return to its rest. The turntable will then shut itself off and disengage its idler wheel.

(6) To pause, skip, or repeat at any point, first move the CUE lever fully backward to PAUSE. The pickup arm will lift and hover above the record. (To pause, leave the arm exactly where it is. To skip or repeat, reposition the arm by hand over the desired point; *the friction you feel when moving the arm in its lifted position is normal lateral damping that ensures accurate positioning and setdown.*) To resume playing, move the lever to **PLAY**. The arm will gently set down at the selected point.

NOTE: Do not attempt to lift and reposition the pickup arm by hand in this mode; the turntable may shut itself off if you do.

(7) To stop the turntable before the end of the side, move the Command Control lever to STOP. The pickup arm will lift and return to its rest, and the turntable will shut itself off in the usual manner.

B SEMI-AUTOMATIC SINGLE PLAY (Manual positioning, automatic setdown of pickup arm at any point on record; automatic liftoff at end of record) — Use this mode whenever you want to start playing at some point *other* than the beginning of the side, yet still want the convenience and record protection provided by automatic setdown/liftoff. (As in the Automatic mode, you may use the auto setdown/liftoff feature at any point on the record to pause, skip, or repeat, but you now also have the added option of doing so by hand, if desired.)

(1) Insert and lock the short single-play spindle as described in SPINDLES. (To play a 45-RPM record, slip the single-play 45-RPM adapter over the regular spindle.)

(2) Place the record on the turntable platter.

(3) Set the Speed selector to the appropriate position: 33, 45, or 78 RPM.

(4) Unlock the pickup-arm rest clip.

(5) Move the Command Control lever to MANUAL START and the CUE Lever to PAUSE. The record will start turning while the pickup arm will stay in its rest.

(6) Move the pickup arm by hand over the desired point on the record. (*The friction you feel when moving the arm in its lifted position is normal lateral damping that ensures accurate positioning and setdown.*)

(7) Move the CUE lever forward to PLAY position. The pickup arm will gently set down at the desired point on the record. Unless you purposely interrupt or stop the playing cycle (steps 8 and 9), the arm will play through to the end of the side, automatically lift from the record, and return to its rest. The turntable will then shut itself off and disengage its idler wheel.

(8) To pause, skip, or repeat at any point, first move the CUE lever fully backward to PAUSE. The pickup arm will lift and hover above the record. (To pause, leave the arm exactly where it is; to skip or repeat, reposition the arm by hand over the desired point.) To resume playing, move the lever fully forward to **PLAY**. The arm will gently set down at the selected point. (If desired, these operations may also be done by simply lifting and setting down the arm by hand.)

(9) To stop the turntable before the end of the side,

move the Command Control lever to STOP. The pickup arm will lift and return to its rest, and the turntable will shut itself off in the usual manner.

C MANUAL SINGLE PLAY (Fully manual positioning, set-down, and liftoff of pickup arm at any point on record; automatic liftoff at end of record) — In this mode, the unit acts as a completely manual transcription turntable, enabling you to cue, pause, skip, or repeat at any point on the record quickly by hand. (Once you've initially placed the arm on the record however, you may also do these operations with the auto setdown/liftoff feature if desired.)

(1) Insert and lock the short single-play spindle as described in SPINDLES. (To play a 45-RPM record, slip the single-play 45-RPM adapter over the regular spindle.)

(2) Place the record on the turntable platter.

(3) Set the Speed selector to the appropriate position: 33, 45, or 78 RPM.

(4) Unlock the pickup-arm rest clip.

(5) Move the Command Control lever to MANUAL START. The record will start turning while the pickup arm will remain in its rest.

(6) Move the CUE lever fully forward to its PLAY position if it is not already there. The pickup arm is now completely free for you to set down at any point by hand. Unless you purposely interrupt or stop the playing cycle (steps 7 and 8), the arm will play through to the end of the side, automatically lift from the record, and return to its rest. The turntable will then shut itself off and disengage its idler wheel.

(7) To pause, skip, or repeat at any point, simply lift, reposition, and set down the pickup arm manually. (If desired, these operations may also be done with the *auto setdown/liftoff* feature; follow step 8 of *SEMI-AUTOMATIC SINGLE PLAY*.)

(8) To stop the turntable before the end of the side, move the Command Control lever to STOP. The pickup arm will lift and return to its rest, and the turntable will shut itself off in the usual manner.

D AUTOMATIC CONTINUOUS-REPEAT SINGLE PLAY (Fully automatic setdown of pickup arm at beginning of record, liftoff at end of record, and setdown again at beginning of record) — Use this mode when you want to repeat a particular record continuously for demonstration or background-music purposes, etc. It differs from the other single-play modes in that the center spindle must be *unlocked*.

(1) Insert but don't lock the short single-play spindle; if it is already locked in place, unlock it by turning it 90 degrees counterclockwise. (To play a 45-RPM record, slip the single-play 45-RPM adapter over the regular spindle.)

(2) Place the record on the turntable platter.

(3) Set the Speed selector to the appropriate position: 33, 45, or 78 RPM.

(4) Unlock the pickup-arm rest clip.

(5) Move the Command Control lever to REJECT/AUTO START. The pickup arm will automatically set down at the beginning of the record (regardless of diameter), play through to the end of the side, momentarily return to its rest, and then set down once again at the beginning of the record. This cycle will repeat itself indefinitely until you move the Command Control lever to **STOP**. After the pickup arm has returned to its rest, *relock* the center

spindle by pushing it down and turning it 90 degrees clockwise. Once the spindle has been relocked, you can remove the record from the platter.

CAUTION: To prevent possible damage to the turntable and record, lock or unlock the center spindle only when the pickup arm is on or slightly above its rest. *Never attempt these procedures while the arm is going through the setdown or liftoff cycle.*

(E) AUTOMATIC MULTIPLE PLAY (Fully automatic record-changer operation) — In this mode, the turntable will automatically play a stack of up to eight records in sequence. All records in a given stack must be of the same speed, center-hole size, and diameter. (To play a stack of 45-RPM records, you will need the optional SP-4 multiple-play spindle.) As in the single-play modes, you may use the auto setdown/liftoff feature to pause, skip, or repeat at any point on any record. In addition, you may continuously repeat a record in its entirety, if desired, in this mode.

(1) Insert and lock the tall multiple-play spindle as described in SPINDLES. (To play a stack of 45-RPM records, use the SP-4 multiple-play spindle instead.)

(2) Stack the records in the desired sequence on the spindle's pronged platform. (You may later remove the records by simply lifting them off the spindle; it is not necessary to remove the spindle itself.)

(3) Set the Speed selector to the appropriate position: 33, 45, or 78 RPM.

(4) Unlock the pickup-arm rest clip.

(5) Move the Command Control lever to REJECT/AUTO START. Unless you purposely interrupt or stop the playing cycle (steps 6-9), the turntable will automatically play the entire stack of records in sequence, return the pickup arm to its rest, and shut itself off.

(6) To pause, skip, or repeat at any point on the particular record being played, first move the CUE lever

fully backward to PAUSE. The pickup arm will lift and hover above the record. (To pause, leave the arm exactly where it is. To skip or repeat, reposition the arm by hand over the desired point; *the friction you feel when moving the arm in its lifted position is normal lateral damping that ensures accurate positioning and setdown.*) **To resume playing, move the lever to PLAY.** The arm will gently set down at the selected point.

(7) To reject a record and go on to the next record in the stack, move the Command Control lever to REJECT/AUTO START.

(8) To stop the turntable before playing the entire stack of records, move the Command Control lever to STOP. The pickup arm will return to its rest and the turntable will shut itself off. **If you leave the unplayed records on the spindle, you may later resume playing them by simply moving the Command Control lever to REJECT/AUTO START.** The first unplayed record will drop to the rotating platter and the pickup arm will set down at the beginning of the record.

(9) To repeat a particular record continuously, unlock the center spindle (by turning it 90 degrees counterclockwise) as soon as that record drops to the platter. After the pickup arm has played through to the end of the record, it will momentarily return to its rest and then set down once again at the beginning of the same record. **This cycle will repeat itself indefinitely (even if you try to reject the record) until you move the Command Control lever to STOP.** After the pickup arm has returned to its rest, **relock the center spindle by pushing it down and turning it 90 degrees clockwise.** Once the spindle has been relocked, you can move the lever to REJECT/AUTO START and go on to the next record in the stack.

CAUTION: To prevent possible damage to the turntable and records, lock or unlock the center spindle only when the pickup arm is on or slightly above its rest. *Never attempt these procedures while the arm is going through the setdown, liftoff, or record-change cycle.*

THE FISHER[®]

Multispeed Automatic/Manual Turntable

CAUTION: To prevent serious damage to your turntable, please observe the following precautions:

- (1) Avoid turning the platter counterclockwise.
- (2) Insert or remove the manual and automatic center spindles only when the turntable is completely stopped (with the pickup arm on its rest) and has no record on its platter. For continuous-repeat play of a particular record, you may unlock (but not remove) the spindle by turning it 90 degrees counterclockwise from its locked position even while the record is turning on the platter, *but make sure that the pickup arm is on its rest when you do so. Never attempt any of the foregoing procedures while the arm is going through the setdown, pickup, or record-change cycle.*
- (3) After you've moved the command control lever to the right or left for a particular mode of operation, never force the lever back to its center position. Let the cycling mechanism do it for you automatically or, if necessary, return it to its center position by turning the platter *clockwise* by hand.

REFER TO OPERATING INSTRUCTIONS FOR FULL DETAILS.

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UNLOCKING AND PREPARING THE TURNTABLE FOR OPERATION

The Automatic Turntable in your radio-phonograph console has been locked to its base to protect it and the cabinet from damage during shipment. Depending on whether it is a FISHER 401 or 501, unlock and prepare it for operation as follows:

IF IT IS A 401 — Lift the rubber mat on the front half of the turntable platter, turn the platter just enough for the small hole near its rim to expose a shipping screw on the front part of the turntable, and remove the screw. Lift the mat on the rear half of the platter and repeat the procedure at the rear of the turntable with the other shipping screw. **Save these screws in case you have to reship the console.** Refer to the turntable's Instruction Manual for details on inserting spindles and operating the unit.

IF IT IS A 501 — Remove the two shipping screws near the front and rear edges of the turntable's platter well. **Save these screws in case you have to reship the console.** Then remove the turntable platter from its carton at the rear or bottom of the console, position it carefully over the center-hole bearing in the well, and lower it straight down onto the bearing. Refer to the turntable's Instruction Manual for details on inserting spindles and operating the unit.

CAUTION: Should it be necessary to reship the console, first lock the turntable's pickup arm in its rest clip and remove its center spindle by turning it 90 degrees *counterclockwise* and lifting it out of the platter's center hole. (*On the 501 only, next lift the platter straight up and off the turntable and pack it separately in a suitable container lined with soft cushioning material.*) Then relock the turntable to its base by inserting and tightening the shipping screws.
FAILURE TO OBSERVE THESE PRECAUTIONS WILL VOID ALL WARRANTIES ON THIS INSTRUMENT.

DO NOT DISCARD THESE INSTRUCTIONS

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