The TM3 Tapping Machine is a precision impact noise source for building acoustic measurements. It is typically used for the assessment of general impacts in dwellings that occur on floors or stairs in a building. The machine can be switched On/Off manually or via remote control. It is powered by a built-in battery, or from mains power.

Preparations

1. Rock the main switch to position ‘ON’.
2. Connect the battery charger to mains power and to the corresponding plug on the machine’s front panel. As soon as the charger is connected, the ‘Status’ LED will start flashing green, while the ‘Batt.’ LED glows:
   - amber: charging in progress
   - green: battery fully charged (you may disconnect the charger to operate the tapping machine without mains power)

Setup

1. Put the machine on a flat, stable ground.
2. Plug the antenna to the BNC connector on the control panel.

Hammer Fall Height Adjustment

1. Slowly turn the knurled handle counter-clockwise until hammer #1 falls down; then lift the hammer with one hand and turn back (clockwise) the handle a little bit, until the hammer is kept in its top position.
2. Adjust the hammer fall height by fitting the 40.8 mm gauge beneath the hammer with light friction evident. For this purpose, rotate the machine’s feet clockwise or anti-clockwise in order to raise or lower the machine, respectively.
3. Repeat steps 1. and 2. with hammer #5. Take care to maintain the horizontality of the machine by checking the spirit level.
4. Upon completion of the procedure, tighten the lock nuts of all three feet by using the wrench.

Hint  The setup procedure is explained in this instruction video: https://youtu.be/zdaYmEaqgWs
Operation

Rock the main switch to position ‘ON’ to arm the tapping machine. Now you may start / stop the machine in either of the following modes.

- **Remotely**: press the button of the TM3 Remote Control sender to switch the machine ON or OFF.
- **Manually**: press the ‘Operate’ button on the TM3 control panel to switch the machine ON for a limited time.
  a) Short press (0.5 sec.): tapping machine runs for 5 minutes
  b) Long press (1-2 sec.): tapping machine runs for 20 minutes

**Hint**: The manual operation mode allows you to run the machine without using the remote control.

Pairing the Remote Control with the TM3 (only if required)

1. Push the ‘RF Learn’ button on the TM3 Control Panel → the red LED turns on
2. Press the button of the TM3 Remote Control sender for a
   - first time → red LED turns off
   - second time → red LED flashes for a few seconds
   - third time → TM3 switches into operation mode
   - fourth time → TM3 switches to standby mode

Specifications TM3

| Standards        | ISO 16283-2, ISO 717-2, ISO 10140-3/-4/-5, ISO 140-6/-7/-8
|------------------|-------------------------------------------------------------
| Power supply     | DIN 52210-6, ASTM E492, ASTM E1007
| Input            | 100 to 240 VAC, 50/60 Hz, 1.0 A
| Output           | 18 VDC, 2.22 A
| Consumption      | 40 W max.
| Battery          | 12 V, 3.2 Ah Lead-Acid gel (no maintenance required)
| Type             | approx. 8 hours
| Charge time      | up to 2 hours
| Continuous operation | 12 V, 3.2 Ah Lead-Acid gel (no maintenance required)
| Hammers          | Stainless steel, hardened
| Material         | 500 g ± 6 g (1.1 lbs ± 0.212 oz)
| Weight           | 30 mm ± 0.2 mm
| Diameter         | 100 mm (3.94”)
| Distance between hammers | 40 mm (1.575”)
| Rated drop height | Dimensions L x W x H 650 x 215 x 275 mm (25.6" x 8.5" x 10.8”)
| Weight (including battery) | 10.2 kg (22.5 lbs)
| Temperature, humidity | –20° to +70°C (–4° to 122°F) @ ≤ 90% RH (non-condensing)
| Storage          | –10° to +50°C (14° to 158°F) @ ≤ 90% RH (non-condensing)
| Operation        | EMC conformity
| Scope of supply (included) | EN 61326-1:2013 / CISPR11 / BS EN 55011:2009+A1:2010
| Order information | • Carrying case
|                  | • Battery charger
|                  | • Drop height gauge
|                  | • 17 mm wrench
|                  | • RC sender & antenna
|                  | • Manufacturer calibration certificate
|                  | NTi Audio # 600 000 520 (433 MHz)
|                  | NTi Audio # 600 000 529 (USA, 315 MHz)
|                  | NTi Audio # 600 000 528 (Japan, without RC)