PHO
ASSEMBLING THE FUTURE

PHONOTRONICA Ltd.

DIGITAL CLOCK

THREE - TARIFF

PHONOTRONICA 3

PASSPORT

1. INTENDED USE

Three-tariff electronic clock Phonotronica-3 is designed for direct connection to three-tariff watt-hour meters switched in the corresponding hour tariff according to the astronomic time.

2. TECHNICAL CHARACTERISTICS

- Supply voltage - 220 v, 50 Hz, +/- 20 %;
- Maximum deviation - 0,5 sec/ 24 h;
- Maximum consumption - <2VA
- Reserve of the run - over two weeks;
- Simultaneously controlled watt-hour meter - up to 40;
- Working conditions
  - temperature from -25 °C to + 60 °C;
  - relative humidity 80% at 25 °C;
- Time to achieve full reserve of the run - 1 minutes;

3. CONSTRUCTION AND PRINCIPAL OF OPERATION

The clock is constructed as a microcomputer system working in a real time. There is a permanent display of a current time (hours and minutes) on the face panel of the clock. When operating at a mode of autonomous supply (mains voltage break down) there is no indication on the display but the functions of the clock are maintained. The reserve of the run is guaranteed with a built in "Gold Cap" – 0.22F. To determine the activated at the moment hour tariff three LED are used; red for the expensive tariff, yellow for the normal and green for the low-cost tariff. The switching hours of the tariffs are programmed in the memory of the clock. The introduction of a new information is done by two push buttons (B1 and B2) situated next to each other under the cover of the clock. The setting is done in the following manner. Press button B1 without holding it. On the display the hours of the current time begin to flicker. Press B2 and hold until the required hour is set. Press B1 again without holding it. On the display the minutes of the current time begin to flicker. Press and hold B2 until the minutes are set. The steps are repeated in the same sequence.

The modes selected by button B1 are:

	winter time	summer time
■ 1 To set up the current hour;		
■ 2 To set up the current minutes;		
■ 3 To set up the current date;		
■ 4 To set up the current month;		
■ 5 To set up the current year;		
■ 6 To set up the day of week;		
■ 7 To set up the hour of the start of tariff II (normal)	06;	(07)
■ 8 To set up the minutes of the start of tariff II	00;	(00)
■ 9 To set up the hour of the start of tariff I (expensive)	08;	(08)
■ 10 To set up the minutes of the start of tariff I (expensive)	00;	(00)
■ 11 To set up the hour of the start of tariff II (normal)	11;	(12)
■ 12 To set up the minutes of the start of tariff II	00;	(00)
■ 13 To set up the hour of the start of tariff I (expensive)	18;	(20)
■ 14 To set up the minutes of the start of tariff I (expensive)	00;	(00)
■ 15 To set up the hour of the start of tariff II (normal)	21;	(22)
■ 16 To set up the minutes of the start of tariff II	00;	(00)
■ 17 To set up the hour of the start of tariff III (Low cost)	22;	(23)
■ 18 To set up the minutes of the start of tariff III	00;	(00)
■ 19 Working conditions of the clock;		

At the last weekend in March the clock goes one hour up automatically and work by summer time distribution (07.00 – 23.00), and at the last weekend in October the clock goes one hour down, and work in Winter time distribution (06.00 – 22.00)

4. INSTALLATION AND MAINTENANCE.

The installation and maintenance of the clock have to be done from people authorized by NEC. The connection of the clock to the mains supply and to the watt-hour meter is done according to a diagram shown on the internal side of the cover of the terminal block. The faults occurring during operation are corrected only from the technical staff of the electricity supply services.

5. WARRANTY

The product Two tariff electronic clock complies with the requirement of the Bulgarian standard BS EN61038. It is tested in the National Metrological Centre, and it is written, in the Governmental register under 4350.

The manufacturer provides a guarantee service of the product for a period of 60 months from the date of sale. The faults occurring during this period are established from the technical services of the Electricity supply offices and are registered in a protocol where the type of error and the date are shown. The faulty clocks in the guarantee period are reclaimed by the client in the commercial organization from which they are bought.

ATTENTION: During exploitations it is not permitted to remove the seal from unauthorized person!

6. SAFEKEEPING AND TRANSPORTATION.

The clocks are safely kept packed in covered storage rooms under the following conditions:

- The temperature of the surrounding media from -25 °C to + 75 °C;
- Relative humidity of the air up to 85 %;
- Absence of aggressive gases and vapours;

The transportation of the product is done in packages, in covered transport vehicles.

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Date of sale: №:

General Manager:
(Momchil Gergov)