User's Manual

Miller Foot Control

1. DESCRIPTION

The Miller Foot Control (M-TX or Foot Pedal) is a transmitter with one analog channel. The module is equipped with variable R.F. duty cycle, and variable turn off time (30 seconds for Footpedal). It operates on 2 selected channels from 16 selectable 2.4GHz frequency channels.

2. TECHNICAL SPECIFICATIONS

Temperature Range	-30^{o} to $+70^{o}$ Celsius
Supply Voltage Range	3-10Vdc
Supply Current	10mA max after 5 seconds settling time
Inputs	1 Power Switch 1 Analog (Potentiometer Input)
Outputs	2.4 GHz 1-10% Duty Cycle
Low voltage detection level	3.4~3.5Vdc (Adjustable to Low/Mid/High)
Shutdown voltage level	2.7Vdc

Note: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

3. FUNCTIONAL DESCRIPTION

3.1. Transmitter Operation

- This transmitter is designed to be used with RF-transmission duty cycle of 1% to 10%.
- Upon closing the PWR SW, the coder will turn ON and start RF-transmission of non-Stop telegrams with active DK3, the safety DK for the analog input.
- DK3 is active if there is no potentiometer error and the PWR SW in ON.
- The analog input is converted into 8-bit data (0x00~0xFF) and transmitted as DK17~DK24 with DK17 as LSB.

3.2. Potentiometer Open Error Detect

The unit is equipped with potentiometer error detection. It detects if the potentiometer is broken (open) or not connected.

3.3. Low Voltage Indicator

The unit has a low battery detection function. The level can be programmed (the actual voltage is not programmed, just Short, Medium, Long delay before the batteries die). If the input voltage reaches a critical level (2.7~2.85Vdc) the transmitter will automatically shutdown.

3.4. Learning Function

The system has a learning function to allow users to pair a decoder to a coder's channel and address settings. The procedure to use the learning function is as follows:

3.4.1. Press and hold the learning button on the decoder.
3.4.2. Press pedal to maximum and hold.
3.4.3. The decoder's green LED will begin blinking rapidly to indicate data is being received from the coder and that the learning function is complete.
3.4.4. Release the decoder's learning switch.

NOTE: Learning is only possible during the first 2 seconds that the M-TX is at maximum output. The Receiver will only learn if the Pedal is close to the Receiver. The address of the RX and M-TX are combined so only this pair is bound. Receiver Main-Contact will not close until second activation.