

# Touchfeed

FEEDER CONTROL BOX

INSTALLATION AND OPERATION  
MANUAL

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## 1.0 PRODUCT SPECIFICATION

“Touchfeed” is a simple yet versatile feeder controller that allows the operator to dispense rations of feed by a touch of a button. The controller keypad allows you to select 1 to 10 units of feed to dispense and select right or left side. A red lamp above the left and right buttons indicates which side the Touchfeed is currently ready to dispense feed. Feeding is initiated by pressing any of the feed unit keys and after feeding the controller will automatically switch over sides.

There is a large variety of feed dispensers available, some operated by vacuum and others having a small “Auger” powered by an electric motor. Some feed dispensers require 12 volts D.C. and others require 24 volts D.C. The Touchfeed is designed to cope with as many of these variations as possible. The Touchfeed comes in two versions, a 12 volt D.C. version and a 24 volt D.C. version.

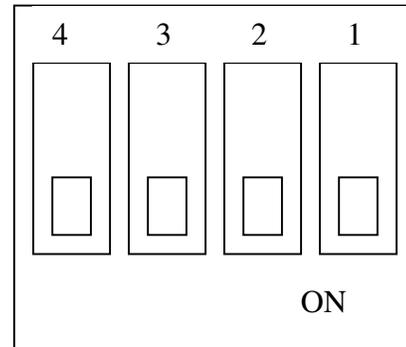
Please note that if an existing power unit is being used and gives an unsmoothed full wave rectified output, the peak voltage should not exceed 24 volts, i.e. the R.M.S. voltage should not exceed 17 volts.

The Touchfeed controller has additional controls located behind the lid which allow the unit to be adapted to various types of feed dispenser.

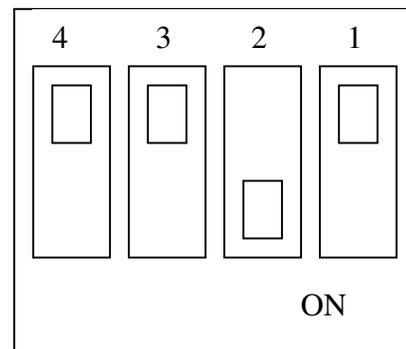
## 1.1 Dip Switch Settings

Note : The dip switch settings must be changed while the Touchfeed is off.

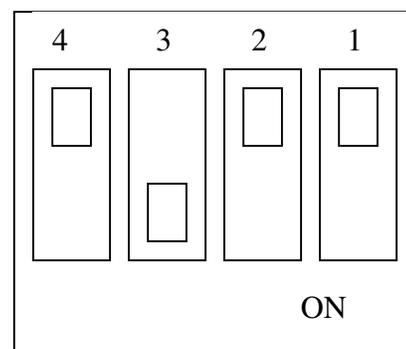
All switches set to ‘ON’ position will set Touchfeed to 30 second spaced portion feeding, e.g. if the portion time potentiometer is set to 5 seconds on time for feeding then a 25 second delay will elapse between portions.



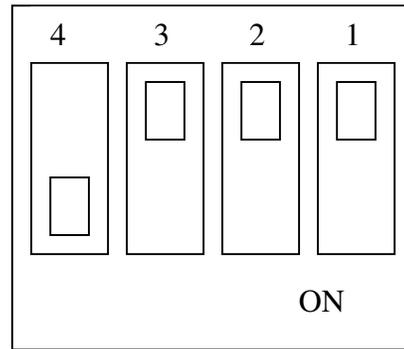
Dip switch ‘2’ set to ‘ON’ and all other switches set to ‘OFF’ positions. This sets the Touchfeed into ‘Pulse’ feeding mode with ‘x1’ portion multiplier set.



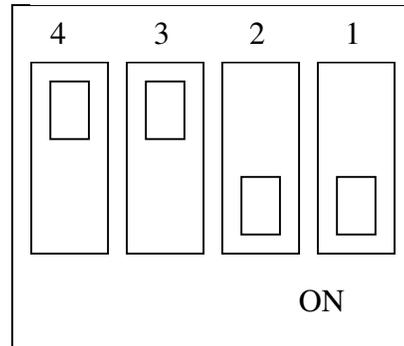
Dip switch ‘3’ set to ‘ON’ and all other switches set to ‘OFF’ positions. This sets the Touchfeed into ‘Pulse’ feeding mode with ‘x2’ portion multiplier set.



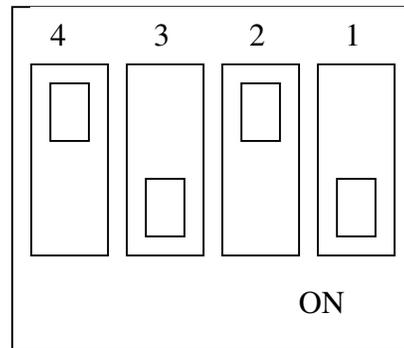
Dip switch “4” set to “ON” and all other switches set to “OFF” positions. This sets the Touchfeed into “Pulse” feeding mode with “x4” portion multiplier set.



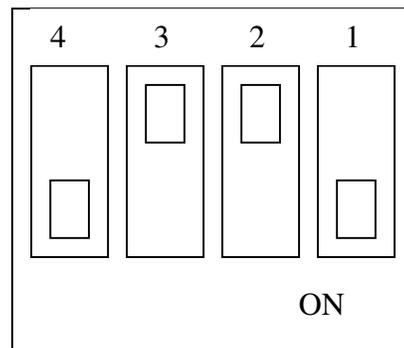
Dip switch “1” and “2” set to “ON” and all other switches set to “OFF” positions. This sets the Touchfeed into “Auger” feeding mode with “x1” portion multiplier set.



Dip switch “1” and “3” set to “ON” and all other switches set to “OFF” positions. This sets the Touchfeed into “Auger” feeding mode with “x2” portion multiplier set.



Dip switch “1” and “4” set to “ON” and all other switches set to “OFF” positions. This sets the Touchfeed into “Auger” feeding mode with “x4” portion multiplier set.



With the Touchfeed in ‘Pulse’ mode, the controller will send pulses of voltage to the feed dispenser to switch a solenoid on and off. Each time the solenoid is switched on and off the dispenser will dispense one unit of feed. In ‘Auger’ mode, the controller will send voltage to the dispenser for a time interval proportional to the number of feed units selected on the controller keypad.

Most ‘Pulse’ type feed dispensers are set to dispense 1lb. or 0.5 kg of feed. Some dispensers however will only deliver a quarter or a half of this amount at each operation and some method is required of increasing the number of times the dispenser is operated, in order to dispense reasonable amounts of feed. When ‘X1’ is in the ‘ON’ position and ‘5’ is pressed on the controller keypad, the Touchfeed will send five pulses to the feed dispenser. When ‘X2’ is in the ‘ON’ position, the Touchfeed will send out ten pulses to the feed dispenser when ‘5’ is pressed on the controller keypad. When ‘X4’ is in the ‘ON’ position, twenty pulses will be sent out to the feed dispenser when ‘5’ is pressed on the controller keypad.

Where ‘Auger’ type feeder dispensers are being controlled, the ‘X1’-‘X2’-‘X4’ switches can be used as a coarse calibration control. Setting the ‘X2’ switch to the ‘ON’ position in ‘Auger’ mode will mean that the running time of the ‘Auger’ per unit of feed will be doubled compared to the ‘X1’ setting. In the same way selecting ‘X4’ will multiply the running time by four compared to the ‘X1’ setting.

- 1.2 Two running time potentiometers are used to individually control the feeding rate of the left and right sides. Some ‘Pulse’ type feed dispensers are much slower in operation than others and the running time control allows the Touchfeed to be set up to cope with any such variations. In the case of ‘Auger’ type dispensers, the amount of feed dispensed is directly proportional to the running time. The running time controls therefore allow for fine calibration adjustments in ‘Auger’ mode.

The Touchfeed uses the very latest surface mount technology to give you a versatile and reliable controller at a realistic price. The Touchfeed is microprocessor controlled, which enables us to continually update and possibly add new features to the Touchfeed when they become available. A simultaneous feeding Touchfeed that feeds the left and right sides at the same time is also available upon request.

## 2.0 INSTALLATION AND CALIBRATION

- 2.1 The Touchfeed is housed in a strong, waterproof enclosure. The waterproofing of this enclosure is however, only as good as the arrangements that are made to connect conduit to it. One 20mm conduit adapter is fitted to the Touchfeed enclosure to accommodate the conduit from the feeders and power supply to the Touchfeed controller.
- 2.2 All connections to the Touchfeed are done through a 5-way plug that can be easily disconnected and reconnected during installation. D.C. power supply for the Touchfeed controller should be connected to the terminals marked “+” and “-“by the connector socket. The left and right feeders are connected to the corresponding connectors that are labelled ‘LEFT’ and ‘RIGHT’ by the connector socket. Feeder supply to both left and right feeders is then connected to the connector labelled ‘F/POWER’’. The size of the cabling will depend upon the size of the installation and the types of feeders used. It is therefore advisable to follow the manufacturers recommendations on cable sizes to be used with their feeders.
- 2.3 Before any attempt is made to switch on the power supply, the installing engineer should ensure that the polarity of the supply is correct and that the unit is being supplied from a D.C. source. In situations where existing power supplies are being retained, then the installing engineer should ensure that a rectifier is fitted to the power supply where necessary. Some types of feed dispensers may have the rectifier built into the individual control box and in these cases the existing power unit will have an A.C. output. A suitable rectifier will be supplied free of charge upon request. Please note that the rectifier must be fitted to a large metal surface to give necessary heat dissipation. The installing engineer must also make sure that the Touchfeed unit is the correct type for the supply voltage, a 12 volt Touchfeed will require a 12 volt supply and a 24 volt Touchfeed will require a 24 volt supply.
- 2.4 With the Touchfeed lid connected and power switched on, the left side lamp should be illuminated on the Touchfeed lid. The installing engineer can now select either ‘Pulse’ or ‘Auger’ type dispensers and either ‘X1’, ‘X2’ or ‘X4’ mode of operation. For ‘Pulse’ type feeders, in most cases the factory setting of the

running time will be suitable. In some cases however, where the feeder operates very slowly, then the running time control potentiometers for the left and right sides should be turned clockwise direction to increase the duration of the output pulse. In all cases the calibration of the feed dispenser should be checked by using the controller to dispense say five units of feed and weighing the amount of food dispensed. If the unit is set in “X1” mode and the quantity of food dispensed is insufficient and the feed dispenser cannot be calibrated to give the correct amount, then “X2” should be switched to the “ON” position and “X1” to the “OFF” position, so that two pulses are given for each unit selected on the Touchfeed keypad. In this case obviously the feed dispenser must be calibrated to give half the desired amount per unit selected on the Touchfeed keypad.

In the case of “Auger” type feed dispensers, the running time control potentiometer can be used as an overall density calibration. The “X1”, “X2” and “X3” switches can be used as a coarse calibration.

### 3.0 ROUTINE MAINTENANCE AND SERVICING

The Touchfeed is housed in a strong, waterproof enclosure. It must be noted however, that this enclosure is not suitable for washing with a high pressured hose. Any cleaning required should be done using luke warm soapy water and a soft cloth. A Touchfeed treated with care and respect will give years of trouble free service.