

HOLMAN

Digital Remote Control



Instruction Manual



Product Code: DRC001



Table of Contents

1. Safety.....	p1
2. Specifications.....	p1
3. Glossary.....	p2
4. Introduction.....	p3
A. Remote Control Hand Piece.	p3
B. Remote Control Receiver.....	p3
5. Installation.....	p4 to p6
A. Wiring the remote receiver.....	p4
B. Installation of Receiver.....	p5
C. Table 1 station cable colours.....	p6
6. Trouble Shooting.....	p7
7. Operation.....	p8
8. Maintenance.....	p9
A. Battery replacement.....	p9
B. Fuse replacement.....	p9
C. Hand held remote.....	p9
9. Warranty.....	Back Page

Safety & Specifications

Safety

READ INSTRUCTION MANUAL BEFORE USE

Read & understand this manual before operating or servicing this equipment. Failure to observe these instructions could lead to product failure and interference to other radio equipment.

The Holman Digital remote is designed to be installed in low voltage irrigation watering systems that have a maximum operating voltage of 24Vac 50/60Hz.

At no time should this device be wired to or used in high voltage installation or an environment where high voltages are present. At no time should this device be modified, altered or disassembled nor re assembled as part of a third party device. This would void the radio compliance certificate and could cause interferences to other radio based devices on the same operating frequency..

The Holman Digital Remote Control is designed to retrofit to any major brand of irrigation controller.

The Digital Remote unit will allow the user to conveniently turn designated watering stations on and off whilst being located up to 100 metres away from the irrigation controller location.

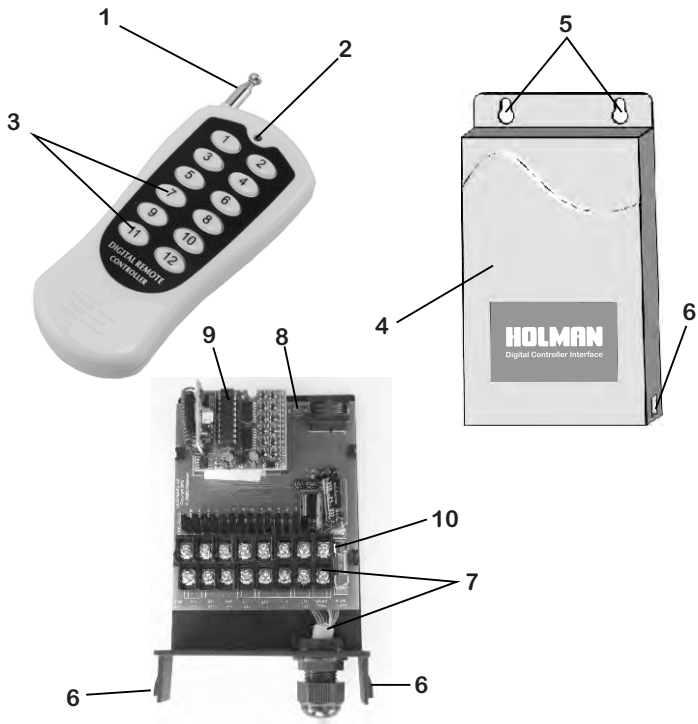
The Digital Remote will work with irrigation controllers with up to a maximum of 12 output stations or valves.

Parts included: 1x radio transmitter hand piece, 1x 12volt 23A Battery for the transmitter , 1x 12 station radio receiver unit with 500mm pre wired flexible tail pre stripped and with conductors tinned, 1x safety and instruction manual.

Digital Remote Specification N10372

Supply Voltage	24Vac 50/60Hz @200ma
Station Output Voltage	24Vac 50/60Hz fused @1amp
Transmitter Voltage	12Vdc using a 23A battery
Transmitter/Receiver frequency.....	433Mhz Aus, 315Mhz USA
Transmitter range	up to 100m line of sight
Operating Temperature.....	-10C to 50C
Storage temperature.....	-20C to 60C
Humidity.....	<85%RH

Glossary



- 1 - Antenna
- 2 - Transmitter LED
- 3 - Station 1 to 12 switches
- 4 - Receiver Module
- 5 - Mounting Holes

- 6 - Release catches inner tray
- 7 - Pre Wired terminal Block
- 8 - Radio Receiver
- 9 - wired correctly indicator
- 10 - 1 amp M-205 Fuse

Introduction.

The Holman Digital Remote Control is designed to retrofit to any major brand of irrigation controller.

The Digital Remote unit will allow the user to conveniently turn designated watering stations on and off whilst being located up to 100 metres away from the irrigation controller location.

The Digital Remote will work with irrigation controllers with up to a maximum of 12 output stations or valves.

A. Remote Control Hand piece.

This unit has 12 buttons numbered 1 through 12. It also has a red LED light that indicates when the unit is transmitting wireless signals

The remote control is powered by a single 12 volt 23A Battery.

The remote control hand piece should be kept in a dry place. It should be kept dry at all times, as it is not designed to be waterproof. Pay particular attention to this when the unit is in use in the garden.

B. Remote Control Receiver.

The remote control receiver is positioned near to the existing irrigation controller.

The plastic enclosure of the Receiver is water proof so long as it is positioned vertically with the wiring tail to the bottom.

The remote control receiver is powered by 24 volts ac taken from the existing irrigation controller. This means it is safe for the DIY person to do the installation with out risk of electrocution.

The remote control receiver will receive the message from the remote control hand piece and initiate the turning on and off of the watering valves as per the message sent from the hand piece.

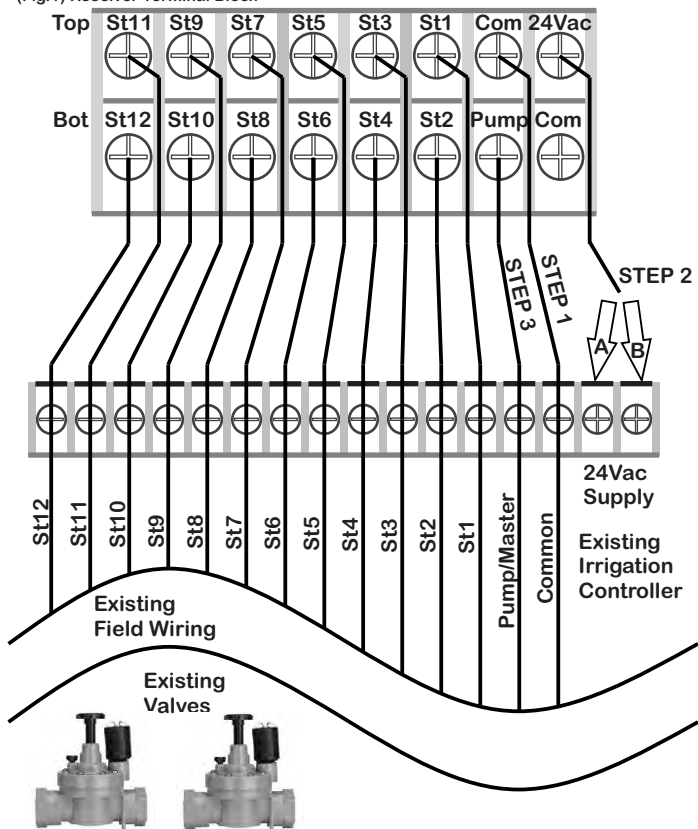
The remote control receiver is pre wired with cables that must be connected to the irrigation controller field solenoid valve wiring as well as the 24vac power delivered from the irrigation controllers power supply.

It is most important that the cables are connected properly and in the correct order and sequence!

Installation

A. Wiring The Remote Control Receiver.

(Fig.1) Receiver Terminal Block



B. Installation Of The Remote Control Receiver.

Please refer to the (Fig1) on page 4 showing where the wires go and follow the following procedure carefully:-

STEP 1:- Connect the common wire between the remote control receiver and the irrigation controller. This wire is the Black wire in the multi core loom from the remote receiver.

STEP 2:- Connect the 24Vac supply to the remote control receiver. This wire is red in the multi core loom from the remote receiver

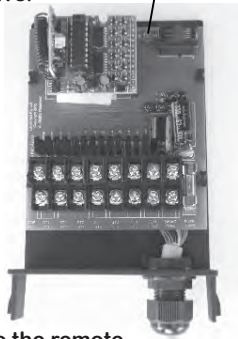
There are two possible places that this wire can connect to, they are marked as "A" and "B" on the drawing on page 4 only one of these positions is correct.

To test for the correct position, first test on position "A". If the Polarity LED on the PCB lights up then this is the correct place to connect to. If it does not, then try position "B". The polarity LED should light if this is now the correct position.

If the polarity LED does not light in either of the two indicated positions on the controller then either the common is in the wrong position or there is no power to the remote receiver. Check that the remote fuse is intact, and ensure that there is 24vac being supplied from the irrigation controller

STEP 3:- Once the Polarity LED has illuminated then the remainder of the wiring loom can be connected to the irrigation controller. Refer to (Table 1) on Page 6 for the station number and colour of each wire in the loom that must be connected to the irrigation controller. Ensure that all wires needed are connected to their appropriate station on the controller, if there are spare stations left over ie your irrigation controller has less than 12 stations in use, then these spare cables should be all terminated in the last station that is used. This is important to do, especially if the system is using a pump as the water source. If the spare wires are not terminated into the last available station then it is possible that the pump could be started by the remote without a valve being open.

(Fig.2)
Polarity
LED



Installation

IRRIGATION CONTROLLER	WIRING LOOM COLOUR	REMOTE CONTROL RECEIVER
24VAC	RED	24VAC
COMMON	BLACK	COM
PUMP/MASTER	BROWN	PUMP
STATION 1	ORANGE	STATION 1
STATION 2	YELLOW	STATION 2
STATION 3	GREEN	STATION 3
STATION 4	BLUE	STATION 4
STATION 5	VIOLET	STATION 5
STATION 6	GREY	STATION 6
STATION 7	WHITE	STATION 7
STATION 8	LIGHT YELLOW	STATION 8
STATION 9	YELLOW+BLACK	STATION 9
STATION 10	LIGHT GREEN	STATION 10
STATION 11	LIGHT BLUE	STATION 11
STATION 12	LIGHT RED	STATION 12

C. (Table1)

P) Electronic Fuse In Irrigation controller is skipping Stations

A) If this happens then some adjustments to the wiring method are required.

Remove the common wire from the remote control receiver that is connected to the valve common on the irrigation controller.

Re-Install this cable into the spare power terminal either “A” Or “B” that is currently not being used. (refer fig 1 on page 4 and to the location on this diagram marked Step2.)

If this is successful the Polarity LED (Fig2 page 5) will light up, indicating a successful connection has been made.

P) Hand Piece Not Connecting Properly to the Receiver

A) The remote control hand piece has a range of 100m line of sight. However, there can be many obstacles that can reduce the transmission distance. Metal objects (such as roofs, walls, garage doors etc) can have a particularly adverse affect on transmission distance.

If you experience this issue you can change your position where you are using the remote. A small change in position can have significant affect on results.

If problems still persist , and reception is still unsatisfactory then you will need to move the remote control receiver unit to a more suitable location.

To do this, you may have to extend the cable lengths. There is no real limit to how long these cables are extended, however, the greater the distance the receiver is from the controller the larger the diameter of cable that should be used.

In general the higher the remote control receiver is mounted the better the wireless reception.

Operation

Operation Of The Remote Control Receiver.

Basic Operation:

The remote works very simply.

- To turn “ON” push the desired station number.
- To turn “OFF” push that numbered button again.

If you want to check the operation of your watering system, you can do this very easily.

Start at the first station (No 1) and turn it “ON” by pushing the button.

When you want to go to the next station (No 2?) simply push the No 2 button. This will automatically turn the No 2 station “ON” and the No 1 station “OFF” at the same time.

Every time a button is pressed the Red LED on the hand piece will illuminate to indicate that a transmission has occurred

Systems with Pumps:

It is particularly important to not repeatedly start and stop a pump many times in quick succession. This can cause a heat build up in the pump motor and cause the motor to fail.

The remote is designed to not turn “OFF” and “ON” the system by scrolling through the stations. If you simply move from one button on the remote to the next, then the pump will stay operating all the time. If you turn a station “ON” by pushing the button and then “OFF” by pushing the button again, this will turn the pump firstly “ON” and then “OFF”.

This is OK and you must do this if you are conducting repairs to your sprinkler system. Just be aware that you should not turn the pump “ON” and “OFF” in rapid succession too many times.

Maintenance

A. Battery replacement

The only field service required for maintaining proper operation is the periodic replacement of the battery in the transmitter.

To replace the Transmitter battery, slide off the battery compartment cover and replace the 12 volt 23A battery observing correct polarity, then replace the protective cover.

B. Fuse replacement

The fuse in the Remote control receiver in general should not blow, however should a fault develop in either the field or in the unit itself, the M-205 1 amp fuse will burn out.

To replace it remove it from it's holder and replace with a fast blow M-205 1 amp fuse. Should the fault persist then the field system should be checked.

C. Hand held remote

The hand piece can be cleaned with a damp cloth.

The unit should never be immersed in water nor subject to cleaning with an abrasive or chemical cleaning agent.

Should by accident the hand piece get wet, remove the battery as soon as possible and dry the unit with a hair dryer or similar, leave for 24 hours or until perfectly dry before replacing the battery and operating.

Warranty

Should you have any questions about this product or its operation please telephone our customer service helpline on **1300 716 188**.

Holman offer a **1 year** replacement warranty from the original date of purchase.

To claim warranty the product must be returned with a copy of the original receipt.

We will honour all statutory guarantees that this product is of acceptable quality (including that it is fit for purpose).



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