

iVAC^{Pro}

SYSTEM USER GUIDE

iVAC Pro TOOL

iVAC Pro SWITCH



[www.iVAC^{Pro}.com](http://www.iVACPro.com)

 **MBright Tools Inc.**

Introduction

This User Guide covers the General Description, Features and Programming of the “iVAC Pro System”. The iVAC Pro System consists of two basic items, the iVAC Pro Tool and the iVAC Pro Switch. It is recommended that you first read General sections 1, 2 and 3 and then focus on your most recent purchase, either the iVAC Pro Tool, Section 4, or the iVAC Pro Switch, section 5.

Table of Contents

- 1 Warnings.
- 2 Physical features
- 3 General description of ‘iVAC Pro System’
- 4 ‘iVAC Pro Tool’
 - 4.1 Modes of Operation
 - 4.2 Program Switch
 - 4.3 System Address
 - 4.4 Multi Tool Operation
 - 4.5 Tool Address
 - 4.6 Active current sense level
 - 4.7 ‘iVAC Pro Tool’ Specifications

Table of Contents *(conitued)*

- 5 'iVAC Pro Switch'
 - 5.1 Modes of Operation
 - 5.2 System Address
 - 5.3 Turn On Delay
 - 5.4 Turn Off Time
 - 5.5 Master Reset
 - 5.6 'iVAC Pro Switch' Specifications

- 6 System Set Up
 - 6.1 Location
 - 6.2 Setting System Address
 - 6.3 Setting Tool Address
 - 6.4 Setting Turn Off Time

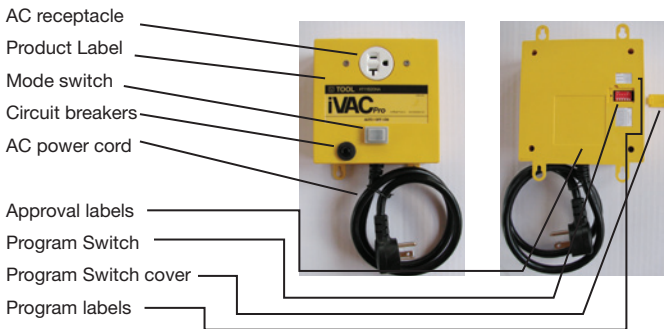
- 7 Warranty

Contact

1. Warnings

Please read the operating instructions before use. The 'iVAC Pro System' is intended for indoor use, in dry locations only. The 'iVAC Pro Tool' and 'iVAC Pro Switch' should only be connected to AC mains circuits at the rated voltage and current. The AC Mains receptacle should have ease of access in the event that quick disconnection is required.

2. Physical Features



3. General Description of 'iVAC Pro System'

The 'iVAC Pro System' consists of two families of product, the 'iVAC Pro Tool' unit and the 'iVAC Pro Switch' unit.

A work shop system may consist of up to eight 'iVAC Pro Tool' units and at least one 'iVAC Pro Switch' unit.

The 'iVAC Pro Tool' unit is connected to the AC mains supply by means of its power cord and then to a workshop tool through its AC receptacle.

If an 'iVAC Pro Tool' unit is in the Auto mode when a power tool that is connected to it is powered on, the 'iVAC Pro Tool' unit will transmit, by means of a wireless signal, to the 'iVAC Pro Switch' instructing it to turn on.

The 'iVAC Pro Switch' unit is connected to the AC mains supply by means of its power cord and then to a workshop dust collection system through its AC receptacle.

When the 'iVAC Pro Switch' receives a signal from the 'iVAC Pro Tool' instructing it to turn on, it will supply power to the dust collection system. After the power tool has been turned

off, the 'iVAC Pro Switch' will continue to provide power to the dust collection system for the Turn Off Time. The Turn Off Time is programmable by means of the Program Switch.

The range for radio communications between the 'iVAC Pro Tool' and the 'iVAC Pro Switch' is forty feet, line of sight. When mounting the 'iVAC Pro units' they should not be mounted on large metal objects, since this can affect the communication range.

Both the 'iVAC Pro Tool' and the 'iVAC Pro Switch' have a series of programmable features that are set by means of the Program Switch. The Program Switch is accessible through the small removable cover in the base.

There are four variants of both the 'iVAC Pro Tool' TxxxxyNA and 'iVAC Pro Switch' SxxxxyNA in order to accommodate the various power requirements of power tools and dust collection systems.

xxx identifies the rated AC mains voltage, which is either 115 or 240Vac. yy identifies the current rating of the units associated circuit breakers, which is either 15 or 20 Amps.

Variant	iVAC Pro Switch	iVAC Pro Tool
115Vac 15Amp	S11515NA	T11515NA
115Vac 20Amp	S11520NA	T11520NA
240Vac 15Amp	S24015NA	T24015NA
240Vac 20Amp	S24020NA	T24020NA

4. 'iVAC Pro Tool'

The 'iVAC Pro Tool' is connected in series between the AC mains power and an associated power tool. 'The iVAC Pro Tool' operates in conjunction with an 'iVAC Pro Switch' which in turn controls a dust collection system.

4.1 Modes of Operation

The 'iVAC Pro Tool' has three modes of operation; Auto – Off – On, as set by the Mode Switch. In the Auto mode the 'iVAC Pro Tool' transmits information to an 'iVAC Pro Switch' each time the connected power tool is turned on or off. As the Mode Switch is transferred from Off to On, a transmission is

sent to the 'iVAC Pro Switch', instructing it to turn on. As the Mode Switch is transferred from On to Off, a transmission is sent to the 'iVAC Pro Switch', instructing it to turn off.

4.2 Program Switch

The Program Switch is accessed through the Program Switch cover located in the base of the unit. It enables the programming of the System Address and the Tool Address.

4.3 System Address

A System consists of an 'iVAC Pro Switch' and up to eight 'iVAC Pro Tools' that are intended to work together.

By means of the Program Switch, the 'iVAC Pro Tool' can be assigned to work on one of four System Addresses, A, B, C or D. The System Address is to enable up to four systems to operate independently while within communication range of each other.

All units required to operate as a system must be set to the same System Address.

System Address Programming.
All switches shown in Off position.

System Address	S1	S2
A	Off	Off
B	On	Off
C	Off	On
D	On	On



4.4 Multi Tool Operation

The 'iVAC Pro' system has been designed so that up to eight 'iVAC Pro Tools' can communicate with one 'iVAC Pro Switch' on the same System Address. Several 'iVAC Pro Tools' can be in operation at the same time. The first 'iVAC Pro Tool' to turn on, will turn on the 'iVAC Pro Switch'. The last tool to turn off, will turn off the 'iVAC Pro Switch'.

4.5 Tool Address

Each 'iVAC Pro Tool' must be assigned an independent one of eight tool address. This information is presently used by the 'iVAC Pro Switch' to enable it to know the status of each individual tool in a system. The Tool Address is set by means of the Program Switch.

Tool Address Programming.
All switches shown in Off position.

Tool Address	S4	S5	S6
1	On	Off	Off
2	Off	On	Off
3	On	On	Off
4	Off	Off	On
5	On	Off	On
6	Off	On	On
7	On	On	On
8	Off	Off	Off



4.6 Active current sense level

This is the AC current level drawn by the power tool where the 'iVAC Pro Tool' that the tool has been turned on. It is set to 0.3Amps.

4.7 'iVAC Pro Tool' Specifications

Plastic housing is 5" x 5" x 2" ABS 94V0 plastics.

Input power cord is 30" long with the respective NEMA Straight Blade plug.

Output power receptacle is the respective NEMA Straight Blade receptacle.

Voltage is dependant on model, either 115Vac or 240Vac.

Current capacity is dependant on model, either 15Amps or 20Amps.

Circuit Breakers are rated at either 15 Amps or 20 Amps.

Active current sense level; 0.3Amps.

Range, forty feet, line of sight

Ambient operating temperature range, 0 – 30C

Regulatory approval.

Regulatory Compliance:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications of this product, not approved by manufacturer will void the user's authority to operate the equipment.

TUV certification to UL 60950-1 and CSA C22.2 60950-1

Contains FCC ID: YCH-IVACRFM.

IC: 8940A-IVACRFM

Programmable features:

One of four System addresses.

One of eight Tool addresses.

5 'iVAC Pro Switch'

The 'iVAC Pro Switch' is connected in series between the AC mains power and an associated dust collection system. The 'iVAC Pro Switch' operates in conjunction with an 'iVAC Pro Tool'.

Each time a power tool that is connected to an 'iVAC Pro Tool' is turned on or off, the associated 'iVAC Pro Tool' (In the Auto mode.) will communicate with an 'iVAC Pro Switch'. In turn the 'iVAC Pro Switch' will react to the communication by turning the dust collection system on or off.

5.1 Modes of Operation

The 'iVAC Pro Switch' has three modes of operation; Auto – Off – On, as set by the Mode Switch. In the Auto mode, it receives information from an 'iVAC Pro Tool' and will turn the dust collection system on or off as instructed. In the Off mode, the 'iVAC Pro Switch' will maintain the dust collector in an off state. In the On mode, the 'iVAC Pro Switch' will turn the dust collection system on.

5.2 System Address

By means of the Program Switch, the 'iVAC Pro Switch' can be assigned to work on one of four system addresses, A, B, C or D. The system address is to enable up to four systems to operate independently while within communication range of each other.

All units required to operate together must be set to the same System Address.

System Address Programming.
All switches shown in Off position.

System Address	S1	S2
A	Off	Off
B	On	Off
C	Off	On
D	On	On



5.3 Turn On Delay

Upon receiving a command from an 'iVAC Pro Tool' to turn on the power to a dust collection system, there is a delay of 1.5 seconds before the power is turned on. This delay is to avoid two power surges occurring at the same time on an AC mains circuit that is feeding both the power tool and the dust collection system. This feature is to avoid tripping the main circuit breaker.

5.4 Turn Off Time

The Turn Off time is to allow the dust collection system to continue to run after a power tool has been turned off. This feature is to clear up any remaining debris at the power tool and in the ducting and may also be used to avoid quick cycling of the dust collection system.

The Turn Off time can be set by means of the Program Switch to 0 seconds, 5 seconds, 15 seconds or 45 seconds.

Note. If the Turn Off time is set at 0 seconds, the Turn On delay is also set to 0 seconds.

Turn Off Time Programming.
All switches shown in Off position.

Time	S5	S6
5 Seconds	Off	Off
15 Seconds	On	Off
45 Seconds	Off	On
0 Seconds	On	On



5.5 Master Reset

In today's environment there are many house hold items that use radio frequency communications. In the event that the 'iVAC Pro Switch' stays on due to a collision of radio frequency transmissions, the 'iVAC Pro Switch' can be reset by moving the Mode Switch to the On position and then to Off.

5.6 'iVAC Pro Switch' Specifications

Plastic housing is 5" x 5" x 2" ABS 94V0 plastics.

Input power cord is 30" long with the respective NEMA Straight

Blade plug.

Output power receptacle is the respective NEMA Straight Blade receptacle.

Voltage is dependant on model, either 115Vac or 240Vac.

Current capacity is dependant on model, either 15Amps or 20Amps.

Circuit Breakers are rated at either 15Amps or 20Amps.

Turn On delay. 1.5 seconds.

Turn Off Time. Programmable to 5, 15, 45 or 0 seconds.

Range, forty feet, line of sight.

Ambient operating temperature range, 0 – 30C

Regulatory approval.

TUV certification to UL 60950-1 and CSA C22.2 60950-1

Programmable features.

One of four System addresses.

One of four Turn Off times

6 System Set Up

6.1 Location

When mounting the ‘iVAC Pro Tool’ and ‘iVAC Pro Switch’ units they should not be mounted onto large metal objects, since this can impact the operational range between the units. The range of forty feet is based on line of sight communications. Communications through walls may impact the forty foot range.

6.2 Setting System Address

It should be noted that for 'iVAC Pro Tool' and 'iVAC Pro Switch' units to work together they must be set to the same System Address. Both the 'iVAC Pro Tool' and 'iVAC Pro Switch' are shipped with the system address set at Address A. This can be changed if there is a clash with an adjacent system or if two systems are used in the same workshop.

The System Address is set by means of positions 1 and 2 on the Program Switch.

6.3 Setting Tool Address

This applies to 'iVAC Pro Tools' only.

In the case of a set up where there is more than one 'iVAC Pro Tool' in a system, each 'iVAC Pro Tool' must have a unique Tool Address set in the range of 1 to 8.

The Tool Address is set by means of positions 4, 5, and 6 on the Program Switch.

6.4 Setting Turn Off Time

This feature applies to the 'iVAC Pro Switch' only. After the 'iVAC Pro Switch' has been instructed to turn off by an 'iVAC

Pro Tool' there is a programmable delay to enable all dust to be cleared from the system. The 'iVAC Pro Switch' is shipped with the Turn Off time set at 5 seconds. The time can be set to 0 seconds, 5 seconds, 15 seconds or 45 seconds. The Turn Off time is set by means of positions 5 and 6 on the Program Switch.

7 Warranty

The 'iVAC Pro Tool' and 'iVAC Pro Switch' is warranted to the original consumer purchaser for a period of one year from the date of purchase, against defects in materials or workmanship. Proof of purchase is required. The Company, MBright Tools Inc. obligation under this warranty shall consist of repair, replacement or credit, at its option; provided that the product has not been misused, abused, altered or damaged, as determined by the company. This warranty does not cover, and is intended to exclude, any liability on the part of MBright Tools Inc, for incidental damages, consequential damages, labor charges or any other costs incurred in connection with the purchase or use of the 'iVAC Pro Tool' or 'iVAC Pro Switch'. This warranty only applies to 'iVAC Pro Tool' or 'iVAC Pro Switch' units purchased in Canada or the United States of America.

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