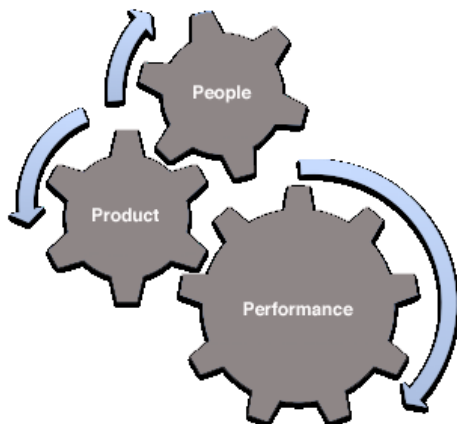




**Updated September 16, 2020**

**81930**

**Moisture Mirror 4X  
Aggregator Guide**





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*We appreciate your business and hope you enjoy your  
Moisture Mirror 4X Aggregator.*

This manual contains information on the installation, wiring, and use of your Aggregator. Included are sections on:

- Connecting your Aggregator
- Reading Moisture Mirror values using ModbusTCP
- Installation and Wiring

In the future when you require service, technical support, or parts please contact us by phone, fax, or the internet. Our engineers and service people are available to assist you in obtaining the best performance from your Samuel Jackson, Inc. products.

*Again, thanks for choosing a Samuel Jackson Moisture Mirror 4X and Aggregator.*

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## Warning



### **READ THIS CAREFULLY BEFORE OPERATING THIS SAMUEL JACKSON PRODUCT!**

The Samuel Jackson product line consists of sophisticated technology capable of greatly enhancing a gin's productivity and efficiency. Improper use of these products could adversely affect those very same factors and potentially cause injury to gin personnel. For this reason, we include an extensive manual with every product. These manuals outline the proper and safe operating procedure for their respective product. **Do not operate any Samuel Jackson product without first reading the entire manual and all accompanying information.**

Sometimes there are updates added at the customer's discretion to products already in the field. We always refer customers to our website, [www.samjackson.com](http://www.samjackson.com) for the latest product information. The latest manual can be downloaded or printed from the website free of charge. In addition to printed literature, the website includes training videos on several popular products. When available, these videos are highly recommended for viewing before operating a respective product. If you do not have internet access, give us a call and we will gladly send you the latest product information.

***DANGER: Please read and understand all the warnings below before operating or maintaining a Samuel Jackson product. If you do not understand, call Samuel Jackson at 806-795-5218 before proceeding. Failure to do so could result in injury or even death. (Si usted no entiende, llame a Samuel Jackson al +1-806-795-5218 antes de proceder. La falta de hacerlo podría causar lesión o muerte.)***

#### **Electrical.**

Most Samuel Jackson products use supply voltage between 110 and 480 volts AC. These levels are considered high voltage and are extremely dangerous.

#### **Access Doors.**

Samuel Jackson products have access doors for added convenience of product maintenance. Access doors must not be opened while the equipment is in operation. Access doors should also remain closed while any connected equipment such as a fan or conveyor is in operation.

#### **Moving Parts.**

Many Samuel Jackson products have moving or rotating parts. These parts could form pinch points or grab loose clothing or jewelry. Do not reach across or into any product while in operation.

**Do not work on any Samuel Jackson product without first following OSHA Lockout/Tagout procedures. Confirmation by a licensed electrician that there is no electricity present is highly recommended. We recommend using a Samuel Jackson Authorized Technician for all work Samuel Jackson products. Additional safety information is located throughout this manual and should be read carefully before operating this Samuel Jackson product. If you have any questions about how to properly operate a Samuel Jackson product, please call +1-806-795-5218 before proceeding.**

# Understanding and Connecting the Moisture Mirror 4X Aggregator

The MM4X Aggregator enables ginners to combine real-time data from a Moisture Mirror with real-time data from another PLC in the gin via Modbus TCP. The Aggregator is primarily comprised of one PLC with one built-in Ethernet port and an ECOM (Ethernet Communication) card.

In order to read data from the Aggregator via a PLC, computer, or other device on the gin's network, the ECOM Card must be configured with a static IP on the gin's network. To configure the ECOM Card, follow the instructions below titled "Using NetEdit".

To use the Moisture Mirror Aggregator, a CAT5 cable must connect the built-in Ethernet Port on the Aggregator's PLC to the network switch found in your Samuel Jackson Toolbox or in a fiberglass box located near the Moisture Mirror.

The Modbus Overview and Example section of this manual describes what Moisture Mirror data is available, which Modbus registers contain the data, and what format the data is in.



# Installing and Using NetEdit

## Download

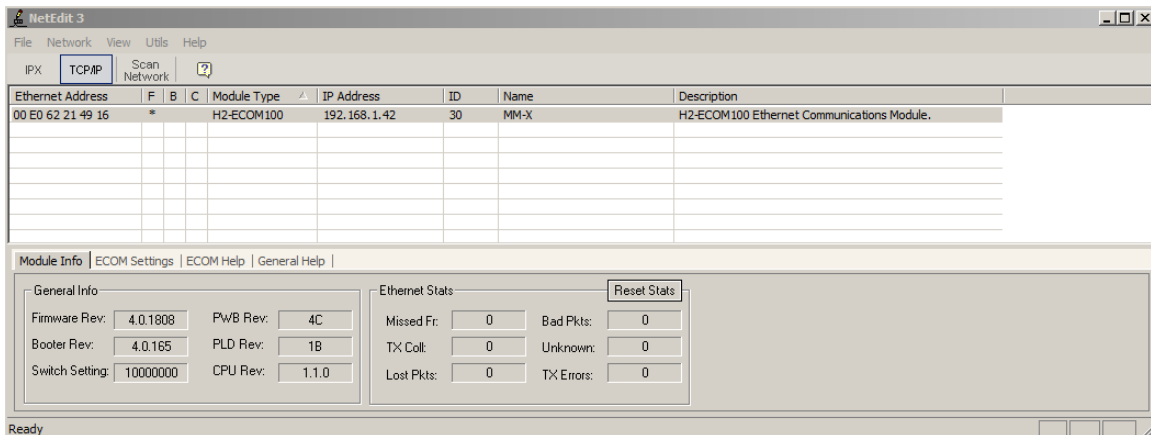
NetEdit is a software tool used for setting IP addresses on PLC Ethernet ports and ECOM cards. It is a Windows program that runs in any version of Windows beginning at Windows XP, and can be downloaded from [support.automationdirect.com/downloads.html](http://support.automationdirect.com/downloads.html).

## Install

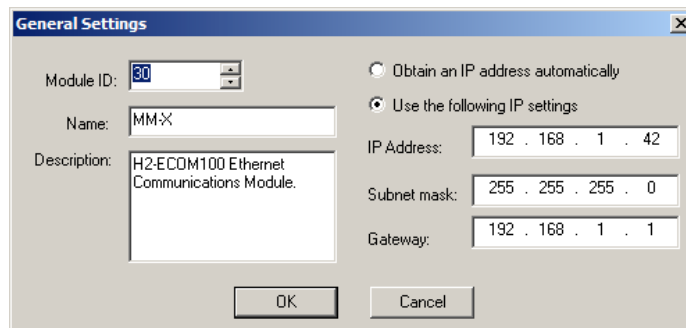
After downloading the Netedit3.zip file from the site and saving it to your computer, open **SetupNE3** and click **Run**. During the Installation process, you will need to click **Next** and **Finish** when prompted. If the installation is successful, a NetEdit 3 icon should appear on your desktop.

## Configure the ECOM Card

Using a CAT5 cable, connect your computer to ECOM Card. Double-click the NetEdit icon, and the following window will appear. Click **Scan Network** and the window should populate with an H2-ECOM100 type module with an arbitrary IP address:



Double-click the module type to give the ECOM a new ID, name and description, and to assign the ECOM an IP address, subnet, and gateway that are appropriate for your gin's network. Click **OK** and close NetEdit.



## Modbus Overview and Examples

Most of the Moisture Mirror data may be pulled from the Aggregator's Modbus registers as *real numbers* or as *signed integers*.

### Example:

- Incoming Moisture is 6.2%.
- The chart shows:

Incoming Moisture 1	%	1155	1628 (1)	-
---------------------	---	------	----------	---

- Modbus register 1155 contains a real number that will read 6.2
- Modbus register 1628 contains a 16-bit integer that will read 62
  - The (1) from the chart means that 62 really means 6.2

Names are in *ASCII* format and can be read from registers 1 – 504.

### Example:

- Humidaire 1 Name is “King Mesa”.
- The name chart shows:

Humidaire 1 Name	192 – 200	16
------------------	-----------	----

- Modbus registers 192-200 together contain the name King Mesa.

Data that represents an On or Off state (*discrete data*) can be read from registers 1001 – 1040.

### Example:

- Argus Z10 Alarm has been triggered on.
- The discrete data chart shows:

Argus Z10 Alarm	1014
-----------------	------

- Modbus register 1014 contains a value of 1.
  - If the alarm has not been triggered, 1014 will hold a value of 0.



## MM4X Modbus Data Locations

Variable Name	Unit	Real Register (32-Bit)	Signed Integer Register (16-Bit)
Humidaire 1 Air SP	°F/C	1101	1601
Humidaire 1 Water SP	°F/C	1103	1602
Humidaire 2 Air SP	°F/C	1105	1603
Humidaire 2 Water SP	°F/C	1107	1604
Humidaire 3 Air SP	°F/C	1109	1605
Humidaire 3 Water SP	°F/C	1111	1606
Humidaire 4 Air SP	°F/C	1113	1607
Humidaire 4 Water SP	°F/C	1115	1608
Banjo 1 SP	%	1117	1609
Banjo 2 SP	%	1119	1610
Banjo 3 SP	%	1121	1611
Banjo 4 SP	%	1123	1612
Banjo 5 SP	%	1125	1613
Banjo 6 SP	%	1127	1614
Banjo 7 SP	%	1129	1615
Banjo 8 SP	%	1131	1616
Banjo 1 PV	%	1133	1617
Banjo 2 PV	%	1135	1618
Banjo 3 PV	%	1137	1619
Banjo 4 PV	%	1139	1620
Banjo 5 PV	%	1141	1621
Banjo 6 PV	%	1143	1622
Banjo 7 PV	%	1145	1623
Banjo 8 PV	%	1147	1624
Ambient Temperature	°F/C	1149	1625
Ambient Relative Humidity	%	1151	1626 (1)
Single Incoming Moisture	%	1153	1627 (1)
Incoming Moisture 1	%	1155	1628 (1)
Incoming Moisture 2	%	1157	1629 (1)
After Drying Moisture	%	1159	1630 (1)
Hopper Moisture	%	1161	1631 (1)
Seed Moisture	%	1163	1632 (1)
Bale Moisture 1	%	1165	1633 (1)
Bale Moisture 2	%	1167	1634 (1)
Humidaire 1 Air Temp.	°F/C	1169	1635
Humidaire 1 Water Temp.	°F/C	1171	1636
Humidaire 1 Slider	%	1173	1637 (1)
Humidaire 2 Air Temp.	°F/C	1175	1638
Humidaire 2 Water Temp.	°F/C	1177	1639
Humidaire 2 Slider	%	1179	1640 (1)
Humidaire 3 Air Temp.	°F/C	1181	1641
Humidaire 3 Water Temp.	°F/C	1183	1642
Humidaire 3 Slider	%	1185	1643 (1)
Humidaire 4 Air Temp.	°F/C	1187	1644
Humidaire 4 Water Temp.	°F/C	1189	1645
Humidaire 4 Slider	%	1191	1646 (1)
Heater 1 After-Mix SP	°F/C	1193	1647
Heater 1 After-Mix PV	°F/C	1195	1648
Heater 1 Velocity Pressure	inH2O	1197	1649

Variable Name	Unit	Real Register (32-Bit)	Signed Integer Register (16-Bit)
Heater 1 Before-Mix PV	°F/C	1199	1650
Heater 1 Before-Mix SP	°F/C	1201	1651
Heater 2 After-Mix SP	°F/C	1203	1652
Heater 2 After-Mix PV	°F/C	1205	1653
Heater 2 Velocity Pressure	inH2O	1207	1654
Heater 2 Before-Mix PV	°F/C	1209	1655
Heater 2 Before-Mix SP	°F/C	1211	1656
Heater 3 After-Mix SP	°F/C	1213	1657
Heater 3 After-Mix PV	°F/C	1215	1658
Heater 3 Velocity Pressure	inH2O	1217	1659
Heater 3 Before-Mix PV	°F/C	1219	1660
Heater 3 Before-Mix SP	°F/C	1221	1661
Heater 4 After-Mix SP	°F/C	1223	1662
Heater 4 After-Mix PV	°F/C	1225	1663
Heater 4 Velocity Pressure	inH2O	1227	1664
Heater 4 Before-Mix PV	°F/C	1229	1665
Heater 4 Before-Mix SP	°F/C	1231	1666
Heater 5 After-Mix SP	°F/C	1233	1667
Heater 5 After-Mix PV	°F/C	1235	1668
Heater 5 Velocity Pressure	inH2O	1237	1669
Heater 5 Before-Mix PV	°F/C	1239	1670
Heater 5 Before-Mix SP	°F/C	1241	1671
Heater 6 After-Mix SP	°F/C	1243	1672
Heater 6 After-Mix PV	°F/C	1245	1673
Heater 6 Velocity Pressure	inH2O	1247	1674
Heater 6 Before-Mix PV	°F/C	1249	1675
Heater 6 Before-Mix SP	°F/C	1251	1676
Heater 7 After-Mix SP	°F/C	1253	1677
Heater 7 After-Mix PV	°F/C	1255	1678
Heater 7 Velocity Pressure	inH2O	1257	1679
Heater 7 Before-Mix PV	°F/C	1259	1680
Heater 7 Before-Mix SP	°F/C	1261	1681
Heater 8 After-Mix SP	°F/C	1263	1682
Heater 8 After-Mix PV	°F/C	1265	1683
Heater 8 Velocity Pressure	inH2O	1267	1684
Heater 8 Before-Mix PV	°F/C	1269	1685
Heater 8 Before-Mix SP	°F/C	1271	1686
Aux Heater 1 SP	°F/C	1273	1687
Aux Heater 1 PV	°F/C	1275	1688
Aux Heater 2 SP	°F/C	1277	1689
Aux Heater 2 PV	°F/C	1279	1690
Flow Analyzer 1	%	1281	1691 (1)
Flow Analyzer 2	%	1283	1692 (1)
Flow Analyzer 3	%	1285	1693 (1)
Flow Analyzer 4	%	1287	1694 (1)
Flow Analyzer 5	%	1289	1695 (1)
Current BPH	BPH	1291	1696
Average BPH	BPH	1293	1697
Last Gin ID	-	-	1698 – 1699*
Last Bale ID	-	-	1700 – 1701*
Season Bales	-	-	1702 – 1703*

Variable Name	Unit	Real Register (32-Bit)	Signed Integer Register (16-Bit)
Next Bale ID	-	1301	1704 – 1705*
Bales Last Hour	-	1303	1706
Bales This Shift	-	1305	1707
Bales Last Shift	-	1307	1708
16XX Humidaire 1 Air Temp.	°F/C	1309	1709
16XX Humidaire 1 H2O Temp.	°F/C	1311	1710
16XX Humidaire 2 Air Temp.	°F/C	1313	1711
16XX Humidaire 2 H2O Temp.	°F/C	1315	1712
16XX Humidaire 3 Air Temp.	°F/C	1317	1713
16XX Humidaire 3 H2O Temp.	°F/C	1319	1714
16XX Humidaire 4 Air Temp.	°F/C	1321	1715
16XX Humidaire 4 H2O Temp.	°F/C	1323	1716
After Drying Moist. Target *	%	1325	1717
Bale 1 Target*	%	1327	1718
Bale 2 Target*	%	1329	1719
16XX Humidaire 1 Moisture Output	%	1331	1720
16XX Humidaire 1 Air SP	°F/C	1333	1721
16XX Humidaire 2 Moisture Output	%	1335	1722
16XX Humidaire 2 Air SP	°F/C	1337	1723
16XX Humidaire 3 Moisture Output	%	1339	1724
16XX Humidaire 3 Air SP	°F/C	1341	1725
16XX Humidaire 4 Moisture Output	%	1343	1726
16XX Humidaire 4 Air SP	°F/C	1345	1727
Banjo2 1 SP	%	1347	1728 (1)
Banjo2 2 SP	%	1349	1729 (1)
Banjo2 3 SP	%	1351	1730 (1)
Banjo2 4 SP	%	1353	1731 (1)
Banjo2 5 SP	%	1355	1732 (1)
Banjo2 6 SP	%	1357	1733 (1)
Banjo2 7 SP	%	1359	1734 (1)
Banjo2 8 SP	%	1361	1735 (1)
Banjo2 1 PV	%	1363	1736 (1)
Banjo2 2 PV	%	1365	1737 (1)
Banjo2 3 PV	%	1367	1738 (1)
Banjo2 4 PV	%	1369	1739 (1)
Banjo2 5 PV	%	1371	1740 (1)
Banjo2 6 PV	%	1373	1741 (1)
Banjo2 7 PV	%	1375	1742 (1)
Banjo2 8 PV	%	1377	1743 (1)
Trash Area	-	1379	1744
Trash Count	-	1381	1745
Custom Analog Channel #1	-	1383	1746
Custom Analog Channel #2	-	1385	1747

\*When read in integer format, these values are split into two Modbus registers. The first register holds the upper four digits, and the second register holds the last four digits.

## MM4X ASCII Names

Variable	Modbus Registers	Bytes
Banjo 1 Name	1 – 12	24 (Swapped ASCII)
Banjo 2 Name	13 – 24	24 (Swapped ASCII)
Banjo 3 Name	25 – 36	24 (Swapped ASCII)
Banjo 4 Name	37 – 48	24 (Swapped ASCII)
Banjo 5 Name	49 – 60	24 (Swapped ASCII)
Banjo 6 Name	61 – 72	24 (Swapped ASCII)
Banjo 7 Name	73 – 84	24 (Swapped ASCII)
Banjo 8 Name	85 – 96	24 (Swapped ASCII)
Banjo2 1 Name	97 – 108	24 (Swapped ASCII)
Banjo2 2 Name	109 – 120	24 (Swapped ASCII)
Banjo2 3 Name	121 – 132	24 (Swapped ASCII)
Banjo2 4 Name	133 – 144	24 (Swapped ASCII)
Banjo2 5 Name	145 – 156	24 (Swapped ASCII)
Banjo2 6 Name	157 – 168	24 (Swapped ASCII)
Banjo2 7 Name	169 – 180	24 (Swapped ASCII)
Banjo2 8 Name	181 – 192	24 (Swapped ASCII)
Humidaire 1 Name	192 – 200	16
Humidaire 2 Name	201 – 208	16
Humidaire 3 Name	209 – 216	16
Humidaire 4 Name	217 – 224	16
Heater 1 Name	225 – 232	16
Heater 2 Name	233 – 240	16
Heater 3 Name	241 – 248	16
Heater 4 Name	249 – 256	16
Heater 5 Name	257 – 264	16
Heater 6 Name	265 – 272	16
Heater 7 Name	273 – 280	16
Heater 8 Name	281 – 288	16
Aux Heater 1 Name	289 – 296	16
Aux Heater 2 Name	297 – 304	16
Flow Analyzer 1 Name	305 – 312	16
Flow Analyzer 2 Name	313 – 320	16
Flow Analyzer 3 Name	321 – 328	16
Flow Analyzer 4 Name	329 – 336	16
Flow Analyzer 5 Name	337 – 344	16
Argus Zone 1 Name	345 – 352	16
Argus Zone 2 Name	353 – 360	16
Argus Zone 3 Name	361 – 368	16
Argus Zone 4 Name	369 – 376	16
Argus Zone 5 Name	377 – 384	16
Argus Zone 6 Name	385 – 392	16
Argus Zone 7 Name	393 – 400	16
Argus Zone 8 Name	401 – 408	16
Argus Zone 9 Name	409 – 416	16
Argus Zone 10 Name	417 – 424	16
Argus Zone 11 Name	425 – 432	16
Argus Zone 12 Name	433 – 440	16
Argus Zone 13 Name	441 – 448	16
Argus Zone 14 Name	449 – 456	16
Argus Zone 15 Name	457 – 464	16
Argus Zone 16 Name	465 – 472	16
Argus Zone 17 Name	473 – 480	16
Argus Zone 18 Name	481 – 488	16
Argus Zone 19 Name	489 – 496	16
Argus Zone 20 Name	497 – 504	16

## MM4X Discrete Data

Variable	Modbus Registers
Argus Z1 Alarm	1001
Argus Z2 Alarm	1002
Argus Z3 Alarm	1003
Argus Z4 Alarm	1004
Argus Z5 Alarm	1005
Argus Z6 Alarm	1006
Argus Z7 Alarm	1007
Argus Z8 Alarm	1008
Argus Z9 Alarm	1009
Argus Z10 Alarm	1010
Argus Z11 Alarm	1011
Argus Z12 Alarm	1012
Argus Z13 Alarm	1013
Argus Z14 Alarm	1014
Argus Z15 Alarm	1015
Argus Z16 Alarm	1016
Argus Z17 Alarm	1017
Argus Z18 Alarm	1018
Argus Z19 Alarm	1019
Argus Z20 Alarm	1020
Banjo 1 Enabled	1021
Banjo 2 Enabled	1022
Banjo 3 Enabled	1023
Banjo 4 Enabled	1024
Banjo 5 Enabled	1025
Banjo 6 Enabled	1026
Banjo 7 Enabled	1027
Banjo 8 Enabled	1028
Banjo2 1 Enabled	1029
Banjo2 2 Enabled	1030
Banjo2 3 Enabled	1031
Banjo2 4 Enabled	1032
Banjo2 5 Enabled	1033
Banjo2 6 Enabled	1034
Banjo2 7 Enabled	1035
Banjo2 8 Enabled	1036
Custom Discrete #1	1037
Custom Discrete #2	1038

## Air Tools Variable Data Locations

Variable Name	Unit	Real Register (32-Bit)	Signed Integer Register (16-Bit)
Air Tools #1 Air Pressure Zone 1	in. H2O	1393	1753 (2)
Air Tools #1 Air Pressure Zone 2	in. H2O	1395	1755 (2)
Air Tools #1 Air Pressure Zone 3	in. H2O	1397	1757 (2)
Air Tools #1 Air Pressure Zone 4	in. H2O	1399	1759 (2)
Air Tools #1 Air Pressure Zone 5	in. H2O	1401	1761 (2)
Air Tools #1 Air Pressure Zone 6	in. H2O	1403	1763 (2)
Air Tools #1 Air Pressure Zone 7	in. H2O	1405	1765 (2)
Air Tools #1 Air Pressure Zone 8	in. H2O	1407	1767 (2)
Air Tools #1 Air Pressure Zone 9	in. H2O	1409	1769 (2)
Air Tools #1 Air Pressure Zone 10	in. H2O	1411	1771 (2)
Air Tools #1 Air Pressure Zone 11	in. H2O	1413	1773 (2)
Air Tools #1 Air Pressure Zone 12	in. H2O	1415	1775 (2)
Air Tools #2 Air Pressure Zone 1	in. H2O	1417	1777 (2)
Air Tools #2 Air Pressure Zone 2	in. H2O	1419	1779 (2)
Air Tools #2 Air Pressure Zone 3	in. H2O	1421	1781 (2)
Air Tools #2 Air Pressure Zone 4	in. H2O	1423	1783 (2)
Air Tools #2 Air Pressure Zone 5	in. H2O	1425	1785 (2)
Air Tools #2 Air Pressure Zone 6	in. H2O	1427	1787 (2)
Air Tools #2 Air Pressure Zone 7	in. H2O	1429	1789 (2)
Air Tools #2 Air Pressure Zone 8	in. H2O	1431	1791 (2)
Air Tools #2 Air Pressure Zone 9	in. H2O	1433	1793 (2)
Air Tools #2 Air Pressure Zone 10	in. H2O	1435	1795 (2)
Air Tools #2 Air Pressure Zone 11	in. H2O	1437	1797 (2)
Air Tools #2 Air Pressure Zone 12	in. H2O	1439	1799 (2)
Air Tools #3 Air Pressure Zone 1	in. H2O	1441	1801 (2)
Air Tools #3 Air Pressure Zone 2	in. H2O	1443	1803 (2)
Air Tools #3 Air Pressure Zone 3	in. H2O	1445	1805 (2)
Air Tools #3 Air Pressure Zone 4	in. H2O	1447	1807 (2)
Air Tools #3 Air Pressure Zone 5	in. H2O	1449	1809 (2)
Air Tools #3 Air Pressure Zone 6	in. H2O	1451	1811 (2)
Air Tools #3 Air Pressure Zone 7	in. H2O	1453	1813 (2)
Air Tools #3 Air Pressure Zone 8	in. H2O	1455	1815 (2)
Air Tools #3 Air Pressure Zone 9	in. H2O	1457	1817 (2)
Air Tools #3 Air Pressure Zone 10	in. H2O	1459	1819 (2)
Air Tools #3 Air Pressure Zone 11	in. H2O	1461	1821 (2)
Air Tools #3 Air Pressure Zone 12	in. H2O	1463	1823 (2)

## Air Tools Ascii Names Locations

Variable	Modbus Registers	Bytes
Air Tools #1 Zone Name 1	4913 - 4920	16
Air Tools #1 Zone Name 2	4921 - 4928	16
Air Tools #1 Zone Name 3	4929 - 4936	16
Air Tools #1 Zone Name 4	4937 - 4944	16
Air Tools #1 Zone Name 5	4945 - 4952	16
Air Tools #1 Zone Name 6	4953 - 4960	16
Air Tools #1 Zone Name 7	4961 - 4968	16
Air Tools #1 Zone Name 8	4969 - 4976	16
Air Tools #1 Zone Name 9	4977 - 4984	16
Air Tools #1 Zone Name 10	4985 - 4992	16
Air Tools #1 Zone Name 11	4993 - 5000	16
Air Tools #1 Zone Name 12	5001 - 5008	16
Air Tools #2 Zone Name 1	5009 - 5016	16
Air Tools #2 Zone Name 2	5017 - 5024	16
Air Tools #2 Zone Name 3	5025 - 5032	16
Air Tools #2 Zone Name 4	5033 - 5040	16
Air Tools #2 Zone Name 5	5041 - 5048	16
Air Tools #2 Zone Name 6	5049 - 5056	16
Air Tools #2 Zone Name 7	5057 - 5064	16
Air Tools #2 Zone Name 8	5065 - 5072	16
Air Tools #2 Zone Name 9	5073 - 5080	16
Air Tools #2 Zone Name 10	5081 - 5088	16
Air Tools #2 Zone Name 11	5089 - 5096	16
Air Tools #2 Zone Name 12	5097 - 5104	16
Air Tools #3 Zone Name 1	5105 - 5112	16
Air Tools #3 Zone Name 2	5113 - 5120	16
Air Tools #3 Zone Name 3	5121 - 5128	16
Air Tools #3 Zone Name 4	5129 - 5136	16
Air Tools #3 Zone Name 5	5137 - 5144	16
Air Tools #3 Zone Name 6	5145 - 5152	16
Air Tools #3 Zone Name 7	5153 - 5160	16
Air Tools #3 Zone Name 8	5161 - 5168	16
Air Tools #3 Zone Name 9	5169 - 5176	16
Air Tools #3 Zone Name 10	5177 - 5184	16
Air Tools #3 Zone Name 11	5185 - 5192	16
Air Tools #3 Zone Name 12	5193 - 5200	16

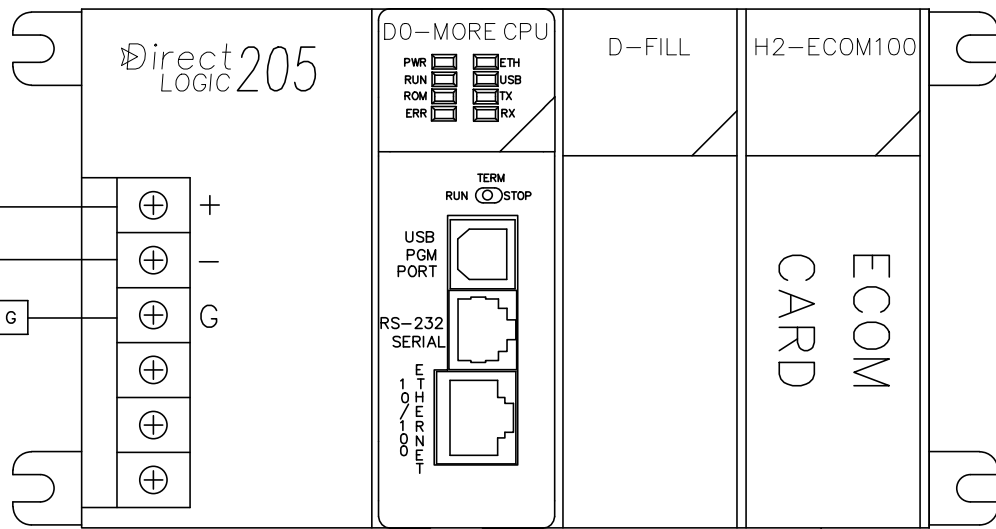
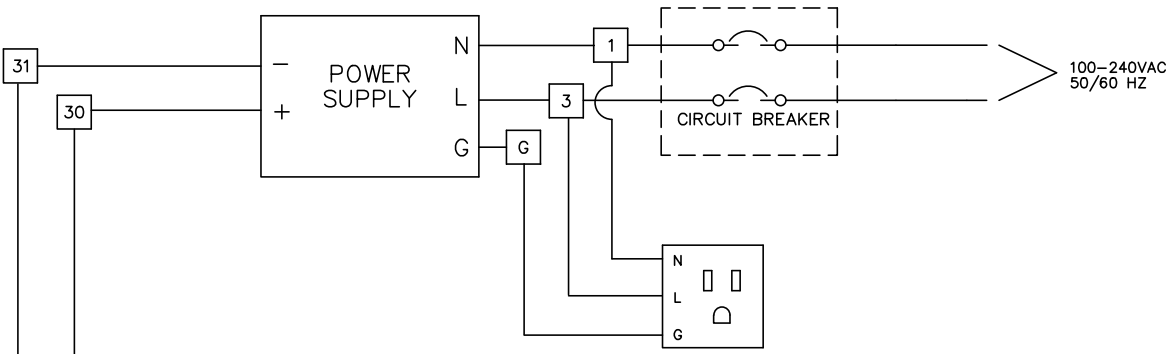
## Air Tools Discrete Data Locations

Variable	Modbus Registers	Variable	Modbus Registers
Air Tools #1 Enabled Zone 1	2073	Air Tools #2 "In Alarm" Zone 1	2109
Air Tools #1 Enabled Zone 2	2074	Air Tools #2 "In Alarm" Zone 2	2110
Air Tools #1 Enabled Zone 3	2075	Air Tools #2 "In Alarm" Zone 3	2111
Air Tools #1 Enabled Zone 4	2076	Air Tools #2 "In Alarm" Zone 4	2112
Air Tools #1 Enabled Zone 5	2077	Air Tools #2 "In Alarm" Zone 5	2113
Air Tools #1 Enabled Zone 6	2078	Air Tools #2 "In Alarm" Zone 6	2114
Air Tools #1 Enabled Zone 7	2079	Air Tools #2 "In Alarm" Zone 7	2115
Air Tools #1 Enabled Zone 8	2080	Air Tools #2 "In Alarm" Zone 8	2116
Air Tools #1 Enabled Zone 9	2081	Air Tools #2 "In Alarm" Zone 9	2117
Air Tools #1 Enabled Zone 10	2082	Air Tools #2 "In Alarm" Zone 10	2118
Air Tools #1 Enabled Zone 11	2083	Air Tools #2 "In Alarm" Zone 11	2119
Air Tools #1 Enabled Zone 12	2084	Air Tools #2 "In Alarm" Zone 12	2120
Air Tools #1 "In Alarm" Zone 1	2085	Air Tools #3 Enabled Zone 1	2121
Air Tools #1 "In Alarm" Zone 2	2086	Air Tools #3 Enabled Zone 2	2122
Air Tools #1 "In Alarm" Zone 3	2087	Air Tools #3 Enabled Zone 3	2123
Air Tools #1 "In Alarm" Zone 4	2088	Air Tools #3 Enabled Zone 4	2124
Air Tools #1 "In Alarm" Zone 5	2089	Air Tools #3 Enabled Zone 5	2125
Air Tools #1 "In Alarm" Zone 6	2090	Air Tools #3 Enabled Zone 6	2126
Air Tools #1 "In Alarm" Zone 7	2091	Air Tools #3 Enabled Zone 7	2127
Air Tools #1 "In Alarm" Zone 8	2092	Air Tools #3 Enabled Zone 8	2128
Air Tools #1 "In Alarm" Zone 9	2093	Air Tools #3 Enabled Zone 9	2129
Air Tools #1 "In Alarm" Zone 10	2094	Air Tools #3 Enabled Zone 10	2130
Air Tools #1 "In Alarm" Zone 11	2095	Air Tools #3 Enabled Zone 11	2131
Air Tools #1 "In Alarm" Zone 12	2096	Air Tools #3 Enabled Zone 12	2132
Air Tools #2 Enabled Zone 1	2097	Air Tools #3 "In Alarm" Zone 1	2133
Air Tools #2 Enabled Zone 2	2098	Air Tools #3 "In Alarm" Zone 2	2134
Air Tools #2 Enabled Zone 3	2099	Air Tools #3 "In Alarm" Zone 3	2135
Air Tools #2 Enabled Zone 4	2100	Air Tools #3 "In Alarm" Zone 4	2136
Air Tools #2 Enabled Zone 5	2101	Air Tools #3 "In Alarm" Zone 5	2137
Air Tools #2 Enabled Zone 6	2102	Air Tools #3 "In Alarm" Zone 6	2138
Air Tools #2 Enabled Zone 7	2103	Air Tools #3 "In Alarm" Zone 7	2139
Air Tools #2 Enabled Zone 8	2104	Air Tools #3 "In Alarm" Zone 8	2140
Air Tools #2 Enabled Zone 9	2105	Air Tools #3 "In Alarm" Zone 9	2141
Air Tools #2 Enabled Zone 10	2106	Air Tools #3 "In Alarm" Zone 10	2142
Air Tools #2 Enabled Zone 11	2107	Air Tools #3 "In Alarm" Zone 11	2143
Air Tools #2 Enabled Zone 12	2108	Air Tools #3 "In Alarm" Zone 12	2144



## GinSpire Ascii Names and Discrete Data Locations

Variable	Modbus Registers	Bytes	Variable	Modbus Registers
GinSpire #1 Zone Name 1	4097 - 4130	68	GinSpire #1 "In Alarm" Zone 1	2049
GinSpire #1 Zone Name 2	4131 - 4164	68	GinSpire #1 "In Alarm" Zone 2	2050
GinSpire #1 Zone Name 3	4165 - 4198	68	GinSpire #1 "In Alarm" Zone 3	2051
GinSpire #1 Zone Name 4	4199 - 4232	68	GinSpire #1 "In Alarm" Zone 4	2052
GinSpire #1 Zone Name 5	4233 - 4266	68	GinSpire #1 "In Alarm" Zone 5	2053
GinSpire #1 Zone Name 6	4267 - 4300	68	GinSpire #1 "In Alarm" Zone 6	2054
GinSpire #1 Zone Name 7	4301 - 4334	68	GinSpire #1 "In Alarm" Zone 7	2055
GinSpire #1 Zone Name 8	4335 - 4368	68	GinSpire #1 "In Alarm" Zone 8	2056
GinSpire #1 Zone Name 9	4369 - 4402	68	GinSpire #1 "In Alarm" Zone 9	2057
GinSpire #1 Zone Name 10	4403 - 4436	68	GinSpire #1 "In Alarm" Zone 10	2058
GinSpire #1 Zone Name 11	4437 - 4470	68	GinSpire #1 "In Alarm" Zone 11	2059
GinSpire #1 Zone Name 12	4471 - 4504	68	GinSpire #1 "In Alarm" Zone 12	2060
GinSpire #1 Zone Name 13	4505 - 4538	68	GinSpire #1 "In Alarm" Zone 13	2061
GinSpire #1 Zone Name 14	4539 - 4572	68	GinSpire #1 "In Alarm" Zone 14	2062
GinSpire #1 Zone Name 15	4573 - 4606	68	GinSpire #1 "In Alarm" Zone 15	2063
GinSpire #1 Zone Name 16	4607 - 4640	68	GinSpire #1 "In Alarm" Zone 16	2064
GinSpire #1 Zone Name 17	4641 - 4674	68	GinSpire #1 "In Alarm" Zone 17	2065
GinSpire #1 Zone Name 18	4675 - 4708	68	GinSpire #1 "In Alarm" Zone 18	2066
GinSpire #1 Zone Name 19	4709 - 4742	68	GinSpire #1 "In Alarm" Zone 19	2067
GinSpire #1 Zone Name 20	4743 - 4776	68	GinSpire #1 "In Alarm" Zone 20	2068
GinSpire #1 Zone Name 21	4777 - 4810	68	GinSpire #1 "In Alarm" Zone 21	2069
GinSpire #1 Zone Name 22	4811 - 4844	68	GinSpire #1 "In Alarm" Zone 22	2070
GinSpire #1 Zone Name 23	4845 - 4878	68	GinSpire #1 "In Alarm" Zone 23	2071
GinSpire #1 Zone Name 24	4879 - 4912	68	GinSpire #1 "In Alarm" Zone 24	2072



ETHERNET CARD

IP ADDRESS: SET BY GIN	
ETHERNET CARDS	
0	OFF
1	OFF
2	OFF
3	OFF
4	OFF
5	OFF
6	OFF
7	OFF

**SAMUEL JACKSON, INC.**  
 DL205 PLC SCHEMATIC  
 WITH PLC INPUTS  
 FOR AGGREGATOR

CA81930A  
 3-16

**LIMITED WARRANTY**

**SAMUEL JACKSON, INCORPORATED**

For Commercial and Industrial Customers of Samuel Jackson Moisture Control Products

**SAMUEL JACKSON, INCORPORATED ("Sam Jackson") warrants to its customers who purchase Sam Jackson products that its equipment is free from defects in material and workmanship under normal use and service for 12 months from the date of shipment from its Lubbock, Texas factory.**

**THIS WARRANTY DOES NOT EXTEND TO EQUIPMENT SUBJECTED TO MISUSE, NEGLIGENCE, OR ACCIDENT; NOR DOES THIS WARRANTY APPLY UNLESS THE PRODUCT COVERED BY IT IS PROPERLY INSTALLED BY A QUALIFIED, COMPETENT TECHNICIAN, WHO IS LICENSED WHERE STATE AND LOCAL CODES REQUIRE, AND WHO IS EXPERIENCED IN MAKING SUCH INSTALLATIONS.**

Equipment, which is defective in material or workmanship and within the warranty period, will be repaired or replaced, at Sam Jackson's option, in order to facilitate proper operation.

**THIS WARRANTY IS LIMITED TO THE PRECISE TERMS SET FORTH ABOVE, AND PROVIDES EXCLUSIVE REMEDIES EXPRESSLY IN LIEU OF ALL OTHER REMEDIES. AND IN PARTICULAR THERE SHALL BE EXCLUDED THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL SAM JACKSON BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE OF ANY NATURE.**

Sam Jackson neither assumes nor authorizes any person to assume for Sam Jackson any other liability or obligation in connection with the sale of this equipment, Sam Jackson's liability and Customer's exclusive remedy being limited to repair or replacement as set forth above.

**SAMUEL JACKSON, INCORPORATED**  
3900 Upland Avenue Lubbock, Texas 79407

## **IMPORTANT!**

**The following notice affects your warranty.**

### **Electrical Controls and Your Safety**

Your new Sam Jackson product may be equipped with electrical controls, or designed to interact with controls on a related Sam Jackson product.

In the event that local, state, federal or other specified safety compliance is required, we will consider modifications to meet the particular requirements. Implementation of alternative safety devices may incur additional charges. No warranty of compliance with a particular standard is made in the absence of specific reference to it in our quotation.

If you modify, or permit others to modify, these controls without specific written permission from Sam Jackson, Inc. the warranty on your product will be void and there is a possibility of serious damage to machinery, damage to product, serious injury to personnel, or death. The modifier of the controls assumes all liability for these consequences.

Samuel Jackson, Incorporated  
3900 Upland Avenue  
Lubbock, Texas 79407  
806-795-5218

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