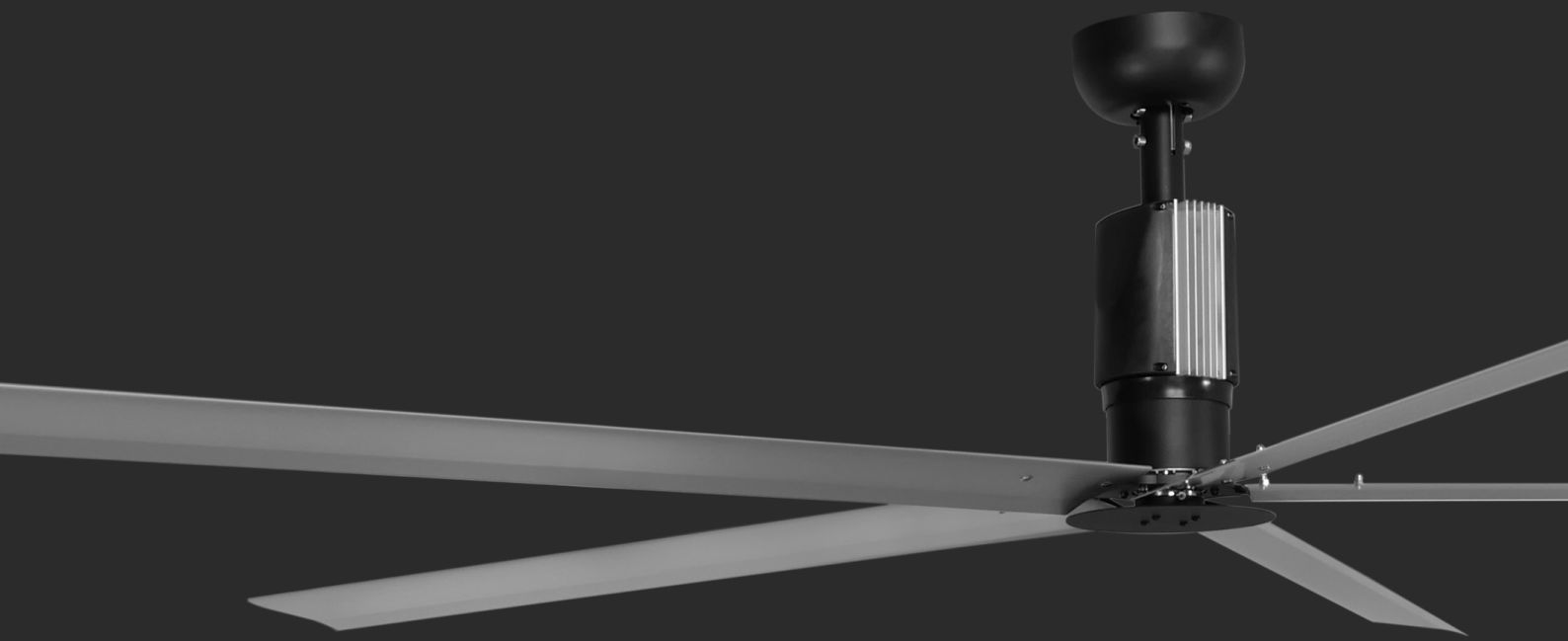


ADVANCED OPERATIONS

HMI NETWORKING MODE



NORDICCO®

CLEAN • CLIMATE-FRIENDLY • COMFORT

CONTENTS

| | |
|-------------------------------|---|
| Getting Started..... | 3 |
| Drive Board Layout | 4 |
| Dip Switches | 6 |
| Installation Schematics | 8 |

IMPORTANT: NETWORKING OF FANS REQUIRES ACCESSING THE NORDICCO® SYSTEM DRIVE, WHICH VOIDS THE WARRANTY UNLESS PRIOR WRITTEN APPROVAL HAS BEEN OBTAINED FROM THE MANUFACTURER.



ADDRESS

Nordicco A/S
Karetmagervej 23
7000 Fredericia
Denmark



CONTACT

+45 73 70 90 83
info@nordicco.eu
www.nordicco.eu



GETTING STARTED

This manual will help show you how to connect NORDICCO® fans and provide a few tips on how to avoid potential issues.

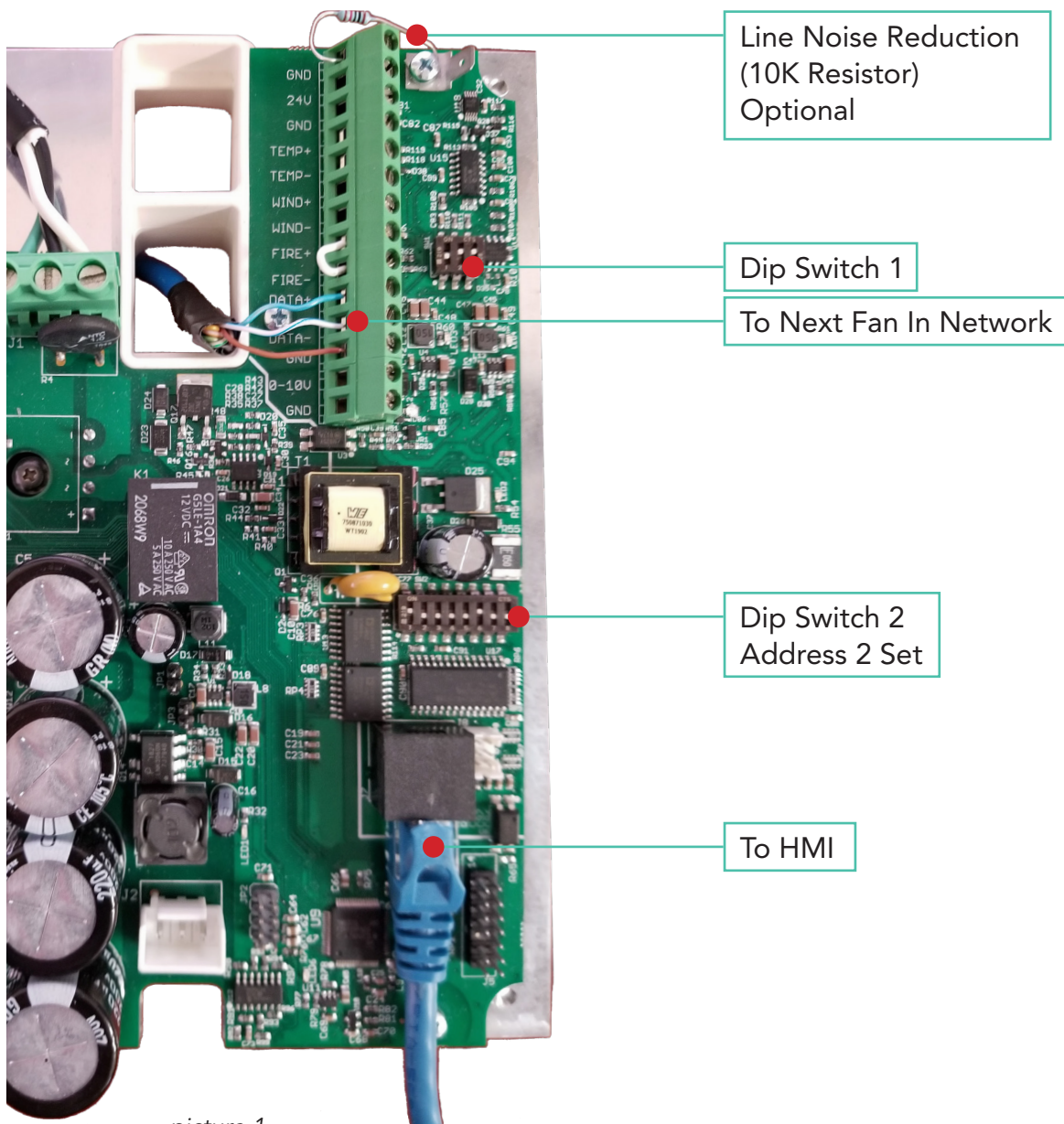
A COUPLE OF KEY THINGS TO CONSIDER BEFORE YOU START:

- The fans are to be “daisy-chained” in serial where the NORDICCO® controller act as the Master and the fans as its slaves.
- You can connect up to 10 fans on a network.
- Use only shielded Cat5E or Cat6 cables.
- Maximum 60-meter cable length between fans.
- Maximum total network cable length of 500-meter.
- Note that each fan must have a unique device address (Dip-switch setting) as shown on table 2 below.
- If you face a noise issue, you can add a 10K resistor from the digital ground (GND terminal) to the chassis as shown on picture 1 below. Generally, only 1 connection to the chassis throughout the network is required.

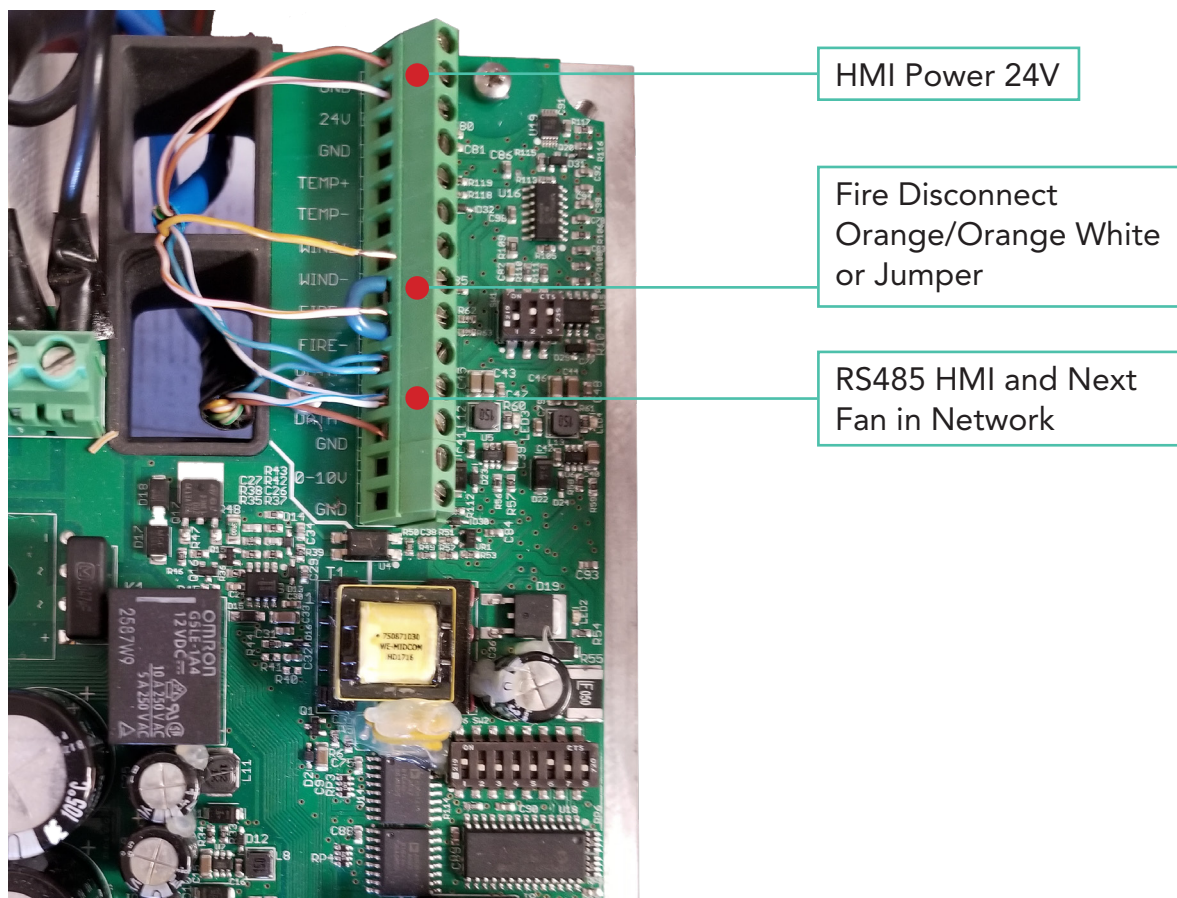
DRIVE BOARD LAYOUT

NOTE: Only the master NORDICCO® controller (HMI) requires 24V which is done via the RJ45 connector. See picture 1. **Avoid connecting 24V between the drives.**

The first fan in the network are to be wired as shown on the picture below.



The terminal connections for the NORDICCO® Master controller (HMI) and the next fan in the network are shown on picture 2 below.



picture 2

- The NORDICCO® Master controller (HMI) is powered through the 24V (Orange/White) and GND (Orange) terminals.
- Network communication to the NORDICCO® Master controller (HMI) is via GND (brown), Data+ (Blue) and Data- (blue/white). You can twist the connected ends together.
- The fire disconnect can be internally shorted at the Fire + and Fire- terminals or when connected to a fire management system.

DIP SWITCHES

| | | |
|--------------|------------|---|
| Dip Switch 1 | Position 1 | 120ohm, 1nf termination |
| | Position 2 | 680ohm pullup |
| | Position 3 | 680ohm pulldown |
| Dip Switch 2 | Position 1 | Modbus address (1-32) Default: 1 (on) |
| | Position 2 | |
| | Position 3 | |
| | Position 4 | |
| | Position 5 | |
| | Position 6 | 0=even parity, 1=no parity (default 1) |
| | Position 7 | 1=Use Register 27, 0=19200 baud rate Default: 0 (off) |
| | Position 8 | 1 = Modbus Address Selection (Register 29) (DIP Switch 3, Pins 1-5 Not Used) Default: 0 (off) |

DIP-SWITCH 1 SETTING:

When networked the first fan drive should have its Dip-switch 1 (see photo #2) position 1 set to OFF and position 2 & 3 set to ON. **All the other fans in the network should have their Dip-Switch 1 setting set to OFF.**

DIP-SWITCH (SW) 2 SETTING WHEN IN A NETWORK MODE:

| Address | SW2-1 | SW2-2 | SW2-3 | SW2-4 | SW2-5 | SW2-6 | SW2-7 | SW2-8 |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | OFF | OFF | OFF | OFF | OFF | ON | OFF | OFF |
| 2 | ON | OFF | OFF | OFF | OFF | ON | OFF | OFF |
| 3 | OFF | ON | OFF | OFF | OFF | ON | OFF | OFF |
| 4 | ON | ON | OFF | OFF | OFF | ON | OFF | OFF |
| 5 | OFF | OFF | ON | OFF | OFF | ON | OFF | OFF |
| 6 | ON | OFF | ON | OFF | OFF | ON | OFF | OFF |
| 7 | OFF | ON | ON | OFF | OFF | ON | OFF | OFF |
| 8 | ON | ON | ON | OFF | OFF | ON | OFF | OFF |
| 9 | OFF | OFF | OFF | ON | OFF | ON | OFF | OFF |
| 10 | ON | OFF | OFF | ON | OFF | ON | OFF | OFF |
| 11 | OFF | ON | OFF | ON | OFF | ON | OFF | OFF |
| 12 | ON | ON | OFF | ON | OFF | ON | OFF | OFF |
| 13 | OFF | OFF | ON | ON | OFF | ON | OFF | OFF |
| 14 | ON | OFF | ON | ON | OFF | ON | OFF | OFF |
| 15 | OFF | ON | ON | ON | OFF | ON | OFF | OFF |
| 16 | ON | ON | ON | ON | OFF | ON | OFF | OFF |
| 17 | OFF | OFF | OFF | OFF | ON | ON | OFF | OFF |
| 18 | ON | OFF | OFF | OFF | ON | ON | OFF | OFF |
| 19 | OFF | ON | OFF | OFF | ON | ON | OFF | OFF |
| 20 | ON | ON | OFF | OFF | ON | ON | OFF | OFF |
| 21 | OFF | OFF | ON | OFF | ON | ON | OFF | OFF |
| 22 | ON | OFF | ON | OFF | ON | ON | OFF | OFF |
| 23 | OFF | ON | ON | OFF | ON | ON | OFF | OFF |
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| 25 | OFF | OFF | OFF | ON | ON | ON | OFF | OFF |
| 26 | ON | OFF | OFF | ON | ON | ON | OFF | OFF |
| 27 | OFF | ON | OFF | ON | ON | ON | OFF | OFF |
| 28 | ON | ON | OFF | ON | ON | ON | OFF | OFF |
| 29 | OFF | OFF | ON | ON | ON | ON | OFF | OFF |
| 30 | ON | OFF | ON | ON | ON | ON | OFF | OFF |
| 31 | OFF | ON | ON | ON | ON | ON | OFF | OFF |

INSTALLATION SCHEMATICS

