DUCTLESS SERVICE S1 + S2 – 485 COMMUNICATION CHECKING

Mingledorff's Technical Service

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TROUBLESHOOTING WITH S1/S2 RS485

- VERIFY METER LEADS ARE ON S1 AND S2

- **BLACK LEAD ON S1**. **RED LEAD ON S2**. SHOULD SHOW CROSSING DC SIGNAL POSITIVE TO NEGATIVE; REVERSING THE LEADS WILL REVERSE THE SAME SIGNAL

- WHEN COMMUNICATING PROPERLY-THE SIGNAL VOLTAGE WILL RANGE BETWEEN –5 VDC~+5VDC WITH THE VOLTAGE NORMALLY AROUND –2.5~+ 2.5 VDC

TROUBLESHOOTING WITH S1/S2 RS485

- WHEN CHECKING FOR COMMUNICATION LOSS AT THE OUTDOOR UNIT-THE SIGNAL VOLTAGE WILL FLUCTUATE BUT WILL NOT CROSS OVER FROM POSITIVE TO NEGATIVE

- IF THE **BLACK** LEAD REMAINS ON S1 WITH **RED** ON S2 THE FLUCTUATION WILL ONLY BE POSITIVE

- IF THE **RED** LEAD IS ON S1 THE FLUCTUATION WILL ONLY BE NEGATIVE

RS 485 TROUBLESHOOTING

- WHEN CHECKING FOR COMMUNICATION LOSS AT THE INDOOR UNIT-THE VOLTAGE WILL FLUCTUATE BUT NOT AS RAPIDLY
- THE SIGNAL WILL NOT CROSS AND WILL BE CLOSER TO ZERO
- VERIFY THAT THE METER LEADS ARE ON S1~S2 AND NOT HA~HB (USED FOR WIRED CONTROLLER)

RS 485 TROUBLESHOOTING

- BEFORE CONDEMNING ANY CONTROL BOARDS-VERIFY THAT THE WIRE IS IN GOOD CONDITION AND THE CONNECTIONS ARE UNIFORM
- IT IS RECOMMENDED TO USE SHIELDED/STRANDED 16 AWG FOR RS 485 TO LIMIT INTERFERENCE ISSUES
- CONFIRM THAT THERE ARE NO OTHER FAILED COMPONENTS WITHIN THE SYSTEM THAT COULD BE CAUSING COMMUNICATION LOSS