Advisor® Tech Vital Signs Monitor

Quick Reference Guide
### Front Panel
1. Alarm indicator
2. Power switch/stand-by
3. DC On
4. AC On
5. NIBP start/stop
6. Alarm silence
7. Setup
8. Freeze
9. Trend
10. Record
11. Rotary knob

### Left Side Panel
1. AG/ETCO₂ sensor connector (option)
2. Oxygen saturation sensor connector (SpO₂)
3. Channel 1 IBP port (option)
4. Channel 2 IBP port (option)
5. NIBP connector
6. Channel 1 temperature probe connector (T1)
7. Channel 2 temperature probe connector (T2)
8. AAMI ECG cable connector
9. Battery
Right Side Panel

1. Printer (option)

Rear Panel

1. Equipotentiality ground
2. AC input
3. External VGA display connector
4. Ethernet interface
5. RS-232 I/O digital interface connector
**OUT OF BOX SET UP**

**Inserting the Battery into the Monitor**
1. Open the battery cover on the left side panel
2. Insert battery (provided) and ensure it is aligned correctly
3. Use lever to hold battery in place
4. Close battery cover

**Plugging into a Main Power Source**
1. Insert power lead into AC input at the rear panel
2. Plug into a main power source

**Connecting Required Sensors** (Refer to visual reference below)
1. Align correlated sensors to the sockets on the left panel of the monitor and connect them (correlated by color)
2. Listen for a click when inserting the sensors

**Turning the Power On**
1. Press and hold the **power switch** on the front panel
2. When the power indicator is bright, the display screen will enter the main screen after 25 seconds

**Connecting Required Sensors**
When removing a sensor from the monitor, make sure you pull back its’ sleeve for correct removal

Pull Sleeve Back
Setting Up Initial Monitor Parameters

1. Press the hard or soft key **Setup** button on the front panel (you can also use the rotary knob for navigation by rotating and pressing to select)

2. The following settings can be found in the Setup area and can be set to your preferences by touching each option on the screen
   - **Factory Setup**: Used for service purposes only
   - **Optional Module**: Used to upgrade or add additional parameters (for example ETCO₂)
   - **Display Mode**: Select chosen mode of display (3 waveforms, 6 waveforms, Large Font or oxyCRG)
   - **Waveform Select**: Select the desired parameters for viewing (ECG, PLETH, RESP, IBP1, IBP2, CO₂ and AG)
   - **Printer**: If applicable, select the desired print function from the following:
     - Grid Output, Alarm Print, Auto Print, Parameters Only, Waveforms and NIBP print
     - Hospital name may also be entered
   - **Config Manager**: User may select, save and store up to 7 user specific monitor configurations
   - **Drug Calculation**: Calculate patient drugs
   - **Hemodynamic Cal**: Calculate/view hemodynamic calculations
   - **Sweep Direction**: Adjustable (default = right)
   - **Sound Level**: Adjustable (default = off)
   - **Brightness Level**: Adjustable (default = 1X)
   - **Heart Sound**: Adjustable (default = QRS)

3. Connect to patient after initial set up

**What is oxyCRG?**
The relationship of a patient’s monitored heart rate, respiratory rate and saturations represented over time on the same graph.

**Need to set up 3 lead & 3 waveform viewing?**
1. Touch the **ECG** parameter on the screen
2. Change **Lead Type** from 5 lead to 3 lead
3. Go Back
4. Press the **Setup** soft key
5. Enter **Display Mode**
6. Select **3 waveforms**
7. Go to **Waveform Select** and select required waveforms (for example ECG, Pleth & Resp or CO₂)
**PATIENT SPECIFIC PARAMETER SET UP**

**Starting a New Case**
1. Touch Patient ID in the top left area of the display screen directly and enter new information (outlined in the next section)  
2. Or, touch the Pause soft-key and then choose Start New Case

**Inputting Patient ID Information**
1. Once in the Patient ID area, set the ID number of the patient (should be unique)  
2. Enter patient name (up to 9 characters)  
3. Enter patient type (canine, feline, equine, bovine, ovine, caprine or swine)  
4. Enter patient sex  
5. Set patient blood type (default = N/A, A, B, O, AB, RH+, RH-)  
6. Set patient age (default = 25)  
7. To exit, choose Save for new patient data to be saved

**Setting Unique Parameters for Your Patient**
Each individual parameter can be adjusted for your patient needs by touching the desired parameter on the right side of the display screen.  
(When selecting each parameter, a description is displayed at the bottom of the screen.)

**ECG**
1. Alarm Switch: Adjustable (default = off)  
2. HR Alarms: Select to change high and low values  
3. ECG Lead: Select appropriate lead (default = I)  
4. ECG Gain: Increase or decrease size of waveform  
5. ECG Filter: Select from the options below (default = surgery, which is the most common filter)  
   - Monitor: Used for basic surgeries (not for any surgery which includes electric i.e. cautery, laser, dental scaling)  
   - Surgery: Used in instances with cautery, laser, dental scaling; assists in filtering HZ  
   - Diagnostic  
6. Lead Type: Default = 5 leads [most common is 3 leads]  
7. ECG Cascade: It is possible to cascade ECG for longer monitoring times (set up must be 6 waveforms)  
8. Sweep Speed: Adjustable (default = 25 mm/s)  
9. Sweep Color: Adjustable (default = green)  
10. ARR Analysis: Turn arrhythmia analysis on or off

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**It is important to start a new case for every patient to ensure that unique readings, memories and trends can be enabled for accurate vital signs monitoring.**

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**Did you know that you can customize sweep colors?**
Sweep colors can be chosen from white, gray, red, yellow, green, cyan, blue and magenta.
SpO₂
1. **Alarm Switch**: Adjustable (default = on)
2. **SpO₂ Alarm**: Select to change high and low values
3. **Sweep Speed**: Adjustable (default = 12.5 mm/s)
4. **Sweep Color**: Adjustable (default = blue)

ETCO₂
1. **Alarm Switch**: Adjustable (default = on)
2. **ETCO₂ Alarm**: Select to change high and low values
3. **AWRR Alarm**: Select to change high and low values
4. **Apnea Delay**: Setting range is 10 – 60 seconds (default = 10 seconds)
5. **ETCO₂ Unit**: mmHg, kPa or % (default = mmHg)
6. **Wave Scale**: 0 75 mmHg or 0 150 mmHg
7. **Fill In Waveform**: Adjustable
8. **Sweep Speed**: Adjustable (default = 12.5 mm/s)
9. **Sweep Color**: Adjustable (default = cyan)
10. **ETCO₂ Period**: 1 breath, 10 seconds or 20 seconds (default = 1 breath)
11. **Zero Setup**: Used to set the CO₂ module to zero
12. **Temperature Setup** can be found in the ETCO₂ menu where you are able to set the following:
   - **Alarm Switch**: Adjustable (default = on)
   - **Temperature Unit**: Celsius or Fahrenheit (default = celsius)
   - **Temperature Alarm**: Range for both T1 and T2 temperature measurement channels is 25 – 50°C (upper limit default = 38°C, lower limit default = 36°C)

NIBP
1. **Alarm Switch**: Adjustable (default = on)
2. **Pressure Unit**: mmHg or kPa (default = mmHg)
3. **Patient Type**: Canine, feline, equine, bovine, ovine, caprine or swine (choose suitable setting for your patient to avoid injury when the cuff inflates)
4. **Inflation Mode**: Manual, Auto and STAT (default = manual)
5. **Time Interval**: Used to support auto inflation mode, the range is 1 minute to 4 hours

**What does the Apnea Delay function do?**
This setting is used to set the no breaths detected time-out. This time-out is the time period in seconds following the last detected breath at which the CO₂ module will signal no breaths detected. The monitor will alarm if the patient has stopped breathing for longer than the pre-set apnea time.

**Helpful NIBP tip:**
When in Auto Inflation Memory Mode, ensure a new patient record has been set up so that the inflation pressure can reset itself and take a new unique blood pressure measurement.
Deleting a Patient
The monitor can save eight sets of patient information for recall. The previous patient can be deleted in order to add a new patient.

1. Open the Recall menu
2. Enter Delete History Record area and choose a patient to delete
3. Click Yes to delete the selected patient record

Trend Viewing
1. Press the Trend hard or soft key
2. Set the trending interval from 5 seconds up to 15 minutes (Default = 5 seconds)
3. View trends (Graphical Trend, Tabular Trend, Alarm Event, Last Waveform or Event List)

Alarm Priority Setup
When the monitor detects certain conditions that require your attention, the monitor will enter an alarm state.

Alarm parameters can be set for individual patients.

1. Select Alarm Set Up soft key
2. Select Alarm Priority to identify what parameters are medium or high importance
3. To set individual Alarm Limits, enter the desired parameter setup menus for each variable being measured

Drug Calculation
1. Select System Setup, then go to the Drug Calculation menu
2. Select appropriate settings for the drug required. Each drug has its own fixed unit/unit series. Among unit series, one unit may change to another automatically depending on the entered value
3. Drug A – E allows the user to enter their own drug if it is not in the existing library

Titration Table
1. Select Titration Table in the Drug Calculation window after the drug calculation is finished
2. In the table, change Reference, Interval, Dose Type and the titrated table will change accordingly
3. To print the displayed titrated values, select Print item

What is a Titration Table?
A titration table accurately measures the correct volume and concentration of drug needed for your patient.
Hemodynamic Calculation
1. Select System Setup, then go to the Hemodynamic Cal menu
2. Confirm input of the correct values
3. Select the Calculation button
   - If a calculated value is outside the range, its background will highlight in yellow
   - Press the Reference Range button to view its normal range in the unit field
   - Invalid values are displayed as “---”
4. Press the Print button which will print the displayed calculations

Printing (Optional)
1. Press soft touch key Print to print current display
2. To stop printing, press Print again

Inserting Printer Paper
1. Open the printer door
2. Remove the empty reel
3. Insert the new reel into the paper cassette
4. Pay attention that the paper is turning swiftly. Pull a small length of paper out of the catch from the lower end of the roll (If it is the upper end, the paper reel is installed conversely, which means the printer will print blank pages. If this happens, turn the reel the other way round.)
5. Close the door, make sure the paper is aligned

Wi-Fi
For instructions on how to set up your Advisor tech Wi-Fi module, follow the Setting Up Wi-Fi & Data Manager Software Guide.

What is Hemodynamic Calculation?
Measures how blood is flowing through the patients' body by monitoring heart pressure and the blood's resistance to flow.
TROUBLESHOOTING

**Why isn’t blood pressure reading correctly?**
Is this a new patient? If yes, check the **Auto Inflation** Memory Mode in **NIBP Settings**, and ensure a new patient record has been set up so that the inflation pressure can reset itself and take a new unique measurement.

**Why isn’t the NIBP parameter showing on the screen?**
In **ECG Settings**, ensure the monitor is set to **3 lead mode** versus 5 lead (default).
Clinical support
The veterinary clinical support team is dedicated to assisting customers with expert information pertaining to the technical and clinical aspects of the Advisor® tech vital signs monitor and our complete line of products. Each clinical support representative is a Certified Veterinary Technician with extensive experience and product knowledge.

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