

Expression User Notes

- Installation: If this Expression comes with two DCUs, the DCU containing the recorder should stay in the control room. The DCU without the recorder should be mounted on the Expression or in the MRI room
- There are four 14.8V batteries included. Two should be placed in the DCU Monitor (that's mounted on the base or in the MRI room), and two should be placed in the Expression
- 3.7V Module Batteries should **never** be fully drained. When the battery life is getting low, plug them into the battery module charger. Once the battery life is fully depleted, it will take a long time to fully charge to normal capacity
- Make sure that the included antennas are securely fastened to both DCUs. When the Expression (base) is **not** in use, it should be turned off, and connected to its power supply (white box)
- Ideally, the Expression power supply box stays outside of the MRI room. (If that's not possible, attach the power supply to a flat surface as far away from the magnet as possible)
- While in use, the Expression runs on battery power. Unplug the unit from the power supply and very gently roll it into the MRI room
- The Expression is self-calibrating, and it runs through its internal calibration procedure upon startup. Make sure the appropriate EtCo2 water trap and sample line are connected to the unit prior to turning the machine on. Units with Agents monitoring capabilities must use the CLEAR water trap and sample lines. Units with EtCo2 only capabilities must use the BLUE water trap and sample lines
- The internal EtCo2 module takes 10-15 minutes to warm-up. If you need this parameter for the procedure, turn the unit on 15-20 minutes prior to the procedure. This helps ensure accurate measurements
- The grey double-tube NIBP hose should be used with ADULT or PEDIATRIC cuffs, for ADULT or PEDIATRIC measurements *only*. Make sure the Expression is set for an ADULT or PEDIATRIC patient
- The clear single-tube NIBP hose should be used with the NEONATAL cuffs, for NEONATAL measurements *only*. Make sure the Expression is set for a NEONATAL patient (Neonatal human = Small animal <10Kg)
- The Expression can be about the cuffs you use; make sure you use the cuffs we include, or the recommended cuffs from the Expression accessory guide. Also, make sure cuffs are being used with the correct corresponding NIBP hoses

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- If “wrong cuff” error displays, loosen the cuff around the patient and try again ECG module operates inside of bore. Spo2 module operates outside of bore, if operating inside of the bore – you could get signal drop out
- The Expression should be kept outside of the 5000-gauss line. Depending on the magnet strength, the line could be anywhere from 3’ – 4’ (with 1.5T MRI). If the Expression gets too close to the bore, it could damage the internal circuitry
- The DCU in the control room should always be connected to the power supply
- Interference in the signal can be caused by multiple outside factors. Outside factors include anything transmitting a frequency signal, such as: microwaves, routers, and cell phones. If drop out or interference occurs, check your surrounding and adjust
- If you have signal drop out when the door is closed, there’s an optional window mounted antenna system available; MR shielding has strengthened over the years
- The two Expression batteries should last a maximum of eight (8) hours when NIBP, ECG, SpO2 parameters are running on five-minute intervals, and the anesthetic agents and EtcO2 are turned off. Battery operation time will be reduced by up to two (2) hours by performing certain operations like anesthetic agents, printing charts and trends, or a short automatic NIBP cycle time
- If your Expression batteries are running low, you can always swap them out with the two DCU batteries in the control room (additional batteries purchased separately)
- The Expression is sensitive to vibrations; vibrations can cause the machine to go out of calibration. Ideally, we like to see the Expression stored/charged in the control room, and then rolled into the MRI magnet room for procedures.
- However, if there’s a large ledge between the control room and the magnet room, attach the power supply to a flat surface in the magnet room (as far away from the magnet as possible). In that case, it’s better to store/charge the Expression in the MRI magnet room.
- If the staff does not want to mount the power supply in the magnet room, they must very carefully (slowly), move the Expression over the ledge and store it in the control room. Please use caution while doing this, the monitor is sensitive to vibrations, and we do not want it to go out of calibration.
- The cuff is selected and positioned as it would be for an auscultatory blood pressure determination, and the current guidelines of the American Heart Association should be followed. The bladder width of the cuff should be 40% of the circumference of the limb. For a correct fit on adult and pediatric cuffs, the Index line on the end of the cuff must fall between the two Range lines printed on the inside of the cuff. For correct fit on neonatal cuffs, choose the size with the stated circumference range that fits the circumference of the limb of the neonate.